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A Message from the President

Thank you for your interest in Indian Hills Community College. Whether you have come to the IHCC catalog as a student, a prospective student, a graduate or a friend, we welcome you. Indian Hills has much to offer.

At IHCC, our passion for providing quality education and services to the citizens of our 10-county area and beyond, stems from a deep dedication and commitment to the educational and economic well-being of all who come in contact with Indian Hills.

IHCC offers a wide variety of opportunities for learning. Almost half of our students are enrolled in the Arts and Sciences transfer program, known for faculty who are both scholarly and student-centered. Other students at the college are enrolled in one of our many Advanced Technology or Health Science programs. These programs have strong reputations, instructors who are highly skilled in their respective fields and industry advisors who keep the programs firmly linked to the most current technology and workforce needs.

Indian Hills also has many services to offer communities, entrepreneurs and professionals. The Division of Career and Workforce Education provides support to economic, business and industry leaders. Athletics, fine arts and international programs add entertainment, engagement and diversity to the student experience at Indian Hills.

Education at IHCC can be accessed through two beautiful, full-service campuses, an expansive and growing workforce campus and many county service centers and career academies—all located in Southeast Iowa. Interactive audio-visual and online options make Indian Hills accessible from almost anywhere. Students live on campus, commute to campus and connect through electronic means. We truly DO have much to offer.

I am proud to say that I am a lifelong resident of the Indian Hills Community College region, and I am a graduate of Indian Hills. Once again, I thank you for your interest in Indian Hills Community College, a place where we would be pleased to help you find a path to success, a place that is Life. Changing.

Marlene Sprouse, Ed.D.
President
Campus Locations

Main Campus
525 Grandview Avenue
Ottumwa, Iowa 52501-1398
(641) 683-5111
(800) 726-2585

North Campus
Ottumwa Industrial Airport
Ottumwa, Iowa 52501-1398
(641) 683-5111
(800) 726-2585

Centerville Campus
721 North First Street
Centerville, Iowa 52544
(641) 856-2143
(800) 670-3641

www.indianhills.edu

Board of Trustees

John Pothoven - Oskaloosa - President
Nellie Coltrain - Albia
Beth Danowsky - Sigourney
Tom Keck - Agency
Katie Nichols - Keosauqua

Amy Webber - Fairfield
Richard Gaumer - Ottumwa
Jerry Kirkpatrick - Centerville
Alan Wilson - Corydon

Annual Non-Discrimination Statement

It is the policy of Indian Hills Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family, or marital status in its programs, activities, or employment practices as required by the Iowa Code §§216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.).

Indian Hills Community College offers career and technical programs in the following areas of study:

- Accounting Assistant
- Animal Science
- Associate Degree Nursing*
- Auto Technology
- Aviation Maintenance Technology
- Aviation Professional Pilot*
- Avionics Electronic Technician
- Business Specialist
- Business Specialist - Accounting
- Business Specialist - Office Management
- Clinical Laboratory Assistant*
- Commercial Driver Training*
- Computer Accounting
- Computer Software Development
- Construction Management
- Construction Technology
- Criminal Justice*
- Culinary Arts
- Cybersecurity & Systems Administration
- Dental Assisting*
- Dental Hygiene*
- Diesel Technology
- Early Childhood Associate
- Early Childhood Diploma*
- Electronic Engineering Technology
- Electrical & Renewable Energy Technology
- Emergency Medical Technician*
- Geospatial Technology
- Grounds Equipment Technician
- Health Information Technology*
- Health Unit Coordinator*
- Hotel & Restaurant Management
- HVAC & Refrigeration
- Industrial Maintenance
- Interactive Media Technology
- Landscape & Turfgrass Technology
- Laser & Optics Technology
- Machine Technology
- Medical Assistant*
- Medical/Insurance Coding*
- Medical Laboratory Technology*
- Medical Scribe*
- Nutrition & Dietary Management*
- Occupational Therapy Assistant*
- Paramedic*
- Paramedic Core*

- Phlebotomy Technician*
- Physical Therapist Assistant*
- Practical Nursing*
- Precision Farming
- Radiologic Technology*
- Robotics/Automation Technology
- Surgical Technology*
- Welding Technology

*Indicate screened programs. Please visit www.indianhills.edu/academics/nondiscriminationadmissioncriteria.php for admissions criteria.

The online versions of the College Catalog & Student Handbook, Financial Aid Handbook, and all academic program manuals are the versions of record for all Indian Hills policies. Students are responsible for knowing and complying with all policies and procedures stated within the online version of the Catalog, Handbooks and individual program manuals. The policies in these manuals do not act as a contract with the student and policies are subject to change at any time.

Every effort has been made to ensure the accuracy of the information contained in this catalog. However, due to the dynamic nature of community colleges, it is to be understood that any item in this publication is subject to change by proper administrative procedure.

College Information

Mission

Indian Hills Community College changes lives by inspiring learning, diversity, social enrichment, and regional economic development.

Indian Hills Community College Values

- Academic Excellence and Student Success
- Integrity, Relationships, and Teamwork
- Acceptance, Inclusion, and Accessibility
- Tradition and Culture
- Innovation and the Future

Indian Hills Community College Strategic Priorities

- Strategic Priority: Provide a quality learning environment focused on student success
- Strategic Priority: Implement technology solutions to best serve students and staff
- Strategic Priority: Improve internal and external communications
- Strategic Priority: Develop and implement a strategic enrollment management plan
- Strategic Priority: Provide a skilled workforce for our future
- Strategic Priority: Provide effective fiscal management and funding
- Strategic Priority: Create and implement a comprehensive facilities plan
Institutional Purpose

Indian Hills Community College is dedicated to providing a dynamic and timely response to the ever-changing needs of our business community and the populace of our small towns and rural areas.

In this context, it is our purpose to provide, to the greatest extent possible, the following educational opportunities and services:

1. The first two years of college work, including pre-professional education.
2. Career and technical training.
3. Programs for in-service training and retraining of workers.
4. Programs for high school completion for students of all ages.
5. Programs for all students of high school age who may best serve themselves by enrolling for career and technical training while also enrolled in a local high school, public or private.
6. Programs for students of high school age to provide advanced college placement courses not taught at a student's high school while the student is also enrolled in the high school.
7. Student personnel services.
8. Community services.
9. Career and technical education for persons who have academic, socioeconomic or other disabilities which prevent succeeding in regular career education programs.
10. Training, retraining and all necessary preparation for productive employment of all citizens.
11. Career and technical training for persons who are not enrolled in a high school and who have not completed high school.
12. Developmental education for persons who are academically or personally underprepared to succeed in their program of study.

IHCC History

What is now known as Indian Hills Community College (IHCC) was established as Merged Area XV by the Iowa Board of Public Instruction on June 3, 1966. The college began operations on July 1, 1966, at the Ottumwa Regional Airport under the governance of a nine-member board of trustees. Then known as Iowa Tech-Area XV Community College, the college conducted technical programs that included those formerly operated by the Ottumwa Community School District. The North Campus (formerly known as the "Airport Campus") is where the college's Aviation Maintenance Technology, Aviation Pilot Training, Avionics, Welding Technology, Commercial Driver Training and Diesel Technology programs are taught. The campus covers 215 acres and is located seven miles northwest of Ottumwa.

Centerville Campus

On July 1, 1968, the Merged Area Board assumed responsibilities for operations of Centerville Junior College, which had been established by the Centerville Community School Board in 1930.

The Centerville Campus was completed in 1970 on a 72-acre site in the northwest part of the community. Offerings include Arts and Sciences courses and several technical programs, including Animal Science, Construction Technology, Landscape & Turfgrass Technology and Precision Farming.

A new residence hall opened in 2000 on the Centerville Campus. The residence hall underwent a renovation in 2017 that increased the occupancy to 72 students.

Appanoose County philanthropist Morgan E. Cline has made a generous donation of $500,000 that will facilitate the creation of what will be known as the Morgan E. Cline School of Sustainable Agriculture on the Centerville Campus. The complex will include a greenhouse, welcome center, processing center and educational space and the project is expected to catapult Indian Hills and the Centerville community to the forefront of food production in the Midwest.

Indian Hills Community College

Merged Area XV Community College adopted the name "Indian Hills Community College" in 1970. Dr. Mel Everingham, who was named president of Merged Area XV Community College two years before, stayed on as the first president of Indian Hills
Community College. A historical pavilion, containing photographs and other memorabilia and named for Dr. Everingham, was added in the Advanced Technology Center in 2004.

Dr. Lyle Hellyer became the college's president in 1973 and would remain in that position until his retirement in 2001. Dr. Jim Lindenmayer became the college's third president following Dr. Hellyer's retirement. Dr. Lindenmayer retired in 2013. He was succeeded by Dr. Marlene Sprouse in November of 2013.

Ottumwa Heights
The boards of Indian Hills Community College and Ottumwa Heights College merged operations on July 1, 1979. Ottumwa Heights was a private college operated by the Sisters of Humility of Mary. Its roots can be traced back to the 1860s, when the Visitation Academy was established in Ottumwa. The St. Joseph Academy was founded in 1925, and its name was changed to Ottumwa Heights College five years later.

The Ottumwa Heights College campus was situated on 126 acres and was purchased by the Indian Hills Community College Board of Trustees in 1981, becoming the IHCC Ottumwa Campus. The original building is used for administrative offices, the library, an art gallery, an auditorium, dormitory space, arts and sciences classrooms and instructors' offices. The library and art gallery were completed when the former chapel was renovated in 1984.

Ottumwa Campus Development
A number of facilities have since been constructed on the Ottumwa Campus, which now serves as the college's main campus. The Hellyer Student Life Center and Efner Academic Hall opened in October of 1985, the first of the new buildings added to the former Ottumwa Heights facilities. The Hellyer Center provides excellent recreational facilities for Indian Hills and the Ottumwa community.

The Advanced Technology Center was completed in the fall of 1990. The 125,000-square-foot building houses the college's many technical programs as well as offices for the Regional Economic Advancement team.

A new dormitory, Trustee Hall, opened in the summer of 1992. The Early Childhood Development and Day Care Center was completed two years later to provide quality child care services for the community. The building is also a teaching site for students enrolled in the IHCC Early Childhood Development programs.

As the college continued to expand, a Video Conferencing and Training Center opened in 1996. It provides interactive fiber-optic connectivity to all points on the Iowa Communications Network (ICN), government agencies in Kansas City and Washington, D.C., and to Indian Hills' eight county service centers. The building was renamed the Rosenman Video Conference Training Center, for Indian Hills benefactors Eli and Bea Rosenman, in 2005.

The Tom Arnold Net Center, built in 1997, provides year-round practice facilities for cross country, golf, soccer, softball and volleyball. A major renovation of that building in 2014 added coaches' offices, locker rooms, a training room and a new exterior look.

In addition to the recreational facilities at the Hellyer Center and Net Center, the college also has an 18-hole disc golf course on the Main Campus that is used by students and community members.

In the winter of 2002, Indian Hills began a project to update and renovate the Keokuk/Mahaska, Wapello and Appanoose residence halls. The reconstruction project was completed in 2004. IHCC students now have a variety of on-campus housing options ranging from a one-person room to a three-, four-, or five-person suite. The other residence halls on campus, Oak Hall and Trustee Hall, offer a more traditional atmosphere with two students per room.

The Bennett Student Services Center, constructed in 1987, was renovated in 2001. The building, which was constructed as the Economic Development Center and later became the Bennett Regional Training Center, provides many of the student services for Indian Hills students. Offices for admissions and recruiting, academic advising and counseling services, the Registrar, veterans services, financial aid and the college bookstore are all located under one roof at the Bennett Center.

The Rural Health Education Center opened in May of 2007 on the Ottumwa Campus as a classroom and laboratory building for the college's many health programs, as well as a conference and meeting facility for area health care organizations.

In Fall of 2019, a new addition will open on the Indian Hills North campus. A 25,000 square foot addition will expand the Welding Technology lab, and relocate the Diesel Technology lab to better serve students in these high-demand fields. The
Indian Hills Community College has continued to update the existing facilities with renovations in almost every single building over the past couple of years.

Indian Hills Community College has grown to meet the changing needs of the residents in the 10-county area the college serves. The college staff members, administration, and board of trustees are committed to providing high quality educational opportunities through the Indian Hills programs and facilities.

**Historical Timeline**

1925  Ottumwa Heights Academy established at the present site of Indian Hills Community College—Ottumwa Campus
1930  Centerville Junior College established
1957  Ottumwa Heights Campus destroyed by fire
1960  New Ottumwa Heights Campus opened on Grandview Avenue in Ottumwa at the site of the original campus
1963  Iowa Tech established
      Iowa Legislature enacted legislation permitting the development of 15 Iowa community college districts
      Merged Area XV Community College formed; located at Ottumwa Airport Campus
1966  Iowa Tech became part of Merged Area XV Community College
      Dr. Mel Everingham named president of Merged Area XV Community College
1968  Centerville Junior College became part of Merged Area XV Community College
1970  Merged Area XV Community College adopted the name "Indian Hills Community College"
1972  Candidate for Accreditation status granted by NCA
1973  Dr. Lyle Hellyer named the second president of Indian Hills Community College
1977  Accredited status granted by NCA
1979  Indian Hills Community College and Ottumwa Heights College merged
1981  Indian Hills Community College purchased Ottumwa Heights College
1982  Continued Accreditation granted by NCA
1984  Centerville Maintenance facility constructed
1985  Hellyer Student Life Center opened
      Efner Academic Hall opened
1987  Computer Center opened at Ottumwa campus
      Economic Development Center opened
1988  Maintenance and Horticulture Center opened
      Continued Accreditation granted by NCA
1989  Centerville Administration building opened
      Marge Dodd Stage donated by Area Arts Council
1990  Advanced Technology Center opened
1991  Economic Development Center renamed Regional Training Center
Trustee Hall Dormitory/Student Union/Bookstore opened
Hellyer Student Life Center locker room addition completed

Early Childhood Development and Day Care Center opened
Ottumwa athletic complex constructed
Video Conferencing and Training Center opened
Appanoose County Day Care Center opened on the Centerville campus
First of eight County Service Centers opened

Tom Arnold Net Center opened
Completion of County Service Centers
Oak Hall and Centerville dormitories opened
Dr. Jim Lindenmayer named third president of Indian Hills Community College
Iowa Bioprocess Training Center in Eddyville opened
Everingham Pavilion added at Advanced Technology Center
Renovation of Appanoose, Wapello and Keokuk/Mahaska dormitories completed

VCTC renamed Rosenman Video Conference Training Center
Rural Health Education Center opened
Renovation of North Campus completed
Addition of dining facility at Advanced Technology Center
Regional Economic Advancement facilities added to Advanced Technology Center
Soccer Field added to Main Campus athletic complex

Dr. Marlene Sprouse named fourth President of Indian Hills Community College
Renovation of Pothoven Academic SUCCESS Center completed
Renovation of Tom Arnold Net Center completed
Dedication of the Morgan E. Cline School of Sustainable Agriculture on the Centerville Campus
Dedication of the Regional Entrepreneurship Center on the North Campus
Renovation of Ottumwa Campus Library completed
Renovation of Robotics, Electronic Engineering Technology and Cyber Security & Network Administration labs
Renovation of Centerville Residence Hall completed

Renovation of Principal Financial Computer Software Development lab
North Campus Diesel Technology lab constructed
Renovation and expansion of the Welding Technology lab completed

IHCC Foundation

The Foundation is a 501(c)(3) tax-exempt organization that receives contributions to provide academic scholarships. All students enrolling at Indian Hills are eligible to apply for these scholarships. The Foundation receives tremendous support within the 10-county service area. For the past nine years, nearly all of Indian Hills' full-time employees have contributed to the scholarship fund. Hundreds of area businesses, organizations, industries and citizens also contribute each year. In recent years, the Foundation has received an increased number of trusts and memorials. Approximately 17,500 scholarships have been awarded to Indian Hills Community College students since 1975. Last year, students at IHCC received nearly $1.2 million in Foundation scholarships.
Accreditation

Indian Hills Community College is a public postsecondary institution accredited by the Higher Learning Commission of the North Central Association (NCA), 230 South LaSalle St. Suite 7-500, Chicago, IL 60602-2504, (800) 621-7440, www.higherlearningcommission.org. IHCC is also accredited by the Iowa Department of Education, Grimes State Office Building, Des Moines, IA 50319-0146, (515) 281-8260. IHCC programs are approved by the Division of Veterans and Military Education, Iowa Department of Education, for veterans education benefits through the U.S. Department of Veterans Affairs.

In addition, numerous IHCC programs are accredited:

- The Health Information Technology program, Associate of Applied Science Degree, at Indian Hills Community College is accredited by the Commission on the Accreditation for Health Informatics and Information Management Education (CAHIIM). www.CAHIIM.org 200 East Randolph Street., Suite 5100, Chicago, IL 60601-5800, (312) 235-3255.
- The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), American Physical Therapy Association, 1111 N. Fairfax St., Alexandria, VA 22314, (703) 706-3245. The commission's email address is accreditation@apta.org and their website is www.capteonline.org.
- The Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive Suite 2850, Chicago, IL 60606-3182, (312) 704-5300; mail@jrcert.org
- The Nursing programs are approved by the Iowa Board of Nursing, Riverpoint Business Park, 400 SW Eighth St. Suite B, Des Moines, IA 50309-4685, (515) 281-3255.
- The Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT) and Paramedic programs are authorized as an Iowa EMS Training Program by the Iowa Department of Public Health, Bureau of Emergency and Trauma Services, Lucas State Office Building, 321 East 12th Street, Des Moines, IA 50309, (800) 728-3367.
- The Indian Hills Community College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions. Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756, (727) 210-2350; www.caahep.org
- IHCC is a Federal Aviation Administration-approved aviation training facility; the Aviation Pilot Training program is Part 141 approved, while the Aviation Maintenance Technology program is Part 147 approved. The FAA may be contacted at 6500 S. MacArthur Blvd., Oklahoma City, OK 73169, (405) 954-0138.
- The Culinary Arts program is accredited by the American Culinary Federation, 180 Center Place Way, St. Augustine, FL 32095, (800) 624-9458.
- The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449, (301) 652-2682. Their website is www.acoteline.org.
- The Early Childhood Associate program is accredited by the National Association for the Education of Young Children, 1313 L. Street NW, Suite 500, Washington, DC 20005, (202) 232-8777.
- The Clinical Laboratory Assistant program is approved through the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Rd, Suite 720, Rosemont, IL 60018, (773) 714-8880. naacslinfo@naacsl.org
- The Medical Laboratory Technology program is accredited through the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Rd, Suite 720, Rosemont, IL 60018, (773) 714-8880. naacslinfo@naacsl.org
- The Dental Assisting program is accredited by the Commission on Dental Accreditation (CODA). The Commission is a specialized body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 211 East Chicago Avenue; Chicago, IL 60611. (312) 440-4653, http://www.ada.org
- The Dental Hygiene Program is accredited by the Commission on Dental Accreditation (CODA) and has been granted the accreditation status of "initial accreditation.” The Commission (CODA) is a specialized accrediting body recognized by the United States Department of Education. The Commission (CODA) can be contacted at (312) 440-2500 or at 211 East Chicago Avenue, Chicago, Illinois 60611. www.ADA.org.
- The Medical/Insurance Coding Program is an approved comprehensive coding program through the Professional Certificate Approval Program Council through the American Health Information Management Association (AHIMA), 233 N. Michigan Aven., 21st Floor Chicago, IL 60601-5809, (800) 335-5535 www.AHIMA.org
• The high school concurrent enrollment program is accredited by the National Alliance of Concurrent Enrollment Partnerships (NACEP). The National Alliance of Concurrent Enrollment Partnerships can be contacted at (919) 593-5205, or at PO Box 578, Chapel Hill, NC 27514. www.nacep.org.

• Indian Hills Community College is an institutional participant in the National Council for State Authorization Reciprocity Agreements (NC-SARA), a voluntary and regional method to oversee distance education. As a result of Indian Hills Community College's participation in SARA and approved by its home state of Iowa, Indian Hills Community College may offer distance education programs in SARA member states without further approval from the individual state. SARA only applies to distance education and does not cover instruction provided on-ground at any of Indian Hills Community College's campuses. www.nc-sara.org.

Calendar 2020-2022

Flexible Scheduling with a Four-Day Week. Evening and Weekend Classes Available.

2020-2021

Fall Term

August 31 First Day of Fall Term
September 7 Labor Day Holiday - College Closed
September 8 Classes Resume
November 18 Last Day of Fall Term

Winter Term

November 19 First Day of Winter Term
November 26 Thanksgiving Holiday - College Closed
November 30 Classes Resume
December 21-December 31 Winter Break - College Closed
January 4 Classes Resume
February 23 Last Day of Winter Term

Spring Term

February 24 First Day of Spring Term
April 5-8 Spring Break - College Closed
April 12 Classes Resume
April 20 Last Day of Spring Term
May 24-27 Early Summer Break - College Closed
May 31 Memorial Day Holiday - College Closed

Summer Term

June 1 First Day of Summer Term
July 5 Independence Day Holiday College Closed
July 6 Classes Resume
August 19 Last Day of Summer Term
August 23-26 Late Summer Break - College Closed
2021-2022

Fall Term

August 30
September 6
September 7
November 17

First Day of Fall Term
Labor Day Holiday - College Closed
Classes Resume
Last Day of Fall Term

Winter Term

November 18
November 25
November 29
December 20-December 29
January 3
February 22

First Day of Winter Term
Thanksgiving Holiday - College Closed
Classes Resume
Winter Break - College Closed
Classes Resume
Last Day of Winter Term

Spring Term

February 23
April 4-7
April 11
May 19
May 23-26
May 30

First Day of Spring Term
Spring Break - College Closed
Classes Resume
Last Day of Spring Term
Early Summer Break - College Closed
Memorial Day Holiday - College Closed

Summer Term

May 31
July 4
July 5
August 18
August 22-25

First Day of Summer Term
Independence Day Holiday College Closed
Classes Resume
Last Day of Summer Term
Late Summer Break - College Closed

Student Services

Indian Hills has an open-door admissions policy and welcomes applications from all prospective students who desire, and can benefit from, programs offered by the college.

How to Apply for Admission

A. Students should go to the college's website (www.indianhills.edu) to apply online.
B. Hover over the "Admissions" button on the home page.
C. Choose the "Apply Now" link from the drop down menu.
D. Create an account with your e-mail address and a password.
E. Complete and submit the online application.
F. Students may be required to provide the college with an official high school transcript or High School Equivalency diploma.
G. Provide IHCC with an official transcript from any other college(s) attended in order for the evaluation of any applicable transfer credit.

H. All prospective students in specific Health Sciences programs (Clinical Laboratory Sciences, Dental Assisting, Early Childhood Education, Emergency Medical Services, Health Informatics, Nursing, Occupational Therapy Assistant, Pharmacy Technology, Physical Therapist Assistant, Radiologic Technology, Surgical Technology and Therapeutic Massage) are required to take the ACCUPLACER test or the ACT test and have a minimum score. Meeting minimum requirements does not guarantee acceptance into a program. See specific program admissions criteria for additional information.

I. To be considered for a Health Sciences program, a prospective student must have at least a 2.0 grade point average or a specified score on the High School Equivalency Diploma. Students must meet the specific criteria for each Health Science program including a pre-determined minimum score on the ACCUPLACER, ACT or SAT.

J. A letter of acceptance will be sent as soon as all needed information is received by the college and it is determined that the program admission requirements are met.

K. Acceptance may be determined by the total number of openings in a program at the time the application is received.

Please send all requested documents to:

Admissions & Orientation
Indian Hills Community College
623 Indian Hills Drive
Ottumwa, Iowa 52501-1398
(641) 683-5262
(800) 726-2585, ext. 5262

Records submitted to the College as part of the admissions procedure become part of the official file and cannot be returned to the student or forwarded to another institution.

Residency Policy

Residency Requirements

Requirements for proof of Iowa residency are established for community colleges by the Iowa Department of Education.

Residency is determined based on the address information provided at the time of application and will not be changed except in the case of unusual circumstances. If you feel you should be considered for an exception, please submit a letter of explanation along with the documents described below to the Registrar’s Office.

Please note that a student cannot be a resident of two states at the same time. If your home is in another state and you are living in Iowa for the purpose of attending school, you are a resident of your home state and not a resident of Iowa.

You will be considered a resident of Iowa for IHCC tuition and fee purposes if you are:

A. Permanently domiciled in Iowa (not living in Iowa primarily for educational purposes); and
B. Have resided here for a period of not less than ninety (90) days prior to the first day of the beginning of the first term for which you are enrolling; and
C. You provide supporting documentation issued/dated on or before the appropriate date on the timeline below to prove your Iowa residency. (See list of acceptable documents under Application Process below.)

If you are classified as an out-of-state student, it is your responsibility to submit the appropriate documents needed to prove Iowa residency to the IHCC Registrar (follow steps below). In-state residency status is not automatically changed after a certain period of time. If you seek to be reclassified after the term begins, your new classification will be effective beginning with your next term of enrollment. In no case will the reclassification to residency status be made retroactive for tuition and fee purposes, even if you could have previously qualified for residency status had you applied.
Residency Application Timelines

To meet the 90-day requirement, you must provide documentation proving that you began residing in Iowa on or before the following dates:

<table>
<thead>
<tr>
<th>Term</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL</td>
<td>On or before May 25</td>
</tr>
<tr>
<td>WINTER</td>
<td>On or before August 15</td>
</tr>
<tr>
<td>SPRING</td>
<td>On or before November 15</td>
</tr>
<tr>
<td>SUMMER</td>
<td>On or before February 25</td>
</tr>
</tbody>
</table>

Residency status cannot be re-classified once the semester begins.

Minors

Students enrolling at Indian Hills Community College will be considered minors until the legal age of 18. Proof of parents' residency will be required for these students.

Students Age 18 and Over

Students age 18 and older must provide proof of their residency, rather than that of their parents.

Veterans, Federal Personnel and Their Dependents

A veteran of U.S. military service or National Guard, or their spouse or dependent child shall be classified as a resident if the veteran is domiciled in Iowa and one of the following conditions is met:

A. The veteran has separated from a U.S. military force with an honorable discharge or a general discharge, is eligible for benefits, or has exhausted benefits, under the federal Post-9/11 Veterans Assistance Act of 2008 or any other federal veteran educational benefits program.

B. The individual is an active duty military person, or activated or temporarily mobilized National Guard member.

To be eligible for the exemption, a dependent child must be claimed as a dependent on an eligible veteran's Internal Revenue Service tax filing for the previous year.

A person, or their spouse or dependent child, who has moved into the state of Iowa as the result of military or civil orders from the U.S. Government, and the minor children of such persons, are entitled to immediate Iowa residency status.

For more information, visit our Veterans Affairs site.

International Students

International students who are in the United States on any type of student visa (e.g. an F-1 or F-2 visa) cannot establish in-state residency while studying in this country.

Application Process for U.S. Citizens

To apply for reclassification from nonresident to resident status, follow these steps and submit items to IHCC Registrar:

A. Submit written explanation detailing your reason (other than educational purposes) for moving to Iowa.

B. Submit supporting, dated documentation demonstrating residency in Iowa. To show that your purpose for living in Iowa is for more than attending school and to show that you have been a resident of Iowa for 90 days or more prior to the date of initial enrollment, you must provide one of the items listed below:

1. Iowa state income tax return, signed and dated
2. Written and notarized documentation from an employer that you have been employed in Iowa for a minimum of 90 days prior to the start of the term or a signed and notarized statement from you describing employment and sources of support.
3. Proof of Iowa Homestead credit on property taxes

C. Submit a second document, which may be another from the above documents or one of the documents listed below:
   1. Iowa vehicle registration form
   2. Iowa driver's license
   3. Iowa voter registration card
   4. Other indicators of Iowa residency, such as apartment lease dated and signed by both you and the manager, utility bills, bank

Application Process for Non-U.S. Citizens

If you are a lawful permanent resident (LPR) of the United States or an approved refugee, you may apply for residency status. Follow the steps below and submit all items to the IHCC Registrar. International students who are in the United States on any type of student visa (e.g. an F-1 or F-2 visa) cannot establish in-state residency while studying in this country.

A. Submit written explanation detailing your reason (other than educational purposes) for moving to Iowa.
B. Submit proof of your legal immigration status in the form of:
   1. A copy of an I-94 card showing political asylum, refugee or other appropriate status. OR
   2. A copy of your U.S. Permanent Resident Card. If you have applied for but have not yet received a Permanent Resident Card, you have not been approved to permanently reside in the U.S. and may not apply for residency status regardless of how long you have lived in Iowa.
3. Submit supporting, dated documentation demonstrating residency in Iowa. To show that your purpose for living in Iowa is for more than attending school and to show that you have been a resident of Iowa for 90 days or more, you must provide one of the items listed below as evidence.
   a. Iowa state income tax return, signed and dated
   b. Written and notarized documentation from an employer that you have been employed in Iowa for a minimum of 90 days prior to the start of the term or a signed and notarized statement from you describing employment and sources of support.
   c. Proof of Iowa Homestead credit on property taxes
4. The second document you provide may be any of the following:
   a. Iowa driver's license
   b. Iowa vehicle registration form
   c. Other indicators of Iowa residency, such as apartment lease dated and signed by both you and the manager, utility bills, bank statements, etc., dated and showing your Iowa address.

In all events, to be determined a resident of Iowa, the individual must document residing in the state of Iowa for at least 90 days prior to the beginning of the first term for which they are enrolling, and not be enrolled in any Iowa college or university.

Appeal of a Residency Decision

Students wishing to appeal a residency decision need to contact the Executive Dean, Student Development & Athletics, (641) 683-5152 or studentsequity@indianhills.edu

International Student Admissions

Non-immigrant international students wishing to attend Indian Hills Community College on an F-1/M-1 visa are welcome to apply at Indian Hills Community College. Non-immigrant international students may find admission information and apply online on the Indian Hills International Student webpage at www.indianhills.edu/internationalstudents. Questions may be emailed to the International Affairs Office at internationals@indianhills.edu. All application documents should be mailed to the International Affairs Office. Records submitted to the College as a part of the admission procedure become part of the official file and cannot be returned to the student or forwarded to another institution.

The student's application will be reviewed for an admissions decision upon submission of all required international student admissions documents. An acceptance letter will be mailed to the student at the address provided on the application form, along with the SEVIS I-20 form and other pertinent information.
The student will need to present the following documents when applying for an F-1/M-1 student visa: signed I-20, proof of having paid the SEVIS fee, financial support documentation, a valid passport, Form DS-160 "Nonimmigrant Visa Electronic Application," high school transcript, and a current photograph.

F-1/M-1 international students are charged non-resident tuition, and must provide financial proof of a full academic year (9 months) of cost of attendance prior to acceptance. If an applicant wishes to bring a dependent (spouse or child) with them, an additional US $3,000 per dependent must be shown in the Financial Letter requirement.

All costs are estimated. Please see the International Student webpage at www.indianhills.edu/internationalstudents for current academic year tuition and fees. Tuition is charged on a per credit hour basis, and tuition rates are determined by the IHCC Board of Trustees each Summer. Note that some specific academic programs require year-round enrollment (enrollment during the Summer term) and/or additional fees for the program could be required. The costs for these programs are not reflected on the webpage at www.indianhills.edu/internationalstudents. For any questions, please contact the International Affairs Office.

Please note the following:

**New International Student Applicants**

Application documents required for new (non-transfer) international students:

A. International Student Application for Admission. Apply online at www.indianhills.edu/internationalstudents.
B. Financial letter from bank/government sponsorship (must provide an official letter on official letterhead written in English showing sufficient funds in U.S. dollars for one year of study at Indian Hills Community College that is dated within 60 days of submission)
   1. If using a sponsor other than parents, please include a notarized, signed, sponsorship letter from the individual sponsoring you.
C. Copy of passport photo page
D. If the applicant has completed high school, send a copy of the final high school transcript showing date of graduation or High School Equivalency Transcript showing date of graduation (send the transcript in its original language and a second transcript translated into English).
   1. If the applicant is still enrolled in the final year of high school, send a copy of a current in-progress high school transcript (send the transcript in its original language and a second transcript translated into English). In addition, after graduation from high school, send the final high school transcript showing proof of date of graduation. The final high school transcript with proof of graduation must be provided to the International Affairs Office in order to attend orientation and prior the start of the student’s first term at IHCC.

**International Student Transfer Applicants**

Application documents required for international students transferring from a U.S. institution:

A. International Student Application for Admission. Apply online at www.indianhills.edu/internationalstudents
B. Official college/university transcript from the institution you are currently attending
C. International Student Transfer-In Form
D. High school transcript (official document in original language and translated into English)
E. Financial letter from bank/government sponsorship (must provide an official letter on official letterhead written in English showing sufficient funds in U.S. dollars for one year of study at Indian Hills Community College that is dated within 60 days of submission) If using a sponsor other than parents, please include a notarized, signed, sponsorship letter from the individual sponsoring you
F. Copy of passport photo page
G. Copies of current student visa and I-20 Form
H. Transfer-In Form

**All Health Sciences Applicants must also submit:**

A. Official ACT, SAT or ACCUPLACER score
B. Health Sciences applicants (who have graduated high school outside of the US) are required to have their final high school transcript evaluated by an accredited evaluating agency. The evaluation must include a grade point average. Indian Hills can provide a list of approved evaluation companies upon request. Evaluations from a non-approved evaluation agency will be rejected.
C. Nursing programs applicants must also pass the TEAS exam. Information about the TEAS can be found on our Testing Center webpage at www.indianhills.edu/testingcenter and obtain a complete Certified Nursing Assistant (CNA) from the state of Iowa and submit their Iowa Direct Care Registry CNA card prior to admission consideration.
D. Dental Hygiene program applicants must also pass the Dental Assisting National Board (DANB) exam.

Aviation Pilot Training Applicants must also submit:
A. Prior to being admitted, applicants must be approved by the Alien Flight Student Program (AFSP). Please visit www.flightschoolcandidates.gov/ for more information.
B. Due to the higher tuition costs associated with this program, students are required to show a higher available amount on the Financial Letter. Please contact the International Affairs Office with questions.

All international student "guest students" (students whose home institution is not Indian Hills Community College, but who would like to take a class at the college) in the Arts and Sciences program, must submit:
A. International Student Application for Admission. Apply online at www.indianhills.edu/internationalstudents. Please select the "Guest Student" option for program of study.
B. Transcript from the U.S. institution you are currently attending (unofficial copy is acceptable)
C. Copies of current student visa and I-20 Form

Note to ALL applicants: At the discretion of the Director of International Affairs, students may be required to submit documents to an Education USA Advisor for certification prior to mailing materials to the Indian Hills International Affairs Office, or they may be required to have their high school transcript evaluated by an accredited agency (even if they are not a Health Sciences applicant). Evaluations from a non-approved evaluation agency will be rejected.

A TOEFL/IELTS score is not required for admission into Indian Hills Community College.

Once your application is complete, your file will be reviewed. Careful attention must be given to the completion of all appropriate documents, as incomplete or improperly completed items will result in a delay in processing your application.

Official English translations are required for all documents.

ALL new Indian Hills Community College international students must:
A. Complete the Online Orientation prior to arrival
B. Report in-person to the multi-day Indian Hills International Student Orientation prior to registering for courses
C. Enroll full-time and attend Indian Hills Community College for a minimum of two 12–week terms
D. Be a high school graduate or have a High School Equivalency Diploma prior to the first day of classes at Indian Hills Community College
E. Present these original documents at International Student Orientation: Passport, student visa and I–20
F. Complete the ACCUPLACER or ESL ACCUPLACER test at Indian Hills prior to registering for courses
G. Have a Tuberculosis (TB) test during International Student Orientation
H. Health insurance is mandatory for all F-1 & M-1 students. International students will be required to enroll in the Indian Hills Community College health insurance program, even if the student has health insurance through another company or in their home country. Fees will be added to the student’s account each term of enrollment.
I. International students can apply for admission to both the Ottumwa and Centerville campuses.
J. Indian Hills Community College will provide the initial I-20 free of charge. In the event that a student is issued an I-20 and requests a deferral after the initial I-20 has been mailed to the applicant, the applicant will need to pay a $50 deferral fee prior to Indian Hills Community College shipping the I-20 document to their home country as well as provide an updated financial document.

International students are encouraged to apply for scholarships. Please visit www.indianhills.edu/internationalstudents and click on the "Scholarship Opportunities" tab for more information.

All correspondence and questions should be addressed to:

Indian Hills Community College
International Affairs Office
Trustee Hall
525 Grandview Avenue
Proof of United States Status Required for Foreign-Born Applicants

Applicants to Indian Hills Community College whose country of birth is outside of the United States are required to provide proof of their status within the United States prior to being offered admission. If you have been asked to provide proof of your United States status, please submit at least one of the following documents that apply:

A. Copy of valid US Passport Photo page
B. Copy of US Naturalized Citizenship Certificate
C. Copy of US birth born abroad birth certificate
D. Copy of US Permanent Resident card
E. Copy of Work Authorization for DACA status
F. Copy of US Visa
G. Copy of I-94

Documents must be submitted to the International Affairs Office, and can be submitted via email, fax, or postal mail.

Indian Hills Community College
International Affairs Office
Trustee Hall
525 Grandview Avenue
Ottumwa, IA 52501
Email: internationals@indianhills.edu
FAX: (641) 683-5274

Foreign Transcripts

Any prospective international student who is applying for admission into a Health Sciences program who has attended a high school outside of the United States must have their transcript(s) translated (if necessary) and evaluated by one of the agencies listed below. All students seeking credit for coursework earned at a college/university outside the United States must have their foreign transcript(s) translated (if necessary) and evaluated by one of the agencies listed below. The transcripts must be sent from that agency directly to:

International Affairs Office
Indian Hills Community College
Trustee Hall
525 Grandview Ave
Ottumwa, Iowa 50251

The evaluation must include the results of any examinations required by the country of origin as proof of successful completion (Example: Ordinary Level and/or Advanced Level examination scores). Students applying for a Health Sciences program must request an evaluation that includes a Grade Point Average.

In the event that a student is unable to have their high school transcript translated (if necessary) and evaluated, then the student must successfully complete the High School Equivalency Diploma and submit appropriate documentation of completion to the above office/address.
Curricular Practical Training (CPT)
Students wanting to participate in Curricular Practical Training while enrolled at Indian Hills Community College must first obtain authorization from the International Affairs Office prior to the start of their internship and must be enrolled in an academic internship credit class for the term. CPT must be authorized by the International Affairs office for each term the student is enrolled in the internship credit.

On-Campus Employment
There are many job opportunities available to students on-campus. International students holding a F-1 visa may apply for on-campus employment. On-campus employment positions are available on all campuses, and are limited to a maximum of 20 hours per week. F-1 visa holders are not allowed to work off campus except for approved CPT and OPT. After Associate degree completion, international students may apply to work for one full year in a position directly related to their area of study anywhere in the U.S.

Optional Practical Training (OPT)
After completion of the Associate degree, international students may apply to work for one full year (365 days) in a position directly related to their area of study anywhere in the U.S. Students must apply and receive permission from the IHCC International Affairs Office and the US Federal Government in order to engage in OPT. For more information contact the IHCC International Affairs Office.
Re-admission

Any student who is denied admission or re-admission to Indian Hills Community College may appeal the decision.

A. The appeal shall be a request for a hearing before the College Review Committee and shall be submitted to the Office of the Dean of Student Services. The appeal of the admissions decision must be initiated by the student no later than 15 days after notification of the decision has been issued. The appeal must be in writing and must fully state the basis for the request for admission or re-admission and the basis for why the admissions denial is unwarranted.

B. The appeal shall be presented to the chairperson of the College Review Committee who will set a hearing date in consultation with the other members of the Review Committee. The student appealing the admissions decision will be notified in writing of the date of the hearing. At least five school days of notice must be given to the party appealing the admissions decision.

C. The review committee hearing will be held in closed session unless the student requests in writing to the Chair of the Review Committee that it be open.

D. The student initiating the appeal has the responsibility for presenting their case for appeal to the committee. The student may be assisted by any person at the time of the hearing. The admissions department or designated instructional department will present its reason(s) for denying admission.

E. After hearing the appeal, the Review Committee shall decide either to reject the appeal or to uphold it. The Office of the Dean of Student Services will be notified of the decision in writing by the College Review Committee chairperson, who in turn will notify the appellant and admissions department of the decision. The decision of the College Review Committee is final.

How to Register for Classes

The registration process includes: (1) the selection of courses to be taken, (2) entering the courses on-line and (3) paying or making arrangements to pay. All steps must be completed for proper registration.

Payment for Classes

All students must register and make arrangements to pay for their classes by the "Last Day to Register" date that is published in the current term registration schedule.

Failure to Pay

Students who have not completed registration or have not made arrangements to pay for classes by the end of the eighth day of the new term may be dropped from the enrollment lists and will not be re-admitted for the new term.

Change of Address

Entry of mailing addresses for Indian Hills students is made at the time of each term registration via the WebAdvisor contact information screen. Address changes after the close of registration can be accessed on WebAdvisor using the Contact Information option. It is strongly recommended that all address changes be processed through WebAdvisor.

Change of Program

A student transferring from one program to another will need to obtain proper forms and change procedures from the department into which they wish to transfer.
Tuition and Fees

Tuition

(Tuition and fees are subject to change by action of the IHCC Board of Trustees.)

Effective Fall 2020:

Resident: $185 per credit hour
Non-Resident: $245 per credit hour

Fees

Course fees, web fees or ICN fees may be assessed on the individual course level if applicable.

Continuing Education

Tuition charges for non-credit courses offered through the Continuing Education and Workforce Solutions Department are established on a course-by-course basis. Course listings are published three times per year and can be found at www.indianhills.edu/docs/customized_learning_schedule.pdf. You may also call (800) 346-4413 to find out more information on available courses.

IHCC Institutional Refund Policy

Students who formally withdraw from a class within the first eight class days of any 12-week term or the first four days of any six-week term may receive a 100% refund of tuition and fees.

Students who withdraw on or after the ninth class day of a 12-week term (or the fifth day of a six-week term) are entitled to no refund.

Refund dates are posted on the Indian Hills Community College Calendar each term.

The Federal Higher Education Funding authorization requires a return of Title IV funds (Pell Grant, Supplemental Educational Opportunity Grant, Federal Direct and PLUS Loans) to the federal government if a student withdraws on or before 60 percent of the term has elapsed.

Students, please be advised that if you withdraw or drop from classes, it will impact your eligibility for financial aid grants and loans. The student will be required to return/repay the dollar amount calculated as unearned aid.

Students must complete all proper withdrawal papers and procedures to ensure they will not receive failing grades for all coursework during the term of withdrawal. Please refer to Academic Policies section, Schedule Changes/Withdrawal, for specific information.

Agencies and organizations sponsoring the payment of student tuition will be subject to the tuition refund policy.

Return of Student Federal Financial Aid Funds (Title IV Funds)

If a student withdraws completely or fails all courses (or any combination of the two), the Higher Education Amendments of 1998, Public Law 105-244, requires colleges to determine how much aid must be returned (repaid). Students could be required to return (repay) all or a portion of federal student aid (grants and loans) if they earned zero credit hours for the term.

Students will be notified if they must return (repay) federal financial aid (grant) funds. Failure to repay this, or to make satisfactory arrangements for payment, may result in becoming ineligible for Federal Financial Aid funds at any institution.
In addition, this regulation requires colleges to also return a portion of Financial Aid funds originally used to pay charges at Indian Hills Community College. When that occurs, students will then owe Indian Hills for the amount of tuition, fees, room and board, books, etc. paid for by the aid the school had to return to the Department of Education. Students will receive a statement if they owe Indian Hills Community College.

Completion of proper withdrawal papers and procedures ensures the student will not receive failing grades for all coursework during the term of withdrawal. Please refer to the section marked Schedule Changes/Withdrawal for specific information.

Agencies and organizations sponsoring the payment of student tuition will be subject to the tuition refund policy.

For more detailed information on return of Federal Title IV Funds, go to www.indianhills.edu/finaid.

Financial Assistance

Financial assistance for eligible students attending Indian Hills Community College is available in the form of grants, scholarships, work-study and loans. The Financial Assistance Office provides information services and counseling for students, parents, high school personnel and community agencies. Individual assistance is available on a drop-in basis during normal office hours.

Applying for Financial Assistance

A. Complete the Free Application for Federal Student Aid (FAFSA) form, which is available online through www.fafsa.ed.gov. The FAFSA should be submitted no later than the last week in March so your application will receive priority consideration for state and federal assistance. If needed, a paper application can be obtained from FAFSA by calling 1-800-4-FED-AID (1-800-433-3243).

B. List Indian Hills Community College on the FAFSA so the IHCC office will receive your financial information. The number for Indian Hills Community College is 008298. Complete the State of Iowa Application at www.iowacollegeaid.gov for state grants and scholarships available to Iowa residents.

Student Eligibility General Requirements

A. Must be a regular college student who is enrolled or accepted for enrollment in a degree or diploma program
B. Must be a United States citizen or in the U.S. for other than a temporary purpose and with the intention of becoming a permanent resident.
C. Must have an official high school diploma, or
   1. have the recognized equivalent of a high school diploma such as a High School Equivalency Diploma certificate or a state certificate that is recognized as being equivalent to a high school diploma and certify receipt on the FAFSA.
   2. have completed homeschooling at the secondary level.
D. Must not be in default on any prior student loans.
E. Must not owe a refund to any Federal Title IV program.
F. Must be enrolled for a minimum of four credit hours to be considered eligible to receive a federal student loan.
G. Must re-apply for financial aid each academic year that you attend IHCC. Academic years begin each Fall term.
H. Transfer students must also supply information regarding financial aid received at all other "after high school" institutions they have attended.
I. Students may be subject to other eligibility requirements of federal, state, and program regulations, depending upon the student's situation and the particular aid program involved. These regulations are subject to change by the governing bodies.

Student Enrollment Status - Title IV Funds and Disbursements

Title IV eligibility, based on enrollment status (full-time, ¾ time, ½ time and less than ½ time), will be determined after the Pell census date (at the end of the add/drop period).

If full-time, ¾ time or ½ time status hinges on compressed coursework (courses less than 12 weeks in length) for any term, then the Pell census date for that particular student for that term will be the add/drop date for the full session - per Federal Student Aid guidelines. Funds will not be disbursed until after Pell census dates in respective terms based on the above criteria.
NOTE: For Pell eligibility, students must be enrolled in each course by the Pell census date regardless of the start date of the course.

Satisfactory Academic Progress (SAP) Policy

Indian Hills Community College (IHCC) is required to establish satisfactory academic progress (SAP) standards for students receiving federal and state financial aid in accordance with U.S. Department of Education regulations. The standards addressed below are applicable to all students receiving federal and state financial assistance administered by the IHCC Financial Assistance office. Some scholarships may be governed by more stringent criteria specific to those awards. These are the minimum standards.

THE PURPOSE FOR SATISFAC emergence (SAP) Policy

Student SAP will be assessed at the end of each academic term (all summer sessions will be assessed at the completion of the full summer term, with all courses combined as one term). Students must meet all the requirements listed below at the end of each term to be considered satisfactory.

A. **Successful Credit Hour Completion** (See Additional Notes for attempted/completed details and determination of cumulative progression towards program requirements.)
   1. Full-time students must successfully complete at least 6 credit hours per term
   2. Three-quarter-time students must successfully complete at least 4 credit hours per term
   3. Half-time students must successfully complete at least 3 credit hours per term
   4. Less-than-half-time students must successfully complete at least 2 credit hours per term (or 1 credit hour if enrolled for just 1 credit hour)

B. **Cumulative Grade Point Average (GPA) requirement** (See Additional Notes for standards regarding zero term GPA progress.)
   1. All students are required to maintain a minimum cumulative (overall) 2.0 GPA based on the number of credit hours completed (some programs or scholarship standards may be higher).
   2. Grades adding any point value (or indicating successful completion) to the cumulative GPA include: A, B, C, D and P. Grades adding no point value to the cumulative GPA include: F and I. Grades not considered in the Cumulative GPA include: J, L, M, N, O, T and W.

C. **Pace** – is the measurement of the progression of a student through educational programs at Indian Hills as well as transfer credits accepted toward their declared major (please see Transfer Credit Policy in the IHCC Catalog). The calculation of Pace must be at least 67% (to achieve the 150% limit described in Maximum time limit below).
   1. Cumulative number of credit hours completed divided by the cumulative number of credit hours attempted = Pace

D. **Maximum time limit to complete program of study** (See Additional Notes for information regarding program changes.)
   1. Per federal regulations, students must complete their educational program in a reasonable length of time, which is defined as no more than 150% of the credit hours required for graduation, regardless of major changes.
   2. Hours attempted are the sum of all credit hours recorded at IHCC, for which tuition was charged (census date enrollment) whether or not financial aid was received as well as all transfer hours accepted for credit towards the applicable program of study, all developmental education credits, all ESL credits and all courses passed by examination.
   3. All repeats, withdrawals, failures, incompletes and academic renewals/requitals will be included in the sum of all term-equivalent, credit hours attempted.

ADDITIONAL NOTES:

A. **Warning Status followed by Ineligibility (No Aid) Status** - Any student failing to maintain the above requirements will be placed on Satisfactory Academic Warning for the next enrolled term. A Warning status may not prevent the student from receiving financial aid. The Warning period is meant to inform the student of potential academic problems and provide time for corrective action and intervention. If a student does not meet the satisfactory academic progress standards after the Warning period, Ineligibility status will be imposed. Ineligibility status will prevent the student from receiving any Title IV or state financial assistance for future enrollment until such time as the student meets all satisfactory academic progress standards.
1. Students are encouraged to utilize the services at IHCC’s SUCCESS Center for tutoring, testing and other assistance designed to greatly increase their ability to persist with their educational goals.
2. Academic advisors are also available to review IHCC educational opportunities for individual student needs and assist students in the development of an appropriate Academic Plan.

B. Attempted/Completed Credit Hours – Only grades of A, B, C, D and P are counted as meeting the required successful completion of credit hours attempted. Courses passed by examination (T), courses transferred in (L), courses audited (N) and high school articulation credits (M) do not satisfy the successful completion Pace requirements. Failed courses (F), withdrawn courses (W), incomplete grades (I, J) and academic renewals/requltals (O) do not indicate successful completion of credit hours and may negatively impact Satisfactory Academic Progress.

C. Zero Academic Progress in Any Term of Enrollment – In addition to the cumulative standards as addressed above (GPA and percentage completed), a student will be placed on immediate financial aid ineligibility (no financial assistance eligibility) if any term results in zero academic progress. Zero academic progress could result from total withdrawal, total failure of all enrolled courses or a combination of both. Eligibility must be reinstated before further financial aid will be available. (Refer to Appeal and Reinstatement policies shown below.)

D. Cumulative Zero Academic Progress – Students with zero cumulative academic progress may be required to prove ability-to-benefit before an appeal will be considered. The IHCC Testing Center administers the ACCUPLACER Test that may be used to indicate whether the student has the ability to benefit from additional, regular college coursework or whether remediation is recommended. An appeal may be considered in which an Academic Plan may be required to assist the student toward college readiness.

E. Appeal – If there were extraordinary circumstances contributing to the lack of academic progress, the student may appeal their Ineligibility status by submitting an appeal letter and any other requested documentation to the Financial Assistance office for review. Some circumstances, such as medical problems, illness or death in the family, relocation or employment changes, can be considered as extraordinary for an appeal.
   1. The appeal must contain information regarding WHY the student failed to make satisfactory progress; and WHAT HAS CHANGED in the student’s situation that will allow them to demonstrate satisfactory academic progress at the next evaluation (student’s next enrollment period).
   2. Some appeal letters may not be considered until the subsequent term’s mid-term grades are evaluated and deemed successful.
   3. The appeal may require an approved Academic Plan each student can obtain with the assistance of the Academic Advising Office on a case-by-case basis. The Academic Plan will be required if SAP is not feasible at the next measurement period (student’s next period of enrollment).
   4. Failure to adhere to the Academic Plan will result in ineligibility until such time the student regains SAP without the assistance of federal and state funds.
   5. The student will be notified in writing of the decision of the Appeal Committee. Ineligibility for financial assistance does not preclude the student from enrolling in subsequent terms and paying out of pocket.
   6. The student is responsible for charges on their account if the appeal determination is negative and the ineligibility status remains in effect.

F. Reinstatement – Students will have their financial aid reinstated by the Financial Assistance office once all satisfactory academic progress standards are met, providing all other eligibility requirements remain the same. These SAP standards may be met at the student’s own expense or through the appeal process.

G. Repeated Courses – Students are allowed to repeat courses at IHCC, but only the highest grade will be counted in the cumulative GPA (appropriate paperwork must be filed with the Registrar’s Office); however, all credits will be included in the total attempted credit hours for measurement of the 150% maximum time limitation on Title IV aid. Please note that there are limits on the number of times a course may be repeated and financial aid received to pay for that course.

H. Remedial Courses – A student may receive Federal Title IV aid for up to one academic year’s worth of remedial coursework. For IHCC, one academic year is 24 credit hours in 36 weeks (3 terms), so a total of 24 credit hours will be considered towards federal assistance enrollment eligibility. However, eligibility will be monitored to determine the 150% point, which includes remedial courses and may be monitored on a case-by-case basis (for effects of remedial courses) to establish progression towards graduation.

I. Transfer Students – After evaluation of a transfer student’s loan records on the National Student Loan Data System (NSLDS), IHCC may request official transfer transcripts before a student’s SAP eligibility can be determined. Only credit hours completed at IHCC will be used in calculating the cumulative GPA requirement. The sum of all transfer credits accepted toward their program of study, as well as IHCC credits will be included in total hours completed for the measurement of the 150% maximum time limitation on Title IV aid. (See Attempted/Completed Credit Hours above.)

J. Withdrawal and Re-Enrollment at IHCC – A student who withdraws from IHCC and re-enrolls at a later date will re-enter with the same financial aid status in effect at the end of the term for which they withdrew.
11. **Program Changes** – Students are allowed to make program changes within the scope of financial aid eligibility; however, if they are on academic warning/ineligibility, that status remains in effect. Program changes will be considered in the appeal process. All IHCC credits already completed will be counted towards the measurement of the 150% maximum time limitation on Title IV aid.

12. **Consortium Agreements** – SAP will be monitored by the institution administering the student's Title IV aid.

13. **Completion of All Required Coursework** – Once a student has satisfied all the required coursework for their program of study, eligibility for financial aid ends, whether or not the student has received the actual degree or certificate.

The Federal Higher Education Funding authorization requires a return of Title IV funds (Pell Grant, Supplemental Educational Opportunity Grant, Federal Direct and PLUS Loans) to the federal government if a student withdraws completely on or before the 60 percent (60%) mark of the term.

_Students please be advised that if you withdraw or drop from classes it will affect your eligibility for financial aid grants and loans. The student will be required to return/repay the dollar amount calculated as unearned aid. (see Return of Title IV Funds)_

Completion of proper withdrawal papers and procedures ensures the student will not receive failing grades for all coursework during the term of withdrawal. Please refer to the section marked Schedule Changes/Withdrawal for specific information.

Agencies and organizations sponsoring the payment of student tuition will be subject to the tuition refund policy.

**Federal Programs**

For additional information on federal grants, scholarships and loans, please visit our website at www.indianhills.edu/finaid.

**Federal Pell Grant**

The Pell Grant Program provides gift funds to eligible students who have not yet earned their first bachelor's degree. To be eligible for a Pell Grant, a student must be admitted to the college and be in good standing in a program leading to a certificate or degree. You may only receive a total lifetime eligibility of 600% (one full-time term at IHCC equals 33.33% of a grant).

To apply for a Pell Grant, students must complete the Free Application for Federal Student Aid (FAFSA). Students must include the Indian Hills Community College code number (008298) on the FAFSA. Students will receive a Student Aid Report (SAR) from the Federal Processors.

The Pell Grant award ranges from $657 to $6195 per academic year. The award amount for any student is determined by information on the FAFSA application. (Awards dependent on Federal authorization.)

**Federal Supplemental Educational Opportunity Grant**

The Federal Supplemental Educational Opportunity Grant (FSEOG) Program provides gift funds to eligible students with exceptional need. To be eligible for FSEOG, students must be admitted to the college and be enrolled in a program leading to a certificate or degree. The maximum FSEOG at IHCC is $300 per academic year. To apply for this program, students must complete the Free Application for Federal Student Aid (FAFSA). This grant is not available for the Summer term.

**William D. Ford Federal Direct Loan (Subsidized and Unsubsidized)**

The Federal Direct Loan program provides funds that must be repaid through the U.S. Department of Education. Eligible students must be admitted to the college and be enrolled at least half-time in a program leading to a diploma or degree.

Federal interest subsidies are available to qualifying students. To apply for the Direct Loan, students must complete the Free Application for Federal Student Aid (FAFSA). The student must also "accept" any loan eligibility online via their WebAdvisor.
For first-time student loan borrowers, there are two additional online steps that must be completed: Master Promissory Note and Entrance Counseling. These are both available at www.studentloans.gov.

FSA Ombudsman: If you have made a reasonable effort to resolve a problem or dispute with your student loan through normal processes and it is not resolved, you can contact the Ombudsman Office. This free service is offered by the U.S. Department of Education. To contact the FSA Ombudsman: Phone (877) 557-2575, Fax (606) -396-4821, Mail FSA Ombudsman Group, PO Box 1843 Monticello, KY 42633.

**Federal PLUS Loan**

The PLUS loan program provides funds, which must be repaid, through the U.S. Department of Education to parents of dependent undergraduate students. Students must be admitted to the college and be enrolled at least half-time in a program leading to a diploma or degree.

The college determines the amount parents of dependent students may borrow, according to federal regulations, up to the cost of attendance for the academic year. To apply for a PLUS loan, regulations require students to complete the Free Application for Federal Student Aid (FAFSA), and the parent-borrower must complete a PLUS application online at www.studentloans.gov or fill out a paper application, which is available in the Financial Assistance Office. The parent-borrower must also complete a Master Promissory Note at www.studentloans.gov.

**State Programs**

For additional information on specific State of Iowa Grants and Scholarships, please visit www.iowacollegeaid.gov.

**State of Iowa Grants and Scholarships**

To receive consideration for any of the state programs, Iowa residents must first complete and submit their Free Application for Federal Student Aid (FAFSA), and then complete their State of Iowa application at www.iowacollegeaid.gov. For priority consideration, students should complete the applications no later than March 1.

**IHCC Programs**

**Indian Hills Community College Foundation Scholarship Program**

IHCC Foundation Scholarships are awarded by the Indian Hills Community College Foundation to eligible students based upon academic performance and other demonstrated qualities and needs of the students. Several hundred scholarships, ranging from $600 to full tuition, are awarded each year.

To apply for IHCC Foundation scholarships, students must complete a Foundation Scholarship Application available online at www.indianhills.edu/payingforcollege/scholarships and click on "Apply Now".

**Payment of Tuition and Fees**

Payment dates for tuition and fee payments can be made online in WebAdvisor. These payment dates may be found in in the calendar on the Indian Hills website.

There are three options available for the payment of tuition and fees:

A. Online by ACH, Visa, MasterCard or Discover. Login to WebAdvisor, click "Students", under Financial Information, click "Student Account Suite", then click "Payments" in the toolbar.

B. At the Bennett Student Services Center - OneStop 7:15 a.m. to 4:45 p.m. - via cash, check, cashier's check, money order or Visa, MasterCard or Discover.
C. By mail to:

Indian Hills Community College  
Business Office - Student Accounts  
525 Grandview Ave.  
Ottumwa, IA 52501

OR

Indian Hills Community College  
Business Office - Student Accounts  
721 N. 1st St.  
Centerville, IA 52544

**Indian Hills Community College Payment Plan**

This payment plan assists students in the payment of tuition, fees and/or books on a short-term basis. You must be enrolled in a current term and sign-up for the payment plan before the tuition and fee due date to avoid late fees. To sign-up, login to WebAdvisor and click "Students", under Financial Information, click "Student Account Suite", then click "Payment Plans" in the toolbar.

The payment plan provides three equal installments to be paid each term. Due dates will be specified on registration materials and must be met to avoid late payment charges. Payment in full must be made before the student will be allowed to enroll in a future term.

**Note:** Indian Hills Community College participates in the State of Iowa Offset Program established by Section 8A.504 of the Code of Iowa. The Offset Program is a method used by the State of Iowa to Collect money owed to the State and other Iowa governmental agencies by matching records of past due claims to out-going tax refunds, vendor payments, Iowa Treasure Hunt payments and Iowa Lottery winnings. Please be aware your account my be subject to the Offset Program processing if not paid in full.

**Additional Student Resources**

Additional sources of financial assistance are available to students depending upon individual needs. Some programs may provide allowances for tuition, fees, books, child care and/or transportation expenses. Contact the following agencies in the area in which you reside. Local telephone numbers have been provided for Ottumwa area residents.

A. Vocational Rehabilitation Services  
(641) 682-7569 or (641) 683-5276

B. Veterans Administration  
(888) 442-4551 or (641) 683-5328

C. IowaWORKS - Southern Iowa  
(641) 684-5401

**Financial Assistance Office**

**OneStop Service Center**  
Bennett Student Service Center  
Indian Hills Community College  
623 Indian Hills Drive  
Ottumwa, IA 52501  
(641) 683-5262 or (800) 726-2585, ext 5262  
onestop@indianhills.edu

Office Hours: 7:15 a.m. - 4:45 p.m.  
Monday through Thursday
Veterans

Indian Hills Community College degree programs are approved by the Iowa Department of Education for education benefits administered by the U.S. Department of Veterans Affairs. Information concerning eligibility and application for these benefits may be obtained from the VA Regional Office in St. Louis, Mo., on the internet at www.gibill.va.gov or the Veterans Affairs Office at IHCC. Veterans or eligible dependents planning to enroll at IHCC should contact the Veterans Affairs Office at least six weeks prior to their anticipated enrollment date to establish eligibility and to avoid delays in payments by the VA. Veterans Affairs is located in the Admissions Office at the Bennett Student Services Center on IHCC’s Ottumwa campus. Contact may also be made by telephone at (641) 683-5328 or (800) 726-2585, ext. 5328, or by emailing veterans@indianhills.edu.

IHCC is a member of the Servicemembers Opportunity Colleges (SOC) Consortium. SOC Consortium members subscribe to principles and criteria ensuring that quality academic programs are available to military students, their family members, civilian employees of the Department of Defense and Coast Guard, as well as veterans. A list of current SOC Consortium member institutions can be found at www.soc.aascu.org.

Academic Policy for Veteran Students

Academic Standing

To utilize educational benefits from the Veterans Administration, students must meet “pursuit of education and academic standards” established by the VA and college policy. A student is expected to maintain a minimum cumulative GPA of 2.0 each term. After each term, students will have their GPA reviewed to determine if this standard is met.

Academic Warning

Students who complete a term with a cumulative GPA below 2.0 will receive a notice that they have been placed on warning for the following term for which they register; they will also be informed of the support services that are available, and are encouraged to utilize those services. Students will receive a second notice if they are, again, below a 2.0 for the following term. Academic notices do not result in any additional restrictions or loss of benefits; however, they are intended to inform students of their current academic standing so that necessary action can be taken to correct it. If a student does not meet the cumulative GPA of 2.0 or higher after the second notice, they will be placed on academic probation.

Academic Probation

Students who finish the term with a cumulative GPA below the 2.0 standard, after being put on warning status, will be placed on academic probation. Students placed on academic probation will be required to write an appeal letter, outlining what has prevented them from maintaining a 2.0 GPA and the actions they will take to raise their GPA to the required 2.0. Students may remain on academic probation for a maximum of two terms, during which time they cannot fail or withdraw from any of their courses. Students who do not bring their cumulative GPA above a 2.0 during the academic probation period will be subject to academic suspension.

Academic Suspension

Once placed on academic suspension, the student will be dismissed from the current program at Indian Hills Community College. The VA will be notified of the academic suspension, and the student will lose all VA educational benefits; it is the student’s responsibility to work with the VA to have their benefits reinstated. The student will be required to sit out one term, at which time IHCC will determine if the student will be allowed to return to any other programs from which they were not suspended.
Return of Military Tuition Assistance Funds

Military Tuition Assistance (TA) Return of Funds Policy

Military tuition assistance (TA) is awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws (officially or unofficially) on or before 60 percent of the course(s) meeting period has been completed, Indian Hills Community College will comply with the Department of Defense policy to return unearned TA funds on a proportional basis through the 60 percent portion of the period for which the TA funds were provided. After a student completes 60 percent of the term, all TA funds are considered fully earned.

If a service member stops attending due to a military service obligation (deployed or temporary duty), the college will work with the affected service member to identify solutions that will avoid student debt for the returned portion of TA funds.

Institution's Policy for Returning Unearned TA Funds

The return of unearned military TA funds will follow the same guidelines as the Department of Education Title IV funding http://www.indianhills.edu/payingforcollege/finaid.php category: Withdrawing/Failing and its Impact on Financial Aid.

If student drops the course during established drop period for the term, 100% TA funds are returned. If student goes past the drop date, there will be a return of unearned funds until the student has 60% of the course completed. The calculation is completed for each course individually. Once the completion (earned) percentage is calculated, the college will multiply the percentage by the amount of TA funds awarded to determine the amount of TA funds earned. The unearned TA funds will be returned to the government, not to the service member, within 45 days of the determination of withdrawal.

Example: Summer term 2019 has 80 days with a start date of 05/28/19 and an end date of 08/15/19. Student withdrawals from a course and the college calculates student completed 17 days of the 80 days based on the last date of attendance. College uses the following calculation 17/80 = 21.25% to determine completion percentage and concludes student did not meet the 60% requirement. College received $528 in TA funds for this course. College calculates earned amount 21.25% * $528 = $112. Unearned TA fund amount is $528-$112 = $416 which the college will return.

Tuition Credit for Students Called to Active Military Duty

Indian Hills Community College is supportive of a student who is a member, or the spouse of a member if the member has a dependent child, of the Iowa National Guard or reserve forces of the United States and who is ordered to National Guard duty or federal active duty. Upon verification of orders requiring active duty, you may select from several tuition credit options. Additional information regarding tuition credit may be obtained by contacting the Registrar’s office (www.indianhills.edu/Registrar)

Options available to qualified students: Upon meeting with the Registrar to verify orders, the college will work with you to determine the best plan for your circumstances. The college has three options to review and consider with you.

- A. Withdraw from the student’s entire registration and receive a full refund of tuition and mandatory fees.
- B. Make arrangements with the student’s instructors for course grades, or for incompletes that shall be completed by the student at a later date. If such arrangements are made, the student’s registration shall remain intact and tuition and mandatory fees shall be assessed for the courses in full.
- C. Make arrangements with only some of the student’s instructors for grades, or for incompletes that shall be completed by the student at a later date. If such arrangements are made, the registration for those courses shall remain intact and tuition and mandatory fees shall be assessed for those courses. Any course for which arrangements cannot be made for grades or incompletes shall be considered dropped and the tuition and mandatory fees for the course refunded.

These rules are in compliance with Iowa Code 261.9(1)(g)
Late Fee Policy

Veterans Benefits and Transition Act of 2018

Section 103 of the Veterans Benefits and Transition Act of 2018 is for recipients of Chapter 31 and Chapter 33 of the G.I. Bill. Section 103 establishes Indian Hills Community College will not impose any penalty including: 1) the assessment of late fees; 2) the denial of access to classes; 3) libraries or other institutional facilities and/or 4) the requirements that a Chapter 31 or Chapter 33 recipient borrow additional funds to cover the individual’s inability to meet his or her financial obligations to the institution due to the delayed disbursement of payment by the U.S. Department of Veterans Affairs. This would only apply if the payments have not been received within 90 days of the beginning of the term or have an approved waiver for this requirement.

The restriction on penalties would not apply in cases where the student owes additional payment to the school beyond the amount of the tuition and fee payment from VA to the school. VA would have to make payments to schools no later than 60 days after receiving the tuition and fee certification from the school, and they would have to report semiannually to Congress any cases in which VA fails to make such payments within 60 days of certification. Indian Hills Community College would be allowed to require students to provide documentation to ensure that they are entitled to GI Bill benefits.

Division of Rehabilitation Services

The Rehabilitation, Education and Services Branch office is located at the campus in Ottumwa. Those who qualify for Rehabilitation Services can receive counseling and financial assistance to help them achieve an occupational objective through programs offered at Indian Hills.

Academic/Career Advising

Academic/career advisors are available to assist students in the development of a meaningful education plan consistent with their life goals.

IHCC recognizes the importance of a joint effort between the advisor and student to plan their academic path, select courses needed and complete their educational goals. The academic/career advisors will also facilitate a seamless transfer for those students wishing to continue their learning at another educational institution.

Orientation

Accepted students are required to complete online orientation and a mandatory advising session before enrolling in their first term at Indian Hills. The online orientation module is designed as a go-to source of information for students entering the college. We believe that the information provided in the online orientation module will prepare you to be successful as you begin your journey at Indian Hills.

Please complete the following steps to begin the orientation and advising process:

Step 1: Change Your Password in WebAdvisor

Log In to WebAdvisor and change your password.

If you need help changing your password in WebAdvisor, read these instructions or watch this demo.

Step 2: Complete your New Student Orientation in MyHills

A. Open the "MyHills Login" page.
B. Type your "Username" and new "Password" in the provided fields.
C. Click "Login."
D. Select your New Student Orientation from the "My Courses" module.
E. Complete your New Student Orientation.

**Step 3: Begin Course Registration Process**

A. Follow the instructions in the **Final Step** of your New Student Orientation to begin the course registration process. This step will instruct you to **schedule an Academic Advising Appointment**, register for an **Academic Program Session**, or email your **Academic Program Contact**.

If you have questions about your advising appointment, please contact our **OneStop Office** at 641-683-5262 oronestop@indianhills.edu and we will be happy to assist you! If you will be taking classes on the Centerville campus, you may also call 641-856-2143 for assistance with your appointment.

**Placement**

Placement services are available in most departments to assist students, graduates and alumni in obtaining employment. Contacts with business, industry, education and government are maintained to help the student find employment. Interviews by employers may be conducted at the college. Every reasonable effort is made to assist the student in finding satisfactory job opportunities.

**Housing and Residence Halls**

Indian Hills Community College provides housing for students with five residence halls located on the Ottumwa Campus and one on the Centerville Campus. Each residence hall is supervised by resident assistants and a residence hall supervisor. IHCC's facilities provide rooms for a total of 590 students in a variety of room styles ranging from single occupancy to traditional doubles and apartment-style housing. Wireless internet access is available in all residential rooms, as well as central air, cable, and telephone service on the floor. All are located within short walking distances from student classrooms, the library, and all campus offices.

**Ottumwa Campus**

On campus housing is available year-round. Residence hall stays are available during official college breaks for an additional charge. Arrangements must be made in advance with the Housing Office.

Meal plans are required with each residence hall contract, and are based on a meals per week system. Several options are available on the Ottumwa campus.

To apply for housing, students must complete and submit a Room and Board Application/Contract, available **and pay a $325 fee ($300 deposit/$25 non-refundable application fee)**.

For more information, contact the Housing Office in Trustee Hall at (641) 683-5304 or (800) 726-2585, ext. 5304, or visit the college's website at http://www.indianhills.edu/life/housing/staff.php.

**Centerville Campus**

Double occupancy housing is available to those students wishing to live in a residence hall facility on the Centerville campus. Residence hall stays are available during official college breaks for an additional charge.

A meal plan is required with each residence hall assignment in Centerville. Two meal plans are available, including 18 meals per week (Falcon plan) and 12 meals per week (Falcon Lite plan). The residence hall has wireless internet service, is supervised by residence hall staff, and is located a short walking distance from classes.

To apply for housing, students must complete and submit a Room and Board Application/Contract, available at https://indianhills.erezlife.com/login/, and pay a $325 fee ($300 deposit/$25 non-refundable application fee).

**For more information, contact the Centerville Campus at (641) 856-2143 or (800) 670-3641, or visit the college website.**
Student Identification Card

Student identification cards are required of all Indian Hills Community College students. They are used for admission to all athletic events (with the exclusion of post-season tournaments), social events sponsored by Student Senate and community events offering free student admission. Identification cards serve as a student’s library card, a meal card in the college’s dining facilities, for use of the Hellyer Student Life Center and the Tom Arnold Net Center on the Ottumwa campus, for use with Student Health Services on the Ottumwa Campus, and in the Success Center labs, as well as for identification purposes with campus security and local businesses. Student ID cards to must be produced when seeking services in all departments within the college.

Student identification cards are available in the IHCC Library and the Academic Advising office and are issued at no cost to a student at their initial registration. Students must present a photo ID in order to be issued an IHCC identification card. Replacement cards will be issued at a cost of $10.00 to the student.

Safe and Healthy Environment

Safety and Security
At Indian Hills Community College, having a safe campus is a cooperative effort of students, staff, faculty, visitors and professionals. Indian Hills’ Security is staffed 24-hours a day, 365 days a year and spearheads the effort to maintain a safe and secure environment. Security works closely with local law enforcement and emergency response agencies to accomplish this mission. The college strives to maintain open, secure campuses that all can enjoy and benefit from. Security personnel assist with problems of any type and can be contacted at (641) 683-5300. Persons can also call the Ottumwa Police Department at (641) 683-0661 or the Centerville Police Department (641) 437-7100, in the event of an emergency or fire, 911.

Drug and Alcohol Policies
Indian Hills Community College is committed to providing a drug-free environment for all students and staff. In support of this effort, the college holds membership and affiliation with these organizations: Iowa Safety Council, Will Rogers Institute, Presidents Drug and Alcohol Free Colleges and the Department of Educations’ Drug Free Schools and Campuses (The Drug Free Schools and Communities Act Amendments of 1989 – Public Law 101-226).

Indian Hills prohibits the use of illegal drugs on or around its property at all times. Indian Hills also prohibits the use of alcohol at any time except for those areas licensed under the laws of the State of Iowa. Areas where the use is prohibited include residence halls, student campus activities, classrooms, school parking lots, roadways and leisure activity areas. Indian Hills Community College reserves the right to search residence hall rooms and cars in any college-owned parking lots using a canine trained to detect illegal substances.

Any violation of this policy will result in prosecution under Iowa law when applicable, as well as disciplinary action by the college deemed appropriate within the policies of conduct prescribed and approved by the Indian Hills Community College Board of Trustees.

This policy addresses alcohol, drugs and other intoxicants. The purpose of this policy is to clarify the rules regarding possession, consumption and distribution of intoxicants within college-owned or operated buildings, property and grounds. The policy applies to all college employees, students and visitors. This policy supplements Iowa Administrative Code Section 681-13.17(2). In all instances, this policy will be construed to comply with federal and state law.

Indian Hills Community College acknowledges its legal obligation to conduct a biennial review of compliance with the Drug-Free Schools and Communities Act and authorized an administrative review to be conducted to determine if the college fulfills the requirements of the previously mentioned Federal regulations. The Executive Vice President along with the Institutional Research Office and the Student Development Office, is responsible for conducting the review and reporting on the findings. The purpose of this report is to comply as best as possible, using data collected over the past two years, and to give evidence of the procedures in place for subsequent biennial reports. A copy of the Biennial Review can be found at the following web address: http://www.indianhills.edu/about/docs/drug_alcohol_biennial_20152017v2.pdf
Communicable Disease Responsibility
Indian Hills Community College believes students or employees with communicable diseases should be allowed to attend to their regularly assigned duties as long as they are physically able to perform the tasks assigned them and as long as their attendance does not create a substantial risk of transmission of the illness to students or employees in the college. The college will make every effort, in light of the individual's circumstances, to provide the least restrictive environment for continued attendance. A complete policy is available upon request.

Education and Awareness
Indian Hills provides quality educational programs for its students and staff on the subjects of drugs, alcohol, and sexual violence. Guest lectures, video presentations, and seminars are held to provide information to our college community about such areas as peer pressure resistance, health concerns, rehabilitation, and awareness.

When applicable, instructors provide educational information concerning drugs and alcohol within the academic environment. These areas may include: health, physical education, human service, and the behavioral science offerings. Indian Hills Community College recognizes that use of illicit drugs and alcohol abuse may lead to severe health risks.

Campus Sexual Violence Elimination (SaVE) Act and Women Against Violence Act (VAWA)
The Campus SaVE Act is an update to the Clery Act, expanding the scope of this legislation in terms of reporting, response, and prevention education requirements. In 2013, President Obama signed a bill that strengthened and reauthorized the Violence Against Women Act (VAWA). Included in the bill was the Campus Sexual Violence Elimination Act (Campus SaVE), which amends the Jeanne Clery Act and affords additional rights to campus victims of sexual violence, dating violence, domestic violence, and stalking. This bill requires colleges to adopt certain institutional policies to address and prevent campus sexual violence, such as training students on awareness topics relating to sexual misconduct, including domestic violence, dating violence and stalking.

Indian Hills cares about student safety, therefore, all students are provided the opportunity to complete an online educational course which discusses sexual violence, bystander intervention and Title IX. This content has been added to the mandatory online orientation beginning in April 2018.

Emergency Notification System - Indian Hills Alert
Indian Hills Alert is the emergency notification system of Indian Hills Community College. Indian Hills Alert allows the college to communicate timely emergency information quickly to students, faculty, staff and interested members of the community. To sign up to receive alerts, go to http://www.indianhills.edu/about/alert.php and create an account to receive information via phone, email, and/or text message about college–related emergencies, college closings or delayed openings due to inclement weather, or other urgent campus communications. Indian Hills Alert will only be used to send you messages related to college emergencies or safety issues, never to send you advertisements.

AlertUs
Truly effective mass notification must reach users in more than one way. In addition to IHCC Alert, AlertUs Desktop gets the attention of computer users immediately. When an emergency occurs, IHCC will activate a warning, AlertUs Desktop will pop up a full-screen alert on all PCs owned by Indian Hills Community College, taking over the whole screen with a warning that's impossible to miss.

Clery Act
Indian Hills Community College is required by law in Section 485 of the Higher Education Act (also known as the Jeanne Clery Disclosure of Campus Security Act) to submit crime and fire statistics to the Department of Education and compile an annual security and fire safety report for distribution to current students and staff.

The Clery Act, formerly known as the Crime Awareness and Campus Security Act, was signed in 1990 and is named after 19-year-old Jeanne Clery, who was raped and murdered in her Lehigh University residence hall in 1986. Clery's parents lobbied Congress
to enact the law when they discovered students at Lehigh hadn’t been notified about 38 violent crimes that had occurred on campus in the three years prior to Clery’s murder.

The 2019 Annual Security and Fire Safety Report for Indian Hills Community College includes statistics for both the Ottumwa campus and the Centerville campus for 2016, 2017 and 2018 concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by Indian Hills Community College; and on public property within, or immediately adjacent to and accessible from the campus.

The report also includes institutional policies concerning campus security, reporting crimes on campus, confidential reporting, sexual assault, drug and alcohol policies, missing students, fire safety information, and other safety matters. You can obtain a paper copy of this report by contacting the Student Development Office on the Ottumwa campus, the Dean’s Office on the Centerville campus, or by accessing report on the following web site:  www.indianhills.edu/security

In addition, Indian Hills Security maintains a public log of all crimes reported. This crime log is available for inspection in the Indian Hills Security Office on the Ottumwa Campus and in the Dean’s Office on the Centerville Campus during normal business hours.

Questions about this report should be directed to the Executive Dean, Student Development & Athletics at 641-683-5207.

**Tobacco-Free Environment**

Indian Hills is committed to providing a tobacco-free environment for our staff, students, constituents and visitors to our campuses. Tobacco use, including the use of electronic cigarettes and vaporizers, is prohibited on college property including in its buildings, college-owned vehicles, outdoor areas or any vehicle located on college grounds. This policy is consistent with the Iowa Smokefree Air Act. Fines are issued by IHCC Security and Student Development Staff for non-compliance: 1st offense/$25, 2nd offense/$50, 3rd offense/$100.

**Photographic/Videotape Productions**

IHCC maintains the right to photograph and/or videotape students and staff for promotional and instructional purposes. Persons with questions can contact the Director of Marketing, (641) 683-5302.

**Child Development Center**

The Child Development Center at Indian Hills Community College is dedicated to providing age-appropriate early childhood education along with quality child care and preschool services to children ages six weeks through five years. A Summer Adventure Club is offered for school-age (finished kindergarten through age 12) children from June to August each year.

The center is open from 6:30 a.m. to 5:45 p.m., Monday through Friday year-round, except for two weeks of Indian Hills Winter Break and other noted holidays.

Parents select a weekly schedule based on the hours and days care is needed. Drop-in care is not offered.

The center is located near Trustee Hall on the Ottumwa Campus. For more information, visit www.indianhills.edu/childcare.

**Student Health and Wellness Services**

The Counseling and Prevention Resource Center (CPRC) is located on the ground floor of Trustee Hall on the Main Campus. Hours of operation are Monday – Thursday 7:15am to 4:45pm. The center is not open on weekends, during holidays, or when school is not in session. For more information, visit http://www.indianhills.edu/life/cprc/. Students can access health and wellness services at Easy Care Walk-In Clinic at North Hy-Vee in Ottumwa.
Student Activities

In keeping with the philosophy of the college, co-curricular activities are designed to provide an environment conducive to student growth. Planned programs provide for experiences that lend enrichment to career-oriented activities and assist in the development of social skills and social responsibility.

Co-curricular activities, such as athletics, intramurals, dances, concerts, clubs, film series, drama groups and field trips, provide a meaningful complement to academic programs.

Indian Hills is proud of its Performing and Visual Arts program. The mainstays of an impressive calendar of events are the student, faculty and professional art exhibits and music recitals that appear throughout the year. Also highlighting the program are three annual dramatic productions and the IHCC Jazzfest. Aspiring writers are given the opportunity to read their material to public audiences. Many of these events take place in St. John Auditorium, located in the Arts and Sciences Building. The college's uniquely designed Art Gallery is located within the Learning Resources Center on the Ottumwa campus.

Indian Hills offers men and women an opportunity to participate in intercollegiate competition in baseball, men's basketball, co-ed competitive cheer, men's and women's cross country, men's golf, men's and women’s soccer, softball, co-ed sports shooting, men's and women's track and field, men's and women’s wrestling and volleyball. In past years, IHCC has received state and national recognition in these sports. Many athletes from IHCC programs have continued athletic participation at four-year colleges and universities after completing their eligibility at Indian Hills. The college maintains membership in the National Junior College Athletic Association and competes as a member of the Iowa Community College Athletic Conference.

Intramural sports are planned around student interests to provide maximum opportunity for participation.

The Hellyer Student Life Center and Tom Arnold Net Center on the Ottumwa Campus and the Multi-Purpose Building on the Centerville Campus provide optimum opportunities for the college to offer a variety of activities that contribute to the physical, social, and educational growth of the student.

Access to Activities

Indian Hills Community College provides activities that contribute to the growth and enjoyment of all students. To ensure that all students have access, it is the policy of Indian Hills Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family, or marital status in its programs, activities, or employment practices as required by the Iowa Code §§216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.). Read the full policy here.

Student Government

The Student Senate organizes and coordinates the many student activities at Indian Hills on both the Ottumwa and Centerville campuses. The Director of Student Life serves as the staff advisor.

The Student Senate functions as the executive body for students. It holds general meetings once a month to discuss campus concerns and to plan activities.

Student Senate membership is open to all students. Officers are elected by students, ensuring that the best interests of the student body and Indian Hills Community College are served.
Student Clubs and Organizations
The following student clubs and organizations have been recognized by the IHCC Student Senate:

- Active Minds Club
- Arts & Sciences Academy
- Aerospace Club
- Ag Club (Centerville Campus)
- Allies for Equality
- Art Club
- Automotive Technology Club
- Business Office Professionals Club
- Chamber Singers
- CLS (Clinical Lab Sciences) Club
- Code Warriors (Computer Programming)
- Collision Technology Club
- Computer Networking Club
- Construction Technology Club (Centerville Campus)
- Criminal Justice Club
- Culinary Arts Club
- Dental Hygiene Club
- Diesel Power Systems Club
- Disc Golf Club
- Drama Club
- ECE (Early Childhood Education) Club
- EMS (Emergency Medical Services) Club
- Engineering Club
- I.V. League Club (EMS)
- E-Tech (Electronic Engineering Tech) Club
- Horticulture Club
- HOSA (Future Health Professionals) Club
- International Student Organization
- Jazz Band
- Laser Optics Club
- New Life Campus Fellowship
- Occupational Therapy Club
- Phi Theta Kappa
- PTA (Physical Therapist) Club
- Renewable Energy Club
- Robotics Club
- Science Club (Centerville Campus)
- Science Club (Ottumwa Campus)
- Scrub Club (Nursing) (Centerville Campus)
- Scrub Club (Nursing) (Ottumwa Campus)
- Skeleton Crew Club (Radiologic Technology)
- Smile Squad (Dental Assisting)
- Talons and Tea Leaves

Student Code of Conduct
Indian Hills Community College is an academic community built on the principles of mutual respect, integrity, and honesty. The college strives to provide a community wherein individuals have the right to express their opinions and ideas, to assemble peacefully, and to associate freely in a manner that does not interfere with the rights of others and is in the confines of intellectual honesty. In order to thrive as an educational institution, the college has adopted this Student Code of Conduct to promote and preserve its educational mission for the benefit of all who are invited to be a part of the community.

Non-Discrimination Policy: It is the policy of Indian Hills Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family, or marital status in its programs, activities, or employment practices as required by the Iowa Code §§216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.).

If you have questions or complaints related to compliance with this policy, please contact Zeke Flick, Director, Human Resources/EquityCoordinator (staff), 525 Grandview Ave, Ottumwa, IA 52501, (641) 683-5282, hrequity@indianhills.edu; Brett Monaghan, Executive Dean, Student Development & Athletics (students), (641) 683-5159, studentsequity@indianhills.edu; Noel Gorden, Dean, Centerville Campus & Learning Services (students with disabilities), (641) 683-5174, learningservicesequity@indianhills.edu; U.S. Department of Education, Citigroup Center, 500 W. Madison, Suite 1475, Chicago, IL 60661, phone number (312) 730-1560, fax (312) 730-1576. Read the full policy here.

Purpose
It is in the best interest of the college and all those who are students or who may desire to become students at the college that the disciplinary procedure be defined. This document prescribes procedures to be followed in disciplinary cases in order that cases
may be handled in a timely manner while serving the interests of the college community and safeguarding the rights of all students. Administrative responsibility for the establishment and enforcement of policies governing non-academic student conduct and disciplinary action has been delegated by the Indian Hills Community College President to the Executive Dean, Student Development & Athletics. The Dean has, in turn, delegated considerable authority for the establishment of rules and handling of violations to the Director, Student Life and Coordinator, Student Development as well as other other bodies as designated in this policy.

Article I: Definitions

A. The term "Respondent" means any student who has been formerly or informally accused of violating this Student Code of Conduct.
B. The term "business days" means all days except Fridays, Saturdays, Sundays, and college holidays. When counting days, the day a complaint is received at any point in the procedure shall be considered "day one."
C. The term "college" means Indian Hills Community College.
D. The term "college premises" includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the college (including adjacent streets and sidewalks.
E. The term "college official" includes any person employed by the college or any person performing assigned administrative or professional responsibilities on behalf of the college.
F. The term "Complainant" means any person who submits a charge alleging that a student violated this Student Code of Conduct. When a student believes that they have been a victim of another student’s misconduct, the student who believes they have been a victim will have the same rights under this Student Code of Conduct as are provided to the Complainant, even if another member of the college community submitted the charge itself.
G. The term "faculty member" means any person hired by the college to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of its faculty.
H. The term "staff member" means any person employed by the college who is not a faculty member or student employee.
I. The term "student organization" means any number of persons who have complied with the formal requirements for college recognition as a club or organization.
J. The term "policy" means the written regulations of the college as found in, but not limited to, the student code of conduct, residence life handbook, academic program handbook(s), college catalog, and college website.
K. The term "student" includes all persons taking courses at Indian Hills Community College, either full-time or part-time, pursuing degree or non-degree programs including customized learning and distance courses. Persons who withdraw after allegedly violating the Student Code of Conduct, who are not officially enrolled for a particular term but who have a continuing relationship with the college or who have been notified of their acceptance for admission are considered "students," although not enrolled in this institution.
L. The term "student conduct administrator" means a college official authorized by the Executive Dean, Student Development & Athletics to determine whether a student has violated the student conduct code and to impose sanctions which may include the Director, Student Life and Coordinator, Student Development as well as other other bodies as designated by the Dean.
M. The term "student conduct board chairperson" means an individual selected by the Dean or designee to facilitate a Student Conduct Board.
N. The term "student conduct board" means any person or persons selected by the Student Conduct Board Chairperson, to serve as participants on the student conduct board, which may review any appeals concerning suspension or expulsion from the college.

Article II: Student Code of Conduct Authority

A. The Executive Dean of Student Development & Athletics along with the Chair of the Student Conduct Board will determine the composition of Student Conduct Board.
B. The Executive Dean of Student Development & Athletics will develop policies for the administration of the student conduct system and procedural rules for the administration of Student Conduct Board Hearings that are not inconsistent with provisions of the Student Code of Conduct.
C. Decisions made by a Student Conduct Board and/or a Student Conduct Administrator are final, pending the normal appeal process.
Article III: Prohibited Conduct

A. Jurisdiction of the Student Code of Conduct
The Student Code of Conduct will apply to conduct that occurs on college premises, at college-sponsored activities, and to off-campus conduct, including, but not limited to, activities on college partners’ premises, that adversely affects the college community and/or the pursuit of its objectives. Each student will be responsible for their conduct from the time of application for admission through the actual awarding of a degree. Although conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment (and even if their conduct is not discovered until after a degree is awarded). The Student Code of Conduct applies to a student’s conduct even if the student withdraws from school while a disciplinary matter is pending.

B. Conduct - Rules and Regulations
Any student found to have committed or to have attempted to commit the following offenses is subject to the full range of disciplinary sanctions outlined in Article IV including warning, probation, suspension, or expulsion:

1. Acts of dishonesty, including but not limited to the following:
   a. Furnishing false information to any college official, faculty member, or office.
   b. Forgery, alteration, or misuse of any college document, record, or instrument of identification.

2. Violations of non-discrimination policy.

3. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other college activities, including its public service functions on or off campus, or of other authorized non-college activities when the conduct occurs on college premises.

4. Physical abuse, verbal abuse, threats, intimidation, harassment, bullying, coercion, and/or other conduct which threatens or endangers the physical/mental health or safety of any person.
   a. Verbal abuse includes but is not limited to: derogatory remarks directed at another person or use of foul language that is excessive and pervasive on college property or at a college sponsored event.

5. Telephone (cell, landline or social media apps that use a phone number) or Internet harassment, which shall include:
   a. Making calls containing lewd or obscene remarks.
   b. Making calls intended to harass or harm whether or not conversation ensues.
   c. Making the telephone ring repeatedly with intent to harass or harm.
   d. Making repeated calls in which conversation ensues solely to harass or harm.
   e. Sending text, picture or video messages with intent to harass or harm.
   f. Sending text, picture, video, or audio messages over electronic forums, including, but not limited to, social media websites, instant messenger or chat services, message boards or any other electronic format with intent to harass or harm.

6. Violation of the Sexual and Gender-Based Misconduct Policy, which prohibits sexual misconduct in any form and includes any unwelcome behavior of a sexual nature that is committed without consent, by force, intimidation, coercion, or manipulation.

7. Attempted or actual theft of and/or damage to property of the college or property of a member of the college community or other personal or public property, on or off campus.

8. Hazing, defined as an act which, intentionally or recklessly, endangers the physical health or safety of a student, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, any organization operating in connection to the college.

9. Unauthorized possession, duplication or use of keys to any college premises or unauthorized entry to or use of college premises.

10. Violation of any college policy, rule, or regulation published in hard copy or available electronically on the college website.

11. Violation of any federal, state or local law.

12. Manufacturing, selling, distribution, use, or possession of marijuana, heroin, narcotics, or other controlled substances except as expressly permitted by law or possession of a device (drug paraphernalia) used to ingest or inhale an illegal drug or narcotic. Indian Hills Community College reserves the right to search residence hall rooms and cars in any college-owned parking lots using a canine trained to detect illegal substances.

13. Manufacturing, selling, distribution, use, or possession of alcoholic beverages (except as expressly permitted by college regulations), or public intoxication. Alcoholic beverages may not, in any circumstance, be used by, possessed by, or distributed to any person.

14. Participating in an on-campus or off-campus demonstration, riot or activity that disrupts the normal operations of the college and/or infringes on the rights of other members of the college community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.
15. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college sponsored or supervised functions.

16. Conduct that is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace on college premises or at functions sponsored by, or participated in by, the college or members of the college community.

17. Any unauthorized use of electronic or other devices to make an audio or video record of any person while on college premises without their prior knowledge, or without their effective consent when such a recording is likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person in a gym, locker room, or restroom.

18. Theft or other abuse of computer facilities and resources, including but not limited to:
   a. Unauthorized entry into a file, to use, read, or change the contents, or for any other purpose.
   b. Unauthorized transfer of a file.
   c. Use of another individual's identification and/or password.
   d. Use of computing facilities and resources to interfere with the work of another student, faculty member or college official.
   e. Use of computing facilities and resources to send obscene or abusive messages.
   f. Use of computing facilities and resources to interfere with normal operation of the college computing system.
   g. Use of computing facilities and resources in violation of copyright laws.
   h. Any violation of college policies pertaining to use of information technology, including computer use policies.

19. Abuse of the Student Code of Conduct, including but not limited to:
   a. Failure to obey the notice from a Student Conduct Board or college official to appear for a meeting or hearing as part of the Student Conduct System.
   b. Falsification, distortion, or misrepresentation of information before a Student Conduct Board.
   c. Disruption or interference with the orderly conduct of a Student Conduct Board proceeding.
   d. Institution of a student conduct code proceeding in bad faith (e.g. filing a false complaint).
   e. Attempting to discourage an individual's proper participation in, or use of, the conduct system.
   f. Harassment (verbal or physical) and/or intimidation of a victim or other person who files a student conduct complaint or any participant(s) of a conduct proceeding, including but not limited to, their family members, friends, or acquaintances, witnesses, panel members, or advisors, prior to, during, and/or after a student conduct proceeding.
   g. Retaliation against a victim or other person who files a student conduct complaint or any participant(s) of a conduct proceeding, including but not limited to, their family members, friends, or acquaintances, witnesses, Board members, or advisors, prior to, during, and/or after a student conduct proceeding. This includes any form of intimidation, threats, harassment (verbal or physical) or knowingly filing a false complaint.
   h. Failure to comply with the sanction(s) imposed under the Student Code of Conduct.
   i. Influencing or attempting to influence another person to commit an abuse of the student conduct code system.

20. Intentionally sounding a false alarm or tampering with fire safety equipment.

21. Use or possession on the campus or at or during any college-authorized function or event of firearms, ammunition, or other dangerous weapons, substances, or materials, except as expressly authorized by the College, or of bombs, explosives, or explosive or incendiary devices prohibited by law or any other violation of the college weapons policy.
   a. Weapons include, but are not limited to, any offensive weapon; a firearm of any kind such as a pistol, revolver, or other gun; BB or pellet guns; knives such as daggers, razors, stilettos, switchblade knives or knives with a blade exceeding five inches in length; bows and arrows or crossbows; tasers, or other portable devices that have projectable electric current capabilities that are designed to immobilize a person; explosives or incendiaries such as bombs, grenades, or fireworks; or simulations of any such items (devices that appear to be real such as a realistic toy, replica, paint-ball gun, etc.).
   b. Possession means that the person has actual physical control of the weapon because it is on or in the person's body, or in an item of personal property belonging to the person (including, but not limited to, a backpack, briefcase, or handbag), or in a locker or other space individually assigned to the person. "Possession" also means that the person knows, or should know, of the presence of a weapon within a vehicle which the person owns or operates, and that the person has the ability or right, either alone or with any other person, to maintain control of the weapon.
c. This policy applies to all College campuses, attendance centers, dining facilities, and office buildings, whether owned, leased, or rented by the College, and anywhere that the College provides a service, including all housing owned by the College or that lies within the boundaries of a College campus. This includes personal vehicles located on College property, College vehicles, and College streets and walkways.

d. Any individual who violates this policy may be subject to disciplinary action, up to and including dismissal or expulsion.

22. Undue or willful neglect to meet financial obligations to the College when properly notified by the College. Failure to comply with directions of college officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.

23. Misuse of college identification – Transferring, lending, borrowing, or altering a college identification.

24. Violation of the Student Code of Conduct while on disciplinary probation, or violation of the terms of one's probation.

**Article IV: Student Code of Conduct Procedures**

A. Charges and Student Conduct Hearings

1. Any person may file charges against a student for violations of the Student Code of Conduct. A charge should be prepared in writing and directed to the Student Conduct Administrator or designee. Any charge should be submitted as soon as possible after the event takes place, preferably within one calendar year. With respect to any complaint that is 1) by a person who is not a member of the college community, and 2) relating to non-college conduct, the College reserves the right to determine, in its sole discretion, whether the conduct described in the complaint constitutes a sufficient risk to the college community to warrant processing the complaint.

2. The Student Conduct Administrator or designee may conduct an investigation to determine if the charges have merit. If the Respondent elects to acknowledge their actions and take responsibility for the alleged misconduct, the Student Conduct Administrator or designee will propose a resolution to the complaint and issue a sanction. If the Respondent agrees to the proposed sanction, the complaint is resolved without a hearing and without any further rights of appeal. If the Respondent objects to the proposed sanction, a hearing will be convened for the sole purpose of determining a sanction, and in these cases, the decision is subject to appeal pursuant to Article IV, D. All cases will be disposed of through an administrative hearing conducted by the Executive Dean, Student Development & Athletics, Student Discipline Administrator, or designee. If the Respondent objects to the proposed sanction, a hearing will be convened for the sole purpose of determining a sanction, and in these cases, the decision is subject to appeal pursuant to Article IV, D.

3. Complaints alleging conduct that includes sexual harassment and other forms of sexual misconduct will be handled according to the rules and procedures described in the Sexual and Gender-Based Misconduct Policy and the applicable sections of this policy.

4. All charges will be presented to the Respondent in written form. A time will be set for an administrative hearing or Student Conduct Board hearing that ensures a prompt and equitable resolution, not less than five (5) nor more than thirty (30) business days after the Respondent has been notified. Maximum time limits for scheduling of an administrative hearing or Student Conduct Board hearing may be extended at the discretion of the Executive Dean, Student Development & Athletics. Written notification to the Respondent will include:
   a. the alleged conduct violation,
   b. a summary of the specific allegations,
   c. the time, date, and place of the hearing,
   d. the name(s) of the Student Conduct Administrator or Student Conduct Board members, who will hear the case,
   e. the potential disciplinary sanctions, and
   f. the related procedures outlined in Article IV.
   g. like notice will also be provided to the Complainant.

5. Formal rules of process, procedure, and/or technical rules of evidence, such as are applied in criminal or civil court, are not used in Student Code of Conduct proceedings.

6. The determination of whether or not a violation of the Student Code of Conduct occurred will be made on the basis of whether it is more likely than not that the Respondent violated the Student Code of Conduct. This is more formally referred to as the, "Preponderance of the Evidence Standard."

7. The Executive Dean, Student Development & Athletics or designee will notify the Respondent and the Complainant of the outcome of the hearing in writing within ten (10) business days of completion of the hearing.
8. If a Respondent, with notice, does not appear for the hearing, the information in support of the charges will be presented and considered even if the Respondent is not present.

9. During the administrative hearing the Respondent will have an opportunity to respond to the charges and to present evidence or witnesses contesting the charges. The Executive Dean, Student Development & Athletics, Student Conduct Administrator, or designee will determine if a violation occurred and will issue appropriate sanctions.

10. An alleged violation of the Student Code of Conduct in which the Respondent contests responsibility and wishes to appeal the sanction will be resolved through a Student Conduct Board Hearing according to the following guidelines:
   a. Hearings will be conducted in private.
   b. The Student Conduct Committee chairperson along with two members of the Student Conduct Committee appointed by the Student Conduct Committee chairperson will oversee the private hearing.
   c. The Complainant, Respondent and their advisors, if any, will be allowed to attend the entire portion of the Student Conduct Board Hearing at which information is received (excluding deliberations). Admission of any other person to the Student Conduct Board Hearing will be at the discretion of the chairperson of the Student Conduct Board.
   d. In hearings involving more than one Respondent, the Executive Dean, Student Development & Athletics, in their discretion, may permit the Student Conduct Board Hearing(s) concerning each student to be conducted either separately or jointly.
   e. The Complainant and the Respondent have the right to challenge any member of the Student Conduct Board on grounds of prejudice. This challenge, with the reasons for the challenge, must be submitted in writing to the Executive Dean, Student Development & Athletics at least two (2) business days prior to the hearing. The Executive Dean, Student Development & Athletics or designee will determine if the member will sit on that case. If the challenge is upheld, the Executive Dean, Student Development & Athletics or designee will select another Student Conduct Committee member for the Student Conduct Board.
   f. The Complainant and the Respondent have the right to be assisted by an advisor they choose, at their own expense. The Complainant and/or the Respondent is responsible for presenting their own information, and therefore, advisors are not permitted to speak or to participate directly in any Student Conduct Board Hearing before a Student Conduct Board. The participants should select an advisor whose schedule allows attendance at the scheduled date and time for the Student Conduct Board Hearing. Delays will not be allowed due to the scheduling conflicts of an advisor.
   g. The Complainant, the Respondent, Student Conduct Administrator, and the Student Conduct Board may arrange for witnesses to present pertinent information to the Student Conduct Board. The College will try to arrange the attendance of possible witnesses who are members of the college community, if reasonably possible, and who are identified by the Complainant and/or Respondent at least two (2) weekdays prior to the Student Conduct Board Hearing. Witnesses will provide information to and answer questions from the Student Conduct Board.
   h. Questions may be suggested by the Respondent and/or Complainant to be answered by each other or by other witnesses. This will be conducted by the Student Conduct Board with such questions directed to the chairperson, rather than to the witness directly. This method is used to preserve the educational tone of the hearing and to avoid creation of an adversarial environment. Questions of whether potential information will be received will be resolved in the discretion of the chairperson of the Student Conduct Board.
   i. Pertinent records, exhibits, and written statements (including Student Impact Statements) may be accepted as information for consideration by a Student Conduct Board at the discretion of the chairperson.
   j. All procedural questions are subject to the final decision of the chairperson of the Student Conduct Board.
   k. After the portion of the Student Conduct Board Hearing concludes in which all pertinent information has been received, the Student Conduct Board will determine by majority vote whether the Respondent has violated each section of the Student Code of Conduct which the student is charged with violating.
   l. There will be a single verbatim record, such as a tape recording, of all Student Conduct Hearings before a Student Conduct Board (not including deliberations). Deliberations will not be recorded. The record will be the property of the college.
m. The Student Conduct Board may accommodate concerns for the personal safety, well-being, and/or fears of confrontation of the Complainant, Respondent, and/or other witness during the hearing by providing separate facilities, by using a visual screen, and/or by permitting participation by telephone, videophone, closed circuit television, video conferencing, videotape, audio tape, written statement, or other means, where and as determined in the sole judgment of the Executive Dean, Student Development & Athletics or designee to be appropriate.

B. Sanctions

1. The following sanctions may be imposed upon any student found to have violated the Student Code of Conduct:
   a. Warning – a notice in writing to the student that the student is violating or has violated institutional regulations.
   b. Probation – a written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional regulation(s) during the probationary period.
   c. Loss of Privileges – denial of specified privileges for a designated period of time.
   d. Fines – previously established and published fines may be imposed.
   e. Restitution – compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.
   f. Discretionary Sanctions – work assignments, essays, service to the college, or other related discretionary assignments.
   g. Deferred Suspension – A serious and final notification that any violation of College policy may result in the immediate suspension of the student from the College for a specified period of time after which the student would be eligible to return. Conditions for readmission may be specified prior to the student being eligible to return.
   h. Suspension – separation of the student from the college for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.
   i. Expulsion – permanent separation of the student from the college.
   j. Revocation of Admission and/or Degree – admission to or a degree awarded from the college may be revoked for fraud, misrepresentation, or other violation of college standards in obtaining the degree, or for other serious violations committed by a student prior to graduation.
   k. Withholding Degree – The College may withhold awarding a degree otherwise earned until the completion of the process set forth in this Student Conduct Code, including the completion of all sanctions imposed, if any.
   l. Delayed Registration – A student may be required to delay their course registration until a Complainant or any other student(s) involved in a conduct matter has completed course registration. Delayed registration is for a specified number of terms or may be required until the Complainant or other involved student(s) graduate.

2. More than one of the sanctions listed above may be imposed for any single violation.
3. Other than college expulsion or revocation or withholding of a degree, disciplinary sanctions will not be made part of the student’s permanent academic record but will become part of the student’s disciplinary record.
4. In situations involving both a Respondent(s) (or group or organization) and student(s) claiming to be the victim of another student’s conduct, the records of the process and of the sanctions imposed, if any, will be considered to be the education records of both the Respondent(s) and the student(s) claiming to be the victim because the educational career and chances of success in the academic community of each may be impacted.
5. The following sanctions may be imposed upon groups or organizations:
   a. Those sanctions listed above in article IV(B)(1)(a)–(k).
   b. Loss of selected rights and privileges for a specified period of time.
   c. Deactivation—loss of all privileges, including college recognition, for a specified period of time.
6. In each case in which a Student Conduct Board or Student Conduct Administrator determines that a student and/or group or organization has violated the Student Code of Conduct, the sanction(s) will be determined and imposed by the Executive Dean, Student Development & Athletics or Student Conduct Administrator.

C. Interim Suspension

In certain circumstances, the Student Conduct Administrator or designee, may impose an interim suspension prior to the disposition of a student conduct hearing.

1. Interim suspension may be imposed only:
   a. to ensure the safety and well-being of members of the college community or preservation of college property; or
   b. to ensure the student’s own physical or emotional safety and well-being; or
c. if the student poses an ongoing threat of disruption of, or interference with, the normal operations of the college.

2. During the interim suspension, a student will be denied access to the campus (including classes) and/or all other college activities or privileges for which the student might otherwise be eligible, as the Executive Dean, Student Development & Athletics or designee may determine to be appropriate.

3. The interim suspension does not replace the regular process, which will proceed on the normal schedule, up to and through an Administrative or Student Conduct Board proceeding, if required. However, the student should be notified in writing of this action and the reasons for the suspension. The notice should include the time, date, and place of a subsequent hearing at which the student may show cause why his or her continued presence on the campus does not constitute a threat and at which they may contest whether a campus rule was violated.

D. Appeals
1. The decision of a Student Conduct Administrator or Student Conduct Board including sanctions imposed may be appealed by the Respondent(s) or Complainant(s) to the Executive Dean, Student Development & Athletics or designee within five (5) business days of the decision. Such appeals will be in writing and will be delivered to the Executive Dean, Student Development & Athletics or their designee. The Dean or designee will determine if the decision and/or sanctions imposed will be stayed pending the outcome of the appellate decision.

2. Except as required to explain the basis of new information, an appeal will be limited to a review of the verbatim record of the student conduct hearing and supporting documents for one or more of the following purposes:
   a. To determine whether the Student Conduct Board Hearing was conducted fairly in light of the charges and information presented, and in conformity with prescribed procedures. Deviations from designated procedures will not be a basis for sustaining an appeal unless significant prejudice results.
   b. To determine whether the sanction(s) imposed were appropriate for the violation of the Student Code of Conduct which the student was found to have committed.
   c. To consider new information, sufficient to alter a decision or other relevant facts not brought out in the original hearing, because such information and/or facts were not known to the person appealing at the time of the original hearing.

3. The Executive Dean, Student Development & Athletics may affirm, reverse, or modify the decision regarding the violation and/or sanctions imposed. The appeal decision of the Dean is the final decision of the college, and no further appeals are permitted under this policy.

4. All parties will be informed of whether the grounds for an appeal are accepted and the results of the appeal decision.

Article V: Composition of Student Conduct Committee
1. The Student Conduct Committee is appointed by the Executive Dean, Student Development & Athletics and is composed of a variety of faculty and staff members from across the campus community.

Article VI: Training
A. The Student Conduct Administrator or designee will conduct annual training with persons involved in the administration of the student conduct system. This includes, but is not limited to, the Student Conduct Committee members and other Student Conduct Administrators. Training will be conducted in a manner that is consistent with provisions of the student code of conduct.

Article VII: Interpretation and Revision
A. Any question of interpretation or application of the Student Code of Conduct will be referred to the Executive Dean, Student Development & Athletics or designee for final determination.

B. The Student Code of Conduct will be reviewed every three years under the direction of the Executive Dean, Student Development & Athletics.
Grievance & Appeals Procedures

Grievance Procedure for Discriminatory Practices

Purpose

The Grievance Procedure for Discriminatory Practice is intended to provide students, applicants for employment, and employees of Indian Hills Community College a process to address a grievance of discrimination on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family, or marital status in its programs, activities, or employment practices.

Audience

The IHCC Grievance Procedure for Discriminatory Practice applies to students, applicants for employment, and employees of Indian Hills Community College.

Policy

Level 1 – A person with a grievance of discrimination on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family, or marital status in its programs, activities, or employment practices may first discuss it with their instructor, immediate supervisor, administrator, or the person most directly involved in order to resolve it informally. If a resolution is achieved, the grievant should complete the electronic form on the IHCC website with the appropriate documentation. Should the grievant not be comfortable addressing the grievance with the person(s) directly involved or they are unsatisfied with the result of the Level 1 discussions, they may proceed to Level 2. Informal resolution will only be pursued when both parties voluntarily agree to informal resolution. Any party may request the complaint be handled under the formal complaint process at any time. In no event will informal resolution be used in cases of sexual assault/abuse.

Level 2 – If the grievance is not resolved at Level 1 and the grievant wishes to pursue it further they may formalize it by completing the electronic form on the IHCC website. Complaints involving students are directed to the Executive Dean, Student Development. Complaints involving faculty, staff, and applicants for employment are directed to the Director, Human Resources. Upon receipt of a complaint, an investigator will be assigned to promptly and reasonably investigate the allegations in the complaint. If the investigator is the respondent, a witness, or otherwise has a conflict of interest in a particular case, an alternate investigator will investigate. The investigator will notify the respondent of the complaint that has been filed. The investigator will interview the parties and any witnesses, and collect and review any evidence submitted. IHCC employees and students are expected to fully cooperate in any investigation. Confidentiality will be respected to the extent possible consistent with legal obligations. During the pendency of the investigation, a safety plan may be implemented to provide protective measures as needed.

IHCC will make every reasonable effort to process a complaint to conclusion within 60 days of receipt. However, extenuating circumstances may alter this timeline. The parties will be informed regarding the progress of the investigation throughout the complaint process. A final written decision will be supplied to the grievant and respondent at the conclusion of the investigation.

This procedure in no way denies the right of the grievant to file a formal complaint with the Iowa Civil Rights Commission, the Federal Office of Civil Rights, or the Equal Opportunity Commission for mediation or rectification of civil rights grievances, or to seek private counsel for complaints alleging discrimination. No person filing a grievance will be subjected to coercion or retaliation for filing a grievance.
Title IX

Title IX of the Education Amendments of 1972, and its implementing regulation at 34 C.F.R. Part 106:

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance."

Indian Hills Community College is dedicated to providing a learning, living, and working environment that is free from sexual assault and sex discrimination. We are committed to ensuring a safe campus climate for all of our students and the entire College community. We promote fundamental rights, advance individual and institutional integrity, and uphold the vital aims of Title IX.

Pregnant and Parenting Students

Title IX of the Education Amendments of 1972 ("Title IX"), 20 U.S.C. §1681 et seq., is a Federal civil rights law that prohibits discrimination on the basis of sex—including pregnancy and parental status—in educational programs and activities.

All public and private schools, school districts, colleges, and universities receiving any Federal funds ("schools") must comply with Title IX.

Here are some things you should know about your rights:

A. Classes and School Activities – your school MUST:
   1. Allow you to continue participating in classes and extracurricular activities even though you are pregnant. This means that you can still participate in advanced placement and honors classes, school clubs, sports, honor societies, student leadership opportunities, and other activities, like after-school programs operated at the school.
      a. Allow you to choose whether you want to participate in special instructional programs or classes for pregnant students. You can participate if you want to, but your school cannot pressure you to do so. The alternative program must provide the same types of academic, extracurricular and enrichment opportunities as your school’s regular program.
   2. Allow you to participate in classes and extracurricular activities even though you are pregnant and not require you to submit a doctor’s note unless your school requires a doctor’s note from all students who have a physical or emotional condition requiring treatment by a doctor. Your school also must not require a doctor’s note from you after you have been hospitalized for childbirth unless it requires a doctor’s note from all students who have been hospitalized for other conditions.
   3. Provide you with reasonable adjustments, like a larger desk, elevator access, or allowing you to make frequent trips to the restroom, when necessary because of your pregnancy.

B. Excused Absences and Medical Leave – your school MUST:
   1. Excuse absences due to pregnancy or childbirth for as long as your doctor says it is necessary.
   2. Allow you to return to the same academic and extracurricular status as before your medical leave began, which should include giving you the opportunity to make up any work missed while you were out.
   3. Ensure that teachers understand the Title IX requirements related to excused absences/medical leave. Your teacher may not refuse to allow you to submit work after a deadline you missed because of pregnancy or childbirth. If your teacher’s grading is based in part on class participation or attendance and you missed class because of pregnancy or childbirth, you should be allowed to make up the participation or attendance credits you didn’t have the chance to earn.
   4. Provide pregnant students with the same special services it provides to students with temporary medical conditions. This includes homebound instruction/at-home tutoring/independent study.

C. Harassment – your school MUST:
   1. Protect you from harassment based on sex, including harassment because of pregnancy or related conditions. Comments that could constitute prohibited harassment include making sexual comments or jokes about your pregnancy, calling you sexually charged names, spreading rumors about your sexual activity, and making sexual propositions or gestures, if the comments are sufficiently serious that it interferes with your ability to benefit from or participate in your school’s program.

D. Helpful Tips for Pregnant and Parenting Students:
   1. Ask your school for help—meet with your school’s Title IX Coordinator or counselor regarding what your school can do to support you in continuing your education. Click here for Title IX contact information.
2. Keep notes about your pregnancy-related absences, any instances of harassment and your interactions with school officials about your pregnancy, and immediately report problems to your school's Title IX Coordinator, counselor, or other staff.

3. If you feel your school is discriminating against you because you are pregnant or parenting you may file a complaint:
   a. Using your school’s internal Title IX grievance procedures. Click here for more information about the Student Code of Conduct and making a complaint.

4. Contact OCR if you have any questions. We are here to help make sure all students, including pregnant and parenting students, have equal educational opportunities!

If you want to learn more about your rights, or if you believe that a school district, college, or university is violating Federal law, you may contact the U.S. Department of Education, Office for Civil Rights, at (800) 421-3481 or ocr@ed.gov. If you wish to fill out a complaint form online, you may do so at: http://www.ed.gov/ocr/complaintintro.html.

Supporting Transgender Students

Schools are increasingly being called upon to include and support transgender students. Guidance from the Departments of Education and Justice is below. If you have any additional questions or concerns, please don't hesitate to reach out to our Title IX staff.

A. Terminology
   1. The term "gender identity" means an individual's internal sense of gender; it may be different from or the same as the person's sex assigned at birth.
   2. The term "sex assigned at birth" means the sex designation recorded on an infant's birth certificate.
   3. The term "Transgender" means an individual whose gender identity is different from the sex they were assigned at birth.
      a. A "transgender male" was assigned as female at birth but identifies as male
      b. A "transgender female" was assigned as male at birth but identifies as female.
   4. The term "gender transition" means the process in which transgender individuals begin asserting the sex that corresponds with their gender identity instead of the sex assigned at birth. Individuals begin to live and identify as the sex consistent with their gender identity and may dress differently, adopt a new name, and/or use pronouns consistent with their gender identity. The gender transition may happen at any stage in their lives and can happen swiftly or over a long period of time.

B. Safe and Nondiscriminatory Environment
   1. If a student is being targeted or harassed based on their gender identity, transgender status, or gender transition, it falls under Title IX and must be handled accordingly.

C. Identification Documents, Names/Pronouns, and Education Records
   1. FERPA requirements apply to a student's transgender status, birth name, sex assigned at birth, etc. Records can be kept regarding this information, but the records must remain private. Disclosure violates FERPA and Title IX.
   2. Education records must be updated to reflect a person’s gender identity and name when requested.
   3. Students must be addressed using the names and pronouns that are consistent with their gender identities.

D. Sex-Segregated Activities and Facilities
   1. When housing, restrooms, locker rooms, etc. are sex-specific, transgender students must have access to the facility or activity that matches their gender identities.
   2. The rules concerning athletics is slightly more complex. The NJCAA operates under the guidelines produced by the NCAA. The NCAA has guidelines that are generally accepted; the NCAA guidelines can be found at http://www.ncaapublications.com/productdownloads/11INCL.pdf

Sexual and Gender-Based Misconduct Policy

Indian Hills Community College is dedicated to providing a learning, living, and working environment that is free from sexual assault and discrimination. We are committed to ensuring a safe campus climate for all of our students and the entire College community. We promote fundamental rights, advance individual and institutional integrity, and uphold the vital aims of Title IX.

Indian Hills Community College prohibits sexual and gender-based misconduct in any form, including sexual assault, sexual harassment, gender-based harassment, sexual exploitation, stalking, intimate partner violence (domestic violence and dating
violence), and retaliation, all as defined in Section VII of This Policy. The College will respond to reports of sexual and gender-based misconduct in accordance with This Policy. Read the full policy here.

Civil Rights
Indian Hills Community College is in compliance with all federal regulations pertaining to post-secondary institutions. Indian Hills Community College declares and reaffirms to its students, employees, and the public that it is firmly committed to a policy of recruitment, employment, and promotion in all job classifications and for all educational programs without regard to color, sex, sexual orientation, gender identity, marital status, religion or genetic information. Indian Hills Community College’s policy is in compliance with Section 504 of the Rehabilitation Act of 1973, as amended: No qualified individual with a disability shall, solely by reason of disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. As evidence of compliance, the following documents are available upon request:

A. the affidavit certifying compliance with the Civil Rights Act of 1964;
B. a detailed policy and procedure for compliance with the Family Educational Rights and Privacy Act of 1974; and
C. an affirmative action plan in compliance with state and federal codes relating to civil rights and equal employment.

Student Complaint Form
Indian Hills students may need to pursue questions or concerns involving academic or nonacademic aspects of student life. A "complaint" is a statement that a student finds something to be unsatisfactory but the cause is not a violation or unequal application of a college policy or written procedure. The student complaint form can be found here.

Family Educational Rights and Privacy Act (FERPA)
FERPA affords students certain rights with respect to their education records. They are:

A. The right to inspect and review the student’s education records within 45 days of the day the college receives a request for access.
   1. Students should submit to the Registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

B. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading.
   1. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading.
      a. Students may ask the college to amend a record that they believe is inaccurate or misleading. They should write to the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. The validity of grades awarded is not subject to this policy.
      b. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing process will be provided to the student when notified of the right to a hearing.

C. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent.
   1. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
   2. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.
   3. Upon request, the college discloses educational records without consent to officials of another school in which the student has dual enrollment.
4. Other exceptions which do not require the prior consent of the student to disclose information include:
   a. to federal, state and local authorities involving an audit or evaluation of compliance with education programs.
   b. in connection with financial aid.
   c. to organizations conducting studies for or on behalf of educational institutions.
   d. to accrediting organizations.
   e. to comply with a judicial order or subpoena.
   f. health or safety emergency.
   g. results of disciplinary hearing to an alleged victim of a crime of violence.
   h. to the student.
   i. directory information.*

D. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Indian Hills Community College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 600 Independence Ave. SW, Washington, DC 20202-4605.

*Directory Information: Indian Hills Community College has identified as directory information to include, but not limited to, the following: name, address, telephone listing, e-mail address, field of study, previous schools attended, photographs, date and place of birth, participation in officially recognized activities and sports, dates of attendance, degrees and awards, full- or part-time status, expected date of graduation and weight and height of athletes.

A. Students have the right to refuse to permit the designation of any or all of the above identified items as directory information during the period of time the student is officially enrolled. To do so, the student must inform the Registrar in writing within 10 days of the beginning of the term of the student’s first enrollment or within 10 days of the start of Fall term, that such information is not to be designated as directory information for that student.

B. Compliance with this Act does not require IHCC to disclose directory information. In an effort to protect the privacy of current and former students, IHCC does not honor third-party requests for Directory Information, even though the college is permitted to do so, unless the release of information is required by law, court order or through data-sharing agreements.

Acceptable Use Policy

Purpose

The purpose of the Indian Hills Community College (IHCC) Student Acceptable Use Policy is to establish acceptable practices regarding the use of IHCC Network Resources. Students agree to comply with this policy by accessing the IHCC Network or any shared computing resources.

Policy

Acceptable Use

A. Students should not purposely engage in activity that may
   1. violate any IHCC Policy
   2. degrade the performance of IHCC Information Resources
   3. deprive access to any IHCC Information Resource
   4. obtain resources beyond those allocated
   5. or circumvent IHCC computer security policies or measures

B. Students should not access network resources, files and/or other information that they not explicitly granted access to

C. Students should not run utilities that reveal or exploit weakness in the security of a system

D. Students are expected to respect and comply with all legal protections provided by patents, copyrights, trademarks, and intellectual property rights for any software and/or materials viewed, used or obtained using IHCC Information Resources

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Hardware and Software

A. All network devices must be formally approved by IT Management before being connected to non-public IHCC network segments
B. Software installed on IHCC equipment must be approved by IT Management and installed by IHCC IT personnel

Privacy

Information created, sent, received, or stored on IHCC Information Resources and any access records related to that data are not private and may be accessed by IHCC IT employees at any time.

Enforcement

Students found to have violated this policy may be subject to disciplinary action, and related civil or criminal penalties.

Academic Policies

Student Classification

Freshman: A student who has earned fewer than 24 semester hours of credit.

Sophomore: A student who has earned at least 24 semester hours of credit.

Full-time: A student who is registered for 8 or more semester hours of credit.

Part-time: A student who is registered for fewer than 8 semester hours of credit.

Credit Hour Policy

Indian Hills Community College follows Iowa Administrative Code when defining course credit and the minimum length of instructional time for a credit hour.

Iowa Administrative Code 281, Chapter 21.2(12), sets requirements for determining credit hours based on the amount of instructional contact time and delivery method.

When determining course credit, colleges must follow some basic rules as stated in code, starting with the requirement that each course must be assigned a minimum length of one credit hour. A fractional unit of credit may be awarded provided the course exceeds the minimum length of one credit hour. Each credit hour shall consist of a minimum number of contact hours, based on its delivery method.

NOTE: One Contact Hour = 50 Clock Minutes

Every course must be at least ONE credit

Conventional instruction is subdivided into four instructional methods with the minimum number of required contact hours as provided below.

A. Classroom Work: Lecture and formalized classroom instruction under the supervision of an instructor.
   - One Semester Credit Hour = Minimum of 800 minutes or 16 contact hours of scheduled instruction.
B. Laboratory Work: Experimentation and practice by students under the supervision of an instructor.
   - One Semester Credit Hour = Minimum of 1,600 minutes or 32 contact hours of scheduled laboratory work.
C. Clinical Practice: Applied learning experience in a health agency or office under instructor supervision.
   - One Semester Credit Hour = Minimum of 2,400 minutes or 48 contact hours of scheduled clinical practice.
D. Work Experience: Employment-related experience (on-the-job training) coordinated by a college representative and an employer, with control and supervision of the student on the job being the employer's responsibility.
One Semester Credit Hour = Minimum of 3,200 minutes or 64 contact hours of scheduled work experience.
(Citation: Iowa Department of Education, Program Approval Manual, May 2014)

Course Load

Full-time: 8 semester hours or more each term
Part-time: Fewer than 8 semester hours each term
3/4-time: 6 to 7 semester hours each term
1/2-time: 4 to 5 semester hours each term

Students may not carry a course load of more than 15 semester hours in any term without permission of the appropriate instructional dean.

Grading Symbols

A = 4.0
B = 3.0
C = 2.0
D = 1.0
F = 0.0/Failure
I = Incomplete
J = Grade reported next term
L = Credit for prior education
M = High school articulation credit
N = Audit, no credit
O = Academic Renewal
P = Pass
R = Repeated - no credit (Prior to Fall 1998)
T = Credit by examination
V = Withdrawal to military
W = Withdrawal
X = Course repeated - no credit

All indicated prerequisites must be successfully completed with a passing grade to satisfy course requirements.

Incomplete Grades

Students who are unable to complete assigned work in a course may be given a grade of "I" (incomplete). Students must complete the assigned work as soon as possible (at the discretion of the instructor/department chair), but no later than six weeks into the following term. Grades for courses left with an "I" past the six-week completion period will automatically convert to "F".

Academic Misconduct

Academic Integrity Statement

Indian Hills Community College expects a full commitment to academic integrity from each student.

Academic integrity means:

A. Your work on each assignment will be completely your own
B. Your collaboration with another classmate on any assignment will be pre-approved by your instructor
C. You will not plagiarize in any form
Academic Misconduct

Plagiarism or any form of cheating on assignments, quizzes, exams or any course materials is considered academic misconduct and will not be tolerated. Plagiarism is defined as copying or using ideas or words (from another person, an online classmate, or an internet or print course) and presenting them as your own. Students should be aware of the various types of plagiarism when writing papers or reports. These include but are not limited to students who:

A. Buy a paper from an Internet site, another student or writer, or any other source
B. Turn in any paper that someone else has written, whether it was given to you, you download it from the Internet, or you copied it from any other source
C. Change selected parts of an existing paper, and claim the paper as your own
D. Combine the ideas from many sources and claim that they're your own thoughts
E. Use general or specific ideas from a source without using full and correct documentation telling where you got the ideas
F. Copy or paste into your paper any key terms, phrases, sentences or longer passages from another source without using documentation to tell precisely where the material came from
G. Neglect to put quotation marks around words that you quote directly from a source, even if you document the source (Quitman Troyka, Lynn and Douglas Hesse. QA Compact. Upper Saddle River, NJ: Prentice Hall, 2007.)

Academic Integrity Requirements

A. Indian Hills Community College requires all students taking online exams to utilize Respondus Lockdown Browser and Respondus Monitor.
B. Students completing make-up exams or exams through distance learning must do so through a pre-approved proctor.

Sanctions for Academic Misconduct

Indian Hills Community College takes all cases of academic misconduct seriously utilizing various forms of technology to monitor and detect academic misconduct. Faculty may require students to use technology that searches for instances of plagiarism in written assignments and software that ensures academic integrity while taking quizzes or exams. Faculty will report instances of academic misconduct through the college's electronic reporting system. Students who commit academic misconduct are subject to the following sanctions:

A. Failure of the assignment
B. Failure of the course
C. Removal from the academic program
D. Indefinite suspension from the college

Each case of academic misconduct will be reviewed by the appropriate faculty member and college administration. Cases of academic misconduct deemed to be a serious threat to the academic mission of the program or institution may result in immediate action including indefinite suspension from the college. A higher level of sanction may be deemed appropriate if a student has prior academic misconduct offenses.

Appeal of Academic Misconduct

Students who fail a course due to academic misconduct may appeal the course failure by following the Indian Hills Community College Appeal of Final Grade Policy. Students who have reached the level of removal from an academic program or indefinite suspension from the college due to academic misconduct may appeal this decision using the following process:

A. The student wishing to complete an academic misconduct appeal hearing before the Academic Standards Committee must submit in writing and must fully state the basis for the academic misconduct appeal. The written appeal shall be filed by the student with the Executive Dean, Student Development & Athletics within 15 regular academic days following the decision. The written appeal should be completed in the form of a standard business letter. The appeal
letter must document the rationale for the appeal, and include appropriate facts related as to why the individual believes they did not complete academic misconduct.

B. The Executive Dean, Student Development & Athletics shall present the student’s written appeal to the chairperson of the Academic Standards Committee. The written appeal shall be sent electronically to the chairperson who will set a hearing date in the consultation with other members of the Academic Standards Committee. The chairperson will have 5 regular academic days to identify the appropriate meeting date, time, and location of the hearing. The chairperson of the Academic Standards Committee will communicate in writing the date of the hearing to the student and appropriate faculty member or college administrator.

C. At least 5 regular academic days of notice must be given to the parties affected to insure an opportunity to prepare for the hearing. The Academic Standards Committee hearing shall be held in closed session unless the student requests in writing to the Chair of the Academic Standards Committee that it be open. The open session must be requested 2 regular academic days prior to the hearing.

D. During the hearing, both the student making the appeal and the faculty member or college administrator who issued the program removal or indefinite suspension shall be given the opportunity to testify and present evidence and/or witnesses. Each shall have the opportunity to hear and question adverse witnesses.

E. The Academic Standards Committee decision shall be based solely on the evidence introduced at the hearing. The student has the burden of proving that there are sufficient grounds that academic misconduct was not completed.

F. After hearing the appeal, the Academic Standards Committee shall have up to 2 regular academic days to decide either to reject the appeal or to uphold it. The Office of the Executive Dean, Student Development & Athletics will be notified of the decision and rationale for the decision in writing by the Academic Standards Committee chairperson. The Executive Dean, Student Development & Athletics shall in turn notify in writing the appropriate faculty member or college administrator of the decision. Should the appeal be granted, the committee chairperson and the faculty member or college administrator shall determine the steps to reinstate the student. The decision of the Academic Standards Committee is final.

A student who wishes to pursue the academic program removal or indefinite suspension beyond the jurisdiction of the Academic Standards Committee may submit a written appeal within five (5) days through the Executive Dean, Student Development & Athletics to the Vice President of Academic Affairs, who will review all facts and determine if the student’s due process rights were protected.

Copyright Policy

It is the policy of Indian Hills Community College that all students, faculty and staff respect and acknowledge the works of others and adhere to the provisions of the United States Copyright Act (Title 17, United States Code, Sect. 101, et. Seq.). Use of copyrighted materials in any manner not allowed by the Act, subsequent guidelines and/or other proprietary permissions is strictly prohibited.

Students, faculty and staff who willfully or recklessly disregard this policy and/or violate the Act may be personally liable in the event legal action is taken against them. The college will defend and indemnify Indian Hills faculty and staff who have demonstrated a good faith effort to comply with the Act. The college will not defend nor indemnify willful or intentional violations of the Act.

Appeal of Final Grade

Indian Hills Community College students are responsible for maintaining standards of academic performance established by the instructor for each course in which they are enrolled. A student may appeal a final course grade that they feel is inaccurate or unwarranted. The final grade appeal process is recognized as the appropriate method students may utilize to appeal a disputed grade. The final grade appeal process should begin as soon as possible following the date of issue of final grades, and in any case, no later than 10 regular academic days into the next college term following the enrollment period for which the challenged grade was issued. (The college "term" is defined as fall, winter, spring, summer one, summer two, or full summer)

Indian Hills Community College will provide students the appropriate due process in disputing final grades. All grades submitted by faculty are considered final and a part of a student’s permanent academic record. Indian Hills Community College believes it is the student’s responsibility to review and understand the final grades on their permanent academic record. Indian Hills Community College provides students access to final grades and their permanent academic record. Students who do not
initiate the appeal of final grades within 10 regular academic days forfeit the right to appeal a final grade, and the grade on the permanent academic record is final.

Grade Appeal Process

A. The student shall confer with the instructor who issued the challenged grade to ascertain and/or reaffirm the method for grade determination. If the matter is not resolved at this point, the student may proceed to step 2.

B. The student shall confer with the appropriate program director or department chair. The program director or department chair shall confer with the instructor and the student, and the program director or department chair shall render an opinion to the student.

C. If unsatisfied with the opinion of the program director or department chair, the student may confer with the Academic Dean. It is understood that the Academic Dean will initiate a closed meeting between the student and instructor, and act in a mediating role to ensure that no misunderstanding exists regarding the grading policy of the instructor. If the matter is not resolved at this point, the student may initiate a final grade appeal to be reviewed by the Academic Standards Committee. The final grade appeal reviewed by the Academic Standards Committee must be initiated by the student no later than 15 regular academic days into the next college term following the enrollment period for which the challenged grade was issued. (The college “term” is defined as fall, winter, spring, summer one, summer two, or full summer)

D. The student wishing to complete a final grade appeal hearing before the Academic Standards Committee must submit in writing and must fully state the basis for the grade challenged, identifying the reason or reasons the student feels the grade is unwarranted. The written appeal shall be filed by the student with the Executive Dean, Student Development & Athletics within 15 regular academic days into the next college term. The written appeal should be completed in the form of a standard business letter, identify the course name and the faculty member teaching the course. The appeal letter must document the rationale for the appeal, and include appropriate facts related the final grade being appealed.

E. The Executive Dean, Student Development & Athletics shall present the student’s written appeal to the chairperson of the Academic Standards Committee. The written appeal shall be sent electronically to the chairperson who will set a hearing date in the consultation with other members of the Academic Standards Committee. The chairperson will have 5 regular academic days to identify the appropriate meeting date, time, and location of the hearing. The chairperson of the Academic Standards Committee will communicate in writing the date of the hearing to the student and faculty member involved in the final grade dispute.

F. At least 5 regular academic days of notice must be given to the parties affected to insure an opportunity to prepare for the hearing. The Academic Standards Committee hearing shall be held in closed session unless the student requests in writing to the Chair of the Academic Standards Committee that it be open. The open session must be requested 2 regular academic days prior to the hearing.

G. During the hearing, both the student making the appeal and the instructor who issued the challenged grade shall be given the opportunity to testify and present evidence and/or witnesses. Each shall have the opportunity to hear and question adverse witnesses.

H. The Academic Standards Committee decision shall be based solely on the evidence introduced at the hearing. The student bares the burden of proving that there are sufficient grounds to change the grade.

I. After hearing the appeal, the Academic Standards Committee shall have up to 2 regular academic days to decide either to reject the appeal or to uphold it. The Office of the Executive Dean, Student Development & Athletics will be notified of the decision and rationale for the decision in writing by the Academic Standards Committee chairperson. The Executive Dean, Student Development & Athletics shall in turn notify in writing the student and the instructor who issued the challenged grade. Should the appeal be granted, the committee chairperson and the instructor shall re-examine the student’s course work and recommend in writing appropriate steps to rectify the disputed grade. The decision of the Academic Standards Committee is final.

J. A student who wishes to pursue the grade appeal beyond the jurisdiction of the Academic Standards Committee may submit a written appeal within five (5) days through the Executive Dean, Student Development & Athletics to the Vice President of Academic Affairs, who will review all facts and determine if the student’s due process rights were protected.

Pass/Fail Course Grading Policy

Indian Hills Community College offers a limited number of courses that can be taken on a Pass/Fail basis. In order for a course to be considered specifically for Pass/Fail grading, it must be designated as a Pass/Fail through curriculum action and noted in the course description in the college catalog.
The grade award for Pass/Fail courses shall be:
P = Pass
F = Fail

Credits earned through course work as P-Pass shall count toward the total number of credits earned by the student while enrolled at Indian Hills Community College. However, no numerical value is assigned to a P-Pass grade. P-Pass course grades are not used in calculating the student’s term or cumulative grade point average.

Transfer Credit

Indian Hills accepts credits from other regionally-accredited, post-secondary institutions and will apply these credits, when appropriate, toward requirements of the program in which the student is enrolled. Acceptance of credit by Indian Hills does not guarantee acceptance at other colleges. Indian Hills does not accept as transfer credit courses for which a grade of "D" or less (or equivalent) was earned. Courses will be evaluated by the Registrar for final determination as to transferability of credit.

Students transferring from a technical education program to the Arts and Sciences Program may transfer up to 16 semester hours of technical education credit. These credits will be applied toward the elective requirements for the student’s particular major. Contact an academic advisor to find out how your credits transfer.

Students earning Arts and Sciences transfer credit in international programs will have their credits processed in accordance with the IHCC International Students Policy. Contact the Registrar for additional information.

Audit Policy

Students may be allowed to audit certain courses. Students who audit will not be held responsible for lesson assignments or tests and will not receive credit for the course.

A student should indicate a course is being audited during registration. Tuition for courses audited is charged at the normal credit hour rate. Registration for a course may be changed from audit to credit or from credit to audit anytime prior to midterm with permission from the instructor.

Repeat Policy

Students may repeat a course in order to earn a higher grade. Requests to repeat any course require approval from the appropriate department. The lowest grade earned will then be replaced with an "X". Permission to repeat courses in which a grade of "C" or higher was earned will be granted on a course-by-course basis and will require permission from the appropriate Dean(s) and from the Registrar.

Students wishing to take advantage of this policy must file a "Notification of Intent to Repeat Courses" form in the Registrar's office. This form must list each course the student wishes to repeat. The highest grade earned in a repeated course will be calculated in the student’s cumulative GPA (The "X" carries no credit, nor does it affect a student’s grade point average). Students who withdraw from courses they are repeating will retain their original grades.

Academic Renewal Policy

Students may request permission to remove one entire academic term from future degree and GPA considerations.

Eligibility
To be eligible for academic renewal consideration, students must be currently enrolled at Indian Hills Community College.

Conditions
Academic Renewal is based on the following conditions:
A. Renewal may be applied to only one academic term.
B. ALL courses and credits that were taken during the chosen term will be removed from consideration for GPA and degree requirements. Students MAY NOT combine courses from multiple terms to comprise the term dropped.
C. If the student has been previously awarded a degree or diploma, the chosen term MUST be after the term in which the degree or diploma was awarded.
D. All courses for the chosen term will remain on the student's academic record. Grades for those courses will be changed to the "O". [Note: Courses marked with a grade of "O" do not meet graduation requirements in any program at Indian Hills Community College.]
E. A student may be granted only ONE academic renewal.
F. All other IHCC academic rules, policies and requirements apply.

Procedure
Students should begin the renewal process by discussing their desire to pursue academic renewal with a counselor or advisor in the program in which they are currently enrolled. Students must submit a properly completed Administrative Appeal form to the Registrar's office.

Credit for Prior Learning

Credit for Prior Learning (CPL) is defined as college credit earned through experiences outside of Indian Hills credit course completion. CPL can be earned in a variety of methods, such as transfer credit, work experience, professional training, industry-recognized credentials, credit by examinations, military training and more. A maximum of 18 technical credits can be earned through the CPL process. A maximum of 30 credits may be awarded for CPL of any kind, with the exception of transfer credit from other institutions of higher learning. Students must also meet the residence and college general education requirements. A student must request alternative credit be awarded, the credit is not awarded automatically.

Credit for Prior Learning may include:

A. Transfer Credit
B. Credit by Examination (CLEP, AP, DSST, Test Out)
C. Experiential Learning/Work Experience
D. Professional Training/Industry-Recognized Credentials
E. Military Education/Training

Transfer Credit
Indian Hills accepts credit from other regionally-accredited, post-secondary institutions and will apply these credits, when appropriate, toward requirements of the program in which the student is enrolled. Acceptance of credit by Indian Hills does not guarantee acceptance at other colleges. Indian Hills does not accept as transfer credit courses for which a grade of "D" or less (or equivalent) was earned. Courses will be evaluated by the Office of the Registrar for final determination as to transferability of credit.

Students transferring from a technical education program to the Arts & Sciences program may transfer up to 16 semester hours of technical education credit. These credits will be applied toward the elective requirements for the student's particular major.

Students earning transfer credit from international colleges and universities may be required to have their credits evaluated by an accredited third-party agency.

Experiential Learning/Work Experience & Professional Training/Industry-Recognized Credentials

Indian Hills may award students credit for training/learning that they received during their time of employment. Credit for Work Experience/Experiential Learning and Professional Training/Industry Recognized Credentials will be evaluated by the Department Chair or Program Director, the divisional Dean and a Continuing Education & Workforce Solutions staff member, on a case-by-case basis upon examination of the student's portfolio.
The Experiential Learning/Work Experience and Professional Training/Industry-Recognized Credentials portfolios will include, but will not be limited to:

A. Tangible examples of competencies and a completed portfolio worksheet
B. A current résumé
C. A job description that clearly defines duties and a letter from the employer verifying that the student has met the competencies of the course(s) requested
D. Demonstration of skill (when applicable)
E. Third party credentials, certificates or licensure

Credit by Examination
Indian Hills will accept for credit appropriate test scores, as recommended by the American Council on Education (ACE) College Credit Recommendation Service, on approved subject-matter tests provided by College Level Examination Program (CLEP), Advanced Placement (AP) and DSST (Formerly Dantes).

A maximum of 16 semester hours earned through the Credit by Examination process may be applied to the associate degree requirements. Rules, guidelines, subject-matter examinations and test fees are available from the Indian Hills Testing Centers on the Ottumwa and Centerville Campuses. There is a cost associated with the tests. However, there is no additional cost to add the credit to an Indian Hills transcript.

Credit by examination will not be granted:

A. If it duplicates courses previously passed or failed;
B. For a course which the students does not meet the stated prerequisites listed in the Indian Hills catalog; or
C. For a course which is a prerequisite to one for which credit has previously been earned.

Additionally, students may "test out" of courses at Indian Hills for which there is no CLEP, AP or DSST test. Credit by departmental examination is a means of being granted alternative credit by satisfactorily demonstrating subject-matter competency through an examination developed, administered and evaluated by an Indian Hills faculty member.

The student must be enrolled in the course and is required to achieve an "A" or "B" on the exam to receive credit. Indian Hills "test out" grades will appear as a "T" on a transcript. Contact an advisor or instructor prior to enrolling if you wish to "test out" of a course.

Students interested in CLEP, AP and DSST tests can contact the Ottumwa Testing Center by calling (641) 683-5142. The Centerville Testing Center can be reached at (641) 856-2143. Students can also email testing@indianhills.edu.

Military Education/Training
Indian Hills may award credit for applicable armed service school experiences and training, non-collegiate institution training, or earned professional certificates and licensures. When applicable, credit will be awarded based on the American Council on Education’s (ACE) College Credit Recommendation Service and the ACE Guide to the Evaluation of Educational Experiences in the Armed Services. Official military transcripts will be evaluated by the Office of the Registrar. Veterans should direct any questions regarding transfer credits to the Veteran’s Affairs Office or the Office of the Registrar. All other Indian Hills policies related to transfer credits also apply to military credits.

Students interested in the Credit for Prior Learning process, should contact an academic advisor to initiate the process.

Schedule Changes/Withdrawal
Students may add classes to their schedule during the first five college calendar days of a 12-week term either online or through the academic advisors or technical program directors. Students may enroll in SUCCESS Center courses through the tenth week of the term. Students may elect to drop courses through the eighth college calendar day of a 12-week term with full refund. There are no refunds after the eighth college calendar day.
No adds can be made to a student’s schedule after these first five class days and no drops with refund can be made to a student’s schedule after these first eight class days. No student can enroll for the new term after the fifth class day. Students may drop with grade "W" from classes through the 10th week of a 12-week term and receive a "W" (withdrawal) on their transcripts. Withdrawal and drop dates may vary for courses scheduled for less than a full 12-week term. Students should contact their academic department for specific dates.

The procedure to add/drop or withdraw must be completed within two days of the first notification to the department official. The procedure is as follows:

A. Obtain and complete the Add/Drop/Withdrawal form in the Academic Advising Office or Technical Program offices. The student’s signature is required.
B. Take completed form to Enrollment Services for proper authorization.
C. If schedule change increases credit hour load, report to the Business Office for payment of any additional tuition and fees.
D. If schedule change decreases credit hour load and a refund is due, the Business Office will issue a refund check within four weeks of the withdrawal date.

Failure to follow these procedures in withdrawing or dropping from a course will result in a grade of “F” for the course.

Students withdrawing from college are required to obtain and complete withdrawal papers. Completion of proper procedures ensures the student will not receive failing grades for all courses during the term of withdrawal. Withdrawal papers may be obtained from the department offices. Online students need to contact an academic counselor, program director or department administrator to drop all courses.

(Refer to section on Return of Title IV Funds.)

**Arranged Study**

Arranged study is the procedure whereby eligible students may take approved courses on an independent basis due to emergency, hardship or unusual circumstances. Arranged study is not available in all subject areas, and students must document their need for this type of study to their department administration.

**Academic Progress/Probation/Dismissal**

Minimum satisfactory scholastic achievement is represented by a 2.0 grade point average each term of enrollment. Students who fall below this level will be placed on academic probation for the following term. Students who fail to achieve a 2.0 GPA during their probationary term may then be dismissed from their current program or from the college. Students not dismissed must have permission from their Dean and from the Registrar to re-enroll for the next term. Very poor work in any term, however, may result in dismissal at the close of that term.

NOTE: To graduate, a student must achieve a 2.0 cumulative grade point average as well as comply with all other academic requirements.

**Class Attendance**

Attendance is important and expected. Class attendance policies are established by divisions and instructors. Students are expected to meet all program and class requirements, including those pertaining to attendance.

**Students Attending School-Sanctioned Events**

It is the intention of IHCC to provide meaningful and equitable education for all students. No individual student or group of students will receive either preferential or punitive treatment; all students will have an equal opportunity to perform to the best
of their abilities. IHCC recognizes that students should be allowed to make up work missed while attending school-sanctioned events. IHCC also recognizes that the total educational experience of the student is of primary importance and that the student must take responsibility for their own academic growth. In order to ensure that students can realize both their scholastic and extra-curricular goals, they need to follow these basic rules:

A. When students schedule their classes, they should keep in mind that they need to minimize the number of absences from classes. In addition, they should inform their instructors of any conflict between class time and extra-curricular schedules.

B. At the beginning of the term, or as soon thereafter as possible, students should present their instructors with a list of required absences.

C. Prior to missing class for a school-sanctioned event, the student must make arrangements with instructors for any tests, quizzes and class work that they will miss.

D. If a student has any question about an instructor's execution of these policies, that student should speak to the instructor first. If a satisfactory conclusion is not reached, the student then should speak with the appropriate department chair or dean.

E. Students attending school-sanctioned events are representing IHCC and must adhere to school policies regarding conduct.

Transcript Policy

A. Indian Hills Community College has authorized the National Student Clearinghouse to provide transcript ordering via the Web at www.studentclearinghouse.org.

B. A processing fee of $5.00 per transcript will be charged for all transcripts produced.

C. Transcripts will not be released if a student is considered to be in default on a student loan or if there are outstanding financial obligations to the college.

Retention of Student Records

Indian Hills Community College retains the official academic record (transcript) of enrollment and credits earned in Indian Hills Community College credit programs in perpetuity. All other student record documents will be destroyed three years after the student’s last enrollment at Indian Hills. Students who believe there is an inaccuracy in their official academic records (transcript) must notify the Registrar’s office immediately.

Academic Freedom Statement

The mission of Indian Hills Community College promotes learning, diversity, and social enrichment. The college values acceptance, inclusion, and academic excellence. Academic Freedom is critical in pursuing institutional mission and purpose. College faculty and administration define Academic Freedom by what it does and does not allow. The source of this definition comes from a review of Academic Freedom completed by Carly Nelson, Inside Higher Education (2010) and is derived from the American Association of University Professors definition dating back to 1915.

Part 1: Academic Freedom - What it does do

A. 1. Academic freedom means that both faculty members and students can engage in intellectual debate without fear of censorship or retaliation.

B. Academic freedom establishes a faculty member’s right to remain true to his or her pedagogical philosophy and intellectual commitments. It preserves the intellectual integrity of our educational system and thus serves the public good.

C. Academic freedom in teaching means that both faculty members and students can make comparisons and contrasts between subjects taught in a course and any field of human knowledge or period of history.

D. Academic freedom gives both students and faculty the right to express their views — in speech, writing, and through electronic communication, both on and off campus — without fear of sanction, unless the manner of expression
substantially impairs the rights of others or, in the case of faculty members, those views demonstrate that they are professionally ignorant, incompetent, or dishonest with regard to their discipline or fields of expertise.

E. Academic freedom gives both students and faculty the right to study and do research on the topics they choose and to draw what conclusions they find consistent with their research, though it does not prevent others from judging whether their work is valuable and their conclusions sound. To protect academic freedom, colleges should oppose efforts by corporate or government sponsors to block dissemination of any research findings.

F. Academic freedom means that the political, religious, or philosophical beliefs of politicians, administrators, and members of the public cannot be imposed on students or faculty.

G. Academic freedom gives faculty members and students the right to seek redress or request a hearing if they believe their rights have been violated.

H. Academic freedom protects faculty members and students from reprisals for disagreeing with administrative policies or proposals.

I. Academic freedom gives faculty members and students the right to challenge one another’s views, but not to penalize them for holding them.

J. Academic freedom protects a faculty member’s authority to assign grades to students, so long as the grades are not capricious or unjustly punitive. More broadly, academic freedom encompasses both the individual and institutional right to maintain academic standards.

K. Academic freedom gives faculty members substantial latitude in deciding how to teach the courses for which they are responsible.

L. Academic freedom guarantees that serious charges against a faculty member will be heard before a committee of his or her peers. It provides faculty members the right to due process, including the assumption that the burden of proof lies with those who brought the charges, that faculty have the right to present counter-evidence and confront their accusers, and be assisted by an attorney in serious cases if they choose.

**Part 2: Academic Freedom - What It Doesn't Do**

A. Academic freedom does not mean a faculty member can harass, threaten, intimidate, ridicule, or impose his or her views on students.

B. Student academic freedom does not deny faculty members the right to require students to master course material and the fundamentals of the disciplines that faculty teach.

C. Neither academic freedom nor tenure protects an incompetent teacher from losing his or her job. Academic freedom thus does not grant an unqualified guarantee of lifetime employment.

D. Academic freedom does not protect faculty members from colleague or student challenges to or disagreement with their educational philosophy and practices.

E. Academic freedom does not protect faculty members from non-college penalties if they break the law.

F. Academic freedom does not give students or faculty the right to ignore college or university regulations, though it does give faculty and students the right to criticize regulations they believe are unfair.

G. Academic freedom does not protect students or faculty from disciplinary action, but it does require that they receive fair treatment and due process.

H. Academic freedom does not protect faculty members from sanctions for professional misconduct, though sanctions require clear proof established through due process.

I. Neither academic freedom nor tenure protects a faculty member from various sanctions — from denial of merit raises, to denial of sabbatical requests, to the loss of desirable teaching and committee assignments — for poor performance, though such sanctions are regulated by local agreements and by faculty handbooks. If minor, sanctions should be grievable; if major, they must be preceded by an appropriate hearing.

J. Neither academic freedom nor tenure protects a faculty member who repeatedly skips class or refuses to teach the classes or subject matter assigned.

K. Though briefly interrupting an invited speaker may be compatible with academic freedom, actually preventing a talk or a performance from continuing is not.

L. Academic freedom does not protect a faculty member from investigations into allegations of scientific misconduct or violations of sound university policies, nor from appropriate penalties should such charges be sustained in a hearing of record before an elected faculty body.
Violations of Academic Freedom

Faculty or students who believe their Academic Freedom have been violated have a right to file a grievance through the College's Grievance Procedure for Discriminatory Practices. This procedure is outlined on the Indian Hills Community College website and seeks resolution to grievances including violation of Academic Freedom.

Graduation Requirements

Graduation will be certified by the issuance of a degree or diploma. Satisfactory completion includes complying with all program requirements, as well as the following:

A. The student must achieve at least a 2.00 cumulative grade point average;
B. A minimum of 16 semester hours in an associate degree program must be earned at Indian Hills (a minimum of 12 semester hours, or one term, in a diploma program must be taken at Indian Hills);
C. The student must have made arrangements for meeting all financial obligations to the college.

Associate of Arts Degree (AA)

The student must meet all previously listed general requirements and earn a total of 64 semester hours, which include the following:

**English/Speech**
- 6 hours composition
- 3 hours speech

**Humanities/Fine Arts**
- 3 hours literature, minimum
- 5 hours electives from humanities and/or fine arts

**Social Sciences**
- 3 hours U.S. History or Western Civilization
- 6 hours electives from social sciences

**Mathematics/Science**
- 3 hours lab science
- 3 hours mathematics
- 2 hours mathematics or science elective

**Distributed Electives**
- 6 hours from the above disciplines

**General Electives**
- 18 hours unrestricted electives; a maximum of 16 hours technical education credit may be included; must include 3 hours of computer literacy and SDV101 How to Be Successful in College

Associate of Science Degree (AS)

The student must meet all previously listed general requirements and earn a total of 64 semester hours, which include the following:

**English/Speech**
- 6 hours composition
- 3 hours speech

**Humanities/Fine Arts**
- 3 hours literature, minimum
- 5 hours electives from humanities and/or fine arts

**Social Sciences**
- 3 hours U.S. History or Western Civilization
- 6 hours electives from social sciences

**Mathematics/Science**
- 20 hours mathematics and science
- Must include 3 hours mathematics and 3 hours lab science, minimum

**General Electives**
- 12 hours electives, technical education credit may be included; must include 3 hours of computer literacy and SDV101 How to Be Successful In College
**Associate of General Studies (AGS)**

The student must meet all general graduation requirements, including a minimum of 15 credits within the following categories:

A. English/Speech  
B. Humanities/Fine Arts  
C. Social Sciences  
D. Mathematics/Science

The Associate of General Studies degree is designed for students wishing to acquire a broad education, rather than pursue a specific college major or career technical program. The general studies degree indicates the student has achieved an educational goal in an area unique to his or her own interests. Because of the flexibility of this degree, it may not fulfill requirements for transfer to a four-year institution. The degree may be transferable on a course-by-course basis.

The student must prepare a tentative educational plan that demonstrates uniqueness prior to acceptance into the AGS program. Before beginning any coursework toward the degree, the student's educational plan must be approved by an academic advisor and the Academic Standards Committee. The educational plan must contain courses totaling at least 64 hours of college-level (non-remedial) credit and must include fifteen hours of general education coursework.

**Associate of Applied Science Degree (AAS)**

The student must meet all previously listed general graduation requirements as well as successful completion of an approved technical education program. The following are approved AAS programs:

- Agricultural/Biofuels Process Technology  
- Associate Degree Nursing  
- Associate Degree Nursing-Online/Hybrid  
- Auto Technology  
- Aviation Maintenance Technology  
- Aviation Pilot Training  
- Business Specialist - Accounting  
- Business Specialist - Office Management  
- Computer Software Development  
- Construction Management Technology  
- Construction Technology  
- Criminal Justice  
- Culinary Arts  
- Cyber Security and Network Administration  
- Dental Hygiene  
- Diesel Technology  
- Early Childhood Associate  
- Electrical and Renewable Energy Technology  
- Electromechanical Technology  
- Electronic Engineering Technology  
- Geospatial Technology  
- Health Information Technology  
- Hospitality Management  
- Industrial Maintenance  
- Interactive Media Technology  
- Landscape and Turfgrass Technology  
- Laser & Optics Technology  
- Machine Technology  
- Medical Laboratory Technology  
- Nutrition and Dietary Management  
- Occupational Therapy Assistant  
- Paramedic  
- Physical Therapist Assistant  
- Radiologic Technology  
- Robotics/Automation Technology  
- Sustainable Agriculture and Entrepreneurship  
- Welding Technology

**Dual Major Policy**

For students planning to transfer to a four-year institution for a bachelor’s degree, it is possible to combine degrees from some Career and Technical and Health Sciences programs with an Associate of Arts degree for a dual major. A dual major form must be filed with the Office of the Registrar prior to registering for classes. For more information on this option and a list of courses the student will need to add to the current major, please speak with an academic advisor, the department chair or dean of the specialized major.
Diploma
The student must meet all general requirements and complete an approved program of at least 15 semester credits and not more than 48 semester credits. The program and its length must be stated on the diploma. The following are approved diploma programs:

Accounting Assistant
Avionics Electronic Technician
Bio-Manufacturing
Business Specialist
Child Care Technician
Clinical Laboratory Assistant
Computer Accounting
Construction Trades
Culinary Assistant
Dental Assisting
Electrical Systems
Electronic Technician
Health Unit Coordinator
Healthcare Documentation Specialist
HVAC and Refrigeration
Industrial Maintenance
Machine Operations
Medical/Insurance Coding
Office Technology and Media Design
Specialist
Paramedic
Pharmacy Technology
Practical Nursing
Practical Nursing - Evening
Process Control
Welding Technology

Certificate of Completion
A Certificate of Completion is granted to students who meet the graduation requirements of an approved program of instruction that is not intended to result in the awarding of a degree or diploma. The course and its length should be stated on the certificate. The length may not exceed 48 semester credits.

Temporary Pass/Fail Policy: Spring 2020 Academic Term

Indian Hills Community College is implementing a temporary, spring 2020 academic term, course pass/fail measure in response to the novel coronavirus (COVID-19) global pandemic. The institution recognizes that changes in instructional delivery may cause challenges to its student population. In response to these changes, Indian Hills has determined that students will be given the option to complete the course with a letter grade or a pass/fail option.

Procedure
A. Indian Hills Community College faculty will submit final grades by May 19, 2020.
B. Students will be given the option to receive the final grade assigned or choose a "P" Pass course grade.
C. Students choosing to receive "P" course grade must complete an electronic request form by Wednesday, May 27, 2020.
   This form will be made available to students beginning May 11, 2020.
D. Credits earned through coursework as "P" Pass shall count toward the total number of credits earned by the student while enrolled at Indian Hills Community College. However, no numerical value is assigned to a "P" Pass grade. "P" Pass course grades are not used in calculating the student's term or cumulative grade point average.
E. A student must earn a minimum grade of D based on the grading scale on your course syllabus within the course to receive a "P" Pass course grade.
F. Health Sciences program courses will be held to the division grading scale. Students must earn a minimum of a C within the course to earn the "P" Pass course grade.
G. Students should not elect Pass/Fail grades in cases when a course is needed to meet a prerequisite requiring a grade of C or better.
H. Indian Hills will include a designation on all student transcripts indicating the extraordinary circumstances encountered in the 2020 spring semester.

The three Iowa Regents Universities will accept P-Pass course grades taken during the spring 2020 term. Students planning to attend a private university or out-of-state university are encouraged to inquire with their transfer institution about
transferability of P-Pass course grades as many universities are adopting similar policies. Student-athletes are encouraged to check with their transfer institution regarding the impact on student eligibility when considering the pass/fail option.

## Academic Services

Indian Hills Community College offers a variety of classes and services to assist students in reaching their education and career goals. Academic Services include:

### SUCCESS Center Classes

SUCCESS=Skill Upgrading for College and Careers Ensuring Student Success. Skill Building courses are available through the IHCC SUCCESS Centers, with Centers located on both the Ottumwa and Centerville campuses. Courses are designed to prepare students for entry into a program or to support their instruction while enrolled in a program or college class. Courses are offered in the basic skills of reading, writing and math, and also include instruction in study skills, preparation for advanced mathematics, comprehensive writing skills, English as a Second Language and many other areas. Students work with instructors in the SUCCESS Center and may also work with peer and professional tutors.

Peer and professional tutors are available to students in many but not all specialized subject areas. Tutors are available at no charge to the student, but tutoring is limited to the availability of tutors. The SUCCESS Center does not guarantee that tutors can be arranged for every subject area. Tutoring sessions are arranged day and evening and may be arranged in group or individual sessions.

Credit Exchange provides an opportunity for those students experiencing academic difficulty in a course. From the ninth day of the term through the 28th day of the term, students can withdraw from a transfer or technical credit course and enroll in an equal number of SUCCESS Center credits with no additional tuition charge. Students may exchange a maximum of six credits per term. The purpose of the program is to allow students to acquire the skills needed to pass a transfer or technical credit course without a penalty. Contact the SUCCESS Center or an academic advisor for more information.

The Ottumwa and Centerville Centers each contain computer labs for general use by IHCC students.

On the Main Campus, the Pothoven Academic SUCCESS Center is housed in the Arts and Sciences Wing and may be reached by calling (641) 683-5238. The Centerville SUCCESS Center can be reached by calling (641) 856-2143, ext. 2214. The SUCCESS Centers may be contacted by email at successcenter@indianhills.edu.

### Services for Students with Disabilities

Individuals with disabilities who require accommodations for special services should contact the IHCC Disability Services office for assistance. Services are available to students who need classroom accommodations, interpreters and/or specialized equipment.

Students who are requesting accommodations must document their disability by providing a written statement signed by a school counselor, physician, psychologist or other health care professional. Statements must include: (a) a description of the disability, (b) a statement of how the disability prohibits one or more major life activities and is a barrier to the student’s full participation in the program, and (c) a description of the specific accommodations to be provided. (Requested accommodations must be related to the individual’s specific disability.)

All requests for accommodations should be made prior to enrollment.

Students should make their requests for accommodations to the Disability Services office at the time they are applying for admission and, preferably, no later than six weeks prior to the beginning of each academic term. All student requests are dealt with in a confidential manner. Students should contact Disability Services by calling (641) 683-5749 (Ottumwa) or (641) 856-2143, ext. 2214 (Centerville) or by email at disabilitieservices@indianhills.edu.
RISE

RISE stands for Raising Individual Student Expectations. It is a support program designed for secondary students who have been receiving special education services while in high school. Continued educational support and instructional services provide students an opportunity to develop career- or occupationally-specific skills. Student conduct rules are structured to provide respect and protection to the rights and welfare of all students. While RISE students must adhere to the IHCC Code of Conduct, the IEP team may make the final decision about suspension and dismissal without meeting with the IHCC Student Discipline Administrator. Participation in this program may lead to a variety of outcomes including completing an instructional program to earn a certificate, diploma or an Associate of Arts, Associate of Science or Associate of Applied Science degree.

Library

Centralized library facilities are located at the Ottumwa and Centerville campuses. Each library offers comprehensive services and collections to support the information needs of students, staff and community patrons.

Access to the library collection is available via the college's website at www.indianhills.edu/libraries. Full-text periodical indexes are also available via the library web page.

You may contact the library by calling (800) 726-2585, ext. 5199 (Ottumwa), or (800) 670-3641, ext. 2237 (Centerville).

Student Support Services

The Student Support Services program (SSS) is a federally funded TRIO program that provides free services and ongoing support to help students complete a college degree. SSS provides counseling/advising services, academic support, assistance with financial aid, and assistance with transferring to four-year colleges and universities. Interested students must apply for admission to the program and meet at least one criteria: 1) be a first-generation student, 2) have a low income, and/or 3) have a documented disability. Applications are available on the IHCC Student Support Services webpage or by calling (800)726-2585, ext 5246 or by email at studentsupportservices@indianhills.edu.

Educational Opportunity Center

The target audience for the Educational Opportunity Center is non-traditional students age 19 and older who are low income and first-generation college students. Services provided include assistance with completion of financial aid applications, admissions applications, academic advising and career counseling. The Educational Opportunity Center serves residents of 22 counties: Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Mahaska, Monroe, Van Buren, Wapello and Wayne counties in Iowa and Adair, Clark, Knox, Lewis, Putnam, Scotland, Schuyler and Sullivan counties in Missouri. To apply for services, call (800) 726-2585, ext. 5315, or (641) 683-5315 or email eoc@indianhills.edu.

County Service Centers

Indian Hills Community College operates five education centers located in county seat communities served by the college. The county service centers provide opportunities for students to take courses and earn credit toward a degree without leaving their own communities. The centers offer a wide selection of both credit and non-credit courses. Students may register for courses, consult an academic advisor and take career and academic assessments at the centers. Students may take ACCUPLACER tests at any of the five service centers. To schedule an appointment for ACCUPLACER at a county service center, contact the center where you would like to take the test. Contact a service center by email at servicecenters@indianhills.edu.
The county service centers are:

- Jefferson County Center - 112 S. Court, Fairfield, IA 52556  
  (800) 726-2585, ext. 1951, (641) 472-6366,  
  FAX (641) 472-1504
- Keokuk County Center - 909 E. Pleasant Valley, Sigourney, IA 52591  
  (800) 726-2585, ext. 1961, (641) 622-3385,  
  FAX (641) 622-3273
- Monroe County Center - 322 C Avenue East, Albia, IA 52531  
  (800) 726-2585, ext. 1901, (641) 932-5297,  
  FAX (641) 932-7085
- William Penn Center - 1710 N. Market, Oskaloosa, IA 52577  
  (800) 726-2585, ext. 1971, (641) 673-0824,  
  FAX (641) 673-5451

Online Courses

Indian Hills offers many fully online courses and hybrid courses (courses that meet both online and on-campus). On-campus courses also use the Internet as a convenient means to submit assignments, receive handouts, interact with instructors and take tests.

The following programs may be completed entirely online:

A. Associate of Arts (AA degree)  
B. Aviation Ground School  
C. Health Information Technology (AAS degree)  
D. Health Unit Coordinator (diploma)  
E. Healthcare Documentation Specialist (diploma)  
F. Medical Insurance Coding (certificate)

In addition to these programs, many general education, technical, nursing and skill-building courses are currently offered online. More online courses are continually being developed.

Online courses carry the same credit hours and course numbers as their traditional classroom counterparts. Tuition is the same as for all other college credit courses. A technology fee is also required.

Online courses at Indian Hills are delivered through the college's learning management system, which is called "MyHills." More information concerning online learning at Indian Hills may be found at www.indianhills.edu/online. Questions concerning specific online courses or programs should be directed to the appropriate academic department.

Testing Centers

The IHCC Testing Centers offer a variety of tests. Testing services are available to current students and to the general public. IHCC Testing Centers also provide testing services to businesses and industries throughout the area.

Services Available

Testing services include college entrance tests (ACT and ACCUPLACER), CLEP (College Level Examination Program), and TEAS (Test of Essential Academic Skills). New full-time students are required to take the ACCUPLACER test or provide written transcripts of ACT scores. The ACCUPLACER assesses reading, writing and math skills. ACCUPLACER and ACT scores are used for academic advising and to determine admission to Health Sciences or other college programs.

Testing for professional or occupational certification is available. Tests available include: aviation testing, chemical testing, computer certification tests, CNA (certified nursing assistant), cosmetology, testing, certification, EMS/EMT (emergency medical technician) and pharmacy technician. Other tests are available upon request. ACCUPLACER tests are available at IHCC Testing Centers.
VUE Testing for information technology, emergency services and many other career fields are available at the Testing Center on the Main Campus. For a complete list or to register for a test, go to www.vue.com.

**Testing Centers Contact Information**

For a complete schedule of all IHCC testing services in the area, please call (641) 683-5142, or send an email to testing@indianhills.edu.

The Ottumwa Testing Center is located on the Main Campus in Trustee Hall. The center is open Monday through Thursday from 7:15 a.m. to 4:45 p.m., and Saturday from 8:00 a.m. to 12:00 p.m. The hours listed may change during regularly scheduled college breaks.

In Centerville, the Testing Center is located in the SUCCESS Center. The Center is open Monday through Thursday from 7:15 a.m. to 4:45 p.m. For more information, call (641) 856-2214.

**English Language Learners**

Indian Hills provides assistance in oral and written communication skills to students for whom English is not their native language. Community ELL Classes, tutoring and one-to-one assistance are available. Non-transferable courses to develop and improve basic English skills are available for credit at the regular tuition rate. Students should contact the IHCC English Language Learning Center, (641) 683-5210.

**Adult Basic Education and High School Equivalency Diploma Programs**

This program is for students who need to earn a high school equivalency diploma. The offices for the program are located at the Ottumwa North campus. Classes are scheduled on campus and at locations throughout the 10 counties of Area 15. Classes are available in Adult Basic Education and High School Equivalency Diploma. For more information, interested persons may visit the Community Education Center located on the Indian Hills North Campus or contact the ABE Coordinator at (641) 683-5189 or at ABE_GED@indianhills.edu.

**Arts and Sciences**

The Arts and Sciences Division of Indian Hills Community College is dedicated to serving the wide range of students who take classes in the division. Arts and Sciences courses leading to an associate degree are offered at both the Ottumwa and Centerville campuses and at the county service centers.

Students desiring a four-year baccalaureate degree can take the first two years at Indian Hills Community College, earn an associate degree, and transfer to another college or university. Some students take individual courses and apply them toward transfer elsewhere, while others may need specific classes for preparation in a particular career field. Finally, some students may enroll in classes simply to increase their knowledge in that course's content area. Arts and Sciences can satisfy each one of these students' needs.

The mission of the Arts and Sciences Division is fulfilled through a curriculum combining traditional (classroom) and non-traditional (i.e., distance education, service learning) delivery forms that enable students:

1. to think critically and creatively;
2. to communicate effectively, both orally and in writing;
3. to use mathematics, science, and technologies appropriate to the student's fields of interest; and
4. to recognize and appreciate historical, cultural, artistic, and/or personal concepts of society, native as well as global.
Academic Excursions

A variety of educational trips and special events for academic credit are offered each year to facilitate classroom learning. Information regarding these opportunities may be obtained from the Arts and Sciences Office or an academic advisor.

The Academy

Highly-motivated students will find that the Arts and Sciences Academy is an excellent opportunity to share experiences with people who have similar interests. Specialized classes, field trips, guest speakers, and honors banquets highlight this distinguished program. For more information on the Academy, visit the Arts and Sciences Office.

Online Education

The Arts and Sciences Division at Indian Hills Community College provides college credit courses online and during evening hours each term. Courses are also offered on campus as well as at the four county service centers. Night courses typically meet one night per week. Students wishing to mix day courses with evening courses, as well as those wishing to take all of their classes at night, enroll in these courses. Students are able to meet many Associate of Arts degree requirements during evening hours. In addition, courses leading to an A.A. degree are available at the four IHCC County Service Centers in Albia, Fairfield, Oskaloosa and Sigourney. For more information, visit the County Service Centers, Arts and Sciences Office or an academic counselor.

Transfer Areas

The Arts and Sciences program is designed to prepare students for a variety of majors at the baccalaureate level. During the first two years of undergraduate study, most of the coursework consists of general education courses and courses common to any major. Therefore, many students prefer to begin their educational path with a very general or ‘undecided’ direction of coursework. The Arts and Sciences program is designed around that premise. However, in order to provide direction to those persons who have very definite career goals, as well as those who are experimenting with several major areas of study, Indian Hills has created transfer areas for many baccalaureate fields. These are suggested courses that typically are necessary for students who wish to focus on a specific major. These have been designed around the requirements of the Iowa Regents universities, as well as the baccalaureate institutions where most Indian Hills students transfer. If students know the exact program of study and college or university where they will transfer, a more specific program can also be tailored to meet individual needs. Suggested courses for students who do not wish to focus on any particular area (undecided) are included as well.

General Education Course Requirements (A.A., A.S.)

This focus area is designed for the student who is interested in pursuing a liberal arts major at a four-year institution. The general education courses required will apply to many major areas. Students may use this opportunity to explore a variety of academic majors and career possibilities.

Associate of Arts Degree (AA)

I. English and Communication (minimum of 9 credits)

A. Complete each of the following:

- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
B. Select one of the following courses:

- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00

C. The following courses may be selected as part of distributed or general electives:

- ENG 101 - Elements of Writing - Credits: 3.00
- ENG 111 - Technical Writing - Credits: 3.00
- ENG 225 - Creative Writing: Poetry - Credits: 3.00
- ENG 230 - Creative Writing: Fiction - Credits: 3.00
- ENG 925 - Honors Research - Credits: 1.00
- SPC 122 - Interpersonal Communication - Credits: 3.00

II. Mathematics and Sciences (minimum of 8 credits)

One mathematics course (3 semester hours) and one lab science course (3 semester hours) are required. An additional mathematics course or science course must be selected to fulfill the remaining hours required.

A. You may select from the following courses to meet the mathematics requirement:

- MAT 110 - Math for Liberal Arts - Credits: 3.00
- MAT 117 - Math for Elementary Teachers - Credits: 3.00
- MAT 120 - College Algebra - Credits: 3.00
- MAT 125 - Precalculus - Credits: 3.00
- MAT 140 - Finite Math - Credits: 3.00
- MAT 149 - Linear Algebra - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- MAT 161 - Business Statistics - Credits: 3.00
- MAT 210 - Calculus I - Credits: 4.00
- MAT 216 - Calculus II - Credits: 4.00
- MAT 219 - Calculus III - Credits: 4.00
- MAT 226 - Differential Equations with Laplace - Credits: 3.00

B. You may select from the following courses to meet the lab science requirement:

- BIO 101 - Introductory Biology - Credits: 2.00 AND
- BIO 103 - Introductory Biology Lab - Credits: 1.00
- BIO 120 - General Biology 1D - Credits: 4.00
- BIO 121 - General Biology IID - Credits: 3.00
- BIO 122 - General Biology IIID - Credits: 3.00
- BIO 127 - Field Botany - Credits: 3.00
- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00 AND
- BIO 199 - Basic Anatomy and Physiology Lab I - Credits: 1.00
- BIO 175 - Human Anatomy - Credits: 3.00 AND
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- BIO 178 - Human Physiology - Credits: 3.00 AND
- BIO 179 - Human Physiology Lab - Credits: 1.00
- BIO 187 - Microbiology w/lab - Credits: 4.00
- CHM 121 - Introduction to General Chemistry - Credits: 3.00
- CHM 132 - Introduction to Organic and Biochemistry - Credits: 4.00
- CHM 157 - Principles of Chemistry I - Credits: 3.00
- CHM 158 - Principles of Chemistry II - Credits: 3.00
- CHM 159 - Principles of Chemistry III - Credits: 4.00
- CHM 166 - General Chemistry I - Credits: 5.00
• CHM 176 - General Chemistry II - Credits: 5.00
• CHM 251 - Organic Chemistry I - Credits: 3.00
• CHM 252 - Organic Chemistry II - Credits: 3.00
• CHM 253 - Organic Chemistry III - Credits: 3.00
• ENV 105 - Introductory Environmental Science - Credits: 2.00 AND
• ENV 106 - Introductory Environmental Science Lab - Credits: 1.00
• PHS 184 - Introduction to Earth Science - Credits: 2.00 AND
• PHS 186 - Introduction to Earth Science Lab - Credits: 1.00
• PHY 101 - Physics - Credits: 2.00 AND
• PHY 102 - Physics Lab - Credits: 1.00
• PHY 200 - Classical Physics I - Credits: 3.00
• PHY 201 - Classical Physics II - Credits: 3.00
• PHY 202 - Classical Physics III - Credits: 3.00

C. You may select from the above courses or any of the following to fulfill remaining mathematics/sciences credit hour requirements:

• BIO 925 - Honors Research - Credits: 1.00
• BIO 949 - Special Topics - Credits: 1.00
• CHM 924 - Honors Project - Credits: 1.00
• CHM 949 - Special Topics - Credits: 1.00
• ENV 142 - Natural Resources - Credits: 3.00
• MAT 925 - Honors Research - Credits: 1.00
• MAT 952 - Topics - Credits: 1.00
• SCI 130 - Limits of Science - Credits: 2.00

III. Social Sciences (minimum of 9 semester credits)

A. You must select one of the following history courses:

• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
• HIS 151 - U.S. History to 1877 - Credits: 3.00
• HIS 152 - U.S. History since 1877 - Credits: 3.00

B. The remaining six semester credits may be selected from the above courses or from the following history, social science, and behavioral science courses:

• ANT 105 - Cultural Anthropology - Credits: 3.00
• ECN 110 - Introduction to Economics - Credits: 3.00
• ECN 120 - Principles of Macroeconomics - Credits: 3.00
• ECN 130 - Principles of Microeconomics - Credits: 3.00
• GEO 121 - World Regional Geography - Credits: 3.00
• GEO 924 - Honors Project - Credits: 1.00
• GEO 949 - Special Topics - Credits: 1.00
• HIS 121 - Ancient Mediterranean World - Credits: 3.00
• HIS 125 - Modern Europe - Credits: 3.00
• HIS 141 - History of Asia - Credits: 3.00
• HIS 201 - Iowa History - Credits: 3.00
• HIS 214 - Russian History and Culture - Credits: 3.00
• HIS 257 - African American History - Credits: 3.00
• HIS 927 - Honors Study - Credits: 1.00
• HIS 949 - Special Topics - Credits: 1.00
• POL 111 - American National Government - Credits: 3.00
• POL 121 - International Relations - Credits: 3.00
• POL 949 - Special Topics - Credits: 1.00
• PSY 111 - Introduction to Psychology - Credits: 3.00
• PSY 112 - Psychology of Human Relations - Credits: 3.00
• PSY 121 - Developmental Psychology - Credits: 3.00
• PSY 211 - Psychology of Adjustment - Credits: 3.00
• PSY 223 - Child and Adolescent Psychology - Credits: 3.00
• PSY 226 - Psychology of Aging - Credits: 3.00
• PSY 241 - Abnormal Psychology - Credits: 3.00
• PSY 251 - Social Psychology - Credits: 3.00
• PSY 263 - Multicultural Psychology - Credits: 3.00
• PSY 281 - Educational Psychology - Credits: 3.00
• PSY 296 - Investigating the Effects of Recreational Drugs - Credits: 1.00
• PSY 924 - Honors Project - Credits: 1.00
• PSY 949 - Special Topics - Credits: 1.00
• SOC 110 - Introduction to Sociology - Credits: 3.00
• SOC 115 - Social Problems - Credits: 3.00
• SOC 120 - Marriage and Family - Credits: 3.00
• SOC 195 - Death and Dying - Credits: 3.00
• SOC 147 - Foreign and Domestic Terrorism - Credits: 3.00
• SOC 170 - Sociology and Technology - Credits: 3.00
• SOC 230 - Juvenile Delinquency - Credits: 3.00
• SOC 240 - Criminology - Credits: 3.00
• SOC 242 - Introduction to Corrections - Credits: 3.00
• SOC 244 - Criminal Procedures - Credits: 3.00
• SOC 245 - Criminal Law - Credits: 3.00
• SOC 261 - Human Sexuality - Credits: 3.00
• SOC 280 - Social Issues - Credits: 3.00
• SOC 924 - Honors Project - Credits: 1.00
• SOC 949 - Special Topics - Credits: 1.00

IV. Humanities and Fine Arts (minimum of 8 semester credits)

A. You must select at least 3 credits from the following literature courses:

• LIT 101 - Introduction to Literature - Credits: 3.00
• LIT 110 - American Literature to Mid-1800's - Credits: 3.00
• LIT 112 - American Literature: 1945 to Present - Credits: 3.00
• LIT 113 - American Literature: 1865 to 1945 - Credits: 3.00
• LIT 140 - British Literature I - Credits: 3.00
• LIT 141 - British Literature II - Credits: 3.00
• LIT 150 - World Literature I - Credits: 3.00
• LIT 152 - Early Modern World Literature - Credits: 3.00
• LIT 153 - Modern World Literature - Credits: 3.00
• LIT 157 - Bible as Literature - Credits: 3.00
• LIT 161 - The Short Story - Credits: 3.00
• LIT 165 - The Novel - Credits: 3.00
• LIT 167 - Popular Genres I - Credits: 3.00
• LIT 168 - Popular Genres II - Credits: 3.00
• LIT 171 - Survey of Poetry - Credits: 3.00
• LIT 175 - Survey of Drama - Credits: 3.00
• LIT 181 - Mythology and Literature - Credits: 3.00
• LIT 184 - Young Adult Literature - Credits: 3.00
• LIT 190 - Women Writers - Credits: 3.00
• LIT 802 - Readings in Literature I - Credits: 1.00
• LIT 804 - Readings in Literature II - Credits: 2.00
• LIT 806 - Readings in Literature III - Credits: 3.00

B. The remaining 5 credits may be selected from any of the above courses or any of the following:

• ART – any course
• CLS 106 - Popular Culture - Credits: 1.00
• CLS 150 - Latin American History and Culture - Credits: 3.00
• CLS 155 - Brazilian History and Culture - Credits: 3.00
• CLS 175 - Native American Studies - Credits: 3.00
• CLS 185 - Cultural History of Iowa - Credits: 3.00
• CLS 215 - Cultural Excursions I - Credits: 1
• CLS 216 - Cultural Excursions II - Credits: 2
• CLS 217 - Cultural Excursions III - Credits: 3
• CLS 222 - Survey of Latino Literature U.S./Mexico - Credits: 3.00
• CLS 930 - Diversity Experience - Credits: 1.0
• DRA 101 - Introduction to Theatre - Credits: 3.00
• DRA 108 - Drama Excursions - Credits: 1.00
• DRA 109 - Drama Excursions II - Credits: 1.00
• DRA 110 - Introduction to Film - Credits: 3.00
• DRA 130 - Acting I - Credits: 3.00
• DRA 132 - Acting II - Credits: 3.00
• DRA 133 - Acting III - Credits: 3.00
• DRA 162 - Technical Theatre - Credits: 3.00
• DRA 180 - Theatre Lab I - Credits: 1.00
• DRA 181 - Theatre Lab II - Credits: 1.00
• DRA 235 - Acting Workshop - Credits: 3.00
• DRA 280 - Theatre Lab III - Credits: 1.00
• DRA 281 - Theatre Lab IV - Credits: 1.00
• FLS 125 - Spanish for Health Professionals - Credits: 3.00
• FLS 131 - Elementary Spanish I - Credits: 3.00
• FLS 132 - Elementary Spanish II - Credits: 3.00
• FLS 133 - Elementary Spanish III - Credits: 3.00
• FLS 153 - Accelerated Elementary Spanish I - Credits: 5.00
• FLS 154 - Accelerated Elementary Spanish II - Credits: 5.00
• FLS 231 - Intermediate Spanish I - Credits: 3.00
• FLS 232 - Intermediate Spanish II - Credits: 3.00
• FLS 233 - Intermediate Spanish III - Credits: 3.00
• HUM 135 - Humanities of the Early World - Credits: 3.00
• HUM 136 - Humanities of the Renaissance - Credits: 3.00
• HUM 137 - Humanities of the Modern World - Credits: 3.00
• HUM 205 - Humanities: The Hero - Credits: 3.00
• HUM 210 - Humanities: Nature of Conflict - Credits: 3.00
• HUM 927 - Honors Study - Credits: 1.00
• HUM 952 - Topics - Credits: 1.00
• MUA – any course
• MUS – any course
• PHI 101 - Introduction to Philosophy - Credits: 3.00
• PHI 105 - Introduction to Ethics - Credits: 3.00
• PHI 114 - Critical Reasoning - Credits: 3.00
• PHI 120 - Modern Philosophy - Credits: 3.00
• PHI 121 - Classical/Medieval Philosophy - Credits: 3.00
• PHI 145 - Introduction to Ethical Conflicts - Credits: 3.00
• REL 101 - Survey of World Religions - Credits: 3.00
• WST 101 - Women's Studies - Credits: 3.00
V. Computer Literacy (minimum of 3 credits counted as General Elective hours)

- CSC 110 - Introduction to Computers - Credits: 3.00
- or
- CSC 116 - Information Computing - Credits: 3.00

VI. Distributed Electives (6 semester credits)

Electives in this area must be chosen from English/Speech, Mathematics/Sciences, Social Sciences, or Humanities/Fine Arts

VII. How to Be Successful In College: SDV 101 (3 semester credits counted as General Elective hours)

VIII. General Electives (18 semester credits)

These unrestricted electives may be selected from the previously mentioned areas or any of the following courses:

Business

- ACC 152 - Financial Accounting - Credits: 4.00
- ACC 156 - Managerial Accounting - Credits: 4.00
- ACC 931 - Accounting Internship - Credits: 1.00
- BUS 102 - Introduction to Business - Credits: 3.00
- BUS 104 - Business Essentials - Credits: 3.00
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- BUS 185 - Business Law I - Credits: 3.00
- BUS 204 - Professionalism in the Workplace - Credits: 3.00
- BUS 924 - Honors Project - Credits: 1.00
- BUS 932 - Internship - Credits: 1.00
- BUS 949 - Special Topics - Credits: 1.00
- FIN 121 - Personal Finance - Credits: 3.00
- MGT 101 - Principles of Management - Credits: 3.00
- MGT 170 - Human Resource Management - Credits: 3.00
- MGT 220 - Intro to Sport Management - Credits: 3.00
- MKT 110 - Principles of Marketing - Credits: 3.00
- MKT 140 - Principles of Selling - Credits: 3.00
- MKT 198 - Sports Marketing - Credits: 3.00

Education

- EDU 120 - Communication, Ethics and - Credits: 2.00
- EDU 121 - Behavior Improvement - Credits: 2.00
- EDU 122 - Roles and Responsibilities - Credits: 2.00
- EDU 213 - Introduction to Education - Credits: 3.00
- EDU 235 - Children's Literature - Credits: 3.00
- EDU 260 - Art for the Elementary Educator - Credits: 3.00
- EDU 925 - Honors Research - Credits: 1.00
- EDU 949 - Special Topics - Credits: 1.00

Physical Education

- PEA 122 - Cardiovascular Training I - Credits: 2.00
- PEA 135 - Golf I - Credits: 2.00
- PEA 152 - Racquet Sports I - Credits: 2.00
• PEA 155 - Recreational Activities I - Credits: 2.00
• PEA 188 - Weight Training I - Credits: 2.00
• PEA 222 - Cardiovascular Training II - Credits: 2.00
• PEA 235 - Golf II - Credits: 2.00
• PEA 288 - Weight Training II - Credits: 2.00
• PEC 112 - Theory of Coaching - Credits: 3.00
• PEC 113 - Coaching Ethics - Credits: 3.00
• PEC 162 - Sports Officiating: Fall Sports - Credits: 2.00
• PEC 163 - Sports Officiating: Winter Sports - Credits: 2.00
• PEC 164 - Sports Officiating: Spring Sports - Credits: 2.00
• PEH 102 - Health - Credits: 3.00
• PEH 115 - Wellness Education - Credits: 3.00
• PEH 142 - First Aid - Credits: 3.00
• PEH 162 - Introduction to Physical Education - Credits: 3.00
• PEH 176 - Sport Psychology - Credits: 3.00
• PEH 210 - Elementary Physical Education - Credits: 3.00
• PEH 215 - Introduction to Secondary Physical Education - Credits: 3.00
• PET 105 - Basic Athletic Training - Credits: 3.00
• PET 140 - Athletic Training Practicum I - Credits: 1.00
• PET 146 - Athletic Training Administration - Credits: 3.00
• PET 150 - Athletic Training Practicum II - Credits: 1.00
• PET 171 - Athletic Training Practicum III - Credits: 1.00
• PET 181 - Athletic Training Practicum IV - Credits: 1.00
• PET 185 - Athletic Training Practicum V - Credits: 1.00
• PEV 107 - Techniques of Sports I - Credits: 1.00
• PEV 108 - Techniques of Sports II - Credits: 1.00
• PEV 207 - Techniques of Sports III - Credits: 1.00
• PEV 208 - Techniques of Sports IV - Credits: 1.00

Other:

• MMS 241 - Public Relations and Marketing - Credits: 3.00
• SDV 126 - Library and Internet Research - Credits: 2.00
• SDV 142 - Career Planning - Credits: 3.00
• SDV 152 - Information Access in the Digital Age - Credits: 3.00

Notes:

*A maximum of 16 semester credits (subject to Registrar approval) may be awarded for some technical education course work.

**Associate of Science (AS) Degree**

I. English and Communication (minimum of 9 credits)

A. Complete each of the following:

• ENG 105 - Composition I - Credits: 3.00
• ENG 106 - Composition II - Credits: 3.00

B. Select one of the following courses:

• SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
• SPC 112 - Public Speaking - Credits: 3.00
C. The following courses may be selected as part of general electives:

- COM 948 - Special Topics - Credits: 1.00
- ENG 101 - Elements of Writing - Credits: 3.00
- ENG 111 - Technical Writing - Credits: 3.00
- ENG 225 - Creative Writing: Poetry - Credits: 3.00
- ENG 230 - Creative Writing: Fiction - Credits: 3.00
- ENG 925 - Honors Research - Credits: 1.00
- SPC 122 - Interpersonal Communication - Credits: 3.00

II. Mathematics and Sciences (minimum of 20 credits)

One mathematics course (3 semester hours) and one lab science course (3 semester hours) are required. An additional 14 semester credit hours in either mathematics or science must be selected to fulfill the remaining hours required.

A. You may select from the following courses to meet the mathematics requirement:

- MAT 120 - College Algebra - Credits: 3.00
- MAT 125 - Precalculus - Credits: 3.00
- MAT 140 - Finite Math - Credits: 3.00
- MAT 149 - Linear Algebra - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- MAT 161 - Business Statistics - Credits: 3.00
- MAT 210 - Calculus I - Credits: 4.00
- MAT 216 - Calculus II - Credits: 4.00
- MAT 219 - Calculus III - Credits: 4.00
- MAT 226 - Differential Equations with Laplace - Credits: 3.00

B. You may select from the following courses to meet the lab science requirement:

- BIO 120 - General Biology 1D - Credits: 4.00
- BIO 121 - General Biology IID - Credits: 3.00
- BIO 122 - General Biology IIID - Credits: 3.00
- BIO 127 - Field Botany - Credits: 3.00
- BIO 175 - Human Anatomy - Credits: 3.00 AND
  BIO 176 - Human Anatomy Lab - Credits: 1.00
- BIO 178 - Human Physiology - Credits: 3.00 AND
  BIO 179 - Human Physiology Lab - Credits: 1.00
- BIO 187 - Microbiology w/lab - Credits: 4.00
- CHM 157 - Principles of Chemistry I - Credits: 3.00
- CHM 158 - Principles of Chemistry II - Credits: 3.00
- CHM 159 - Principles of Chemistry III - Credits: 4.00
- CHM 166 - General Chemistry I - Credits: 5.00
- CHM 176 - General Chemistry II - Credits: 5.00
- CHM 251 - Organic Chemistry I - Credits: 3.00
- CHM 252 - Organic Chemistry II - Credits: 3.00
- CHM 253 - Organic Chemistry III - Credits: 3.00
• PHY 200 - Classical Physics I - Credits: 3.00
• PHY 201 - Classical Physics II - Credits: 3.00
• PHY 202 - Classical Physics III - Credits: 3.00

C. You may select from the above courses or any of the following to fulfill remaining mathematics/sciences credit hour requirements:

III. Social Sciences (minimum of 9 semester credits)

A. You must select one of the following history courses:

• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
• HIS 151 - U.S. History to 1877 - Credits: 3.00
• HIS 152 - U.S. History since 1877 - Credits: 3.00

B. The remaining six semester credits may be selected from the above courses or from the following:

• ANT 105 - Cultural Anthropology - Credits: 3.00
• ECN 110 - Introduction to Economics - Credits: 3.00
• ECN 120 - Principles of Macroeconomics - Credits: 3.00
• ECN 130 - Principles of Microeconomics - Credits: 3.00
• GEO 121 - World Regional Geography - Credits: 3.00
• GEO 924 - Honors Project - Credits: 1.00
• GEO 949 - Special Topics - Credits: 1.00
• HIS 121 - Ancient Mediterranean World - Credits: 3.00
• HIS 125 - Modern Europe - Credits: 3.00
• HIS 141 - History of Asia - Credits: 3.00
• HIS 201 - Iowa History - Credits: 3.00
• HIS 214 - Russian History and Culture - Credits: 3.00
• HIS 257 - African American History - Credits: 3.00
• HIS 927 - Honors Study - Credits: 1.00
• HIS 949 - Special Topics - Credits: 1.00
• POL 111 - American National Government - Credits: 3.00
• POL 121 - International Relations - Credits: 3.00
• POL 949 - Special Topics - Credits: 1.00
• PSY 111 - Introduction to Psychology - Credits: 3.00
• PSY 112 - Psychology of Human Relations - Credits: 3.00
• PSY 121 - Developmental Psychology - Credits: 3.00
• PSY 211 - Psychology of Adjustment - Credits: 3.00
• PSY 223 - Child and Adolescent Psychology - Credits: 3.00
• PSY 226 - Psychology of Aging - Credits: 3.00
• PSY 241 - Abnormal Psychology - Credits: 3.00
• PSY 251 - Social Psychology - Credits: 3.00
• PSY 263 - Multicultural Psychology - Credits: 3.00
• PSY 281 - Educational Psychology - Credits: 3.00
• PSY 296 - Investigating the Effects of Recreational Drugs - Credits: 1.00
• PSY 924 - Honors Project - Credits: 1.00
• PSY 949 - Special Topics - Credits: 1.00
• SOC 110 - Introduction to Sociology - Credits: 3.00

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• SOC 115 - Social Problems - Credits: 3.00
• SOC 120 - Marriage and Family - Credits: 3.00
• SOC 135 - Death and Dying - Credits: 3.00
• SOC 147 - Foreign and Domestic Terrorism - Credits: 3.00
• SOC 170 - Sociology and Technology - Credits: 3.00
• SOC 230 - Juvenile Delinquency - Credits: 3.00
• SOC 240 - Criminology - Credits: 3.00
• SOC 242 - Introduction to Corrections - Credits: 3.00
• SOC 244 - Criminal Procedures - Credits: 3.00
• SOC 245 - Criminal Law - Credits: 3.00
• SOC 261 - Human Sexuality - Credits: 3.00
• SOC 280 - Social Issues - Credits: 3.00
• SOC 924 - Honors Project - Credits: 1.00
• SOC 949 - Special Topics - Credits: 1.00

IV. Humanities and Fine Arts (minimum of 8 semester credits)

A. You must select at least 3 credits from the following literature courses:

• LIT 101 - Introduction to Literature - Credits: 3.00
• LIT 110 - American Literature to Mid-1800’s - Credits: 3.00
• LIT 112 - American Literature: 1945 to Present - Credits: 3.00
• LIT 113 - American Literature: 1865 to 1945 - Credits: 3.00
• LIT 140 - British Literature I - Credits: 3.00
• LIT 141 - British Literature II - Credits: 3.00
• LIT 150 - World Literature I - Credits: 3.00
• LIT 152 - Early Modern World Literature - Credits: 3.00
• LIT 153 - Modern World Literature - Credits: 3.00
• LIT 157 - Bible as Literature - Credits: 3.00
• LIT 161 - The Short Story - Credits: 3.00
• LIT 165 - The Novel - Credits: 3.00
• LIT 167 - Popular Genres I - Credits: 3.00
• LIT 168 - Popular Genres II - Credits: 3.00
• LIT 171 - Survey of Poetry - Credits: 3.00
• LIT 175 - Survey of Drama - Credits: 3.00
• LIT 181 - Mythology and Literature - Credits: 3.00
• LIT 190 - Women Writers - Credits: 3.00
• LIT 802 - Readings in Literature I - Credits: 1.00
• LIT 804 - Readings in Literature II - Credits: 2.00
• LIT 806 - Readings in Literature III - Credits: 3.00

B. The remaining 5 credits may be selected from any of the above courses or any of the following:

• ART – any course
• CLS 106 - Popular Culture - Credits: 1.00
• CLS 150 - Latin American History and Culture - Credits: 3.00
• CLS 155 - Brazilian History and Culture - Credits: 3.00
• CLS 175 - Native American Studies - Credits: 3.00
• CLS 185 - Cultural History of Iowa - Credits: 3.00
• CLS 215 - Cultural Excursions I - Credits: 1
• CLS 216 - Cultural Excursions II - Credits: 2
• CLS 217 - Cultural Excursions III - Credits: 3
• CLS 222 - Survey of Latino Literature U.S./Mexico - Credits: 3.00
• DRA 101 - Introduction to Theatre - Credits: 3.00
• DRA 108 - Drama Excursions - Credits: 1.00
• DRA 109 - Drama Excursions II - Credits: 1.00
• DRA 110 - Introduction to Film - Credits: 3.00
• DRA 130 - Acting I - Credits: 3.00
• DRA 132 - Acting II - Credits: 3.00
• DRA 133 - Acting III - Credits: 3.00
• DRA 162 - Technical Theatre - Credits: 3.00
• DRA 180 - Theatre Lab I - Credits: 1.00
• DRA 181 - Theatre Lab II - Credits: 1.00
• DRA 235 - Acting Workshop - Credits: 3.00
• DRA 280 - Theatre Lab III - Credits: 1.00
• DRA 281 - Theatre Lab IV - Credits: 1.00
• FLS 125 - Spanish for Health Professionals - Credits: 3.00
• FLS 131 - Elementary Spanish I - Credits: 3.00
• FLS 132 - Elementary Spanish II - Credits: 3.00
• FLS 133 - Elementary Spanish III - Credits: 3.00
• FLS 153 - Accelerated Elementary Spanish I - Credits: 5.00
• FLS 154 - Accelerated Elementary Spanish II - Credits: 5.00
• FLS 231 - Intermediate Spanish I - Credits: 3.00
• FLS 232 - Intermediate Spanish II - Credits: 3.00
• FLS 233 - Intermediate Spanish III - Credits: 3.00
• HUM 135 - Humanities of the Early World - Credits: 3.00
• HUM 136 - Humanities of the Renaissance - Credits: 3.00
• HUM 137 - Humanities of the Modern World - Credits: 3.00
• HUM 205 - Humanities: The Hero - Credits: 3.00
• HUM 210 - Humanities: Nature of Conflict - Credits: 3.00
• HUM 927 - Honors Study - Credits: 1.00
• HUM 952 - Topics - Credits: 1.00
• MUA – any course
• MUS – any course
• PHI 101 - Introduction to Philosophy - Credits: 3.00
• PHI 105 - Introduction to Ethics - Credits: 3.00
• PHI 114 - Critical Reasoning - Credits: 3.00
• PHI 120 - Modern Philosophy - Credits: 3.00
• PHI 121 - Classical/Medieval Philosophy - Credits: 3.00
• PHI 145 - Introduction to Ethical Conflicts - Credits: 3.00
• REL 101 - Survey of World Religions - Credits: 3.00
• WST 101 - Women's Studies - Credits: 3.00

V. Computer Literacy (minimum of 3 credits counted as General Elective hours)

• CSC 110 - Introduction to Computers - Credits: 3.00
  or
• CSC 116 - Information Computing - Credits: 3.00
VI. How To Be Successful In College: SDV 101 (3 Semester Credits counted as General Elective hours)

VII. General Electives (12 semester credits)

These unrestricted electives may be selected from the previously mentioned areas or any of the following courses:

Business

- ACC 931 - Accounting Internship - Credits: 1.00
- BUS 102 - Introduction to Business - Credits: 3.00
- BUS 104 - Business Essentials - Credits: 3.00
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- BUS 204 - Professionalism in the Workplace - Credits: 3.00
- BUS 924 - Honors Project - Credits: 1.00
- BUS 932 - Internship - Credits: 1.00
- BUS 949 - Special Topics - Credits: 1.00
- FIN 121 - Personal Finance - Credits: 3.00
- MGT 101 - Principles of Management - Credits: 3.00
- MGT 170 - Human Resource Management - Credits: 3.00
- MGT 220 - Intro to Sport Management - Credits: 3.00
- MKT 110 - Principles of Marketing - Credits: 3.00
- MKT 140 - Principles of Selling - Credits: 3.00
- MKT 198 - Sports Marketing - Credits: 3.00

Education

- EDU 120 - Communication, Ethics and - Credits: 2.00
- EDU 121 - Behavior Improvement - Credits: 2.00
- EDU 122 - Roles and Responsibilities - Credits: 2.00
- EDU 213 - Introduction to Education - Credits: 3.00
- EDU 235 - Children's Literature - Credits: 3.00
- EDU 260 - Art for the Elementary Educator - Credits: 3.00
- EDU 925 - Honors Research - Credits: 1.00
- EDU 949 - Special Topics - Credits: 1.00

Physical Education

- PEA 122 - Cardiovascular Training I - Credits: 2.00
- PEA 135 - Golf I - Credits: 2.00
- PEA 152 - Racquet Sports I - Credits: 2.00
- PEA 155 - Recreational Activities I - Credits: 2.00
- PEA 188 - Weight Training I - Credits: 2.00
- PEA 222 - Cardiovascular Training II - Credits: 2.00
- PEA 235 - Golf II - Credits: 2.00
- PEA 288 - Weight Training II - Credits: 2.00
- PEC 112 - Theory of Coaching - Credits: 3.00
- PEC 113 - Coaching Ethics - Credits: 3.00
- PEC 162 - Sports Officiating: Fall Sports - Credits: 2.00
- PEC 163 - Sports Officiating: Winter Sports - Credits: 2.00
- PEC 164 - Sports Officiating: Spring Sports - Credits: 2.00
• PEH 102 - Health - Credits: 3.00
• PEH 115 - Wellness Education - Credits: 3.00
• PEH 142 - First Aid - Credits: 3.00
• PEH 162 - Introduction to Physical Education - Credits: 3.00
• PEH 176 - Sport Psychology - Credits: 3.00
• PEH 210 - Elementary Physical Education - Credits: 3.00
• PEH 215 - Introduction to Secondary Physical Education - Credits: 3.00
• PET 105 - Basic Athletic Training - Credits: 3.00
• PET 140 - Athletic Training Practicum I - Credits: 1.00
• PET 146 - Athletic Training Administration - Credits: 3.00
• PET 150 - Athletic Training Practicum II - Credits: 1.00
• PET 171 - Athletic Training Practicum III - Credits: 1.00
• PET 181 - Athletic Training Practicum IV - Credits: 1.00
• PET 185 - Athletic Training Practicum V - Credits: 1.00
• PET 250 - Introduction to Modalities - Credits: 3.00
• PEV 107 - Techniques of Sports I - Credits: 1.00
• PEV 108 - Techniques of Sports II - Credits: 1.00
• PEV 207 - Techniques of Sports III - Credits: 1.00
• PEV 208 - Techniques of Sports IV - Credits: 1.00

Other:

• MMS 241 - Public Relations and Marketing - Credits: 3.00
• SDV 126 - Library and Internet Research - Credits: 2.00
• SDV 142 - Career Planning - Credits: 3.00

Notes:

* A maximum of 16 semester credits (subject to Registrar approval) may be awarded for some technical education course work.

Associate of Science, A.S.

This focus area is designed for the student who is interested in pursuing a degree in a STEM field of study at a four-year institution. The general education courses required will apply to many major areas. Students may use this opportunity to explore a variety of academic majors and career possibilities.

Program Learning Outcomes

1. use and understand facts, concepts, theories of math and science
2. use scientific techniques
3. employ analytic and problem-solving skills
4. draw inferences from observations and synthesize and integrate information and ideas
5. use higher-order thinking skills in applying learned principles to new problems and real-world situations

Term I Fall, Freshman Year

• CHM 157 - Principles of Chemistry I - Credits: 3.00
• MAT 210 - Calculus I - Credits: 4.00

Total: 7 Credits

Term II Winter, Freshman Year

• CHM 158 - Principles of Chemistry II - Credits: 3.00
• MAT 216 - Calculus II - Credits: 4.00
Total: 7 Credits

Term III Spring, Freshman Year
• CHM 159 - Principles of Chemistry III - Credits: 4.00
• MAT 219 - Calculus III - Credits: 4.00
Total: 8 Credits

Term IV Fall, Sophomore Year
• BIO 120 - General Biology 1D - Credits: 4.00
• CHM 251 - Organic Chemistry I - Credits: 3.00
• PHY 200 - Classical Physics I - Credits: 3.00
Total: 10 Credits

Term V Winter, Sophomore Year
• BIO 122 - General Biology IID - Credits: 3.00
• CHM 252 - Organic Chemistry II - Credits: 3.00
• PHY 201 - Classical Physics II - Credits: 3.00
Total: 9 Credits

Term VI Spring, Sophomore Year
• BIO 121 - General Biology IID - Credits: 3.00
• CHM 253 - Organic Chemistry III - Credits: 3.00
• PHY 202 - Classical Physics III - Credits: 3.00
Total: 9 Credits

This is the sequence for Math and Science Courses and does not include General Education courses.

Transfer Majors

Agriculture Education, A.A.

Associate of Arts Degree in Agriculture Education
Offered at Centerville Campus

Students who intend to complete an Associate of Arts Degree in Agriculture Education and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Agriculture Education Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Agriculture Education Transfer Major will receive an Associate of Arts Degree in Agriculture Education. This degree is designed to give students the skills and knowledge necessary to start or further develop an agricultural business, and/or work in an agriculture education related field.

Program Total: 64 Credits
Term I

- AGS 113 - Survey of the Animal Industry - Credits: 3.00
- AGA 154 - Fundamentals of Soil Science - Credits: 3.00
- BIO 120 - General Biology 1D - Credits: 4.00
- ENG 105 - Composition I - Credits: 3.00

Total: 13 Credits

Term II

- ENG 106 - Composition II - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- BIO 122 - General Biology IIID - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00

Total: 12 Credits

Term III

- AGA 114 - Principles of Agronomy - Credits: 3.00
- BIO 121 - General Biology IID - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

Total: 12 Credits

Term IV

- CHM 121 - Introduction to General Chemistry - Credits: 3.00
- ACC 152 - Financial Accounting - Credits: 4.00
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00 or HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00 or HIS 151 - U.S. History to 1877 - Credits: 3.00 or HIS 152 - U.S. History since 1877 - Credits: 3.00

Total: 10 Credits

Term V

- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 or SPC 112 - Public Speaking - Credits: 3.00
- Literature Elective-Credits: 3.00
- Humanities/Fine Arts Elective- Credits: 3.00

Total: 9 Credits

Term VI

- Social Science Elective- Credits: 3.00
- Humanities/Fine Arts Elective- Credits: 2.00
- A.A. Elective- Credits: 3.00

Total: 8 Credits
Agronomy, A.S.

Associate of Science Degree in Agronomy
Offered on Centerville Campus

Students who intend to complete an Associate of Science Degree in Agronomy and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Agronomy Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Agronomy Transfer Major will receive an Associate of Science Degree in Agronomy. This degree is designed to give students the skills and knowledge necessary to start or further develop a career in agricultural business, and/or work in a related field. The program prepares students for an easy articulation to a four-year college or university to continue their education.

Program Total: 64 Credits

Term I

- ENG 105 - Composition I - Credits: 3.00
- AGA 154 - Fundamentals of Soil Science - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

Total: 12 Credits

Term II

- ENG 106 - Composition II - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- Math/Science Elective - Credits: 3.00

Total: 9 Credits

Term III

- MAT 156 - Statistics - Credits: 3.00
- AGA 114 - Principles of Agronomy - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
- Social Science Elective - Credits: 3.00

Total: 12 Credits

Term IV

- CHM 121 - Introduction to General Chemistry - Credits: 3.00
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- Math/Science Elective - Credits: 3.00
- A.A. Elective - Credits: 3.00

Total: 12 Credits
Term V

- MAT 120 - College Algebra - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 2.00
- A.A. Elective - Credits: 3.00
- Math/Science Elective - Credits: 3.00

Total: 11 Credits

Term VI

- Literature Elective - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 3.00
- Math/Science Elective - Credits: 2.00

Total: 8 Credits

Animal Science, A.S.

Associate of Science Degree in Animal Science
Offered on Centerville Campus

Students who intend to complete an Associate of Science Degree in Animal Science and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Animal Science Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Animal Science Transfer Major will receive an Associate of Science Degree in Animal Science. This degree is designed to give students the skills and knowledge necessary to start or further develop an agricultural business, and/or work in an animal science related field. During the course of this program students will be exposed to strategies designed for profitability for the farmer, environmental protection, and animal husbandry.

Program Learning Outcomes
1. Develop students' knowledge of animal science.
2. Develop students' skill in implementation of animal husbandry.
3. Define basic agricultural terminology.
4. Develop a sustainable breeding program.
5. Develop a sustainable nutrition program.
6. Analyze Expected Progeny Differences (EPD) for their value to the animal enterprise.
7. Evaluate the quality of feedstuffs.

Program Total: 64 Credits

Term I

- AGS 113 - Survey of the Animal Industry - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- BIO 120 - General Biology 1D - Credits: 4.00

Total: 13 Credits

Term II

- ENG 106 - Composition II - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- BIO 121 - General Biology IID - Credits: 3.00
Total: 12 Credits

Term III

- MAT 156 - Statistics - Credits: 3.00
- Humanities/Fine Arts Elective- Credits: 3.00
- A.A. Elective- Credits: 3.00
- BIO 122 - General Biology IIID - Credits: 3.00

Total: 12 Credits

Term IV

- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
- HIS 151 - U.S. History to 1877 - Credits: 3.00
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00
- Social Science Elective- Credits: 3.00

Total: 9 Credits

Term V

- MAT 120 - College Algebra - Credits: 3.00
- A.A. Elective- Credits: 3.00
- Humanities/Fine Arts Elective: 2.00

Total: 8 Credits

Term VI

- AGS 226 - Beef Cattle Science - Credits: 3.00
- Math/Science Elective- Credits: 4.00
- Literature Elective- Credits: 3.00

Total: 10 Credits

Biology, A.S.

Associate of Science Degree in Biology
Offered at Ottumwa and Centerville Campuses

Students who intend to complete an Associate of Science Degree in Biology and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Biology Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Biology Transfer Major will receive an Associate of Science Degree in Biology. This degree is suitable for students interested in employment in a biology field in a position such as laboratory technician. It also applies to students interested in transferring to a four-year institution in order to pursue a baccalaureate degree or advanced degrees in the life sciences. The curriculum establishes the necessary foundation in mathematics, physics, chemistry, and biology.
Program Learning Outcomes
1. Use and understand the facts, concepts, theories, and vocabulary of biology.
2. Use the techniques and tools of biology in the laboratory and in the field.
3. Use the scientific process and describe the development of scientific ideas.
4. Employ analytic and problem-solving skills.
5. Draw inferences from observations and synthesize and integrate information and ideas.
6. Use higher-order thinking skills in applying learned principles to new problems and real-world situations.
7. Recognize that humans are one component of the natural world.
8. Be successful in upper-level biology courses.

Career Possibilities
The Associate of Science Degree in Biology Transfer Major graduate has three major options:

1. Employment can be found after receiving the Associate of Science Degree in Biology as biological laboratory technician, hospital laboratory technician (non-certified), laboratory matter sampler, or animal care technician.
2. Transfer to a four-year institution and complete a baccalaureate degree in a biological science and find employment in a wide variety of fields, including forestry, biochemistry, pollution control, horticulture, environmental science, wildlife management, or agriculture.
3. Transfer to a four-year institution in a pre-professional program and develop a career in bio-engineering, chiropractic, clinical laboratory technology, dentistry, education, medicine, occupational or physical therapy, optometry, pharmacy, plant pathology, or veterinary medicine.

Preparation for IHCC
Prospective students should have a strong background in mathematics, science, writing, and reading skills. At least one year of high school biology, one year of high school chemistry, one year of high school algebra, and four years of high school English are highly recommended. Additional courses in science and mathematics, including physics, geometry, and advanced courses in biology and chemistry are also recommended.

Recommended Courses
Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the biology program at the college to which they plan to transfer and work with a counselor and the biology faculty at IHCC to plan a program that meets those requirements. Note that college biology is a one-year course and it is important to take all three majors-level biology courses (BIO120, BIO121, and BIO122). If a student takes only one or two or the three courses, they may not transfer easily to a four-year college.

Program Total: 64 Credits

Term I

- CHM 157 - Principles of Chemistry I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- Social Science Elective- Credits: 3.00

Total: 12 Credits

Term II

- CHM 158 - Principles of Chemistry II - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- A.A. Elective- Credits: 3.00

Total: 12 Credits
Term III

- CHM 159 - Principles of Chemistry III - Credits: 4.00
- Literature Elective- Credits: 3.00
- Humanities/Fine Arts Elective- Credits: 2.00

Total: 9 Credits

Term IV

- BIO 120 - General Biology 1D - Credits: 4.00
- MAT 210 - Calculus I - Credits: 4.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00

Total: 11 Credits

Term V

- BIO 122 - General Biology IIID - Credits: 3.00
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- Social Science Elective- Credits: 3.00
- A.A. Elective- Credits: 2.00

Total: 11 Credits

Term VI

- BIO 121 - General Biology IID - Credits: 3.00
- Humanities/Fine Arts Elective- Credits: 3.00
- A.A. Elective- Credits: 3.00

Total: 9 Credits

Business, A.A.

Associate of Arts Degree in Business
Offered at Ottumwa Campus

Students who intend to complete an Associate of Arts Degree in Business and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Business Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Business Transfer Major will receive an Associate of Arts Degree in Business. This degree is designed to provide students with the skills and knowledge necessary to seek and hold employment in a business-related field, to provide students with a well-rounded education which can be transferred to a four-year college or university, and to provide students with the skills necessary to function in a diverse and computer-literate society.

The program offers a well-balanced distribution of business and liberal arts courses. The program is divided into two major areas of emphasis. One area focuses on the study of business topics, while the other area emphasizes the coursework that meets the
general education requirements. The program provides the student with the opportunity to develop skills, abilities, and understanding that are required for successful job entry or for advanced study in the business field.

**Program Learning Outcomes**
1. Display knowledge of business concepts required for today's ever-changing business environment.
2. Obtain an appreciation for the evolution of the profession and an awareness of the social, technological, political, legal and economic forces shaping its future.
3. Demonstrate the ability to recognize and appreciate ethical and social values.
4. Examine the theory, policy and trends of economic problems of society and the individual.

**Career Possibilities**
The Associate of Arts Degree in Business Transfer Major offers the student a number of career and educational opportunities. The curriculum is designed for career-oriented students who desire career positions in business, college transfer students who wish to complete a four-year degree, and working adults who want to complete their associate degree and gain further career skills for today's work environment.

Graduates with a bachelor's degree work in management, human resources, finance, production, marketing, sales, accounting or as administrative assistants in all areas of commerce and industry.

**Preparation for IHCC**
A strong mathematics and English background is recommended for the business program.

**Recommended Courses**
Since the bachelor's degree requirements of various transfer institutions differ, students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the business program at the institution to which they plan to transfer. Students should consult with an advisor at the transfer institution and with an IHCC academic counselor to plan a program that meets those requirements.

**Program Total: 64-65 Credits**

**Term I**
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- CSC 116 - Information Computing - Credits: 3.00
- MAT 140 - Finite Math - Credits: 3.00
  or
- MAT 156 - Statistics - Credits: 3.00
  or
- MAT 210 - Calculus I - Credits: 4.00

Total: 12 or 13 Credits

**Term II**
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- BUS 185 - Business Law I - Credits: 3.00
- Lab/Science Elective - Credits: 3.00

Total: 12 Credits

**Term III**
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- BUS 102 - Introduction to Business - Credits: 3.00
  or
- MGT 101 - Principles of Management - Credits: 3.00
or

• BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
or
• FIN 121 - Personal Finance - Credits: 3.00
• Math Elective- Credits: 3.00

Total: 9 Credits

Term IV

• ACC 152 - Financial Accounting - Credits: 4.00
• SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
or
• SPC 112 - Public Speaking - Credits: 3.00
• Literature Elective- Credits: 3.00

Total: 10 Credits

Term V

• ACC 156 - Managerial Accounting - Credits: 4.00
• MKT 110 - Principles of Marketing - Credits: 3.00
• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
or
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
or
• HIS 151 - U.S. History to 1877 - Credits: 3.00
or
• HIS 152 - U.S. History since 1877 - Credits: 3.00

Total: 10 Credits

Term VI

• PHI 105 - Introduction to Ethics - Credits: 3.00
• A.A. Elective- Credits: 3.00
• Humanities/Fine Arts Elective- Credits: 2.00
• A.A. Elective- Credits: 3.00

Total: 11 Credits

Business Electives

• BUS 102 - Introduction to Business - Credits: 3.00
• BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
• BUS 204 - Professionalism in the Workplace - Credits: 3.00
• ECN 110 - Introduction to Economics - Credits: 3.00
• FIN 121 - Personal Finance - Credits: 3.00
• MGT 101 - Principles of Management - Credits: 3.00
• MGT 170 - Human Resource Management - Credits: 3.00
• MMS 241 - Public Relations and Marketing - Credits: 3.00
Chemistry, A.S.

Associate of Science Degree in Chemistry

Students who intend to complete an Associate of Science Degree in Chemistry and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Chemistry Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Chemistry Transfer Major will receive an Associate of Science Degree in Chemistry. This degree provides a foundation for students interested in chemistry. It is suitable for students interested in employment in a chemistry field such as a laboratory technician. It also applies to students interested in transferring to a four-year institution in order to pursue a baccalaureate degree or advanced degrees in chemistry. The curriculum establishes the necessary foundation in mathematics, physics and chemistry.

Program Learning Outcomes

1. Use and understand the facts, concepts, theories, and vocabulary of chemistry.
2. Use the techniques and tools of chemistry.
3. Use the scientific process and describe the development of scientific ideas.
4. Employ analytic and problem-solving skills.
5. Draw inferences from observations and synthesize and integrate information and ideas.
6. Use higher-order thinking skills in applying learned principles to new problems and real-world situations.
7. Be successful in upper-level chemistry courses.

Career Possibilities

Chemistry is a science central to many other disciplines. The Associate of Science Degree in Chemistry Transfer Major graduate has two major options:

1. Transfer to a four-year institution and complete a baccalaureate degree in chemistry or a biological science and find employment in agriculture, biotechnology, medicine, and the petrochemical and pharmaceutical industries.
2. Transfer to a four-year institution in a pre-professional or professional program and develop a career in bioengineering, chiropractic, clinical laboratory technology, dentistry, education, medicine, occupational or physical therapy, optometry, pharmacy, plant pathology, or veterinary medicine.

Preparation for IHCC

Prospective students should have a strong background in mathematics, science, writing, and reading skills. At least one year of high school chemistry, one year of high school geometry, two years of high school algebra, and four years of high school English are highly recommended.

Recommended Courses

Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the chemistry program at the college to which they plan to transfer and work with a counselor and the chemistry faculty at IHCC to plan a program that meets those requirements.

Program Total: 64 Credits

Term I

- CHM 157 - Principles of Chemistry I - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- Social Science Elective - Credits: 3.00

Total: 12 Credits

Term II
• CHM 158 - Principles of Chemistry II - Credits: 3.00
• ENG 106 - Composition II - Credits: 3.00
• CSC 110 - Introduction to Computers - Credits: 3.00
  or
• CSC 116 - Information Computing - Credits: 3.00
• A.A. Elective- Credits: 3.00

Total: 12 Credits

Term III

• CHM 159 - Principles of Chemistry III - Credits: 4.00
• Literature Elective- Credits: 3.00
• Humanities/Fine Arts Elective- Credits: 3.00

Total: 10 Credits

Term IV

• CHM 251 - Organic Chemistry I - Credits: 3.00
• MAT 210 - Calculus I - Credits: 4.00
• SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
• SPC 112 - Public Speaking - Credits: 3.00

Total: 10 Credits

Term V

• CHM 252 - Organic Chemistry II - Credits: 3.00
• MAT 216 - Calculus II - Credits: 4.00
• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
• HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
• HIS 152 - U.S. History since 1877 - Credits: 3.00
• Humanities/Fine Arts Elective- Credits: 3.00

Total: 12 Credits

Term VI

• CHM 253 - Organic Chemistry III - Credits: 3.00
• A.A. Elective- Credits: 2.00
• Social Science Elective-Credits: 3.00

Total: 8 Credits

Communication, A.A.

Associate of Arts Degree in Communication

Students who intend to complete an Associate of Arts Degree in Communication and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.
The Communication Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Communication Transfer Major will receive an Associate of Arts Degree in Communication. This degree provides an excellent foundation for students interested in transferring to a four-year college to earn a baccalaureate degree with a major in communication or related field. The curriculum focuses on oral and written communication, literature, creative writing and media.

**Program Learning Outcomes**

1. Identify the role oral communication plays in academic, social, and professional endeavors.
2. Plan, prepare, and deliver a well-organized, persuasive, and ethical presentation that demonstrates critical thinking skills.
3. Adapt oral messages to diverse audiences.
4. Use appropriate presentation techniques.
5. Listen critically.
6. Demonstrate group communication skills.

**Career Possibilities**

The Associate of Arts Degree in Communication Transfer Major graduate has two major options:

1. After transferring to a four-year program and completing a bachelor's degree, employment can be found in secondary education, research, public relations, government, dramaturgy, journalism, speech writing, editing (evaluate manuscripts for publication, review books and literary, musical or artistic works), technical writing (prepare service manuals or handbooks; prepare sales literature; write publicity releases, catalogs, and brochures; company newsletters; and trade journals), writing (scripts for motion pictures and television, stage production, radio and television broadcasts; fiction or non-fiction works; newspaper or magazine articles).
2. Complete an advanced degree and develop a career in higher education along with those listed above.

**Preparation for IHCC**

Students considering a degree in Communication should take four years of high school English, as many literature classes as possible, and a speech class. They should also take any courses that require critical reading and provide opportunities for academic writing, no matter what field.

Since IHCC's program involves a variety of introductory level courses in literature, speech, creative writing and media, previous experience is not a requirement. Some advanced writing courses, however, require specific course prerequisites. Applicants are required to complete a basic skills evaluation during the admissions process or during the first week of classes for placement purposes.

**Recommended Courses**

Students are strongly advised to familiarize themselves with the Communication program at the college to which they plan to transfer and work with a counselor at IHCC to plan a program that meets those requirements.

**Program Total: 64 Credits**

**Term I**

- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
- Literature Elective - Credits: 3.00

Total: 12 Credits

**Term II**

- ENG 106 - Composition II - Credits: 3.00
- SPC 122 - Interpersonal Communication - Credits: 3.00
• CSC 110 - Introduction to Computers - Credits: 3.00
or
• CSC 116 - Information Computing - Credits: 3.00
• Lab/Science Elective- Credits: 3.00

Total: **12 Credits**

**Term III**

- COM 140 - Introduction to Mass Media - Credits: 3.00
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
or
- HIS 152 - U.S. History since 1877 - Credits: 3.00
• Social Science Elective- Credits: 3.00
• Humanities/Fine Arts Elective- Credits: 3.00

Total: **12 Credits**

**Term IV**

- COM 148 - Diversity and the Media - Credits: 3.00
- Math Elective- Credits: 3.00
- A.A. Elective- Credits: 3.00
- Humanities/Fine Arts Elective: Credits: 2.00

Total: **11 Credits**

**Term V**

- AA Elective-Credits: 3.00
- Math/Science Elective- Credits: 2.00
- Social Science Elective- Credits: 3.00

Total: **8 Credits**

**Term VI**

- SPC 170 - Professional Communication - Credits: 3.00
- AA Elective- Credits: 6.00

Total: **9 Credits**

**Criminal Justice, A.A.**

**Associate of Arts Degree in Criminal Justice**
Offered Only at Main Campus

Students who intend to complete an Associate of Arts Degree in Criminal Justice and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Criminal Justice Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Criminal Justice Transfer Major will receive an Associate of Arts Degree in Criminal Justice. This degree prepares students for careers in the area of public safety. The program focuses on major issues concerning criminal justice as a profession. The program director
and instructors have the responsibility to the community and the public to carefully screen and advise those persons choosing criminal justice as a profession.

All applicants to this program will undergo a criminal background check. This program is closed to all applicants with a felony record. It would be unfair for Indian Hills to allow a student to complete the entire criminal justice program only to be refused employment because of a felony or serious misdemeanor conviction. Students enrolled in this program will experience unique pre-employment qualifications, which may include passing extensive criminal and character background checks, physical requirements, polygraph testing, oral boards, drug screening and/or other requirements pertinent to current hiring practices.

To enroll, complete an application and attend any required academic orientation and information session. Students meeting all program and graduation requirements receive an Associate of Arts degree, with a major in Criminal Justice.

**Program Learning Outcomes**
1. Understand the major subsystems in the criminal justice field and how each functions.
2. Understand the impact the United States Constitution has on various criminal justice components and their actors.
3. Demonstrate sound ethical values when making decisions in the criminal justice system.
4. Know the general concepts of criminal law.
5. Identify the major theories of crime causation.

**Program Total: 64 Credits**

**Term I**

- CRJ 100 - Intro to Criminal Justice - Credits: 3.00
- CRJ 101 - Ethics in Criminal Justice - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

**Total: 12 Credits**

**Term II**

- ENG 106 - Composition II - Credits: 3.00
- SOC 242 - Introduction to Corrections - Credits: 3.00
- SOC 244 - Criminal Procedures - Credits: 3.00
- Literature Elective- Credits: 3.00

**Total: 12 Credits**

**Term III**

- SOC 245 - Criminal Law - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00 or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00 or
- HIS 151 - U.S. History to 1877 - Credits: 3.00 or
- HIS 152 - U.S. History since 1877 - Credits: 3.00

**Total: 9 Credits**

**Term IV**

- CSC 110 - Introduction to Computers - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00
- Humanities/Fine Arts Elective- Credits: 3.00
- Lab/Science Elective - Credits: 3.00

Total: 12 Credits

Term V
- CRJ 242 - Applied Criminalistics - Credits: 3.00
- SOC 110 - Introduction to Sociology - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 2.00
- Math/Science Elective - Credits: 2.00

Total: 10 Credits

Term VI
- POL 111 - American National Government - Credits: 3.00
- SOC 230 - Juvenile Delinquency - Credits: 3.00
- SOC 240 - Criminology - Credits: 3.00

Total: 9 Credits

Early Childhood Teacher Licensure, A.A.
Associate of Arts Degree in Early Childhood Teacher Licensure

Students who intend to complete an Associate of Arts Degree in Early Childhood Teacher Licensure and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Early Childhood Teacher Licensure Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Early Childhood Teacher Licensure Transfer Major will receive an Associate of Arts Degree in Early Childhood Teacher Licensure.

Program Learning Outcomes
1. Examine the impact historical events, perspectives and history overall has had on education.
2. Develop critical thinking skills.
3. Evaluate current trends or issues that could impact educating children.
4. Determine the use of technology in effective teaching.
5. Discuss and analyze personal competencies needed to be a professional educator.
6. Elaborate on the diversity found in education.

Career Possibilities
Students pursuing a degree in education may work as teachers at elementary (K-6) or secondary levels (7-12) and with an early childhood endorsement teach in Preschool to 3rd grade. Licensed teachers have many other options for employment such as with the U.S. Government, teaching for the Department of Defense or in a private or religious school. Both being two major alternatives to teaching in a public school system. In addition, teachers learn and gain many transferrable skills. These skills may qualify them or they are in need of a little additional training to work as a librarian, counselor, supervisor, administrator, in adult education, as an early childhood educator or at a day care center. Furthermore, licensed teachers can work in areas of recreation and leisure. These position may include playground leaders, program specialists in dance, drama, the arts, karate, tennis and other physical activity positions. Licensed teachers can fill position as recreation center directors, therapeutic recreation specialists, camp counselors, wilderness leaders, senior citizen program leaders, civilian special services directors in the armed forces, and industrial recreation directors.

Preparation for IHCC
Students planning a career in education should take four years of high school English. IHCC and preparation programs for educators requires strong skills in reading and writing. In addition, students are to have a strong foundation in other core academic subjects such as math, science, and social studies. Classrooms today are focusing on technological literacy so being
familiar or literate with computers is also a necessity for those interested in teaching. Additionally, students interested in pursuing an education major should consider electives in psychology. It is also advisable for students to volunteer in the public school system or find other opportunities to work with children in order to make an informed career decision.

Program Total: 64 Credits

Term I

- CSC 110 - Introduction to Computers - Credits: 3.00
- EDU 213 - Introduction to Education - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 12 Credits

Term II

- ENG 106 - Composition II - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- EDU 235 - Children's Literature - Credits: 3.00

Total: 9 Credits

Term III

- BIO 101 - Introductory Biology - Credits: 2.00
- BIO 103 - Introductory Biology Lab - Credits: 1.00
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  OR
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- PSY 121 - Developmental Psychology - Credits: 3.00
- EDU 246 - Including Diverse Learners - Credits: 3.00

Total: 12 Credits

Term IV

- MAT 117 - Math for Elementary Teachers - Credits: 3.00
- PSY 263 - Multicultural Psychology - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 3.00
- A.A. Elective - Credits: 2.00

Total: 11 Credits

Term V

- EDU 255 - Technology in the Classroom - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- PSY 281 - Educational Psychology - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits

Term VI

- EDU 282 - Field Experience: Exploring Teaching - Credits: 1.00
- Humanities/Fine Arts Elective - Credits: 2.00
Elementary Education, A.A.

Associate of Arts Degree in Elementary Education

Students who intend to complete an Associate of Arts Degree in Elementary Education and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Elementary Education Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Elementary Education Transfer Major will receive an Associate of Arts Degree in Elementary Education.

Program Learning Outcomes
1. Examine the impact historical events, perspectives and history overall has had on education.
2. Develop critical thinking skills.
3. Evaluate current trends or issues that could impact educating children.
4. Determine the use of technology in effective teaching.
5. Discuss and analyze personal competencies needed to be a professional educator.
6. Elaborate on the diversity found in education.

Career Possibilities
Students pursuing a degree in education may work as teachers at elementary (K-6) or secondary levels (7-12) and with an early childhood endorsement teach in Preschool to 3rd grade. Licensed teachers have many other options for employment such as with the U.S. Government, teaching for the Department of Defense or in a private or religious school. Both being two major alternatives to teaching in a public school system. In addition, teachers learn and gain many transferrable skills. These skills may qualify them or they are in need of a little additional training to work as a librarian, counselor, supervisor, administrator, in adult education, as an early childhood educator or at a day care center. Furthermore, licensed teachers can work in areas of recreation and leisure. These position may include playground leaders, program specialists in dance, drama, the arts, karate, tennis and other physical activity positions. Licensed teachers can fill position as recreation center directors, therapeutic recreation specialists, camp counselors, wilderness leaders, senior citizen program leaders, civilian special services directors in the armed forces, and industrial recreation directors.

Preparation for IHCC
Students planning a career in education should take four years of high school English. IHCC and preparation programs for educators requires strong skills in reading and writing. In addition, students are to have a strong foundation in other core academic subjects such as math, science, and social studies. Classrooms today are focusing on technological literacy so being familiar or literate with computers is also a necessity for those interested in teaching. Additionally, students interested in pursuing an education major should consider electives in psychology. It is also advisable for students to volunteer in the public school system or find other opportunities to work with children in order to make an informed career decision.

Program Total: 64 Credits

Term I
- CSC 110 - Introduction to Computers - Credits: 3.00
- EDU 213 - Introduction to Education - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 12 Credits

Term II
• ENG 106 - Composition II - Credits: 3.00
• PSY 111 - Introduction to Psychology - Credits: 3.00
• EDU 235 - Children's Literature - Credits: 3.00

Total: 9 Credits

Term III

• BIO 101 - Introductory Biology - Credits: 2.00
• BIO 103 - Introductory Biology Lab - Credits: 1.00
• HIS 151 - U.S. History to 1877 - Credits: 3.00
OR
• HIS 152 - U.S. History since 1877 - Credits: 3.00
• PSY 121 - Developmental Psychology - Credits: 3.00
• EDU 246 - Including Diverse Learners - Credits: 3.00

Total: 12 Credits

Term IV

• MAT 117 - Math for Elementary Teachers - Credits: 3.00
• PSY 263 - Multicultural Psychology - Credits: 3.00
• Humanities/Fine Arts Elective - Credits: 3.00
• AA Elective - Credits: 2.00

Total: 11 Credits

Term V

• EDU 255 - Technology in the Classroom - Credits: 3.00
• MAT 156 - Statistics - Credits: 3.00
• PSY 281 - Educational Psychology - Credits: 3.00
• SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
OR
• SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits

Term VI

• EDU 282 - Field Experience: Exploring Teaching - Credits: 1.00
• Humanities/Fine Arts Elective - Credits: 2.00
• Literature Elective - Credits: 3.00
• A.A. Elective- Credits: 2.00

Total: 8 Credits

English, A.A.

Associate of Arts Degree in English

Students who intend to complete an Associate of Arts Degree in English and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The English Transfer Major provides a foundation for students interested in the life sciences. Graduates of the English Transfer Major will receive an Associate of Arts Degree in English. This degree provides an excellent foundation for students interested in transferring to a four-year college to earn a baccalaureate degree with a major in communication, literature, English or English
education. This program equally applies to those students who want to take selected English/literature courses to fulfill general education requirements. The curriculum focuses on oral and written communication, literature, drama, religion, philosophy, creative writing and media.

**Program Learning Outcomes**

1. Communicate effectively in academic and nonacademic situations;
2. Read, write and think critically and analytically;
3. Understand the social, historical and personal contexts that inform literary works; and
4. Research effectively using a variety of sources.

**Career Possibilities**

The Associate of Arts Degree in English Transfer Major graduate has two major options:

1. After transferring to a four-year program and completing a bachelor’s degree, employment can be found in secondary education, research, public relations, government, dramaturgy, journalism, speech writing, editing (evaluate manuscripts for publication, review books and literary, musical or artistic works), technical writing (prepare service manuals or handbooks; prepare sales literature; write publicity releases, catalogs, and brochures; company newsletters; and trade journals), writing (scripts for motion pictures and television, stage production, radio and television broadcasts; fiction or non-fiction works; newspaper or magazine articles).
2. Complete an advanced degree and develop a career in higher education along with those listed above.

**Preparation for IHCC**

Students considering a degree in English/Literature should take four years of high school English, as many literature classes as possible, and a speech class. They should also take any courses that require critical reading and provide opportunities for academic writing, no matter what field.

Since IHCC’s program involves a variety of introductory level courses in literature, drama, philosophy, religion, speech, creative writing and media, previous experience is not a requirement. Some advanced writing courses, however, require specific course prerequisites. Applicants are required to complete a basic skills evaluation during the admissions process or during the first week of classes for placement purposes.

**Recommended Courses**

Students are strongly advised to familiarize themselves with the English/Literature program at the college to which they plan to transfer and work with a counselor at IHCC to plan a program that meets those requirements.

**Program Total: 64 Credits**

**Term I**

- ENG 105 - Composition I - Credits: 3.00
- LIT 101 - Introduction to Literature - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits

**Term II**

- CSC 110 - Introduction to Computers - Credits: 3.00
  OR
- CSC 116 - Information Computing - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- LIT 110 - American Literature to Mid-1800’s - Credits: 3.00
- LAB XXX Lab Science Elective - Credits: 3.00
Total: 12 Credits

Term III

- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
- HIS 151 - U.S. History to 1877 - Credits: 3.00
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- GEB XXX General Education: Behavioral/Social Science - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00

Total: 9 Credits

Term IV

- LIT 140 - British Literature I - Credits: 3.00
  - GEM XXX - General Education: Mathematics - Credits 2.00 OR
  - GES XXX - General Education: Science - Credits: 2.00
  - XXX XXX A.A. Elective: Credits: 3.00
  - GEB XXX General Education: Behavioral/Social Science: Credits: 3.00

Total: 11 Credits

Term V

- LIT 141 - British Literature II - Credits: 3.00
  - XXX XXX A.A. Elective - Credits: 3.00
  - XXX XXX A.A. Elective - Credits: 3.00
  - XXX XXX A.A. Elective - Credits: 2.00

Total: 11 Credits

Term VI

- A. A. Elective - Credits: 3.00
- A. A. Elective - Credits: 3.00
- A. A. Elective - Credits: 3.00

Total: 9 Credits

English/Humanities Electives

- DRA 101 Introduction to Theatre
- DRA 110 Introduction to Film
- ENG 225 Creative Writing Poetry
- ENG 230 Creative Writing Fiction
- ENG 241 Creative Writing Seminar I
- ENG 242 Creative Writing Seminar II
- ENG 243 Creative Writing Seminar III
- HUM 205 Humanities: The Hero
- LIT 110 American Literature: to Mid-1800s
- LIT 112 American Literature: 1945 to Present
- LIT 113 American Literature: 1865 to 1945
- LIT 140 British Literature I
- LIT 141 British Literature II
- LIT 150 World Literature I
- LIT 152 Early Modern World Literature
- LIT 153 Modern World Literature
- LIT 157 Bible as Literature
- LIT 161 The Short Story
- LIT 165 The Novel
- LIT 167 Popular Genres I
Fine Arts, A.A.

Associate of Arts Degree in Fine Arts
Offered at Ottumwa Campus

Students who intend to complete an Associate of Arts Degree in Fine Arts and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

This area of concentration provides an excellent foundation for students interested in transferring to a four-year college to earn a baccalaureate degree with a major in one of the several areas of fine arts education. The program may also apply to those students who want to take selected courses to fulfill general education requirements. The curriculum focuses on studies in art, design, and the history of art. The courses combine creative experiences with technical training in the skills and aesthetic principles of various art forms. Throughout the program, students will be provided information on transfer options and on the preparation and presentation of a portfolio of work for a four-year program. Graduates of the Fine Arts Transfer Major will receive an Associate of Arts Degree in Fine Arts.

Program Total: 64 Credits

Term I

- ART 120 - 2-D Design - Credits: 3.00
- ART 133 - Drawing - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 12 Credits

Term II

- ART 134 - Drawing II - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- XXX XXX Lab/Science Elective - 3.00 Credits
- ART XXX Art Elective - 2.00 Credits

XXX XXX Social Science Elective - 3.00 Credits

Total: 11 Credits

Term III

- ART 123 - 3-D Design - Credits: 3.00
- ART XXX Art Elective - 3.00 Credits
- XXX XXX Social Science Elective - 3.00 Credits
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits
Term IV

- ART 203 - Art History I - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- LIT XXX Literature Elective - 3.00 Credits
- XXX XXX Math Elective - 3.00 Credits

Total: 12 Credits

Term V

- ART 204 - Art History II - Credits: 3.00
- ART XXX Art Elective - 3.00 Credits
- XXX XXX Math/Science Elective - 2.00 Credits

Total: 8 Credits

Term VI

- ART XXX Art Elective - 3.00 Credits
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  OR
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  OR
- HIS 152 - U.S. History since 1877 - Credits: 3.00

Total: 9 Credits

History, A.A.

Associate of Arts Degree in History

Students who intend to complete an Associate of Arts Degree in History and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The History Transfer Major provides a foundation for students interested in the life sciences. Graduates of the History Transfer Major will receive an Associate of Arts Degree in History. This degree provides the necessary background for students interested in transferring to a four-year institution to earn a baccalaureate degree with a major in history or history education. The curriculum provides the student with the opportunity to satisfy the general education requirements for history majors in most four-year institutions.

Program Learning Outcomes

1. Substantial familiarity with the vast amount of historical information.
2. Intense exposure to the historical interrelationship of political, social and economic processes.
3. Comparative analysis of nations and civilizations.

Career Possibilities

The Associate of Arts Degree in History Transfer Major graduate has two major options:

1. Transfer to a four-year program and complete a bachelor's degree in history. Job and career opportunities extend over a large spectrum embracing governmental, corporate, and private elements. Generally, more than 50 specific careers are listed for history graduates. Some of these include: archivist, curator, historian, politician and researcher.
2. Transfer to a four-year program and complete a bachelor's degree in history education. Most of the job and career opportunities listed above also apply to a degree in history education. A history education degree would be required in order to become a teacher of history.
Preparation for IHCC
Students considering a degree in history or history education should have good reading and writing skills. Students also should take all available history, English, and government courses in high school. Students are strongly urged to routinely read as many newspapers and periodicals as possible.

Recommended Courses
Students are strongly advised to familiarize themselves with the history/history education program at the college to which they plan to transfer and work with a counselor at IHCC to plan a program that meets those requirements.

Program Total: 64 Credits

Required Courses

- CSC 110 - Introduction to Computers - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
- Math Elective - Credits: 3.00
- Lab/Science Elective - Credits: 3.00
- Math/Science Elective - Credits: 2.00
- Literature Elective - Credits: 3.00
- U.S. History/Western Civ Elective - Credits: 3.00

Recommended Courses

- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- GEO 121 - World Regional Geography - Credits: 3.00
- HIS 121 - Ancient Mediterranean World - Credits: 3.00
- HIS 125 - Modern Europe - Credits: 3.00
- HIS 141 - History of Asia - Credits: 3.00
- HIS 214 - Russian History and Culture - Credits: 3.00
- HIS 257 - African American History - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- PHI 114 - Critical Reasoning - Credits: 3.00
- POL 111 - American National Government - Credits: 3.00
- POL 121 - International Relations - Credits: 3.00

Mathematics, A.S.

Associate of Science Degree in Mathematics
Students who intend to complete an Associate of Science Degree in Mathematics and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Mathematics Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Mathematics Transfer Major will receive an Associate of Science Degree in Mathematics. This degree provides a foundation for students interested in mathematics (as well as many other careers). It is suitable for students interested in transferring to a four-year institution in order to pursue a baccalaureate degree or advanced degrees in mathematics, science, or business.
Program Learning Outcomes
1. Communication: Students will communicate mathematical ideas clearly, using appropriate mathematical terminology and notation.
2. Computation: Students will apply computational knowledge utilizing a variety of techniques to accurately and efficiently solve problems containing limits, derivatives, integrals, and differential equations.
3. Application: Students will demonstrate the ability to apply analytical and theoretical skills to model and solve mathematical problems using derivatives, integrals, and differential equations.
4. Technology: Students will use appropriate technological tools to contribute to concept development, reasoning, and problem-solving.

Career Possibilities
A mathematics major is one of the most versatile majors in Arts and Sciences. An understanding of mathematics is necessary for the study of many disciplines in science and business. The Associate of Science Degree in Mathematics Transfer Major graduate has three major options:

1. Transfer to a four-year institution and complete a baccalaureate degree in mathematics and find employment as a computer scientist, financial analyst, statistician, systems analyst, actuary, economist, laboratory supervisor, insurance salesman, secondary school teacher, bookkeeper, accountant, biostatistician, auditor, surveyor, air traffic controller, or tax consultant.
2. Transfer to a four-year institution and complete a baccalaureate degree in science such as biology, chemistry, or physics.
3. Transfer to a four-year institution in a pre-professional or professional program and develop a career in architecture, bioengineering, business, chiropractic, clinical laboratory technology, dentistry, education, law, medicine, occupational or physical therapy, optometry, pharmacy, plant pathology, or veterinary medicine.

Preparation for IHCC
Prospective students should have a strong background in mathematics, science, writing, and reading skills. At least two years of high school algebra, one year of high school geometry, one-half year of high school trigonometry, four years of high school English and one year of high school laboratory science are highly recommended.

Recommended Courses
Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the mathematics program at the college to which they plan to transfer and work with a counselor and the mathematics faculty at IHCC to plan a program that meets those requirements.

Program Total: 64 Credits

Term I
- ENG 105 - Composition I - Credits: 3.00
- MAT 210 - Calculus I - Credits: 4.00
- Social Science Elective - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 13 Credits

Term II
- MAT 216 - Calculus II - Credits: 4.00
- ENG 106 - Composition II - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
or
- CSC 116 - Information Computing - Credits: 3.00

Total: 10 Credits
Term III

- MAT 219 - Calculus III - Credits: 4.00
- Literature Elective - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 3.00
- Lab/Science Elective - Credits: 3.00

Total: 13 Credits

Term IV

- MAT 226 - Differential Equations with Laplace - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
- A.A. Elective - Credits: 3.00

Total: 9 Credits

Term V

- MAT 156 - Statistics - Credits: 3.00
- A.A. Elective - Credits: 2.00
- Social Science Elective - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 2.00

Total: 10 Credits

Term VI

- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- Math Elective - Credits: 3.00
- A.A. Elective - Credits: 3.00

Total: 9 Credits

Physics, A.S.

Associate of Science Degree in Physics
Offered at Main Campus

Students who intend to complete an Associate of Science Degree in Physics and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Physics Transfer Major provides a foundation for students interested in the life sciences. Graduates of the Physics Transfer Major will receive an Associate of Science Degree in Physics. This degree provides a foundation for students interested in physics. It is suitable for students interested in transferring to a four-year institution in order to pursue a baccalaureate degree or advanced degrees in physics. The curriculum establishes the necessary foundation in mathematics, physics and chemistry.

Program Learning Outcomes

1. Use and understand the facts, concepts, and theories of physics.
2. Use the scientific process and describe the development of scientific ideas.
3. Employ analytic and problem-solving skills.
4. Draw inferences from observations and synthesize and integrate information and ideas.
5. Use higher-order thinking skills in applying learned principles to new problems and real-world situations.
6. Be successful in upper-level physics courses.

**Career Possibilities:**
The Associate of Science Degree in Physics Transfer Major graduate has two major options:

1. Transfer to a four-year institution and complete a baccalaureate degree in physics or a biological science and find employment in a variety of fields.
2. Transfer to a four-year institution in a pre-professional or professional program and develop a career in bioengineering, chiropractic, clinical laboratory technology, dentistry, education, medicine, occupational or physical therapy, optometry, pharmacy, plant pathology, or veterinary medicine.

**Preparation for IHCC:**
Prospective students should have a strong background in mathematics, science, writing, and reading skills. At least one year of high school chemistry, one year of high school geometry, two years of high school algebra, and four years of high school English are highly recommended.

**Recommended Courses:**
Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the physics program at the college to which they plan to transfer and work with a counselor and the science faculty at IHCC to plan a program that meets those requirements.

**Program Total: 64 Credits**

**Term I**
- ENG 105 - Composition I - Credits: 3.00
- MAT 210 - Calculus I - Credits: 4.00
- Social Science Elective - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 13 Credits

**Term II**
- MAT 216 - Calculus II - Credits: 4.00
- ENG 106 - Composition II - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
  or
- CSC 116 - Information Computing - Credits: 3.00

Total: 10 Credits

**Term III**
- MAT 219 - Calculus III - Credits: 4.00
- Literature Elective - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 3.00
- A.A. Elective - Credits: 3.00

Total: 13 Credits

**Term IV**
- PHY 200 - Classical Physics I - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
or
• SPC 112 - Public Speaking - Credits: 3.00
• A.A. Elective - Credits: 3.00

Total: 9 Credits

Term V

• PHY 201 - Classical Physics II - Credits: 3.00
• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
• HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
• HIS 152 - U.S. History since 1877 - Credits: 3.00
• Humanities/Fine Arts Elective - Credits: 2.00
• A.A. Elective - Credits: 3

Total: 11 Credits

Term VI

• PHY 202 - Classical Physics III - Credits: 3.00
• Social Science Elective - Credits: 3.00
• A.A. Elective - Credits: 2.00

Total: 8 Credits

Political Science, A.A.

Associate of Arts Degree in Political Science

Students who intend to complete an Associate of Arts Degree in Political Science and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Political Science Transfer Major provides an excellent foundation for students interested in transfer to a four-year institution to earn a baccalaureate degree in political science. The curriculum focuses on the history and political science courses required by most four-year institutions for political science majors.

Program Learning Outcomes
1. Recognize the historical context of political, social, and economic processes both domestically and internationally.
2. Assess the changing nature of political power.
3. Recognize major philosophical and ethical theories that have guided the development of political science studies.
4. Identify international organizations, alliance systems and non-state actors as key elements of our global society.
5. Exhibit effective oral and written communication within the realm of political science.

Career Possibilities
The Associate of Arts Degree in Political Science Transfer Major graduate has two major options:

1. Transfer to a four-year program and complete a bachelor's degree in political science. Job and career opportunities extend over a broad spectrum embracing governmental, corporate, and private elements. Some of these include: foreign service officer, political scientist, politician and researcher.
2. Transfer to a four-year program and complete a bachelor's degree in political science education. In addition to the above opportunities, a political science education degree would enable the graduate to teach political science courses not requiring an advanced degree.
Preparation for IHCC
Prospective students should have good reading and writing skills. They should also take as many history, English and political science courses as possible in high school. In addition, they are strongly advised to routinely read as many newspapers and periodicals as possible.

Recommended Courses
Students are strongly advised to familiarize themselves with the political science program at the college to which they plan to transfer and work with a counselor at IHCC to plan a program that meets those requirements.

Program Total: 64 Credits

Required Courses:
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00
- Lab Science Elective - Credits: 3.00
- Literature Elective - Credits: 3.00
- Math or Science Elective - Credits: 2.00-3.00
- Social Science Elective - Credits: 6.00
- Humanities/Fine Arts Elective - Credits: 5.00
- U.S. History/Western Civilization - Credits: 3.00

Recommended Courses
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- HIS 257 - African American History - Credits: 3.00
- HIS 141 - History of Asia - Credits: 3.00 OR
- HIS 214 - Russian History and Culture - Credits: 3.00
- PHI 114 - Critical Reasoning - Credits: 3.00
- Spanish - Credits: 9.00
- U.S. History - Credits: 6.00
- POL 111 - American National Government - Credits: 3.00
- POL 121 - International Relations - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- SOC 115 - Social Problems - Credits: 3.00
- SOC 110 - Introduction to Sociology - Credits: 3.00

Psychology, A.A.
Associate of Arts Degree in Psychology
Students who intend to complete an Associate of Arts Degree in Psychology and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Psychology Transfer Major provides a foundation for students interested in the field of Psychology. It applies to students interested in transferring to a four-year institution in order to pursue a baccalaureate degree or advanced degrees in Psychology or related fields of study. The curriculum establishes the necessary foundation courses in psychology as well as general education requirements.
Program Learning Outcomes:
1. Enhance critical thinking skills
2. Gain insight into human behavior
3. Defend ethics, social justice, and diversity
4. Gain interpersonal skills

Program Total: 64 Credits

Term I
- PSY 111 - Introduction to Psychology - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
Total: 12 Credits

Term II
- PSY 121 - Developmental Psychology - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- BIO 120 - General Biology 1D - Credits: 4.00
  or
- BIO 175 - Human Anatomy - Credits: 3.00
  and
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- Literature Elective - Credits: 3.00
Total: 13 Credits

Term III
- MAT 156 - Statistics - Credits: 3.00
- PHI 101 - Introduction to Philosophy - Credits: 3.00
  or
- PHI 105 - Introduction to Ethics - Credits: 3.00
- Math or Science Elective - Credits: 2.00
- Humanities/Fine Arts Elective - Credits: 2.00
Total: 10 Credits

Term IV
- SOC 110 - Introduction to Sociology - Credits: 3.00
- PSY 241 - Abnormal Psychology - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
Total: 9 Credits

Term V
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
• HIS 152 - U.S. History since 1877 - Credits: 3.00
• Psychology Elective- Credits: 3
• A.A. Elective- Credits: 3.00
• A.A. Elective- Credits: 3.00

Total: 12 Credits

Term VI

• PSY 251 - Social Psychology - Credits: 3.00
• A.A. Elective- Credits: 3.00
• A.A. Elective- Credits: 2.00

Total: 8 Credits

Secondary Education, A.A.

Associate of Arts Degree in Secondary Education

Students who intend to complete an Associate of Arts Degree in Secondary Education and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

Program Learning Outcomes

1. Examine the impact historical events, perspectives and history overall has had on education.
2. Develop critical thinking skills.
3. Evaluate current trends or issues that could impact educating children.
4. Determine the use of technology in effective teaching.
5. Discuss and analyze personal competencies needed to be a professional educator.
6. Elaborate on the diversity found in education.

Career Possibilities

Students pursuing a degree in education may work as teachers at elementary (K-6) or secondary levels (7-12) and with an early childhood endorsement teach in Preschool to 3rd grade. Licensed teachers have many other options for employment such as with the U.S. Government, teaching for the Department of Defense or in a private or religious school. Both being two major alternatives to teaching in a public school system. In addition, teachers learn and gain many transferable skills. These skills may qualify them or they are in need of a little additional training to work as a librarian, counselor, supervisor, administrator, in adult education, as an early childhood educator or at a day care center. Furthermore, licensed teachers can work in areas of recreation and leisure. These position may include playground leaders, program specialists in dance, drama, the arts, karate, tennis and other physical activity positions. Licensed teachers can fill position as recreation center directors, therapeutic recreation specialists, camp counselors, wilderness leaders, senior citizen program leaders, civilian special services directors in the armed forces, and industrial recreation directors.

Preparation for IHCC

Prospective students should take four years of high school English. IHCC and preparation programs for educators requires strong skills in reading and writing. In addition, students are to have a strong foundation in other core academic subjects such as math, science, and social studies. Classrooms today are focusing on technological literacy so being familiar or literate with computers is also a necessity for those interested in teaching. Additionally, students interested in pursuing an education major should consider electives in psychology. It is also advisable for students to volunteer in the public school system or find other opportunities to work with children in order to make an informed career decision.

Program Total: 64 Credits

Term I

• CSC 110 - Introduction to Computers - Credits: 3.00
- EDU 213 - Introduction to Education - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 12 Credits

Term II

- ENG 106 - Composition II - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- A.A. Core Elective - Credits: 3.00

Total: 9 Credits

Term III

- BIO 101 - Introductory Biology - Credits: 2.00
- BIO 103 - Introductory Biology Lab - Credits: 1.00
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  OR
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- PSY 121 - Developmental Psychology - Credits: 3.00
- EDU 246 - Including Diverse Learners - Credits: 3.00

Total: 12 Credits

Term IV

- PSY 263 - Multicultural Psychology - Credits: 3.00
- AA Core Course Elective - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 3.00
- Math/Science Elective - Credits: 2.00

Total: 11 Credits

Term V

- EDU 255 - Technology in the Classroom - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- PSY 281 - Educational Psychology - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits

Term VI

- EDU 282 - Field Experience: Exploring Teaching - Credits: 1.00
- Humanities/Fine Arts Elective - Credits: 2.00
- Literature Elective - Credits: 3.00
- A.A. Core Elective - Credits: 2.00

Total: 8 Credits
Sociology, A.A.

Associate of Arts Degree in Sociology

Students who intend to complete an Associate of Arts Degree in Sociology and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

The Sociology Transfer Major provides an excellent foundation for students interested in transferring to a four-year institution to earn a degree with a major in sociology or related field. This curriculum focuses on developing critical thinking skills, gaining insights in human behavior and increasing interpersonal knowledge.

Program Learning Outcomes

1. Recognize cultural values and demonstrate an understanding of their influence on behavior.
2. Analyze social issues.
3. Apply classic sociological theories to various social conditions.
4. Identify and correctly use basic terms in the field of sociology.

Preparation for IHCC

Prospective students should have a strong background in reading, writing and listening skills. Students should be emotionally stable.

Recommended Courses

Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the sociology program at the institution to which they plan to transfer and work with an IHCC academic counselor to plan a program that meets those requirements.

Program Total: 64 Credits

Term I

- SOC 110 - Introduction to Sociology - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
  or
- CSC 116 - Information Computing - Credits: 3.00

Total: 12 Credits

Term II

- POL 111 - American National Government - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- Literature Elective - Credits: 3.00
- Lab/Science Elective - Credits: 3.00

Total: 12 Credits

Term III

- SOC 115 - Social Problems - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 3.00

Total: 9 Credits
Term IV

- PSY 111 - Introduction to Psychology - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
- A.A. Elective - Credits: 3.00
- A.A. Elective - Credits: 3.00

Total: 12 Credits

Term V

- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
- HIS 152 - U.S. History since 1877 - Credits: 3.00
- A.A. Elective - Credits: 3.00
- Literature Elective - Credits: 3.00
- Humanities/Fine Arts Elective - Credits: 2.00

Total: 11 Credits

Term VI

- PSY 251 - Social Psychology - Credits: 3.00
- SOC 120 - Marriage and Family - Credits: 3.00
- A.A. Elective - Credits: 2.00

Total: 8 Credits

Theatre, AA

Associate of Arts Degree in Theatre
Offered at Main and Centerville Campuses

Students who intend to complete an Associate of Arts Degree in Theatre and transfer to a four-year institution should consult with an Indian Hills Academic Advisor and the four-year institution to determine any additional requirements at the four-year institution.

Program Learning Outcomes
This area of concentration provides an excellent foundation for students interested in transfer to a four-year college to earn a baccalaureate degree with a major in theatre and performing arts, communication, speech and theater education. This program equally applies to those students who want to take selected theatre courses to fulfill general education requirements. The curriculum focuses on performance, theatre history, performance theory and design for the theatre.

1. Provide a high quality education and experience to Indian Hills Community Hills College students in the curriculum of the performing and visual arts.
2. Encourage students and community members to develop an appreciation of the arts.
3. Produce and provide a variety of performing and visual arts events of the highest quality for Indian Hills Community College and the community.
4. Provide an environment that encourages and supports faculty development through research and creative activity.
5. Cultivate arts audiences of the future through arts awareness and exposure to the diversity of the performing and visual arts.
6. Engage in civic outreach and participation in community arts initiatives.
7. Showcase the diversity in the arts by presenting art forms from many historical and cultural perspectives.
8. Recruit actively to bring talented students to the department.
9. Utilize discipline specific technology and techniques to enhance students’ learning and growth.

**Career Possibilities**
The Associate of Arts Degree in Theatre Transfer Major graduate has three options:

1. Employment in the performing arts, performance studies, radio/television broadcasting, improvisation, directing, theatre management, stage management, lighting/sound design, costume design and scene design/construction.
2. Transfer to a four-year institution for advanced studies.
3. With the appropriate teacher preparation courses, the student can find employment in secondary education.

**Preparation for IHCC**
Prospective students should have sound writing and critical reading skills. While previous theatrical experience is not required, some background in performance or design will be helpful. The ability to read and analyze dramatic literature is crucial. A theatre major must have a broad understanding of a variety of topics, including literature, music, art, film, psychology and history.

**Recommended Courses**
Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the theatre program at the college to which they plan to transfer and work with a counselor and the faculty at IHCC to plan a program that meets those requirements.

**Program Total: 64 Credits**

**Term I**
- DRA 130 - Acting I - Credits: 3.00
- DRA 101 - Introduction to Theatre - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00

Total: 12 Credits

**Term II**
- LIT 175 - Survey of Drama - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- DRA 132 - Acting II - Credits: 3.00
- DRA 180 - Theatre Lab I - Credits: 1.00

Total: 10 Credits

**Term III**
- DRA 133 - Acting III - Credits: 3.00
- XXX XXX Lab/Science Elective- Credits: 3.00
- XXX XXX Social Science Elective- Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- or
- SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits

**Term IV**
- LIT 101 - Introduction to Literature - Credits: 3.00
- MUS 100 - Music Appreciation - Credits: 3.00
• CSC 110 - Introduction to Computers - Credits: 3.00
  XXX XXX Math Elective- Credits: 3.00

Total: 12 Credits

Term V

• DRA 181 - Theatre Lab II - Credits: 1.00
• DRA 125 - Introduction to Play Analysis - Credits: 3.00
  XXX XXX Math/Science Elective- Credits: 2.00
  XXX XXX Social Science Elective- Credits: 3.00

Total: 9 Credits

Term VI

• DRA 162 - Technical Theatre - Credits: 3.00
• PSY 111 - Introduction to Psychology - Credits: 3.00
• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
• HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
• HIS 152 - U.S. History since 1877 - Credits: 3.00

Total: 9 Credits

Transfer Pathways

Accounting

Accounting, Transfer Pathway
Offered at Main Campus

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in accounting should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Accounting Transfer Pathway will receive an Associate of Arts degree.

The Accounting Transfer Pathway is for students contemplating a career in accounting or associated fields. This area of concentration provides an excellent foundation for students interested in transfer to a four-year college to earn a baccalaureate degree with a major in accounting or a related business major. Coursework prepares individuals to practice the profession of accounting and to perform related business functions.

Students receive a broad education with special attention to the functions, theory and practice of accounting as related to contemporary society. The curriculum combines a well-balanced distribution of business and liberal arts courses. Students have the opportunity to develop skills, abilities and understanding that are required for successful job entry and for advanced study in the accounting field.

Program Learning Outcomes
1. Display knowledge of accounting principles and theories.
2. Examine the theory, policy and trends of economic problems of society and the individual
3. Display knowledge of business concepts required for today's ever changing business environment.
4. Examine principles and techniques used in organizing, planning, managing and leading within various organizations.
5. Display knowledge in economics, accounting, marketing, management and communications.
Career Possibilities
Job opportunities are available in public, private, financial or government accounting and other related areas of accounting and finance.

Preparation for IHCC
Students interested in the Accounting Transfer Pathway should have sound writing, critical reading skills, and a strong mathematics background.

Recommended Courses
Since the bachelor's degree requirements of various transfer institutions differ, students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the program at the institution to which they plan to transfer. Students should consult with an advisor at the transfer institution and with an IHCC academic counselor to plan a program that meets those requirements.

Program Total: 64 Credits

Required Courses:

- CSC 110 - Introduction to Computers - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00 OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- Math - Credits: 3.00
- Lab Science - Credits: 3.00
- Math or Science elective - Credits: 2.00-3.00
- Literature - Credits: 3.00
- Humanities/Fine Arts/Foreign Language electives - Credits: 5.00
- U.S. History or Western Civilization - Credits: 3.00
- Social Science electives - Credits: 6.00

Recommended Courses:

- ACC 152 - Financial Accounting - Credits: 4.00
- ACC 156 - Managerial Accounting - Credits: 4.00
- ACC 931 - Accounting Internship - Credits: 1.00
- BUS 102 - Introduction to Business - Credits: 3.00
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- BUS 185 - Business Law I - Credits: 3.00
- BUS 204 - Professionalism in the Workplace - Credits: 3.00
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- FIN 121 - Personal Finance - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- MAT 161 - Business Statistics - Credits: 3.00
- MGT 101 - Principles of Management - Credits: 3.00
- MKT 110 - Principles of Marketing - Credits: 3.00
Graphic Design

Graphic Design, Transfer Pathway
Offered at Main Campus

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in graphic design should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Graphic Design Transfer Pathway will receive an Associate of Arts degree.

Computer graphics technology has significantly impacted both fine and commercial art careers over the last decade. Artist/Designers are finding unparalleled opportunity to apply their skills with public and commercial enterprises.

The Graphic Design Transfer Pathway prepares students for entry into various design careers that utilize print and electronic media. Although students within the program have traditional preparation, the graphic design program helps students understand and apply those fundamental art and design skills to the larger context of the visual communications industry. Skill development within this program emphasizes various graphic processes, cognitive and creative skill development and aesthetic awareness. Students enrolled within the program are encouraged to pursue four-year baccalaureate degree art programs in graphic design, illustration or related programs of instruction.

Program Learning Outcomes
1. Effectively apply general art and design concepts to the process of developing a graphic image.
2. Demonstrate an ability to use a variety of vector, raster, and page layout programs in the development of graphic designs for publication.
3. Demonstrate the ability to conceptualize, problem solve and creatively develop a graphic design.
4. Utilize and demonstrate an awareness of historical and contemporary movements of graphic design during the last century.
5. Apply an aesthetic sensibility and awareness of graphic trends in electronic and print media.

Career Possibilities
Career options for the Graphic Design Transfer Pathway are varied within the advertising and commercial art industries. Current trends indicate significant growth and employment for prepared individuals in many aspects of the printed and electronic media utilized by advertising and manufacturing companies. Graphic designers, illustrators, typographers and layout designers are common areas of employment for the graphic design major.

Preparation for IHCC
Many courses within the Graphic Design Transfer Pathway are introductory level. Students are encouraged to speak with IHCC art instructors or academic counselors for specific enrollment information. Students who pursue a graphic design focus must demonstrate a strong interest in the visual arts with additional interest in working with highly technical information utilized in the graphic design industry.

Recommended Courses
Students planning to transfer to four-year baccalaureate degree programs of art and design are urged to familiarize themselves with the prospective department and institutional requirements for graduation. Students should visit with IHCC advisors and their respective art instructors for additional information regarding course selections.

Program Total: 64 Credits

Term I
- ART 119 - 2-D Design - Credits: 2.00
- ART 156 - Digital Design I: ILLUSTRATOR - Credits: 2.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 10 Credits
Term II

- ART 118 - Design, Form and Function - Credits: 2.00
- ART 149 - Digital Design 2: PHOTOSHOP - Credits: 2.00
- AA Core Course - Credits: 2.00
- AA Core Course - Credits: 2.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Term III

- ART 133 - Drawing - Credits: 3.00
- ART 150 - Digital Design 3: INDESIGN - Credits: 2.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Term IV

- ART 134 - Drawing II - Credits: 3.00
- ART 184 - Photography - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 9 Credits

Term V

- ART 113 - Graphic Design - Credits: 3.00
- ART 140 - Painting - Credits: 2.00
- AA Core Course - Credits: 2.00
- AA Core Course - Credits: 2.00
- AA Core Course - Credits: 3.00

Total: 12 Credits

Term VI

- ART 114 - Graphic Design II - Credits: 3.00
- ART 122 - 3-D Design - Credits: 2.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Graphic Design Elective Courses

- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- MKT 110 - Principles of Marketing - Credits: 3.00
Music

Music, Transfer Pathway
Offered at Main Campus

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in music should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Music Transfer Pathway will receive an Associate of Arts degree.

The usual requirements in a four-year music degree begin immediately in the first year of college, the prospective music student is strongly urged to enroll in music theory at the outset: two full years of music theory is nearly a universal foundation for any music degree. This would include the Music Theory I-VI sequence and Music Theory Labs I-VI. In addition, two years (six terms) of Applied Music (private lessons) in a concentration area are recommended. Concentration areas are: brass, percussion, piano, voice and woodwinds. Participation in one or more ensembles is open to all students, and it should be a priority for the music student. Class Piano and Class Piano II are strongly recommended for the voice or instrumental student with little or no keyboard background, since the keyboard plays such a vital role in the general music education process. In addition, the Music Appreciation class makes an excellent introduction to the study of musical styles and literature in a historical perspective.

The Arts and Sciences graduate with this background of study will be well prepared to enter a music education major or minor upon transfer to a four-year college or university. Upon completion of the bachelor's degree, the student will have many options. Among them are employment in elementary or secondary music education, church music ministry and private music instruction. The student may also enter an advanced degree program.

Program Learning Outcomes

1. Demonstrate performance skills on their instrument/voice, as a soloist and/or as part of an ensemble.
2. Experience and participate in a wide and varied range of musical activities.
3. Engage in creating and presenting musical performances, which include a basic level of technical proficiency.
4. To discriminate, aurally identify, visually identify, and evaluate the structures of music.
5. Explore different musical traditions in their historical and stylistic contexts.
6. Explore the role and value of music in human culture including the music of diverse cultures.
7. Become reflective and critical practitioners of music.
8. Develop academic skills appropriate for the study and understanding of music.

Preparation for IHCC

The student who is considering a degree in music should have as much experience in vocal or instrumental ensembles as possible. An ability to read music and some keyboard proficiency would be highly desirable before entering a college music program.

Applicants may be required to complete a basic skills evaluation during the admissions process for placement purposes.

Program Total: 64 Credits

Term I

- MUS 115 - Music Theory I - Credits: 2.00
- MUS 135 - Music Theory Lab I - Credits: 1.00
- MUS 140 - Concert Choir - Credits: 1.00
  OR
- MUS 170 - Jazz Band - Credits: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 10 Credits
Term II

- MUS 116 - Music Theory II - Credits: 2.00
- MUS 136 - Music Theory Lab II - Credits: 1.00
- MUS 141 - Concert Choir II - Credits: 1.00
  OR
- MUS 171 - Jazz Band II - Credits: 1.00
- Applied Lesson (Voice/Instrument) - Credit: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Term III

- MUS 117 - Music Theory III - Credits: 2.00
- MUS 235 - Music Theory Lab III - Credits: 1.00
- MUS 142 - Concert Choir III - Credits: 1.00
  OR
- MUS 172 - Jazz Band III - Credits: 1.00
- Applied Lesson (Voice/Instrument) - Credit: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Term IV

- MUS 215 - Music Theory IV - Credits: 2.00
- MUS 236 - Music Theory Lab IV - Credits: 1.00
- MUS 240 - Concert Choir IV - Credits: 1.00
  OR
- MUS 270 - Jazz Band IV - Credits: 1.00
- Applied Lesson (Voice/Instrument) - Credit: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Term V

- MUS 216 - Music Theory V - Credits: 2.00
- MUS 249 - Music Theory Lab V - Credits: 1.00
- MUS 241 - Concert Choir V - Credits: 1.00
  OR
- MUS 271 - Jazz Band V - Credits: 1.00
- Applied Lesson (Voice/Instrument) - Credit: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

Term VI

- MUS 217 - Music Theory VI - Credits: 2.00
- MUS 242 - Concert Choir VI - Credits: 1.00
  OR
- MUS 272 - Jazz Band VI - Credits: 1.00
- Applied Lesson (Voice/Instrument) - Credit: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 10 Credits

**Recommended Courses for all Music Majors**
- MUA 120-224 Applied Piano (highly recommended)
- MUS 100 Music Appreciation
- MUS 205 Jazz Appreciation
- Participation in musicals
- Conducting small ensembles

**For those majoring in music performance add:**
- Vocal: Chamber Choir, Acting I, II, II
- Instrumental: Jazz Band, Pit Band for Musicals, Piano Accompanying

**Natural Resources**

**Natural Resources, Transfer Pathway**

Offered at Centerville Campus

Students who intend to complete an Associate of Arts or Associate of Science degree at Indian Hills and transfer to a four-year institution and major in natural resources should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Natural Resources Transfer Pathway will receive an Associate of Arts or Associate of Science degree.

The Natural Resources Transfer Pathway provides a broad foundation for students interested in continuing their degree work in order to pursue career opportunities in forestry, parks, recreation, agronomy, wildlife management, fisheries, environmental sciences, animal ecology, and food sciences. Some entry-level jobs can be found with an Associate of Science (A.S.) degree, but most careers in this area will require at least a baccalaureate degree.

**Program Learning Outcomes**

1. Understand relationships between environmental resources and human wants and needs.
2. Be able to apply scientific thought and processes.
3. Employ analytic and problem-solving skills.
4. Develop the tools to apply solutions in real world situations.
5. Use the scientific process and describe the development of scientific ideas.
6. Be successful in upper-level science courses.

**Career Possibilities**

Students who study the natural resources area have an interest in the environment and promoting the appropriate use of natural resources. Most employment opportunities are based on the completion of a baccalaureate degree. Many graduates from these programs find employment in the private sector while others have joined metropolitan, state, and federal agencies.

**Preparation for IHCC**

Prospective students should have a strong background in science and mathematics as well as good writing and reading skills. Students should have three years of high school math and course work in biology and chemistry.

**Recommended Courses**

Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the natural resources program at the college to which they plan to transfer. Students should consult with an advisor at the transfer institution and with an IHCC academic counselor to plan a program that meets those requirements. The following list of classes will provide a solid foundation for most areas of study natural resources. Note that college biology is a one-year course and it is important to take all three majors-level IHCC biology courses (BIO120, BIO121, and BIO122). If a student takes only one or two of the three courses, they may not transfer easily to a four-year college.

**Program Total: 64 Credits**
Required Courses

- CSC 100-Introduction to Computers- Credits: 3.00 OR
- CSC 116- Information Computing- Credits: 1.00
- ECN 120- Principles of Macroeconomics- Credits: 3.00
- ECN 130- Principles of Microeconomics- Credits: 3.00
- ENG 105- Composition I- Credits: 3.00
- ENG 106- Composition II- Credits: 3.00
- SPC 112- Public Speaking- Credits: 3.00 OR
- SPC 101- Fundamentals of Oral Communication- Credits: 3.00
- SDV 101- How to be Successful in College- Credits: 3.00
- Math Elective- Credits: 3.00
- Lab Science Elective- Credits: 3.00
- Math or Science Elective- Credits: 2.00
- Literature Elective- Credits: 3.00
- Non U.S. Cultural Studies- Credits: 3.00
- Fine Arts Elective - Credits: 2.00
- Western Civilization- Credits: 3.00

Recommended Courses:

- AGA 114 - Principles of Agronomy - Credits: 3.00
- AGA 116 - Agricultural Issues - Credits: 1.00
- AGA 154 - Fundamentals of Soil Science - Credits: 3.00
- AGN 120 - Wildlife and Agriculture - Credits: 3.00
- AGN 125 - Woodland Management - Credits: 3.00
- AGN 127 - Agrarian Systems and Ecology - Credits: 3.00
- AGN 130 - Soil and Water Conservation - Credits: 3.00
- BIO 120 - General Biology 1D - Credits: 4.00
- BIO 121 - General Biology IID - Credits: 3.00
- BIO 122 - General Biology IIID - Credits: 3.00
- CHM 157 - Principles of Chemistry I - Credits: 3.00
- CHM 158 - Principles of Chemistry II - Credits: 3.00
- CHM 159 - Principles of Chemistry III - Credits: 4.00
- CHM 166 - General Chemistry I - Credits: 5.00
- CHM 176 - General Chemistry II - Credits: 5.00
- ENV 142 - Natural Resources - Credits: 3.00
- MAT 120 - College Algebra - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- MAT 210 - Calculus I - Credits: 4.00
- MAT 216 - Calculus II - Credits: 4.00
- MAT 219 - Calculus III - Credits: 4.00
- SOC 110 - Introduction to Sociology - Credits: 3.00
- SOC 115 - Social Problems - Credits: 3.00

Photography

Photography, Transfer Pathway
Offered at Main Campus

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in photography should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Photography Transfer Pathway will receive an Associate of Arts degree.
This Photography Transfer Pathway provides an excellent foundation for students interested in transferring to a four-year institution to earn a baccalaureate degree in fine arts/photography or for persons seeking employment in a studio or photography businesses.

**Program Learning Outcomes**

1. Recognize and discuss changes in the development of cameras and imaging techniques.
2. Demonstrate correct photographic composition in a variety of settings.
3. Compare and contrast digital composition and traditional darkroom techniques.
4. Demonstrate working knowledge of current technology advances.

**Career Possibilities**

Career options include but are not limited to employment as assistants in the field of portrait, commercial, computer imaging, or photojournalism. Students can elect to open their own business. Students may elect to continue their education toward a bachelor's degree.

**Preparation for IHCC**

Prospective students should have a strong background in general education. Students should also have a strong background in visual arts.

**Recommended Courses**

Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the program at the college to which they plan to transfer and to work with an IHCC academic counselor to plan a program which meets these requirements.

**Program Total: 64 Credits**

**Term I**

- ART 119 - 2-D Design - Credits: 2.00
- ART 184 - Photography - Credits: 3.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

**Term II**

- ART 149 - Digital Design 2: PHOTOSHOP - Credits: 2.00
- ART 185 - Photography II - Credits: 3.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 11 Credits

**Term III**

- ART 150 - Digital Design 3: INDESIGN - Credits: 2.00
- ART 302 - Studio and Portrait Photography - Credits: 3.00
- ART 307 - Photography Practicum 1 - Credits: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 12 Credits
Term IV

- ART 190 - History of Photography - Credits: 3.00
- ART 308 - Photography Practicum II - Credits: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 2.00

Total: 9 Credits

Term V

- ART 289 - Photojournalism - Credits: 3.00
- ART 309 - Photography Practicum III - Credits: 1.00
- AA Core Course - Credits: 3.00
- AA Core Course - Credits: 3.00

Total: 10 Credits

Term VI

- ART 305 - Wedding and Event Photography - Credits: 2.00
- ART 306 - Photography Portfolio - Credits: 1.00
- ART 310 - Photography Practicum IV - Credits: 1.00
- A.A. Core Elective - Credits: 7.00

Total: 11 Credits

Recommended Courses
- ART 113 Graphic Design
- ART 114 Graphic Design II
- BUS 130 Introduction to Entrepreneurship
- MKT 110 Principles of Marketing

Social Work

Social Work, Transfer Pathway

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in social work should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Social Work Transfer Pathway will receive an Associate of Arts degree.

The Social Work Transfer Pathway provides an excellent foundation for students interested in transferring to a four-year college to earn a baccalaureate degree with a major in social work. This program equally applies to those students who want to take selected social sciences courses to fulfill general education requirements. The curriculum focuses on social problems by addressing them from various perspectives, including social psychology, diversity and criminology.

Program Learning Outcomes

1. Discuss culture, society, social institutions and social change.
2. Identify social problems.
3. Demonstrate a foundation of core information that will serve as a foundation for upper-level social work/sociology courses.
4. Understand the role of the social workers/sociologist in addressing current social situations.
Career Possibilities

Graduates of the Social Work Transfer Pathway have the following options:

1. Transfer to a four-year school and complete a major in social work. Career opportunities could then include direct services and program development and implementation, among others.
2. Transfer to a four-year school and complete a major in sociology. Career opportunities could then include research as well as direct services and program development.
3. After completion of a baccalaureate degree, pursue a master's degree in social work, which would open up opportunities for teaching and counseling.

Preparation for IHCC

Prospective students should have a strong background in general education. Four years of high school English are highly recommended.

Recommended Courses

Students planning to transfer to a four-year institution are strongly advised to familiarize themselves with the requirements of the program at the college to which they plan to transfer and to work with an IHCC academic counselor to plan a program that meets those requirements.

Program Total: 64 Credits

Required Courses:

- CSC 110 - Introduction to Computers - Credits: 3.00
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00 OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- Literature - Credits: 3.00
- Humanities/Fine Arts/Foreign Language electives - Credits: 5.00
- U.S. History or Western Civilization - Credits: 3.00
- Lab Science - Credits: 3.00
- Math or Science elective - Credits: 2.00

Recommended Courses:

- HIS 257 - African American History - Credits: 3.00
- POL 111 - American National Government - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- PSY 241 - Abnormal Psychology - Credits: 3.00
- PSY 251 - Social Psychology - Credits: 3.00
- SOC 110 - Introduction to Sociology - Credits: 3.00
- SOC 115 - Social Problems - Credits: 3.00
- SOC 120 - Marriage and Family - Credits: 3.00
- SOC 240 - Criminology - Credits: 3.00
- SOC 242 - Introduction to Corrections - Credits: 3.00
Spanish

Spanish, Transfer Pathway

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in Spanish should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Spanish Transfer Pathway will receive an Associate of Arts degree.

The Spanish Transfer Pathway provides a foundation for students interested in transfer to a four-year college or university to earn a baccalaureate degree with a major or minor in Spanish. This program will also be useful to those students who want to fulfill the foreign language requirement at a four-year college or university. Students in this curriculum will focus on oral and written communication in the target language.

Program Learning Outcomes

1. Use the four communicative skills of reading, writing, listening and speaking in the target language;
2. Compare Spanish to the English language;
3. Compare the culture(s) of regions where the target language is spoken with that of the United States; and
4. Understand the importance of being familiar with other languages and cultures in today's world.

Career Possibilities

Modern language majors or minors are typically combined with other fields of specialization to create unique job opportunities, both in the United States and abroad. Some of the areas that may be advantageously linked with modern languages are education, business, social work, health care, journalism, criminal justice and law. Fluency in a second language will enhance job credentials in most fields, as there is a strong demand for individuals with speaking and writing skills in modern languages. A Spanish major or minor will be of great benefit for those seeking employment in parts of the United States with a large Hispanic population or with businesses that deal with Spanish-speaking countries.

Preparation for IHCC

Prospective students study as many years as possible of a foreign language in high school. Students find that experience in one foreign language lends facility to the learning of additional languages. It is possible, however, to graduate in this focus area with no previous foreign language experience. A strong English background is very helpful. Students with high school foreign language experience are advised to consult with an IHCC counselor or language instructor to determine appropriate placement.

Students are also advised to familiarize themselves with the foreign language requirements at the college or university to which they plan to transfer and work with a counselor at IHCC to plan a program that meets those requirements.

Program Total: 64 Credits

Required Courses:

- CSC 110 - Introduction to Computers - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- SDV 112 - Public Speaking - Credits: 3.00 OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- Literature - Credits: 3.00
- FLS 131 - Elementary Spanish I - Credits: 3.00 AND
- FLS 132 - Elementary Spanish II - Credits: 3.00 AND
- FLS 133 - Elementary Spanish III - Credits: 3.00 OR
- FLS 231 - Intermediate Spanish I - Credits: 3.00 AND
- FLS 232 - Intermediate Spanish II - Credits: 3.00 AND
- FLS 233 - Intermediate Spanish III - Credits: 3.00
Sports Medicine

Sports Medicine, Transfer Pathway

Students who intend to complete an Associate of Arts degree at Indian Hills and transfer to a four-year institution and major in sports medicine should consult with an Indian Hills Academic Advisor and the four-year institution to determine specific requirements for the major they intend to pursue. Students who complete the Sports Medicine Transfer Pathway will receive an Associate of Arts degree.

The Sports Medicine Transfer Pathway is your path toward a career in sports medicine as a physical therapist, athletic trainer, physical therapist assistant, recreational therapist, personal trainer or orthopedist. Graduates will be prepared to transfer to a four-year college or university and pursue the Sports Medicine program of their choice or they can complete a Physical Therapist Assistant AAS degree at Indian Hills.

Program Learning Outcomes
1. Demonstrate knowledge in sports medicine and an understanding in the areas of anatomy, physiology, and biomechanics.
2. Apply the scientific method in order to understand, evaluate, and/or solve problems in sports medicine.
3. Use critical thinking, information literacy, oral and written communication, and quantitative reasoning skills in analyzing problems.

Program Total: 74 Credits

Term I

- PET 105 - Basic Athletic Training - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- PEH 152 - Basic Healthcare Techniques - Credits: 3.00
- BIO 101 - Introductory Biology - Credits: 2.00
- BIO 103 - Introductory Biology Lab - Credits: 1.00

Total: 12 Credits

Term II

- CSC 110 - Introduction to Computers - Credits: 3.00
- PET 230 - Care and Prevention of Athletic Injuries - Credits: 3.00
- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- PET 140 - Athletic Training Practicum I - Credits: 1.00

Total: 11 Credits

Term III

- ENG 105 - Composition I - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- BIO 178 - Human Physiology - Credits: 3.00
- LIT XXX - Credits: 3.00

Total: 13 Credits

Term IV
- MAT 156 - Statistics - Credits: 3.00
  XXX XXX Humanities/Fine Arts Elective: Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  or
- SPC 112 - Public Speaking - Credits: 3.00
- PSY 121 - Developmental Psychology - Credits: 3.00

Total: 12 Credits

Term V
- MAT 210 - Calculus I - Credits: 4.00
- PHY 200 - Classical Physics I - Credits: 3.00
- PET 231 - Biomechanics for Sports Medicine - Credits: 3.00
- HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
  or
- HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
  or
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  or
- HIS 152 - U.S. History since 1877 - Credits: 3.00

Total: 13 Credits

Term VI
- PHY 201 - Classical Physics II - Credits: 3.00
- PET 146 - Athletic Training Administration - Credits: 3.00
- PET 150 - Athletic Training Practicum II - Credits: 1.00
- ENG 106 - Composition II - Credits: 3.00
- FLS 125 - Spanish for Health Professionals - Credits: 3.00

Total: 13 Credits

Undecided

Undecided, Transfer Pathway

Undecided Transfer Pathway is designed for the student who is undecided about a major at the time of enrollment, but who wishes to pursue a general education that will apply to many major areas. Students should use this opportunity to explore a variety of possible academic majors and career possibilities. Students who complete the Undecided Transfer Pathway will receive an Associate of Arts degree.

Program Learning Outcomes
1. Think critically and analytically about a variety of issues and topics.
2. Discuss a variety of topics and issues.
3. Demonstrate knowledge of core information from a variety of academic fields.
4. Explore a variety of academic disciplines and career possibilities.
Career Possibilities
Career possibilities depend entirely upon the student’s choice of a major when transferring to a four-year institution. The undecided option is not designed to direct the student to a specific career, but rather to allow him/her to explore interests and options before committing himself/herself to a specific academic major or career choice.

Preparation for IHCC
Prospective students who are unsure of their major should study a general college preparatory curriculum in high school. Students should take four years of English; three years of math, including algebra and at least one other higher level math class; three years of science, including a lab science; and a selection of social sciences, including history. It is also advantageous to have some background in fine arts.

Recommended Courses:

- BUS 102 - Introduction to Business - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- FIN 121 - Personal Finance - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- REL 101 - Survey of World Religions - Credits: 3.00
- Lab Science - Credits: 3.00
- Math - Credits: 3.00
- Math or Science elective - Credits: 3.00
- SDV 101 - How to be Successful in College - Credits: 3.00
- SOC 110 - Introduction to Sociology - Credits: 3.00
- U.S. History or Western Civilization - Credits: 3.00
- Humanities/Fine Arts/Foreign Language Electives - Credits: 5.00
- SOC 120 - Marriage and Family - Credits: 3.00
- SOC 135 - Death and Dying - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00 OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- Literature - Credits: 3.00

Advanced Technologies
Career and Technical Programs at Indian Hills are developed in consultation with competent advisory committees selected from representative business, institutional, and industrial employers. Students receive training for entry-level positions in two years or less.

Programs leading to a diploma vary in length from six to 12 months. Associate of Applied Science (AAS) degree programs vary in length from 18 to 24 months, depending on the occupational area. This preparation may also serve as a transfer basis for further study toward a four-year degree. Selected Diploma and Associate in General Studies programs are available in the evening for non-traditional students.

General Education Course Requirements (A.A.S.)

Associate of Applied Science (AAS) Degree
All students earning the Associate of Applied Science degree must complete general education courses distributed over the content areas listed below. For more information, see individual program requirements.

General Education Core
A. Communication (minimum one course)

- COM 140 - Introduction to Mass Media - Credits: 3.00
- ENG 101 - Elements of Writing - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- ENG 111 - Technical Writing - Credits: 3.00
- ENG 225 - Creative Writing: Poetry - Credits: 3.00
- ENG 230 - Creative Writing: Fiction - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00
- SPC 122 - Interpersonal Communication - Credits: 3.00

B. Computer/Information Literacy

- CSC 105 - Computer Essentials - Credits: 1.00
- CSC 110 - Introduction to Computers - Credits: 3.00

C. Culture

- ANT 105 - Cultural Anthropology - Credits: 3.00
- ART 100 - The Arts Today - Credits: 1.00
- ART 101 - Art Appreciation - Credits: 3.00
- ART 103 - Art Excursions I - Credits: 1.00
- ART 104 - Art Excursions II - Credits: 1.00
- CLS 106 - Popular Culture - Credits: 1.00
- CLS 150 - Latin American History and Culture - Credits: 3.00
- CLS 155 - Brazilian History and Culture - Credits: 3.00
- CLS 175 - Native American Studies - Credits: 3.00
- CLS 185 - Cultural History of Iowa - Credits: 3.00
- CLS 215 - Cultural Excursions I - Credits: 1
- CLS 216 - Cultural Excursions II - Credits: 2
- CLS 217 - Cultural Excursions III - Credits: 3
- CLS 222 - Survey of Latino Literature U.S./Mexico - Credits: 3.00

- DRA 108 - Drama Excursions - Credits: 1.00
- DRA 109 - Drama Excursions II - Credits: 1.00
- DRA 110 - Introduction to Film - Credits: 3.00
- FLS 125 - Spanish for Health Professionals - Credits: 3.00
- FLS 131 - Elementary Spanish I - Credits: 3.00
- FLS 132 - Elementary Spanish II - Credits: 3.00
- FLS 133 - Elementary Spanish III - Credits: 3.00
- FLS 153 - Accelerated Elementary Spanish I - Credits: 5.00
- FLS 154 - Accelerated Elementary Spanish II - Credits: 5.00
- FLS 231 - Intermediate Spanish I - Credits: 3.00
- FLS 232 - Intermediate Spanish II - Credits: 3.00
- FLS 233 - Intermediate Spanish III - Credits: 3.00

- GEO 121 - World Regional Geography - Credits: 3.00
• HIS 110 - Western Civilization: Ancient to Early Modern - Credits: 3.00
• HIS 111 - Western Civilization: Early Modern to Present - Credits: 3.00
• HIS 121 - Ancient Mediterranean World - Credits: 3.00
• HIS 125 - Modern Europe - Credits: 3.00
• HIS 141 - History of Asia - Credits: 3.00
• HIS 151 - U.S. History to 1877 - Credits: 3.00
• HIS 152 - U.S. History since 1877 - Credits: 3.00
• HIS 201 - Iowa History - Credits: 3.00
• HIS 214 - Russian History and Culture - Credits: 3.00
• HIS 257 - African American History - Credits: 3.00

• HUM 135 - Humanities of the Early World - Credits: 3.00
• HUM 136 - Humanities of the Renaissance - Credits: 3.00
• HUM 137 - Humanities of the Modern World - Credits: 3.00
• HUM 205 - Humanities: The Hero - Credits: 3.00
• HUM 210 - Humanities: Nature of Conflict - Credits: 3.00

• LIT 101 - Introduction to Literature - Credits: 3.00
• LIT 110 - American Literature to Mid-1800's - Credits: 3.00
• LIT 112 - American Literature: 1945 to Present - Credits: 3.00
• LIT 113 - American Literature: 1865 to 1945 - Credits: 3.00
• LIT 140 - British Literature I - Credits: 3.00
• LIT 141 - British Literature II - Credits: 3.00
• LIT 150 - World Literature I - Credits: 3.00
• LIT 152 - Early Modern World Literature - Credits: 3.00
• LIT 153 - Modern World Literature - Credits: 3.00
• LIT 157 - Bible as Literature - Credits: 3.00
• LIT 161 - The Short Story - Credits: 3.00
• LIT 165 - The Novel - Credits: 3.00
• LIT 167 - Popular Genres I - Credits: 3.00
• LIT 168 - Popular Genres II - Credits: 3.00
• LIT 171 - Survey of Poetry - Credits: 3.00
• LIT 175 - Survey of Drama - Credits: 3.00
• LIT 181 - Mythology and Literature - Credits: 3.00
• LIT 190 - Women Writers - Credits: 3.00
• LIT 802 - Readings in Literature I - Credits: 1.00
• LIT 804 - Readings in Literature II - Credits: 2.00
• LIT 806 - Readings in Literature III - Credits: 3.00

• MUS 100 - Music Appreciation - Credits: 3.00
• MUS 205 - Jazz History and Appreciation - Credits: 3.00
• MUS 293 - Music Excursions - Credits: 1.00

• PHI 101 - Introduction to Philosophy - Credits: 3.00
• PHI 105 - Introduction to Ethics - Credits: 3.00
• PHI 114 - Critical Reasoning - Credits: 3.00
• PHI 120 - Modern Philosophy - Credits: 3.00
• PHI 121 - Classical/Medieval Philosophy - Credits: 3.00
• PHI 145 - Introduction to Ethical Conflicts - Credits: 3.00
• POL 111 - American National Government - Credits: 3.00
• POL 121 - International Relations - Credits: 3.00

• PSY 111 - Introduction to Psychology - Credits: 3.00
• PSY 112 - Psychology of Human Relations - Credits: 3.00
• PSY 121 - Developmental Psychology - Credits: 3.00
• PSY 211 - Psychology of Adjustment - Credits: 3.00
• PSY 223 - Child and Adolescent Psychology - Credits: 3.00
• PSY 226 - Psychology of Aging - Credits: 3.00
• PSY 241 - Abnormal Psychology - Credits: 3.00
• PSY 251 - Social Psychology - Credits: 3.00
• PSY 263 - Multicultural Psychology - Credits: 3.00
• PSY 281 - Educational Psychology - Credits: 3.00

• REL 101 - Survey of World Religions - Credits: 3.00

• SOC 110 - Introduction to Sociology - Credits: 3.00
• SOC 115 - Social Problems - Credits: 3.00
• SOC 120 - Marriage and Family - Credits: 3.00
• SOC 135 - Death and Dying - Credits: 3.00
• SOC 147 - Foreign and Domestic Terrorism - Credits: 3.00
• SOC 170 - Sociology and Technology - Credits: 3.00
• SOC 240 - Criminology - Credits: 3.00
• SOC 261 - Human Sexuality - Credits: 3.00
• SOC 280 - Social Issues - Credits: 3.00

• WST 101 - Women's Studies - Credits: 3.00

D. Mathematical Reasoning

• MAT 110 - Math for Liberal Arts - Credits: 3.00
• MAT 117 - Math for Elementary Teachers - Credits: 3.00
• MAT 120 - College Algebra - Credits: 3.00
• MAT 125 - Precalculus - Credits: 3.00
• MAT 140 - Finite Math - Credits: 3.00
• MAT 149 - Linear Algebra - Credits: 3.00
• MAT 156 - Statistics - Credits: 3.00
• MAT 161 - Business Statistics - Credits: 3.00
• MAT 210 - Calculus I - Credits: 4.00
• MAT 216 - Calculus II - Credits: 4.00
• MAT 219 - Calculus III - Credits: 4.00
• MAT 226 - Differential Equations with Laplace - Credits: 3.00

E. Scientific Systems

• BIO 101 - Introductory Biology - Credits: 2.00
• BIO 103 - Introductory Biology Lab - Credits: 1.00
• BIO 120 - General Biology 1D - Credits: 4.00
• BIO 121 - General Biology IID - Credits: 3.00
• BIO 122 - General Biology IIIID - Credits: 3.00
• BIO 127 - Field Botany - Credits: 3.00
Information Technology

Students interested in careers in the field of information technology have numerous options. Indian Hills offers several accounting and office programs as well as instruction in computer networks and security, computer software development, digital forensics, geospatial technology and social networking and technical graphics. Students completing these programs are awarded Associate of Applied Science degrees or diplomas.

Accounting Assistant, Diploma

Offered at Ottumwa Campus

Accounting Assistant is a one-year (four-term) program which provides the student with the background needed for a career in accounting or associated fields. This diploma provides continued education in the accounting and computer areas to better the student’s skills and performance in related business functions. Students will be introduced to the accounting principles and theories needed for today’s business environment.

To enroll, complete an application and attend any required academic orientation and information session. Students may enter this program at the beginning of the Fall, Winter and Spring terms. Students meeting all program and graduation requirements receive a diploma.
**Program Learning Outcomes**

1. Be able to communicate effectively, both written and orally
2. Be able to use spreadsheets as they pertain to accounting reports and calculations
3. Be able to use computerized accounting systems
4. Create, edit, and balance accounts based on GAAP
5. Explain and utilize data for product costing and management decision making
6. Understand basic concepts of the business system as a whole with an emphasis on economic and social topics
7. Organize information from multiple sources
8. Apply information from tables or graphs to locate malfunctions or selected actions
9. Make accurate observations
10. Develop sequential instructions
11. Given a problem, identify and evaluate alternative solutions and arrive at a workable solution
12. Identify cause and effect relationship

**Program Total: 49 Credits**

**Term I**

- ACC 111 - Introduction to Accounting - Credits: 3.00
- ADM 133 - Business Math and Calculators - Credits: 3.00
- BCA 142 - Spreadsheets - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

**Total: 12 Credits**

**Term II**

- ACC 152 - Financial Accounting - Credits: 4.00
- ACC 160 - Payroll Accounting - Credits: 2.00
- ACC 311 - Computer Accounting - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00

**Total: 12 Credits**

**Term III**

- ACC 156 - Managerial Accounting - Credits: 4.00
- ACC 261 - Income Tax Accounting - Credits: 3.00
- BUS 104 - Business Essentials - Credits: 3.00
- OR
- BUS 102 - Introduction to Business - Credits: 3.00
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- OR
- ECN 130 - Principles of Microeconomics - Credits: 3.00

**Total: 13 Credits**

**Term IV**

- ACC 191 - Financial Analysis - Credits: 3.00
- ACC 231 - Intermediate Accounting - Credits: 4.00
- ADM 221 - Career Development Skills - Credits: 2.00
- ENG 101 - Elements of Writing - Credits: 3.00
Total: 12 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

*Optional Course

BUS 128 Foundation to Entrepreneurship

Business Specialist - Accounting, A.A.S.

Offered at Main Campus

The Business Specialist - Accounting program is an 18-month (six-term) program designed to prepare students for employment in the accounting field. Students will be prepared to provide accounting support by completing courses in accounting, taxes, payroll, business and data base. The curriculum incorporates up-to-date software applications, including accounting software, spreadsheets and payroll. The courses are designed to demonstrate competency in identifying, analyzing, recording and interpreting business transactions and financial statements.

To enroll, complete an application and attend any required academic orientation and information session. Students may enroll in this program at the beginning of any term.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

Program Learning Outcomes

1. Identify the objects of financial accounting.
2. Explain and utilize data for product costing and management decision making.
3. Demonstrate the ability to use spreadsheets and databases for business reports, queries, and calculations.
4. Apply information from tables or graphs to locate malfunctions or selected actions.
5. Be able to use computerized accounting systems.
6. Understand the types of tax authority and the major sections of Form 1040.
7. Be able to communicate effectively, both written and orally.
8. Recognize the importance of ethical behavior in the business world.
9. Understand the business environment including the theory, nature, and methods of economics in the public and private sector.
10. Access and evaluate data effectively.
11. Create an effective work environment to be able to make decisions efficiently.
12. Develop sequential instructions.

Program Total: 71 Credits

Term I

- ACC 111 - Introduction to Accounting - Credits: 3.00
- ADM 133 - Business Math and Calculators - Credits: 3.00
- BCA 142 - Spreadsheets - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

Total: 12 Credits
Term II

- ACC 152 - Financial Accounting - Credits: 4.00
- ACC 311 - Computer Accounting - Credits: 3.00
- ADM 162 - Office Procedures - Credits: 3.00
- BCA 134 - Word Processing - Credits: 3.00

Total: 13 Credits

Term III

- ACC 150 - Financial Reports and Presentations - Credits: 2.00
- ACC 156 - Managerial Accounting - Credits: 4.00
- ACC 160 - Payroll Accounting - Credits: 2.00
- ENG 101 - Elements of Writing - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 14 Credits

Term IV

- ACC 231 - Intermediate Accounting - Credits: 4.00
- BCA 167 - Comprehensive Databases - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- GES XXX - General Education: Science - Credits: 3.00*

Total: 13 Credits

Term V

- ACC 261 - Income Tax Accounting - Credits: 3.00
- ADM 221 - Career Development Skills - Credits: 2.00
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
  OR
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 11 Credits

Term VI

- ACC 191 - Financial Analysis - Credits: 3.00
- ACC 929 - Individual Projects - Credits: 4.00
  OR
- ACC 932 - Internship - Credits: 4.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
- GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 10 Credits
Dual Major Option

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses, pending that their built-in-Science Elective has a lab component. For the Cultural elective, the student should choose a three credit Literature. The Math elective should be MAT110 or higher.

- Distributed Core Electives - Credits: 7.00
- Composition II - Credits: 3.00
- Humanities and/or Fine Arts Electives - Credits: 5.00
- Math or Science Electives - Credits: 2.00
- Social Science Electives - Credits: 3.00
- How to be Successful in College - Credit: 3.00
- U.S. History or Western Civilization - Credits: 3.00

For A.A. degree required course options see General Education Course Requirements (A.A., A.S.)

Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

**Optional Courses:

BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Business Specialist - Office Management, A.A.S.

Offered at Centerville and Main Campus

The Business Specialist - Office Management program is an 18-month (six-term) program that prepares students for employment in various office positions. Students will learn to provide high-level administrative support by completing training on up-to-date software applications, demonstrating competency in accounting applications and performing administrative assistant functions such as preparing correspondence, scheduling meetings, transcribing dictation and demonstrating strong verbal and written communication skills.

To enroll, complete an application and attend any required academic orientation and information session. Students may enroll in this program at the beginning of any term.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

Program Learning Outcomes

1. Communicate effectively—both in writing and orally.
2. Demonstrate ability to keyboard 40 nwpm on five minute timing.
3. Learn to keyboard by touch.
4. Ability to correctly keyboard various business documents from un-arranged copy
5. Demonstrate ability to ten-key by touch at 180 nspm.
6. Understand the basic principles of computers.
7. Utilize basic accounting principles.
9. Understand and use word processing concepts.
10. Understand and use spreadsheet concepts.
11. Understand and use database concepts.
12. Understand and use presentation concepts.
13. Demonstrate ability to integrate software.
14. Demonstrate the proper procedures for mailing and shipping services.
15. Develop ability to spell, pronounce, and define legal terms.
16. Develop and use proper telephone techniques.
17. Understand various methods of file management.
18. Utilize basic math functions.
19. Learn to work in a team environment.
20. Develop the skills necessary to work with the user and meet deadlines.
21. Demonstrate problem solving and decision making techniques.
22. Research data using the Internet.
23. Demonstrate appropriate appearance for career.
24. Research resumes and interview techniques.
25. Develop integrity, objectivity, and ethics in business.
26. Understand financial analysis and interpretations.
27. Utilize integrated learning concepts.

Program Total: 75 Credits

Term I

- ACC 111 - Introduction to Accounting - Credits: 3.00
- ADM 108 - Keyboarding Skill Development - Credits: 1.00
- ADM 133 - Business Math and Calculators - Credits: 3.00
- BCA 142 - Spreadsheets - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

Total: 13 Credits

Term II

- ACC 160 - Payroll Accounting - Credits: 2.00
- ACC 311 - Computer Accounting - Credits: 3.00
- ADM 162 - Office Procedures - Credits: 3.00
- BCA 134 - Word Processing - Credits: 3.00
- BCA 178 - Presentation Software - Credits: 3.00

Total: 14 Credits

Term III

- ADM 123 - Document Formatting - Credits: 3.00
- BCA 167 - Comprehensive Databases - Credits: 3.00
- ENG 101 - Elements of Writing - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00**

Total: 12 Credits

Term IV

- ADM 148 - Transcription - Credits: 2.00
- BCA 138 - Advanced Word Processing Applications - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- GES XXX - General Education: Science - Credits: 3.00**
- XXX XXX - Approved Program Elective - Credits: 2.00*

Total: 13 Credits
Term V

- ADM 159 - Proofreading and Editing - Credits: 3.00
- ADM 221 - Career Development Skills - Credits: 2.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00
- XXX XXX - Approved Program Elective - Credits: 3.00*

Total: 10 Credits

Term VI

- ADM 180 - Administrative Management - Credits: 3.00
- ADM 900 - Internship - Credits: 4.00 OR
- ADM 929 - Individual Projects - Credits: 4.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00**
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00**
- XXX XXX - Approved Program Elective - Credits: 4.00*

Total: 14 Credits

Dual Major Option

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses. The Math elective chosen should be MAT 110 or higher and the Science course should have a lab component. The Cultural elective should be a three credit Literature. The three approved electives should be Macroeconomics and two Psychology courses.

- Humanities and/or Fine Arts - Credits: 5.00
- Composition II - Credits: 3.00
- Math or Science Electives - Credits: 2.00
- U.S. History or Western Civilization - Credits: 3.00
- How to be Successful in College - Credits: 3.00
- Distributed Core Electives - Credits 4.00

Refer to General Education Course Requirements (A.A.S.) for approved courses.

- ADM 198 - Legal Terminology - Credits: 2.00
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- HSC 113 - Medical Terminology - Credits: 2.00
- ACC xxx - Accounting courses
- BCA xxx - Business Computer Applications courses
- BUS xxx - Business courses
- CIS xxx - Computer Programming courses
- PSY xxx - Psychology courses

Notes:

**Refer to General Education Course Requirements (A.A.S.) for approved courses.

Optional Course(s)

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
Business Specialist, Diploma

Offered at Centerville and Main Campus

The office assistant is one of the most vital team members in a business. The Business Specialist program is an excellent opportunity for students who want to obtain skills and enter the job market in any office area, including the medical, legal, accounting, manufacturing, insurance and education fields. The program can be completed in nine months (three terms) or on an extended basis. All earned credits can be applied to an Associate of Arts degree for those students who want to continue their education. Students can enroll in this program at the beginning of any term on the Ottumwa campus.

To enroll, complete an application and attend any required academic orientation and information session. Students meeting all program and graduation requirements receive a diploma.

Program Learning Outcomes

1. Communicate effectively—both in writing and orally.
2. Demonstrate ability to keyboard 40 wpm on five minute timing.
3. Learn to keyboard by touch.
4. Ability to correctly keyboard various business documents from un-arranged copy
5. Demonstrate ability to ten-key by touch at 180 nspm.
6. Understand the basic principles of computers.
7. Utilize basic accounting principles.
9. Understand and use word processing concepts.
10. Understand and use spreadsheet concepts.
11. Understand and use database concepts.
12. Understand and use presentation concepts.
13. Demonstrate ability to integrate software.
14. Demonstrate the proper procedures for mailing and shipping services.
15. Develop ability to spell, pronounce, and define legal terms.
16. Develop and use proper telephone techniques.
17. Understand various methods of file management.
18. Utilize basic math functions.
19. Learn to work in a team environment.
20. Develop the skills necessary to work with the user and meet deadlines.
21. Demonstrate problem solving and decision making techniques.
22. Research data using the Internet.
23. Demonstrate appropriate appearance for career.
24. Research resumes and interview techniques.
25. Develop integrity, objectivity, and ethics in business.
26. Understand financial analysis and interpretations.
27. Utilize integrated learning concepts.

Program Total: 38 Credits

Term I

- ACC 111 - Introduction to Accounting - Credits: 3.00
- ADM 108 - Keyboarding Skill Development - Credits: 1.00
- ADM 133 - Business Math and Calculators - Credits: 3.00
- BCA 142 - Spreadsheets - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

Total: 13 Credits
Term II

- ACC 160 - Payroll Accounting - Credits: 2.00
- ADM 162 - Office Procedures - Credits: 3.00
- BCA 134 - Word Processing - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 11 Credits

Term III

- ACC 311 - Computer Accounting - Credits: 3.00
- ADM 123 - Document Formatting - Credits: 3.00
- ADM 221 - Career Development Skills - Credits: 2.00
- BCA 167 - Comprehensive Databases - Credits: 3.00
- ENG 101 - Elements of Writing - Credits: 3.00

Total: 14 Credits

Notes:

*Optional Course(s)

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Computer Accounting, Diploma

Offered at Main Campus

Computer Accounting is a six-month (two-term) program designed to prepare students for entry-level computer accounting positions in banks, insurance offices, manufacturing firms, wholesalers, retailers, government offices and educational institutions.

To enroll, complete an application and attend any required academic orientation and information session. Students may enter this program at the beginning of the Fall, Winter and Spring terms. Students meeting all program and graduation requirements receive a diploma.

Program Learning Outcomes

1. Be able to communicate effectively, both written and orally.
2. Be able to use spreadsheets as they pertain to accounting reports and calculations.
3. Be able to use computerized accounting systems.
4. Create, edit, and balance accounts based on GAAP.
5. Explain and utilize data for product costing and management decision making.
6. Understand basic concepts of the business system as a whole with an emphasis on economic and social topics.
7. Organize information from multiple sources.
8. Apply information from tables or graphs to locate malfunctions or selected actions.
9. Make accurate observations.
10. Develop sequential instructions.
12. Identify cause and effect relationship.

Program Total: 24-25 Credits
Term I

- ACC 111 - Introduction to Accounting - Credits: 3.00
- ADM 133 - Business Math and Calculators - Credits: 3.00
- BCA 142 - Spreadsheets - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

Total: 12 Credits

Term II

- ACC 150 - Financial Reports and Presentations - Credits: 2.00
- ACC 160 - Payroll Accounting - Credits: 2.00
- ACC 311 - Computer Accounting - Credits: 3.00
- ADM 221 - Career Development Skills - Credits: 2.00
- BCA 134 - Word Processing - Credits: 3.00

Total: 12 Credits

Notes:

*Optional Courses

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Computer Software Development, A.A.S.

Offered at Main Campus

The Computer Software Development program instructs students in the languages of the computer and the operation of the computer as the person analyzes and organizes information. The 21-month (seven-term) program covers preparation in computer languages, application testing and debugging, databases, business systems analysis and communication skills. Hands-on training is provided in areas of web development, mobile application development and mainframe programming. The program leads to jobs as computer programmers, programmer analysts and systems analysts.

To enroll, complete an application and attend any required academic orientation and information session. This program may be entered at the beginning of any term. Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

A laptop computer is required for second term students, preferred for first term students. Laptop computer requirements are available from the department office at (641) 683-5215.

Program Learning Outcomes

1. Interact with others in a respectful and professional manner utilizing written and verbal communications.
2. Understand basic business principles.
3. Design and document software solutions.
4. Prepare, analyze and execute various testing methods.
5. Understand and use structured programming concepts.
6. Design and create programs using object oriented programming concepts.
7. Design and create web applications.
8. Identify and apply current software delivery methodologies.
9. Demonstrate problem solving and debugging skills.
10. Create, manipulate, and use various data storage types.
11. Create programs utilizing Graphical User Interface objects.
12. Design, develop and manage applications utilizing various software tools.
### Program Total: 81-85 Credits

#### Term I
- ADM 218 - Initiating the Career Search - Credits: 1.00
- BCA 185 - Beginning Webpage Development - Credits: 3.00
- CIS 121 - Intro to Programming Logic - Credits: 3.00
- CIS 598 - Python - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00

**Total: 13 Credits**

#### Term II
- CIS 171 - Java - Credits: 3.00
- CIS 351 - Introduction to Database Concepts - Credits: 3.00
- CIS 402 - Cobol - Credits: 3.00
- CIS 845 - Quality Assurance - Credits: 2.00

**Total: 11 Credits**

#### Term III
- CIS 175 - Java II - Credits: 3.00
- CIS 198 - JavaScript - Credits: 3.00
- CIS 338 - SQL/Oracle - Credits: 3.00
- XXX XXX - Emphasis Option - Credits: 3.00

**Total: 12 - 13 Credits**

#### Term IV
- GEW XXX - General Education: Writing - Credits: 3.00 *
  
  OR
- GEP XXX - General Education: Speech - Credits: 3.00 *
- GEB-XXX - General Education: Behavioral/Social Science Credits: 3.00*
  
  OR
- GEH XXX - General Education: Humanities - Credits: 3.00*
  
  AND EITHER
- CIS 181 - Java III - Credits: 3.00
- XXX XXX - Emphasis Option - Credits: 3.00
  
  OR
- CIS 932 - Internship - Credits: 4.00

**Total: 10-11 Credits**

#### Term V
- CIS 169 - C# - Credits: 3.00
- CIS 501 - Intro to Business Analysis - Credits: 3.00
- XXX XXX - Emphasis Option - Credits: 3.00
- XXX XXX - Approved Mathematical Reasoning Course - Credits: 3.00 *
Total: 12 Credits

Term VI

- ADM 219 - Managing the Career Search - Credits: 1.00
- CIS 174 - Advanced C# Programming - Credits: 3.00
- XXX XXX - Emphasis Option - Credits: 2.00
- XXX XXX - Emphasis Option - Credits: 3.00

**AND EITHER**
- CIS 850 - Programming Field Project I - Credits: 2.00
- OR
  - CIS 181 - Java III - Credits: 3.00

Total: 13 Credits

Term VII

- CIS 618 - Advanced .Net Programming - Credits: 3.00
- XXX XXX - Emphasis Option - Credits: 3.00
- GES XXX - General Education: Science - Credits: 3.00*

**AND EITHER**
- CIS 851 - Programming Field Project II - Credits: 2.00
- OR
  - XXX XXX - Emphasis Option - Credits: 3.00

Total: 10-11 Credits

Mobile Development Emphasis Option Required Courses

- CIS 279 - Introduction to Mobile Development - Credits: 3.00
- CIS 281 - Mobile Development - Credits: 3.00
- CIS 284 - Advanced Mobile Development - Credits: 3.00
- CIS 286 - User Experience Design - Credits: 3.00
- XXX XXX Approved Emphasis Electives

Webpage Development Emphasis Option Required Courses

- CIS 216 - Web Design and Management - Credits: 2.00
- CIS 206 - Web Scripting - Credits: 3.00
- CIS 203 - Introduction to Web Frameworks - Credits: 3.00
- CIS 286 - User Experience Design - Credits: 3.00
- CIS 334 - PHP/APACHE/MYSQL - Credits: 3.00
- XXX XXX - Approved Emphasis Electives - Credits: 3.00

Mainframe Programming Emphasis Option Required Courses

- CIS 344 - Database Programming With DB2 - Credits: 3.00
- CIS 412 - Cobol II - Credits: 3.00
- CIS 421 - Cobol III - Credits: 3.00
- CIS 486 - Introduction to 4GL Programming - Credits: 3.00
- XXX XXX - Approved Emphasis Electives - Credits: 4.00 - 6.00
Approved Emphasis Option Elective Courses

- BUS 104 - Business Essentials - Credits: 3.00
- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
- CIS 183 - Oracle Academy: Database Design - Credits: 3.00
- CIS 750 - Project Management - Credits: 3.00

Notes:

In order to complete an Emphasis Option area, 16-18 Emphasis Course Credits are required and 12 of the credits must be from the same Emphasis Option area.

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

Cybersecurity and Systems Administration, A.A.S.

Offered at Main Campus

Cybersecurity and Systems Administration is a 21-month (seven-term) program. This specialty emphasizes the installation, operation, security and maintenance of computer systems and networks used in business and industry. Labs are equipped with modern computer equipment and networks.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. This major may be entered in the Fall or Spring terms.

A laptop computer is required for second-term students, preferred for first term students. Laptop computer requirements are available from the department office at (641) 683-5215.

Program Learning Outcomes

1. Communicate both in writing and orally with a range of audiences to be able to accomplish a common goal.
2. Install, configure, monitor and secure operating systems, networks, hardware, and storage subsystems both in virtual and physical environments.
3. Research and utilize current techniques, skills, and tools necessary for IT best practices.
4. Design, implement, diagnose and administer local-area and wide-area networks to satisfy organizational goals.
5. Recognize popular social engineering, network based and host based attacks. Understand how to implement remediation strategies for these types of attacks.
6. Setup/configure a basic Windows Server and create technical documentation including network diagrams.
7. Demonstrate Linux/Unix server administration.

Program Total: 84-85 Credits

Term I

- CSC 110 - Introduction to Computers - Credits: 3.00
- ELT 110 - Electronics - Credits: 2.00
- NET 122 - Computer Hardware Basics - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 11 Credits

Term II

- BCA 185 - Beginning Webpage Development - Credits: 3.00
- NET 310 - Virtual Machines - Credits: 3.00
- NET 725 - Networking Essentials - Credits: 3.00
• NET 786 - Fundamentals of Desktop Support - Credits: 4.00

Total: 13 Credits

Term III

• NET 445 - Linux Operating System - Credits: 4.00
• NET 616 - VMware VCP - Credits: 3.00
• NET 684 - TCP/IP for Networking - Credits: 4.00
  GES XXX - General Education: Science - Credits: 3.00*

Total: 14 Credits

Term IV

• NET 319 - Microsoft Server - Credits: 3.00
• NET 404 - Linux Network Administration - Credits: 4.00
• NET 782 - Computer Users Support - Credits: 3.00

Total: 10 Credits

Term V

• NET 202 - Programming for Network Administrators - Credits: 3.00
• NET 343 - Windows Directory Services - Credits: 3.00
• NET 610 - Security Fundamentals - Credits: 2.00
• GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 11 Credits

Term VI

• CIS 351 - Introduction to Database Concepts - Credits: 3.00
• NET 153 - Advanced Networking - Credits: 4.00
• NET 626 - Network Security Audit - Credits: 3.00
• NET 671 - Microsoft Exchange Server - Credits: 2.00

Total: 12 Credits

Term VII

• ENG 111 - Technical Writing - Credits: 3.00
• NET 292 - Information Technology Capstone - Credits: 5.00
• NET 619 - Network Attacks: Detection, Analysis and Countermeasures - Credits: 3.00
• NET 845 - Security Field Projects - Credits: 2.00
  OR
  • NET 932 - Internship - Credits: 3.00

Total: 13-14 Credits
Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

*Optional Course(s)

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Geospatial Technology, A.A.S.

Offered at Main Campus

The Geospatial Technology program instructs students to work with, interrelate and analyze virtually all forms of spatial data (mapping, surveying and geography).

This 18-month (six-term) program teaches the students to oversee the collection and interpretation of photographic and geographic data gathered from technological tools, such as Global Positioning Systems, Geographic Information Systems (GIS), databases, surveys, censuses, satellite and ground-based remote sensing imagery.

The program is designed to prepare students for jobs in most industries including agriculture, forestry, environmental, health, transportation and urban planning.

To enroll, complete an application and attend any required academic orientation and information session. The program may be entered at the beginning of the Fall term. Students meeting all program requirements receive an Associate of Applied Science degree.

Students are required to have a handheld GPS unit in the first term. A laptop computer is preferred for first-term students and required for second-term students. Laptop computer and GPS unit requirements are available from the department office by calling (641) 683-5215.

Program Learning Outcomes

1. Communicate effectively.
2. Work independently or in a team environment.
3. Understand geospatial technologies and basic business principles.
4. Identify, collect, analyze, create and interpret geospatial data.
5. Use geospatial tools for problem identification, critical thinking, and decision making.

Program Total: 68 Credits

Term I

- CSC 110 - Introduction to Computers - Credits: 3.00
- ENG 101 - Elements of Writing - Credits: 3.00
- GIS 100 - Introduction to Geospatial Technologies - Credits: 3.00
- GIS 140 - Global Positioning Systems - Credits: 3.00

Total: 11 Credits

Term II

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
- GIS 111 - Introduction to Geographic Information Systems - Credits: 3.00
- GIS 200 - Introduction to Cartography - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 12 Credits
Term III

- GIS 121 - Introduction to Data Bases - Credits: 3.00
- GIS 230 - GIS Applications - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00
- GES XXX - General Education: Science - Credits: 3.00*

Total: 12 Credits

Term IV

- GIS 170 - Introduction to Raster Based GIS - Credits: 3.00
- GIS 180 - GIS Tools and Methods - Credits: 3.00
- GIS 205 - GIS Data Acquisition and Analysis - Credits: 3.00
- GIS 900 - Internship - Credits: 4.00

Total: 13 Credits

Term V

- ADM 221 - Career Development Skills - Credits: 2.00
- CAD 105 - CAD I - Credits: 2.00
- GIS 800 - GIS Field Project I - Credits: 2.00
- GIS 949 - Special Topics in GIS - Credits: 3.00

Total: 9 Credits

Term VI

- GIS 130 - Remote Sensing - Credits: 3.00
- GIS 190 - GIS Programming - Credits: 3.00
- GIS 801 - GIS Field Project II - Credits: 2.00
- GEB XXX - General Education: Behavioral/Social Science - Credits 3.00*
  OR
- GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 11 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Completing a dual major in this program is an option, see Academic Policies for more information.

Interactive Media Technology, A.A.S.

Offered at Main Campus

The Interactive Media Technology program is designed for students who want to combine graphic communication skills in both print and digital formats with marketing and web design skills. Students learn the fundamentals and best practices in graphic design, web design and social media. There are two emphasis areas built into the program: Interactive Web and Internet Marketing. This is a 21-month (seven-term) program.
To enroll, complete an application and attend any required academic orientation and information session. The program may be entered at the beginning of the Fall term.

Students meeting all program requirements receive an Associate of Applied Science degree.

A laptop computer and associated software is required for this program. Laptop computer and software requirements are available from the department office at (641) 683-5215.

**Program Learning Outcomes**

1. Graduates will be able to design and produce visually appealing and professional websites utilizing industry standard software.
2. Graduates will be able to manage and maintain an organization's web presence.
3. Graduates will understand various forms of social media platforms and how to effectively integrate them into the overall marketing strategy of an organization.
4. Graduates will be able to develop Internet Marketing strategies.
5. Graduates will be able to apply basic design fundamentals and principles to print and web solutions.
6. Graduates will be able to create innovative print and web solutions utilizing industry standard software, including but not limited to: logos, corporate identity, posters, advertising, multimedia and web design.
7. Graduates will be able to write effectively for the web.
8. Graduates will be able to produce an online portfolio that showcases individual technical and Graphic communication skills.
9. Graduates will be able to deliver effective oral and written presentations.
10. Graduates will have a clear command of the written English language and be able to produce content that is free of spelling, punctuation and grammatical errors.

**Program Total: 83 Credits**

**Term I**

- ART 133 - Drawing - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- GRD 105 - Design Basics - Credits: 3.00
- GRD 110 - Introduction to Computer Graphics - Credits: 3.00

**Total: 12 Credits**

**Term II**

- ART 184 - Photography - Credits: 3.00
- BCA 185 - Beginning Webpage Development - Credits: 3.00
- ENG 101 - Elements of Writing - Credits: 3.00
- SMM 100 - Introduction to Social Media - Credits: 3.00

**Total: 12 Credits**

**Term III**

- CIS 216 - Web Design and Management - Credits: 2.00
- GRD 210 - Computer Graphics II - Credits: 3.00
- MMS 241 - Public Relations and Marketing - Credits: 3.00
- SMM 115 - Introduction to Internet Marketing - Credits: 3.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00*
Total: 14 Credits

Term IV

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
- CIS 226 - Advanced Web Design - Credits: 2.00
- CIS 351 - Introduction to Database Concepts - Credits: 3.00
- GRA 280 - Audio/Video Production Basics - Credits: 3.00
- SMM 110 - Writing for the Web - Credits: 2.00

Total: 13 Credits

Term V

- GRD 220 - Web Animation - Credits: 3.00
  OR
- SMM 170 - Social Media Campaigns - Credits: 3.00
- GRA 281 - Audio/Video Production Basics II - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 12 Credits

Term VI

- SMM 200 - Emerging Media Technologies - Credits: 3.00
- SMM 210 - Web Analytics - Credits: 3.00
- GES XXX - General Education: Science - Credits: 3.00*
- SMM 130 - Electronic Advertising - Credits: 3.00
  OR
- CIS 334 - PHP/APACHE/MYSQL - Credits: 3.00

Total: 12 Credits

Term VII

- GRD 910 - Portfolio Development - Credits: 2.00
- SMM 180 - Mobile Marketing - Credits: 3.00
  OR
- CIS 198 - JavaScript - Credits: 3.00
- SMM 910 - Internship - Credits: 3.00
  OR
- SMM 920 - Service Learning Project - Credits: 3.00

Total: 8 Credits

Internet Marketing Emphasis Option Courses

- SMM 130 - Electronic Advertising - Credits: 3.00
- SMM 170 - Social Media Campaigns - Credits: 3.00
Interactive Web Emphasis Option Courses

- SMM 180 - Mobile Marketing - Credits: 3.00
- CIS 198 - JavaScript - Credits: 3.00
- CIS 334 - PHP/APACHE/MYSQL - Credits: 3.00
- GRD 220 - Web Animation - Credits: 3.00

Dual Major Option

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses.

The Cultural elective should be a three-credit Literature. The Math elective should be Mat 110 or higher and the Science course should have a lab component.

- Composition I & II - Credits: 6.00
- Humanities and/or Fine Arts - Credits: 1.00
- Math or Science Electives - Credits: 2.00
- U.S. History or Western Civilization - Credits: 3.00
- Social Science Electives - Credits: 6.00
- The College Experience - Credits: 2.00
- Distributed Core Electives - Credits: 1.00

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Notes

*Optional Course(s)

- CIS 281 - Mobile Development - Credits: 3.00
- GRA 127 - Illustrator I - Credits: 3.00
- GRA 135 - InDesign - Credits: 2.00
- GRA 143 - Photoshop I - Credits: 2.00
- GRA 222 - Illustrator II - Credits: 2.00
- GRA 224 - InDesign II - Credits: 2.00
- GRA 226 - Photoshop II - Credits: 2.00
- GRA 250 - Dreamweaver - Credits: 2.00
- GRA 251 - Dreamweaver II - Credits: 2.00

Manufacturing Technology

Indian Hills Community College is recognized for preparing students interested in pursuing careers in industrial and manufacturing companies. IHCC offers programs in the fields of bioprocessing, electronics, industrial maintenance, lasers, machining, mechanical design, renewable energy, robotics and welding.

Students completing these programs are awarded Associate of Applied Science degrees or diplomas.

Electrical & Renewable Energy Technology, A.A.S.

Offered at Main Campus

Electrical & Renewable Energy Technology is a 24-month (eight-term) program that will give students conceptual as well as hands-on training in technology and practices used in the electrical and renewable energy fields. This program is designed to prepare electrical engineering technicians and electricians with the skill set to meet the growing demand for "green" sources of
power. Students learn about the production and distribution of electrical energy from a variety of traditional and renewable energy sources.

Students may enter this program at the beginning of the Fall term. Students meeting all program and graduation requirements receive an Associate of Applied Science degree and certificates in six specialized areas -- Residential-Commercial Electrical, Industrial-Utility Electrical, Photovoltaic Technician, Energy Auditor, Solar Energy Management and Small Wind.

A laptop computer is required to participate in this program. Minimum laptop computer requirements are listed in the notes at the bottom of this page.

Students will be eligible to apply for an Iowa Unclassified Electrical License, and upon completion of all State of Iowa Electrical Examiner's Board requirements, program graduates will be sponsored by the State of Iowa Electrical Examiner's Board (pending EEB approval) to take the Journeyman Electrician's Examination.

Program Learning Outcomes

1. Demonstrate basic Microsoft based computer literacy.
2. Demonstrate basic design principles of electrical theory.
3. Demonstrate basic electronic components and system principles.
4. Recognize and prevent occupational safety hazard and/or injury.
5. Perform electrical safety practices.
6. Demonstrate residential electrical system design, installation, troubleshooting, maintenance and/or repair.
7. Demonstrate commercial electrical system design, installation, troubleshooting, maintenance and/or repair.
8. Demonstrate industrial electrical system design, installation, troubleshooting, maintenance and/or repair.
9. Demonstrate utility electrical system design, installation, troubleshooting, maintenance and/or repair.
10. Apply the National Electrical Code in the design process.
11. Demonstrate electrical engineering and estimation principles.
12. Apply mathematic principles to solve technical problems.
13. Demonstrate photovoltaic system design, installation, troubleshooting, maintenance and/or repair.
14. Analyze advanced renewable energy system(s) design, installation, troubleshooting, maintenance and/or repair.
15. Apply energy efficiency principles in the design process.
16. Perform energy auditing.
17. Demonstrate solar-thermal electric system design, installation, troubleshooting, maintenance and/or repair.
18. Demonstrate automated energy control system design, installation, troubleshooting, maintenance and/or repair.
19. Demonstrate small wind energy system design, installation, troubleshooting, maintenance and/or repair.
20. Analyze large wind energy system design, installation, troubleshooting, maintenance and/or repair.

Program Total: 86 Credits

Term I

- CSC 105 - Computer Essentials - Credits: 1.00
- ELE 349 - Electrical Equipment Tools & Safety - Credits: 3.00
- ELE 352 - Principles of Electronics - Credits: 3.00
- ELT 303 - Principles of Electricity - Credits: 3.00
- IND 110 - CPR, First Aid and Safety - Credits: 1.00

Total: 11 Credits

Term II

- EGT 304 - Electrical Engineering & Estimation - Credits: 3.00
- ELE 159 - Introduction to Codes and Standards - Credits: 2.00
- ELE 353 - Residential Electrical/Electronic System - Credits: 3.00
- ELE 354 - Commercial Electrical/Electronic Systems - Credits: 3.00

Total: 11 Credits
Term III

- EGT 305 - Engineering Math - Credits: 2.00
- ELE 355 - Intermediate Codes and Standards - Credits: 2.00
- ELE 357 - Industrial Electrical/Electronic Systems - Credits: 3.00
- ELE 358 - Utility Electrical/Electronic Systems - Credits: 3.00

Total: 10 Credits

Term IV

- ELE 356 - Advanced Codes and Standards - Credits: 2.00
- SER 100 - Introduction to Renewable Energy Applications - Credits: 2.00
- SER 122 - Photovoltaics I - Credits: 3.00
- SER 123 - Photovoltaics II - Credits: 3.00

Total: 10 Credits

Term V

- GES: XXX - General Education: Science - Credits: 3.00*
- GEM XXX - General Education: Mathematics - Credits: 2.00*
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00* OR
- GEH XXX - General Education: Humanities - Credits 3.00* OR
- GEP XXX - General Education: Speech - Credits 3.00* OR
- GEW XXX - General Education: Writing - Credits 3.00*

Total: 11 Credits

Term VI

- EGT 187 - Computer Aided Electrical Design - Credits: 3.00
- EGT 300 - Energy Efficiency & Auditing - Credits: 3.00
- SER 300 - Advanced Renewable Energy Systems - Credits: 3.00
- SER 301 - Smart Grid Technology - Credits: 2.00

Total: 11 Credits

Term VII

- SER 302 - Automated Energy Components - Credits: 3.00
- SER 303 - Automated Energy Systems - Credits: 3.00
- SER 304 - Solar Thermo-Electric Components - Credits: 3.00
- SER 305 - Solar Thermo-Electric Systems - Credits: 3.00

Total: 12 Credits

Term VIII

- SER 306 - Sustainable Engineering Capstone - Credits: 3.00 OR
- SER 805 - Sustainable Energy Internship - Credits: 2.00
- WTT 103 - Introduction to Wind Energy - Credits: 3.00
- WTT 202 - Advanced Wind Energy - Credits: 4.00
Total: 10 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Certificates in this program may be awarded after successful completion of required coursework:

- Residential-Commercial Electrical Certificate (Terms 1 and 2)
- Industrial-Utility Electrical Certificate (Terms 1 and 3)
- Photovoltaic Technician Certificate (Terms 1 and 4)
- Energy Auditor Certificate (Terms 1 and 6)
- Solar Energy Management Certificate (Terms 1 and 7)
- Small Wind Certificate (Terms 1 and 8)

Students may also earn additional certifications from third-party affiliates:

- OSHA 10-Hour Construction Safety
- OSHA 30-Hour Construction Safety
- NCRC Occupational Training
- AHA First Aid and CPR Certification
- NFPA70E Arc Flash Safety Certification

Minimum laptop computer requirements:

- Processor Type: Intel Core i3-3227U
- Processor Speed: 1.90 GHz
- System RAM: 6 GB
- Hard Drive Size: 500GB
- Laptop Screen Size: 15.6 inch
- Screen Resolution: 1366 x 768
- Multi-Media Drive: DVD Drive
- Network Connection: Wireless LAN

*Optional Course(s)

- TDT 140 - Driver Training CDL - Credits: 10.00
- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Additional Diplomas and Certificates

Certificates available within this program include:

- Energy Auditor Certificate
- Industrial - Utility Electrical Certificate
- Photovoltaic Technician Certificate
- Small Wind Certificate
- Solar Energy Management Certificate

Electronic Engineering Technology, A.A.S.

Offered at Main Campus

Electronic Engineering Technology is a 21-month (seven-term) program that focuses on preparing electronic engineering technicians for industry. The program includes the nine-month (three-term) Electronic Technician diploma program, plus 12 months (four terms) of additional concentration in the major. Students will learn electrical and electronic design software, engineering and design principles, fiber optics and advanced communications systems used in various applications and
industries, including telecommunications, broadcasting, aeronautics, medicine, industrial control, information processing and networking.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. This major may be entered at the beginning of the Fall and Spring terms.

**Program Learning Outcomes**

1. Have an understanding of electronic theory.
2. Have understanding, demonstrate, construct, troubleshoot, and evaluate electronic circuit techniques.
3. Define, identify, examine, develop, and evaluate typical communications circuits.
4. Recognize, operate, and manage electronic test equipment including RF test equipment.
5. Understand, evaluate, test, troubleshoot, and construct communications networks.
6. Utilize mathematics and physics concepts in design applications.
7. Utilize soft skills in a team environment.
8. Define, explain, illustrate and evaluate engineering design.
9. Identify, analyze, and evaluate technologies used in engineering.

**Program Total: 80 Credits**

**Term I**

- COM 723 - Workplace Communications - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ELT 373 - DC Circuit Analysis - Credits: 4.00
- MAT 742 - Technical Math - Credits: 2.00

Total: 12 Credits

**Term II**

- EGT 425 - Digital Electronics - Credits: 3.00
- ELT 375 - AC Fundamentals - Credits: 2.00
- LEO 102 - Photonics Fundamentals - Credits: 3.00
- MAT 777 - Applied Algebra/Trigonometry - Credits: 3.00
- MFG 777 - Business Fundamentals - Credits: 3.00
  OR
- BUS 104 - Business Essentials - Credits: 3.00

Total: 14 Credits

**Term III**

- ELT 180 - Microcontroller Applications - Credits: 2.00
- ELT 505 - Power Transfer Technology - Credits: 2.00
- ELT 550 - Analog Devices - Credits: 4.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 11 Credits

**Term IV**

- ELT 579 - Micro Circuits - Credits: 3.00
  OR
- ELT 932 - Internship - Credits: 3.00
• GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
• OR
  GEH XXX - General Education: Humanities - Credits: 3.00*
  GES XXX - General Education: Science - Credits: 3.00*

Total: 9 Credits

Term V

• ATR 266 - Automation Programming - Credits: 2.00
• EGT 405 - Introduction to Engineering Design - Credits: 3.00
• ELT 402 - Introduction to Communication Systems - Credits: 3.00
• ELT 540 - Linear Components - Credits: 3.00

Total: 11 Credits

Term VI

• EGT 413 - Principles of Engineering - Credits: 3.00
• ELT 418 - Communication Systems I - Credits: 4.00
• ELT 858 - Circuit Design and Test - Credits: 3.00
• GEP XXX - General Education: Speech - Credits: 3.00*
  OR
  GEW XXX - General Education: Writing - Credits: 3.00*

Total: 13 Credits

Term VII

• ELT 437 - Communication Networks - Credits: 4.00
• ELT 460 - Fiber Optics - Credits: 3.00
• ELT 515 - Wireless Networks - Credits: 3.00

Total: 10 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Additional Diplomas and Certificates

Diplomas available within this program include:

• Electronic Technician - Engineering Diploma

HVAC and Refrigeration, Diploma

Offered at Main Campus

The two-term (6-month) HVAC and Refrigeration diploma program prepares the student for entry-level employment in the residential and/or light commercial heating and air-conditioning service industry. Students are trained to be HVAC technicians in a real-world, hands-on lab environment. The HVAC program can be entered in any Fall or Spring Term.
Program Learning Outcomes
1. Assist students in understanding basic principles of heating/cooling systems, components and design.
2. Illustrate the basic concepts of heat exchangers, refrigerant flow control and types of fuels.
3. Assist students in developing the ability to assess the proper installation, piping and venting of heating/cooling systems.
4. Assist students in the operational theory, parts identification, component parts rebuilding, replacement, unit repair and operational procedures.
5. Assist students in developing the ability to install and troubleshoot basic controls and related devices in heating systems.
6. Develop students who can identify recover/recycle/reclaim refrigerant utilizing acceptable refrigerant management procedures.
7. Develop students in their understanding of the basic provisions of the Clean Air Act Amendments and Montreal Protocol as they specifically affect the service technician.
8. Assist students in developing their skills with the basic concepts of both direct (DC) and alternating (AC) currents as it applies to the HVAC industry.
9. Develop students who understand and practice safe work practices encountered as a HVAC Technician

Program Total: 25 Credits

Term I
- CSC 110 - Introduction to Computers - Credits: 3.00
- HCR 105 - Heating/Cooling Fundamentals - Credits: 2.00
- HCR 304 - Fundamentals of Refrigeration - Credits: 2.00
- MAT 762 - Technical Math for Industry - Credits: 2.00
- ELT 151 - Industrial Electricity - Credits: 3.00
  OR
- ELT 302 - Principles of Electricity - Credits: 2.00
  AND
- IND 110 - CPR, First Aid and Safety - Credits: 1.00

Total: 12 Credits

Term II
- ADM 221 - Career Development Skills - Credits: 2.00
- HCR 108 - Heating and Air Conditioning Trade Codes - Credits: 2.00
- HCR 130 - Heating System Controls - Credits: 2.00
- HCR 230 - Cooling System Controls - Credits: 2.00
- HCR 390 - Refrigeration Certification - Credits: 1.00
- HCR 505 - Air Distribution - Credits: 3.00
- HCR 830 - Systems Analysis - Credits: 1.00

Total: 13 Credits

Industrial Maintenance, A.A.S.

Offered at Main Campus

The six-term (18-month) Industrial Maintenance program, which includes the 9-month (three-term) Industrial Maintenance Technician diploma program, is designed to provide the knowledge, skills and abilities to successfully respond to a broad range of work requirements and duties within industrial, manufacturing, processing and building maintenance environments. Students learn skills in maintaining and troubleshooting electrical and mechanical systems and machinery. This program includes training in electrical, hydraulics, pneumatics, print reading, mechanical drives, pumps and lubrication. In addition, students will take coursework to develop/enhance crucial skills in mathematics, critical thinking skills and basic computer skills.
Specific courses may include fundamentals of fluid power, motor controls, industrial pump systems, industrial drives and programmable logic controllers. Upon graduation, students will be awarded Associate of Applied Science degrees.

Program Learning Outcomes
1. Assist students in learning to compute electrical parameters in combinational circuits.
2. Assist students in learning to understand basic characteristics of three-phase power.
3. Assist students in learning to identify symbols and components on electrical diagrams and use appropriate testing devices to measure and troubleshoot circuits.
4. Assist students in learning to become familiar with the National Electrical Code.
5. Assist students in learning to recognize the power and control circuits of an industrial motor circuit.
6. Assist students in learning to describe contactor operation and maintenance and identify appropriate uses for fuses, circuit breakers and overload relays.
7. Assist students in learning to properly wire the field devices to the Programmable Logic Controller (PLC) Input/Output (I/O) Modules.
8. Assist students in learning to program Programmable Logic Controllers (PLCs) using basic to advanced instruction sets.
9. Assist students in learning to install and troubleshoot advanced Programmable Logic Controller circuits.
10. Assist students in learning to explain the role of preventive and predictive maintenance programs.
11. Assist students in learning to examine the PLC addressing and numbering systems.
12. Assist students in learning to describe the basic concepts of electric motor operation and construction.
13. Assist students in learning to apply the practices of general safety including OSHA, MSDS, and PPE.
14. Assist students in learning the basic concepts of both direct (DC) and alternating (AC) currents and how power is generated.
15. Assist students in learning to recognize the importance of motor maintenance.
16. Assist students in learning to install and troubleshoot advanced Programmable Logic Controller circuits.

Program Total: 62 Credits

Term I

- CSC 110 - Introduction to Computers - Credits: 3.00
- ELT 151 - Industrial Electricity - Credits: 3.00
- IND 109 - Equipment Safety and Operation - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 12 Credits

Term II

- ELE 196 - Motor Control Principles - Credits: 4.00
- IND 134 - Print Reading - Credits: 2.00
- IND 204 - Fluid Power I - Credits: 4.00

Credits: 10 Credits

Term III

- ELT 225 - Introduction to PLCs - Credits: 4.00
- IND 162 - Equipment Maintenance - Credits: 2.00
- IND 205 - Fluid Power II - Credits: 4.00

Total: 10 Credits
Term IV

- IND 161 - Lubrication Certification - Credits: 2.00
- IND 169 - Basic Plumbing and Pipework - Credits: 2.00
- GES XXX - General Education: Science - Credits: 3.00*

Total: 9 Credits

Term V

- IND 170 - Rigging Systems - Credits: 2.00
- IND 193 - Introduction to Pumps - Credits: 4.00
- IND 200 - Mechanical Drives I - Credits: 2.00
- IND 201 - Mechanical Drives II - Credits: 2.00

Total: 10 Credits

Term VI

- ADM 221 - Career Development Skills - Credits: 2.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00*
- IND 202 - Mechanical Drives III - Credits: 3.00
- GEP XXX - General Education: Speech - Credits: 3.00*
  OR
  GEW XXX - General Education: Writing - Credits: 3.00*

Total: 11 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Additional Diplomas and Certificates

Diplomas within this program include:

- Industrial Maintenance Technician

Laser and Optics Technology, A.A.S.

Offered at Main Campus

Laser and Optics Technology is a 21-month (seven-term) program which includes the nine-month (three-term) Electronic Technician diploma program, plus four terms (12 months) of additional concentration in the major. Students spend more than 40 percent of their time in the lab training on a variety of industrial laser and optical systems. Hands-on laboratory activities are included as an integral part of the program. Graduates will be prepared for a variety of careers in design and manufacturing, materials processing, communications, medical applications, semiconductor fabrication, optical systems, electronics, military applications, sales, education and displays. Excellent job opportunities exist throughout the United States.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. This major may be entered at the beginning of the Fall or Spring terms.
Program Learning Outcomes
1. Comprehend and execute the concepts of lasers & optics technology.
2. Recognize and implement the components, equipment and hardware used in lasers & optics.
3. Understand and utilize knowledge of geometric ray and particle theory of light.
4. Recognize and use equipment used for laser beam measurement, manipulation, and analysis.
5. Recognize, characterize, & evaluate all categories of laser systems.
6. Comprehend and employ the basics of laser material processing.
7. Understand and utilize the wave theory of light.
8. Troubleshoot and solve problems related to laser & optic installation, maintenance, and repair utilizing various hand tools and measuring devices.
9. Recognize, evaluate, and execute various laser & optical applications.
10. Identify, design, and employ advanced areas of optical system analysis.

Program Total: 82 Credits

Term I
- COM 723 - Workplace Communications - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ELT 373 - DC Circuit Analysis - Credits: 4.00
- MAT 742 - Technical Math - Credits: 2.00

Total: 12 Credits

Term II
- MFG 777 - Business Fundamentals - Credits: 3.00
  OR
- BUS 104 - Business Essentials - Credits: 3.00
- ELT 375 - AC Fundamentals - Credits: 2.00
- MAT 777 - Applied Algebra/Trigonometry - Credits: 3.00
- EGT 425 - Digital Electronics - Credits: 3.00
- LEO 102 - Photonics Fundamentals - Credits: 3.00
  OR
- LEO 103 - Photonics Fundamentals I - Credits: 1.00
  AND
- LEO 104 - Photonics Fundamentals II - Credits: 2.00

Total: 14 Credits

Term III
- ELT 180 - Microcontroller Applications - Credits: 2.00
- ELT 505 - Power Transfer Technology - Credits: 2.00
- ELT 550 - Analog Devices - Credits: 4.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 11 Credits
Term IV

- LEO 242 - Introduction to Photonics - Credits: 4.00
- LEO 257 - Laser Components - Credits: 2.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
- OR
  - GEH XXX - General Education: Humanities - Credits: 3.00*
  - GES XXX - General Education: Science - Credits: 3.00*

Total: 12 Credits

Term V

- CAD 180 - Intro to Solidworks - Credits: 2.00
- LEO 255 - Geometric Optics - Credits: 4.00
- LEO 259 - Optical Devices - Credits: 3.00
- LEO 262 - Laser System Fundamentals - Credits: 3.00

Total: 12 Credits

Term VI

- LEO 250 - Automated Laser Processing - Credits: 3.00
- LEO 253 - Physical Optics - Credits: 2.00
- LEO 268 - Photonics Troubleshooting - Credits: 3.00
- GEP XXX - General Education: Speech - Credits: 3.00*
  OR
  - GEW XXX - General Education: Writing - Credits: 3.00*

Total: 11 Credits

Term VII

- LEO 266 - Photonics Applications - Credits: 4.00
- LEO 275 - Optical Systems Analysis - Credits: 3.00
- LEO 277 - Photonic Systems Lab - Credits: 3.00

Total: 10 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

*Optional Course(s)

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
- LEO 932 - Internship - Credits: 4.00
- LEO 251 - Laser Material Processing - Credits: 4.00
Additional Diplomas and Certificates

Diplomas available within this program include:

- Electronic Technician - Lasers Diploma

Machine Technology, A.A.S.

Offered at Main Campus

Machine Technology is an 18-month (six-term) program designed to give the student a thorough working knowledge of the machinist trade. The first four terms include a study of the five basic machine tools in both theory and shop applications. The final two terms focus on the technological aspects of computer controlled machines. The program also includes supplemental courses in mathematics, blueprint reading, computer-aided drafting, geometric tolerancing and communication skills. Students will use skills and training from manual machines, as well as new programming techniques, to program and set up tooling systems on the CNC lathe and mill. A CMM (Coordinate Measuring Machine) is utilized in conjunction with the CNC vertical mill. Job opportunities exist for machinists, CNC programmers, quality control technicians and tool and die makers.

The program is accredited through the National Institute for Metalworking Skills (NIMS) providing students the opportunity to achieve the following NIMS certifications:

Measurement, Material & Safety
Job Planning Benchwork & Layout
Lathe I
Mill I
CNC Turning Operator
CNC Mill Operator
CNC Turning: Setup, Programming & Operations
CNC Milling: Setup, Programming & Operations

To enroll, complete an application and attend any required academic orientation and information session. This program may be entered at the beginning of any term. Students meeting all program and graduation requirements receive an Associate of Applied Science degree. Students who complete the first four terms of this program, minus the scientific systems course, receive a diploma in Machine Operations.

Program Learning Outcomes

1. Practice safe operation of industrial equipment in the laboratory.
2. Demonstrate proper selection and use of the various measuring tools related to machining.
4. Demonstrate proper operation and setup of an engine lathe and its accessories.
5. Demonstrate proper operation and setup of vertical mill and its accessories.
6. Analyze and interpret blueprints utilized for proper machining of industrial parts.
7. Demonstrate basic computer skills necessary for the machining industry.
8. Demonstrate entry-level competency in the operation, setup and programming a CNC Lathe and Mill.
9. Develop basic welding techniques required for an entry-level machinist.
10. Develop drawings and machine programs utilizing current CAD/CAM software.
11. Demonstrate and apply the theories of Jig and Fixture design.
12. Describe and demonstrate the various hand tools used in machining.

Program Total: 76 Credits

Term I

- CSC 110 - Introduction to Computers - Credits: 3.00
- MFG 121 - Machine Trade Printreading I - Credits: 2.00
- MFG 209 - Machine Shop Practices - Credits: 3.00
- MFG 222 - Machine Operations I - Credits: 4.00
- MAT 772 - Applied Math - Credits: 3.00
OR
- GEM XXX - General Elective: Mathematics - Credits: 3.00*

Total: 15 Credits

**Term II**

- MFG 131 - Machine Trade Printreading II - Credits: 2.00
- MFG 228 - Machine Operations II - Credits: 4.00
- MFG 507 - Lean Quality Manufacturing - Credits: 2.00
- GEB XXX - General Education: Behavioral/Social Science - Credits 3.00*
OR
- GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 11 Credits

**Term III**

- CAD 180 - Intro to Solidworks - Credits: 2.00
- MFG 233 - Machine Operations III - Credits: 6.00
- MFG 349 - Introduction to CAM - Credits: 2.00
- MFG 262 - Mill Operations Theory - Credits: 3.00

Total: 13 Credits

**Term IV**

- CAD 230 - Geometric Dimensioning and Tolerancing - Credits: 2.00
- MFG 171 - Manufacturing Welding I - Credits: 2.00
- MFG 234 - Machine Operations IV - Credits: 6.00
- MFG 254 - Engine Lathe Theory - Credits: 3.00

Total: 13 Credits

**Term V**

- MFG 235 - Machine Operations V - Credits: 6.00
- MFG 352 - CNC Lathe Fundamentals - Credits: 2.00
- MFG 421 - Jig and Fixtures - Credits: 2.00
- GEP XXX - General Education: Speech - Credits: 3.00*
OR
- GEW XXX - General Education: Writing - Credits: 3.00*

Total: 13 Credits

**Term VI**

- MFG 333 - CNC Mill Fundamentals - Credits: 4.00
- MFG 236 - Machine Operations VI - Credits: 4.00 OR
- MFG 932 - Internship - Credits: 4.00
- GES XXX - General Education: Science - Credits: 3.00*
Total: 11 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

**Additional Diplomas and Certificates**

Diplomas available within this program include:

- Machining Technician Diploma
- Machinist Certificate

**Robotics / Automation Technology, A.A.S.**

Offered at Main Campus

Robotics/Automation is a 21-month (seven-term) program, which includes the nine-month (three-term) Electronic Technician diploma program, plus four terms (12 months) of additional concentration in the major. This program prepares graduates to troubleshoot and repair industrial robots and integrated manufacturing work cells as used in industry. Approximately 45 percent of the training is received through actual problem solving in industrial labs. Hands-on laboratory activities are emphasized as an integral part of the program. Students learn to program automated equipment such as robots and programmable logic controllers. Teamwork, effective communication, and documentation skills are also emphasized. Graduates are employed in industry as field service engineers, control technicians, programmers, application engineers, and electrical maintenance technicians.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. The program is a certified training and education site for Fanuc robotics material handling program software. Upon meeting all the requirements, students can also earn a certificate for Fanuc Handling Tool Operation and Programming. This major may be entered at the beginning of the Fall or Spring terms.

**Program Learning Outcomes**

1. Construct basic electrical circuits.
2. Interface between different types of automated systems.
3. Construct programs for different automated equipment.
4. Analyze industrial safety regulations and procedures.
5. Apply motion control concepts to automated processes.
6. Explain the principles of manufacturing processes and quality programs.
7. Interpret schematics and manuals for equipment operation and troubleshooting.
8. Demonstrate mechanical aptitude.
10. Function in a team environment.

**Program Total: 78 Credits**

**Term I**

- COM 723 - Workplace Communications - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ELT 373 - DC Circuit Analysis - Credits: 4.00
- MAT 742 - Technical Math - Credits: 2.00

**Total: 12 Credits**
Term II

- EGT 425 - Digital Electronics - Credits: 3.00
- ELT 375 - AC Fundamentals - Credits: 2.00
- LEO 102 - Photonics Fundamentals - Credits: 3.00
- MAT 777 - Applied Algebra/Trigonometry - Credits: 3.00
- MFG 777 - Business Fundamentals - Credits: 3.00
  OR
- BUS 104 - Business Essentials - Credits: 3.00

Total: 14 Credits

Term III

- ELT 180 - Microcontroller Applications - Credits: 2.00
- ELT 505 - Power Transfer Technology - Credits: 2.00
- ELT 550 - Analog Devices - Credits: 4.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 11 Credits

Term IV

- ATR 251 - Robot Programming I - Credits: 2.00
  AND
- ELT 126 - Industrial Electronics - Credits: 2.00  OR
- MFG 932 - Internship - Credits: 4.00
- GES XXX - General Education: Science - Credits: 3.00*
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
- GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 10 Credits

Term V

- ATR 110 - Manufacturing Fundamentals - Credits: 2.00
- ATR 132 - Computer Aided Manufacturing - Credits: 2.00
- CAD 180 - Intro to Solidworks - Credits: 2.00
- ELT 130 - Control Systems - Credits: 3.00

Total: 9 Credits

Term VI

- ATR 252 - Robot Programming II - Credits: 2.00
- ATR 261 - Robot Controllers I - Credits: 2.00
- ATR 267 - Industrial Systems - Credits: 3.00
- ATR 350 - Robot Offline Programming - Credits: 2.00
- GEP XXX - General Education: Speech - Credits: 3.00*
  OR
- GEW XXX - General Education: Writing - Credits: 3.00*
Total: 12 Credits

Term VII

- ATR 262 - Robot Controllers II - Credits: 2.00
- ATR 274 - Automated System Applications - Credits: 3.00
- ATR 275 - Industrial Networks - Credits: 2.00
- ELT 124 - Advanced PLCs and System Integration - Credits: 3.00

Total: 10 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Additional Diplomas and Certificates

Diplomas available within this program include:

- Electronic Technician - Robotics Diploma

Welding Technician, Diploma

Offered at Ottumwa Campus

This 12-month (four-term) program is available for students interested in welding as an occupation. Welding is essential to the expansion and productivity of a vast array of industries. Welding is considered to be the principal means of fabricating and repairing all metal products. It is difficult to imagine an industry today, large or small, which does not involve some type of welding. Skilled welders often work independently and can utilize their skills anywhere in the world.

The Welding Technology program is a 37-credit diploma program. Term five (pipe welding) is an optional term. Students work on projects in the lab learning to perform all types of welding processes such as GMAW, GTAW, SMAW and Oxy-Acetylene. The lab projects include welds required for AWS certifications and since the program is an American Welding Society (AWS) Accredited Test Facility, students have the opportunity to earn AWS certifications in GMAW, SMAW, GTAW and FCAW. This program can be completed during day and evening hours using facilitated, competency-based instruction. Program completion may vary to accommodate individual needs.

To enroll, complete an application and attend any required academic orientation and information session. Students may enter this program at the beginning of either Fall or Spring terms.

Program Learning Outcomes

1. Work safely in an industrial environment.
2. Understand Lean Manufacturing.
3. Use fixtures properly.
4. Determine proper weld size.
5. Understand common weld defects.
6. Read and understand blueprints.
7. Operate Gas Metal Arc Welding in all positions.
8. Operate Shielded Metal Arc Welding in all positions.
9. Operate Gas Tungsten Arc Welding in all positions.
10. Operate Flux Core Arc Welding in all positions.
11. Operate Oxy-Acetylene equipment properly.
12. Perform basic maintenance and set-up of welding machine.

Program Total: 37 Credits
Term I

- IND 110 - CPR, First Aid and Safety - Credits: 1.00
- MAT 762 - Technical Math for Industry - Credits: 2.00
- WEL 228 - Introduction to Welding, Safety & Health of Welders: SENSE 1 - Credits: 1.00
- WEL 254 - Welding Inspection and Testing Principles: SENSE 1 - Credits: 1.00
- WEL 262 - Thermal Cutting Process I-Manual and Mechanized OxyFuel Cutting: SENSE 1 - Credits: 2.00
- WEL 274 - Shielded Metal Arc Welding I: SENSE 1 - Credits: 3.00

Total: 10 Credits

Term II

- WEL 201 - Procedures and Qualifications - Credits: 1.00
- WEL 233 - Print Reading and Welding Symbol Interpretation: SENSE 1 - Credits: 3.00
- WEL 244 - Gas Metal Arc Welding Short Circuit Transfer: SENSE 1 - Credits: 2.00
- WEL 251 - Gas Tungsten Arc Welding (GTAW) for Carbon Steel: SENSE 1 - Credits: 2.00
- WEL 253 - Gas Tungsten Arc Welding (GTAW) for Austenitic Stainless Steel: SENSE 1 - Credits: 1.00

Total: 9 Credits

Term III

- WEL 174 - Advanced Welding Procedures II - Credits: 3.00
- WEL 182 - FCAW - Credits: 2.00
- WEL 275 - Shielded Metal Arc Welding II: SENSE 1 - Credits: 3.00

Total: 8 Credits

Term IV

- ADM 221 - Career Development Skills - Credits: 2.00
- WEL 200 - Metallurgy Fundamentals - Credits: 2.00
- WEL 245 - Gas Metal Arc Welding Spray Transfer: SENSE 1 - Credits: 2.00
- WEL 211 - Production Welding Procedures - Credits: 4.00
  OR
- WEL 932 - Internship - Credits: 4.00

Total: 10 Credits

Term V (Optional)

- WEL 308 - Pipe Welding/Uphill SMAW - Credits: 4.00
- WEL 309 - Pipe Welding/Downhill SMAW - Credits: 4.00

Welding Technology, A.A.S.

Offered at North Campus

This 18-month (six-term) program is a continuation of the college's four-term Welding Technology diploma program. Completing the A.A.S. degree will enhance the graduate's opportunities for career upward mobility. Welding is essential to the expansion and productivity of a vast array of industries. Welding is considered to be the principal means of...
fabricating and repairing all metal products. It is difficult to imagine an industry today, large or small, which does not involve some type of welding. Skilled welders often work independently and can utilize their skills anywhere in the world.

During the first year of the program, students work on projects in the lab learning to perform all types of welding processes such as GMAW, GTAW, SMAW, FCAW and Oxy-Acetylene. The lab projects include welds required for AWS certifications and since the program is an American Welding Society (AWS) Accredited Test Facility, students have the opportunity to earn AWS certifications in GMAW, SMAW, GTAW and FCAW. In the final three terms, students learn machining skills, quality assurance procedures, Lean concepts and basic robotic welding programming. Many of the courses in this program can be completed during day and evening hours using facilitated, competency-based instruction. Program completion may vary to accommodate individual needs.

To enroll, complete an application and attend any required academic orientation and information session. Students may enter this program at the beginning of either Fall or Spring terms. The A.A.S. degree option is pending state approval.

**Program Learning Outcomes**

1. Work safely in an industrial environment.
2. Understand Lean Manufacturing.
3. Use fixtures properly.
4. Determine proper weld size.
5. Understand common weld defects.
6. Read and understand blueprints.
7. Operate Gas Metal Arc Welding in all positions.
8. Operate Shielded Metal Arc Welding in all positions.
9. Operate Flux Core Arc Welding in all positions.
10. Operate Gas Tungsten Arc Welding in all positions.
11. Operate Oxy-Acetylene equipment properly.
12. Perform basic maintenance and set-up of welding machine.
13. Understand the responsibilities of inspection and quality control.
15. Understand codes and specifications.
16. Use common weld terminology and designs.
17. Demonstrate basic metallurgy knowledge.
18. Identify common/non-destructive testing methods.
19. Perform non-destructive testing.
20. Identify common destructive testing methods.
21. Perform destructive testing.
22. Identify weld procedures and welder qualifications.
23. Understand safety precautions while operating and programming the robot.
24. Operate controls and indicators on the teach pendant.
25. Position and utilize various motion types of the robot using teach pendant.
26. Interpret pendant menus and displays for welding routines, program commands and weld data.
27. Position the part using a positioner.

**Program Total: 69 Credits**

**Term I**

- IND 110 - CPR, First Aid and Safety - Credits: 1.00
- MAT 762 - Technical Math for Industry - Credits: 2.00
- WEL 228 - Introduction to Welding, Safety & Health of Welders: SENSE 1 - Credits: 1.00
- WEL 254 - Welding Inspection and Testing Principles: SENSE 1 - Credits: 1.00
- WEL 262 - Thermal Cutting Process I-Manual and Mechanized OxyFuel Cutting: SENSE 1 - Credits: 2.00
- WEL 274 - Shielded Metal Arc Welding I: SENSE 1 - Credits: 3.00

**Total: 10 Credits**
Term II

- MAT 772 - Applied Math - Credits: 3.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*
- WEL 201 - Procedures and Qualifications - Credits: 1.00
- WEL 233 - Print Reading and Welding Symbol Interpretation: SENSE 1 - Credits: 3.00
- WEL 244 - Gas Metal Arc Welding Short Circuit Transfer: SENSE 1 - Credits: 2.00
- WEL 251 - Gas Tungsten Arc Welding (GTAW) for Carbon Steel: SENSE 1 - Credits: 2.00
- WEL 253 - Gas Tungsten Arc Welding (GTAW) for Austenitic Stainless Steel: SENSE 1 - Credits: 1.00

Total: 12 Credits

Term III

- CSC 110 - Introduction to Computers - Credits: 3.00
- WEL 174 - Advanced Welding Procedures II - Credits: 3.00
- WEL 182 - FCAW - Credits: 2.00
- WEL 275 - Shielded Metal Arc Welding II: SENSE 1 - Credits: 3.00
- GEP XXX - General Education: Speech - Credits: 3.00*
  OR
  GEW XXX - General Education: Writing - Credits: 3.00*

Total: 14 Credits

Term IV

- ADM 221 - Career Development Skills - Credits: 2.00
- WEL 200 - Metallurgy Fundamentals - Credits: 2.00
- WEL 211 - Production Welding Procedures - Credits: 4.00 OR
- WEL 932 - Internship - Credits: 4.00
- WEL 245 - Gas Metal Arc Welding Spray Transfer: SENSE 1 - Credits: 2.00

Total: 10 Credits

Term V

- AUT 143 - Machining for Automotive Mechanics - Credits: 2.00
- CRR 310 - Adapters, Tools and Measurements - Credits: 1.00
- MFG 203 - Manufacturing Processes - Credits: 3.00
- WEL 710 - Robotic Welding - Credits: 3.00
- GES XXX - General Education: Science - Credits: 3.00*

Total: 12 Credits

Term VI

- BUS 104 - Business Essentials - Credits: 3.00 OR
- BUS 102 - Introduction to Business - Credits: 3.00
- MFG 507 - Lean Quality Manufacturing - Credits: 2.00
- WEL 230 - Welding Quality Assurance - Credits: 3.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 11 Credits

Term VII (Optional)

- WEL 308 - Pipe Welding/Uphill SMAW - Credits: 4.00
- WEL 309 - Pipe Welding/Downhill SMAW - Credits: 4.00

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Transportation Technology

Indian Hills offers state-of-the-art training in a number of transportation technology programs that support the agriculture, automotive, aviation, construction, rail and trucking industries.

Students completing these programs are awarded Associate of Applied Science degrees, diplomas or certificates.

Auto Technology, A.A.S.

Offered at Main Campus

The Automotive Technology program is a 21-month (seven-term) program. The program provides students with the skills necessary to diagnose and repair the various components of today's complex automobiles. Training includes transmissions, drive lines, engine systems, electronic/electrical systems, air conditioning, brakes, steering/suspension, electronic ignition and fuel injection systems. Employment can be found servicing and repairing automobiles and components in dealerships, private repair facilities, service stations and various store repair centers.

To enroll, complete an application and attend any required academic orientation and information session. Students may enter this major at the beginning of Fall and Spring terms. Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

Program Learning Outcomes

1. Practice shop safety
2. Select and use the proper tools and equipment to perform automotive repairs according to industry procedures.
3. Diagnose and repair brake systems
4. Diagnose and repair electrical/electrical systems.
6. Diagnose and repair suspension and steering systems.
7. Diagnose and repair automatic transmission and transaxles.
8. Perform engine repairs and rebuilds.
9. Diagnose and repair heating and air conditioning systems.
10. Diagnose and repair manual drive train and axles.
11. Remove and install various parts of modern cars and light trucks.

Program Total: 83 Credits

Term I

- AUT 114 - Shop Fund & Minor Service - Credits: 4.00
- AUT 130 - Automotive Maintenance and Inspection Procedures - Credits: 2.00
- AUT 502 - Automotive Brake Systems - Credits: 2.00
- AUT 701 - Basic Automotive Air Conditioning - Credits: 1.00
• CRR 310 - Adapters, Tools and Measurements - Credits: 1.00

Total: 10 Credits

Term II

• AUT 290 - NVH and Aftermarket - Credits: 2.00
• AUT 404 - Automotive Suspension and Steering - Credits: 4.00
• AUT 702 - Automotive Heating and Air Conditioning - Credits: 2.00
• MAT 772 - Applied Math - Credits: 3.00
  OR
  GEM XXX - General Education: Mathematics - Credits: 3.00 *

Total: 11 Credits

Term III

• AUT 607 - Basic Auto Electricity/Electronics - Credits: 4.00
• AUT 881 - Automotive Lab I - Credits: 3.00
• GEB XXX - General Education: Behavioral/Social Science - Credits 3.00*
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 10 Credits

Term IV

• AUT 222 - Basic Automotive Drive Lines - Credits: 2.00
• AUT 224 - Automotive Drive Lines and Repair Procedures - Credits: 2.00
• AUT 303 - Automotive Manual Drive Train and Axles - Credits: 3.00
• AUT 882 - Automotive Lab II - Credits: 3.00
• GES XXX - General Education: Science - Credits: 3.00*

Total: 13 Credits

Term V

• AUT 204 - Automotive Automatic Transmissions/Transaxles - Credits: 4.00
• AUT 218 - Automotive Automatic Transmissions/Transaxle Service - Credits: 5.00
• AUT 883 - Automotive Lab III - Credits: 3.00
• CSC 110 - Introduction to Computers - Credits: 3.00

Total: 15 Credits

Term VI

• ADM 218 - Initiating the Career Search - Credits: 1.00
• AUT 155 - Automotive Engine Design and Systems - Credits: 2.00
• AUT 172 - Advanced Automotive Engine Repair - Credits: 2.00
• AUT 833 - Automotive Fuel Systems - Credits: 3.00
• AUT 884 - Automotive Lab IV - Credits: 2.00
• GEP XXX - General Education: Speech - Credits: 3.00 *
  OR
  GEW XXX - General Education: Writing - Credits: 3.00*
Total: 13 Credits

Term VII

- AUT 848 - Automotive Engine Drivability Diagnosis - Credits: 4.00
- AUT 851 - Automotive Engine Performance Diagnosis - Credits: 3.00
- AUT 862 - Automotive Engine Performance Testing - Credits: 2.00
- AUT 885 - Automotive Lab V - Credits: 2.00

Total: 11 Credits

Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

Certificates in this program may be awarded after successful completion of required coursework:

Automotive Maintenance Certificate (Terms 1 and 2)
Automotive Electronics Certificate (Term 3)
Automotive Drive Train Certificate (Terms 4 and 5)
Automotive Power Train Certificate (Terms 6 and 7)

*Optional Courses

BUS 128 Foundation to Entrepreneurship

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Additional Diplomas and Certificates

Certificates available within this program include:

- Automotive Drive Train Certificate
- Automotive Maintenance Certificate
- Automotive Power Train Certificate

Aviation Maintenance Technology, A.A.S.

Offered at North Campus

This 21-month (seven-term) both FAA -approved Part 147 and VA-approved program is designed to include training in the latest methods in the aircraft maintenance technology industry. Students have an unusually large number of aircraft (10) and modern turbojet engines to train on, including the huge General Electric CF6-6 and Pratt & Whitney JT8-D. At the completion of the program, students are prepared to take the Federal Aviation Administration examination for licensing as an "airframe and power plant technician/mechanic." Completion leads to employment in the aviation industry with fixed base operations, commuter airlines, major airlines, overhaul and repair stations and aircraft manufacturers.

The program has been approved by the State Department of Veterans' Affairs to receive education benefits from the U.S. Department of Veterans' Affairs.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. This program may transfer for further study toward a four-year baccalaureate degree. Students may also transfer into IHCC's Avionics Electronic Technician diploma program. Students can enter this major at the beginning of the Fall term.
Program Learning Outcomes

1. An understanding of certified Airframe and Powerplant Technician privileges and limitations under the F.A.A. regulations.
2. A knowledge of F.A.A. records and forms required to be used by A&P (Airframe and Powerplant) Technicians.
3. The ability to calculate, perform, and record aircraft weight and balance information.
4. An understanding of basic electrical principles, which encompass: D/C and A/C circuit theory, current generation methods, aircraft batteries, and wiring practices.
5. The ability to perform aircraft ground operations and servicing procedures that cover: aviation hand signals, engine operation, aircraft ramp safety and tie down, and the identification of aircraft fuels.
6. An in depth understanding of operation, inspection, servicing, repair, and troubleshooting procedures for aircraft airframe systems and components that includes:
   a. Landing gear and brakes
   b. Climate control and oxygen
   c. Fuel storage and delivery
   d. Hydraulic and pneumatic
   e. Flight instruments and warning systems
   f. Communication and navigation
   g. Avionics
   h. Fire detection and suppression
   i. Anti-icing and rain repellant
   j. Electrical and wiring
7. An in depth understanding of operation, inspection, servicing, repair, and troubleshooting procedures for turbine and reciprocating engines, components, and systems to include:
   a. Lubrication
   b. Fuel metering and rigging
   c. Engine monitoring and operational instruments
   d. Engine fire detection and suppression
   e. Propellers
   f. Electrical and wiring
   g. Ignition and starting
   h. Induction
   i. Cooling
   j. Exhaust
8. The ability to use acceptable practices to identify, remove, and prevent metal corrosion.
9. The understanding of fundamental aerodynamic and physics principles; how these principles relate to aircraft operations along with the ability to calculate for unknown quantities. A proficient knowledge in basic thermodynamics, fluid dynamics, and classical mechanics is required.
10. The ability to identify aircraft hardware and materials, comprehend the metallurgical processes used to produce them, and the non-destructive testing methods used to inspect them.
11. The basic skills required to repair and fabricate aircraft sheet metal and composite structures.
12. The technique of repairing, fabricating, and inspecting aircraft wooden and fabric structures.
13. The ability to apply, remove, and inspect basic corrosion preventative and cosmetic finishes on aircraft structures.
14. The theory and practice of basic welding, brazing, and soldering on aircraft steel structures.
15. The knowledge and skill to perform engine, rotor, propeller, and flight control rigging.
16. Proficiency in acceptable methods to perform airframe and powerplant inspections; a thorough understanding of the inspections requirements as assigned for F.A.R. parts 91,121,125, and 135; as well as light sport, pre-purchase, certification, and conformity inspections.
17. The mastery of the correct procedures and protocols to follow for the assembly and buildup of airframe and Powerplant assemblies, sub-assemblies, major-assemblies, and components.
18. A mastery of basic mathematics to include a skills base of elementary algebra, consumer mathematics, rudimentary geometry and trigonometry, as well as the reading and use of statistical information and graphs.
19. An understanding of the industry standards and work ethics required of A&P Technicians to be safe, effective, and employable. The following embody the required standards:
   a. Positive "Safety First" attitude
   b. Team participation
   c. Integrity
   d. Human Factors awareness
   e. Punctuality/attendance
f. Proper tool usage
g. Adherence to safety rules and guidelines
h. Personal appearance
i. Time management
j. Organizational skills

20. An awareness of the current trends within the aviation industry and its governmental regulation.
21. The ability to understand all facets or areas of the aviation maintenance field and how they interact and be capable of performing to industry standards within any one they so choose. These aviation maintenance fields include but are not limited to:
   a. Helicopter/rotor wing aircraft maintenance
   b. Avionics
   c. Electrical installation
d. Sheet metal repair/fabrication
e. Composite repair/fabrication
f. Assessor/component repair or overhaul
g. Engine overhaul
h. Commercial transport line maintenance
i. Aircraft restoration
j. Quality control/inspection
k. Manufacturing

Program Total: 76 Credits

Term I

- AVM 105 - Regulations and Publications - Credits: 3.00
- AVM 107 - Weight and Balance - Credits: 1.00
- AVM 109 - Basic Electricity - Credits: 4.00
- AVM 111 - Ground Operations and Servicing - Credits: 1.00

Total: 9 Credits

Term II

- AVM 101 - Cleaning/Corrosion Control - Credits: 2.00
- AVM 103 - Aircraft Materials and Processes - Credits: 2.00
- AVM 113 - Airframe Electrical Systems - Credits: 3.00
- AVM 119 - Fundamentals of Physics - Credits: 1.00
- AVM 121 - Weather and Warning Systems - Credits: 1.00
- MAT 772 - Applied Math - Credits: 3.00
  OR
  GEM XXX - General Education: Mathematics - Credits 3.00*

Total: 12 Credits

Term III

- AVM 126 - Airframe Structure/Repair - Credits: 4.00
- AVM 127 - Aircraft Wood/Fabric/Finishes - Credits: 2.00
- AVM 141 - Control Systems - Credits: 1.00
- AVM 145 - Aircraft Welding - Credits: 1.00
- GES XXX - General Education: Science - Credits: 3.00*

Total: 11 Credits
## Term IV

- AVM 117 - Avionics/Fire Protection AF - Credits: 1.00
- AVM 123 - Aircraft Assembly and Rigging - Credits: 2.00
- AVM 129 - Landing Gear and Brake Systems - Credits: 2.00
- AVM 131 - Airframe Inspections - Credits: 1.00
- AVM 134 - Aircraft Hydraulics/Pneumatics - Credits: 2.00
- AVM 137 - Aircraft Instruments - Credits: 1.00
- GEP XXX - General Education: Speech - Credits: 3.00*
  OR
- GEW XXX - General Education: Writing - Credits: 3.00*

**Total: 12 Credits**

## Term V

- AVM 143 - Aircraft Gas Turbines - Credits: 4.00
- AVM 147 - Airframe Fuel Systems - Credits: 2.00
- AVM 151 - Engine Fuel/Metering - Credits: 2.00
- CSC 110 - Introduction to Computers - Credits: 3.00

**Total: 11 Credits**

## Term VI

- AVM 139 - Instruments/Fire Protection-PP - Credits: 1.00
- AVM 149 - Engine Lubrication Systems - Credits: 2.00
- AVM 157 - Induction/Cooling/Exhaust - Credits: 1.00
- AVM 159 - Engine Electrical Systems - Credits: 2.00
- AVM 161 - Aircraft Ignition Systems - Credits: 3.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
- GEH XXX - General Education: Humanities - Credits: 3.00*

**Total: 12 Credits**

## Term VII

- AVM 135 - Powerplant Inspection - Credits: 1.00
- AVM 153 - Powerplant Piston - Credits: 5.00
- AVM 155 - Aircraft Propeller Systems - Credits: 3.00

**Total: 9 Credits**

### Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

### Optional Course(s)

- AVM 110 - Human Factors in Aviation Maintenance - Credits: 1.00
- AVM 122 - Rotorcraft Technology - Credits: 1.00
- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
Aviation Professional Pilot, A.A.S.

Offered at North Campus

Students with or without pilot certification can efficiently prepare for a career as a professional pilot by completing one or more of the concentrations in this 21-month (seven-term) program.

Flight training includes advanced full-motion experience and visual flight simulation of traditional and Technically Advanced Aircraft (TAA), visual and instrument flying and multi-engine flying in addition to actual flight in training aircraft. Program non-flight courses include online ground school courses taken concurrently with the associated flight training course, online program courses that support and add a greater depth of knowledge of aeronautical knowledge, and general education electives and other electives offered face-to-face or online. Go to www.indianhills.edu/aviationpilot for more information.

To be accepted into the Aviation Professional Pilot program, students must have at least a 2.0 high school or college grade point average. Prospective students need to: (1) complete an application form, which can be obtained from the Admissions Office, the Aviation Department, a high school counselor, or online at www.indianhills.edu; (2) provide the college with a high school transcript or high school equivalency diploma certification, and transcript(s) from any other college(s) attended. In the case of a high school, also send any applicable signed high school articulation agreements; (3) submit a copy of their first- or second-class medical certificate; (4) complete a pre-admission informational conference with the Aviation Department staff (contact the Aviation Department for details); (5) provide proof of U.S. citizenship (valid U.S. passport, original birth certificate, etc.) or in the case of non-citizenship meet the validation requirements of the Transportation Security Administration (TSA). Original positive identification documents described above must be presented to the Aviation Department Office before the first flight at the IHCC Aviation Center. Please contact the Aviation Department at (641) 683-5214 for further information.

Students presenting documentation of a current private pilot certificate prior to enrollment will receive credit for Private Basic Ground I (AVI 135), Private Basic Ground II (AVI 136), Primary Pilot Training I (AVI 133), Primary Pilot Training II (AVI 137).

Students should be prepared to fly five days per week in order to complete this program on schedule. Additional time or terms may be needed to complete the flight portion due to factors such as adverse weather conditions, aircraft availability, and student aptitude. The best term to start the program without prior flight training experience in the Summer Term when the weather is most conductive to primary flight training.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. This program may transfer for further study towards a four-year baccalaureate degree.

Program Learning Outcomes

Flight Education

- Apply general aeronautical science concepts.
- Apply human factors concepts to improve aviation safety.
- Exhibit aviation industry professionalism.
- Describe private and for-hire aviation industry activities.
- Demonstrate Private Pilot Airplane Certification Competencies.
- Explain instrument flying concepts, regulations, and procedures.
- Demonstrate Instrument Rating Airplane Pilot Certification Competencies.
- Demonstrate Commercial Pilot Airplane Certification Competencies.
- Analyze advanced aircraft systems and technologies.
- Demonstrate Airplane Flight Instructor Certification Competencies.

Commercial Pilot

- Apply general aeronautical science concepts.
- Apply human factors concepts to improve aviation safety.
- Exhibit aviation industry professionalism.
- Describe private and for-hire aviation industry activities.
• Demonstrate Private Pilot Airplane Certification Competencies.
• Explain instrument flying concepts, regulations, and procedures.
• Demonstrate Instrument Rating Airplane Pilot Certification Competencies.
• Demonstrate Commercial Pilot Airplane Certification Competencies.
• Analyze advanced aircraft systems and technologies.

Private Pilot Certificate

1. Apply general aeronautical science concepts.
2. Apply human factors concepts to improve aviation safety.
3. Exhibit aviation industry professionalism.
4. Describe private and for-hire aviation industry activities.

Concentrations

• Flight Education Concentration
• Commercial Pilot Concentration
• Private Pilot Certificate Concentration

Flight Education Concentration

Students are prepared for immediate employment as certified basic and instrument flight instructors in single-engine airplanes. With additional experience, graduates can qualify for future positions as professional flight training specialists for the airlines and general aviation companies or flight school managers. Students will complete the required flight and ground courses for Commercial Instrument Pilot Single-Engine Airplane certification. Students will complete ground school on flight education theory, a thorough review of commercial/instrument pilot topics, and practice teaching in flight.

Program Total: 72 Credits

Term I

• AVI 133 - Primary Pilot Training I - Credits: 2.00
• AVI 135 - Private Basic Ground I - Credits: 3.00
• AVI 190 - VFR Communications - Credits: 2.00
• CSC 110 - Introduction to Computers - Credits: 3.00
Total: 10 Credits

Term II

• AVI 136 - Private Basic Ground II - Credits: 3.00
• AVI 137 - Primary Pilot Training II - Credits: 2.00
• AVI 150 - Aerodynamics - Credits: 3.00
  GEM XXX - General Education: Mathematics - Credits: 3.00*
Total: 11 Credits

Term III

• AVI 138 - Advanced Pilot Training I - Credits: 2.00
  OR
• AVI 236 - ACT Instrument Flight I - Credits: 2.00
• AVI 195 - IFR Communications - Credits: 2.00
• AVI 200 - Instrument Pilot Ground I - Credits: 3.00
• GES XXX - General Education: Science - Credits: 3.00*

Total: 10 Credits

Term IV

• AVI 201 - Instrument Pilot Ground II - Credits: 2.00
• AVI 203 - Advanced Pilot Training II - Credits: 1.00
  OR
• AVI 237 - ACT Instrument Flight II - Credits: 1.00
• AVI 220 - Aviation Meteorology - Credits: 3.00
• AVI 294 - TAA Flight Deck Systems - Credits: 1.00
  GEP XXX - General Education: Speech - Credit: 3.00*
  OR
  GEW XXX - General Education: Writing - Credits: 3.00*

Total: 10 Credits

Term V

• AVI 205 - Advanced Pilot Training III - Credits: 3.00
  OR
• AVI 289 - ACT Commercial Flight I - Credits: 3.00
• AVI 262 - Commercial Pilot Ground I - Credits: 2.00
• AVI 249 - General Aviation Operations Management - Credits: 3.00
  GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 11 Credits

Term VI

• AVI 207 - Advanced Pilot Training IV - Credits: 2.00
  OR
• AVI 291 - ACT Commercial Flight II - Credits: 2.00
• AVI 263 - Commercial Pilot Ground II - Credits: 2.00
• BUS 104 - Business Essentials - Credits: 3.00
• SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
• SPC 112 - Public Speaking - Credits: 3.00
  OR
• SPC 122 - Interpersonal Communication - Credits: 3.00

Total: 10 Credits

Term VII

• AVI 209 - Advanced Pilot Training V - Credits: 2.00
  OR
• AVI 292 - ACT Commercial Flight III - Credits: 2.00
• AVI 304 - Instrument Instructor Ground - Credits: 1.00
• AVI 320 - Professional Aviation Educator - Credits: 3.00
• AVI 351 - Flight Instructor Basic - Credits: 1.00
  OR
### AVI 355 - ACT Flight Instructor Basic - Credits: 1.00
### AVI 356 - ACT Flight Instructor Instrument - Credits: 1.00

**Total: 8 Credits**

### Commercial Pilot Concentration

Students are prepared for entry-level employment as pilot flight crew members building time in activities such as flying parachute jumpers, conducting aerial photography, banner towing, airplane sales demonstrations, conducting airplane rides, performing basic aerial application operations and serving as copilots with small scheduled and non-scheduled air service operations. After graduation, pilots need to accumulate approximately 1,500 total hours to advance to positions such as airline or corporate pilot crew members. The curriculum includes aviation program coursework that better prepares pilots for careers in flying large commercial aircraft. Aircraft and engine systems technology, crew communication procedures, aviation business operations and aircraft maintenance requirements are stressed in this concentration.

**Program Total: 72 Credits**

#### Term I
- AVI 133 - Primary Pilot Training I - Credits: 2.00
- AVI 135 - Private Basic Ground I - Credits: 3.00
- AVI 190 - VFR Communications - Credits: 2.00
- CSC 110 - Introduction to Computers - Credits: 3.00

**Total: 10 Credits**

#### Term II
- AVI 136 - Private Basic Ground II - Credits: 3.00
- AVI 137 - Primary Pilot Training II - Credits: 2.00
- AVI 150 - Aerodynamics - Credits: 3.00
  
  GEM XXX - General Education: Mathematics - Credits: 3.00*

**Total: 10 Credits**

#### Term III
- AVI 200 - Instrument Pilot Ground I - Credits: 3.00
- AVI 198 - Advanced Pilot Training I - Credits: 2.00
  
  OR
  
  AVI 236 - ACT Instrument Flight I - Credits: 2.00
  
  AVI 195 - IFR Communications - Credits: 2.00
  
  GES XXX - General Education: Science - Credits: 3.00*

**Total: 11 Credits**

#### Term IV
- AVI 201 - Instrument Pilot Ground II - Credits: 2.00
- AVI 203 - Advanced Pilot Training II - Credits: 1.00
  
  OR
  
  AVI 237 - ACT Instrument Flight II - Credits: 1.00
  
  AVI 220 - Aviation Meteorology - Credits: 3.00
  
  AVI 294 - TAA Flight Deck Systems - Credits: 1.00
  
  GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*

186
OR
GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 10 Credits

Term V

- AVI 205 - Advanced Pilot Training III - Credits: 3.00
  OR
- AVI 289 - ACT Commercial Flight I - Credits: 3.00
- AVI 249 - General Aviation Operations Management - Credits: 3.00
- AVI 262 - Commercial Pilot Ground I - Credits: 2.00
- GEW XXX - General Education: Writing - Credits: 3.00*

Total: 11 Credits

Term VI

- AVI 207 - Advanced Pilot Training IV - Credits: 2.00
  OR
- AVI 291 - ACT Commercial Flight II - Credits: 2.00
- AVI 263 - Commercial Pilot Ground II - Credits: 2.00
- AVI 123 - Maintenance Responsibilities - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00
  OR
- SPC 122 - Interpersonal Communication - Credits: 3.00

Total: 10 Credits

Term VII

- AVI 127 - Engines Systems Theory - Credits: 3.00
- AVI 209 - Advanced Pilot Training V - Credits: 2.00
  OR
- AVI 292 - ACT Commercial Flight III - Credits: 2.00
- AVI 129 - Employment Prep for Aviation Careers - Credits: 1.00
  AND
- AVI 295 - Flight Deck Systems Lab - Credits: 1.00
  AND
- AVI 399 - Multi-Engine Primer - Credits: 1.00
  OR
- AVI 155 - Airframe Systems Theory - Credits: 3.00

Total: 8 Credits

Private Pilot Certificate Concentration

This concentration combines ground and flight courses for students who have little or no flight time and wish to obtain a Private Pilot Certificate. A Private Pilot Certificate allows persons to fly passengers and to share operating expenses with passengers, but prohibits the pilot from conducting flights for compensation or hire.

The course provides ground training and flight training as required by Federal Aviation Regulations.
The ground training subjects will include the pilot training system, airplane systems, aerodynamics of flight, the flight environment, weather, aircraft performance, navigation, human factors and cross-country flying. Students will be fully prepared to take the FAA Private Pilot written knowledge test at the conclusion of the ground course.

The flight training subjects will include basic flight maneuvers, takeoffs and landings, the first solo flight, local day and night flight operations as well as day and night cross-country flights. Students will be fully prepared to take the FAA Private Pilot practical test at the conclusion of the flight training course.

Program Total: 9 Credits

Term I

- AVI 133 - Primary Pilot Training I - Credits: 2.00
- AVI 135 - Private Basic Ground I - Credits: 3.00 *

Total: 9 Credits

Term II

- AVI 136 - Private Basic Ground II - Credits: 3.00 *
- AVI 137 - Primary Pilot Training II - Credits: 2.00

Total: 4 Credits

Aviation Professional Pilot Program Electives

- AVI 129 - Employment Prep for Aviation Careers - Credits: 1.00
- AVI 155 - Airframe Systems Theory - Credits: 3.00
- AVI 188 - Currency and Refresher - Credits: 1.00
- AVI 399 - Multi-Engine Primer - Credits: 1.00
- AVI 400 - Multi-Engine Rating - Credits: 1.00
- AVI 410 - Multi-Engine Instructor - Credits: 1.00

Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

*Optional Courses

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Additional Notes:

Aviation Professional Pilot Flight and Ground Training Cost - Ottumwa, Iowa, Location

Aircraft Rental $113.00/Hour
Complex Aircraft $159.00/Hour
Flight Simulator/Instructor $51.00/Hour
Primary Instruction $30.00/Hour
Advanced Instruction $31.00/Hour
Pre/Post Briefing $22.00/Hour
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**Aviation Professional Pilot Flight and Ground Training Cost - San Diego, California, location**

- Aircraft Rental (Piper Archer) $175.00/Hour
- Aircraft Rental (Piper Arrow) $185.00/Hour
- Aircraft Rental Multi-Engine (Piper Seminole) $322.00/Hour
- Flight Simulator $85.00/Hour
- Ground Instruction $70.00/Hour
- Flight Instruction $70.00/Hour
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**Avionics Electronic Technician, Diploma**

Offered at North Campus

The Avionics Electronic Technician program is a three-term (nine-month) program that will help develop in-depth knowledge of aircraft avionic systems down to the printed circuit board component level. This program prepares students for a career as an aircraft avionics technician, aircraft electrician, aircraft avionic component repairmen, electrical/avionics installer and troubleshooter. Students will build their troubleshooting skills by removing faulty components and repairing them using the latest test equipment. Successful completion of this program will meet the requirement and supply the knowledge needed to test and obtain the Federal Communications Commission (FCC) General Radio Telephone Operator license.

To enroll, complete an application and attend any required academic orientation and information session. Students may enroll in this program at the beginning of the Summer term.

Students meeting all program and graduation requirements receive a diploma.

**Program Learning Outcomes**

1. Have an understanding of avionic theory.
2. Be familiar with avionic systems
3. Have a basic understanding of troubleshooting avionic systems
4. Be familiar with typical aircraft circuits.
5. Interpret equipment and aircraft manuals.
6. Interpret avionic FAA regulations.
7. Identify the FCC license requirements
8. Analyze aircraft communications, navigation, landing, flight instrument, warning systems

**Program Total: 35 Credits**

**Term I**

- AVM 200 - Avionics Systems I - Credits: 3.00
- ELT 373 - DC Circuit Analysis - Credits: 4.00
- ELT 550 - Analog Devices - Credits: 4.00

**Total: 11 Credits**
Term II

- AVM 202 - Avionics Systems II - Credits: 3.00
- AVM 208 - Airframe Platform Integration - Credits: 3.00
- ELT 402 - Introduction to Communication Systems - Credits: 3.00
- XXX XXX - General Education Course - Credits: 3.00*

Total: 12 Credits

Term III

- AVM 204 - Avionics Systems III - Credits: 3.00
- AVM 207 - FCC Review and Preparation - Credits: 2.00
- AVM 209 - Aircraft Platform Integration II - Credits: 3.00
- EGT 425 - Digital Electronics - Credits: 3.00

Total: 11 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

*Optional Course(s)

BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Diesel Technology, A.A.S.

Offered at Main Campus

This is a 21-month (seven-term) program. Students will acquire skills in a variety of mechanical, electrical and computer systems necessary to diagnose, repair and maintain agricultural equipment, trucks, locomotive engines and other types of heavy construction equipment. Students will study diesel engines, transmissions, hydraulics, drivelines, power dividers, brakes, air conditioning and automated guidance systems (GPS).

To enroll, complete an application and attend any required academic orientation and information session. Students may enter this major at the beginning of the Fall and Spring terms. Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

Program Learning Outcomes

1. Practice shop safety.
2. Select and use proper tools and equipment to perform diesel power systems repairs. according to industry procedures.
3. Diagnose and repair vehicle and/or locomotive diesel engine malfunctions.
4. Diagnose and repair suspension and steering systems.
5. Diagnose and repair problems associated with diesel braking systems.
6. Diagnose and repair problems associated with vehicle and/or locomotive electrical systems.
7. Demonstrate preventative maintenance inspections.
8. Diagnose and repair drive trains.
9. Diagnose and repair heating, ventilation, and air conditioning systems.
10. Diagnose and repair hydraulic systems.
11. Understand Geospatial Technologies for farm, construction, railroad and other sites.

Program Total: 82 Credits
Term I

- AUT 607 - Basic Auto Electricity/Electronics - Credits: 4.00
- AUT 701 - Basic Automotive Air Conditioning - Credits: 1.00
- CRR 310 - Adapters, Tools and Measurements - Credits: 1.00
- DSL 325 - Introduction to Diesel - Credits: 2.00
- DSL 848 - Diesel Guidance Systems - Credits: 3.00

Total: 11 Credits

Term II

- AUT 143 - Machining for Automotive Mechanics - Credits: 2.00
- AUT 172 - Advanced Automotive Engine Repair - Credits: 2.00
- AUT 222 - Basic Automotive Drive Lines - Credits: 2.00
- AUT 642 - Automotive Charging, Starting and Electrical Systems - Credits: 2.00
- DSL 602 - Principles of Hydraulics - Credits: 2.00
- MAT 772 - Applied Math - Credits: 3.00
  OR
  GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 13 Credits

Term III

- DSL 343 - Diesel Engine Overhaul - Credits: 5.00
- DSL 375 - Assembly of Diesel Engines - Credits: 5.00
- GEB XXX - General Education: Behavioral/Social Science - Credits: 3.00*
  OR
  GEH XXX - General Education: Humanities - Credits: 3.00*

Total: 13 Credits

Term IV

- CSC 110 - Introduction to Computers - Credits: 3.00
- DSL 204 - Diesel Lab I - Credits: 2.00
- DSL 421 - Electronic Engine Controls - Credits: 4.00
- DSL 742 - Air Conditioning/Refrigeration - Credits: 2.00

Total: 11 Credits

Term V

- DSL 206 - Diesel Lab II - Credits: 2.00
- DSL 534 - Drive Trains - Credits: 4.00
- DSL 599 - Brakes, Tires and Alignment - Credits: 2.00
- GEP XXX - General Education: Speech - Credits: 3.00*
  OR
  GEW XXX - General Education: Writing - Credits: 3.00*

Total: 11 Credits
Term VI

- ADM 218 - Initiating the Career Search - Credits: 1.00
- DSL 208 - Diesel Lab III - Credits: 2.00
- DSL 153 - Vehicle Engine Diagnosis - Credits: 3.00
- DSL 655 - Technical Power Hydraulics - Credits: 5.00
- GES XXX - General Education: Science - Credits: 3.00*

Total: 14 Credits

Term VII

- DSL 384 - Engine Application and Tune-Ups - Credits: 4.00
- DSL 412 - Diesel Engine Electronics II - Credits: 2.00
- DSL 831 - Preventative Maintenance - Credits: 4.00

Total: 10 Credits

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Optional Course(s)

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

Other Career and Technical Programs

Indian Hills Community College offers instruction in numerous other career and technical programs. These programs include the areas of commercial driving, building construction, culinary arts, landscaping and agriculture.

Students completing these programs are awarded Associate of Applied Science degrees, diplomas or certificates.

Animal Science, A.A.S.

Offered on Centerville Campus

The Animal Science program is designed to give students the skills and knowledge necessary to start or further develop an agricultural business, and/or work in an animal science related field. During the course of this program students will be exposed to strategies designed for profitability for the farmer, environmental protection, and animal husbandry.

Program Learning Outcomes

1. Develop students' knowledge of animal science.
2. Develop students' skill in implementation of animal husbandry.
3. Define basic agricultural terminology.
4. Develop a sustainable breeding program.
5. Develop a sustainable nutrition program.
6. Analyze Expected Progeny Differences (EPD) for their value to the animal enterprise.
7. Evaluate the quality of feedstuffs.

Program Total: 68 Credits

Term I

- AGA 154 - Fundamentals of Soil Science - Credits: 3.00
- AGS 113 - Survey of the Animal Industry - Credits: 3.00
BIO 101 - Introductory Biology - Credits: 2.00
BIO 103 - Introductory Biology Lab - Credits: 1.00
CSC 105 - Computer Essentials - Credits: 1.00
ENV 142 - Natural Resources - Credits: 3.00

Total: 13 Credits

Term II

AGA 450 - Issues in Sustainable Agriculture - Credits: 3.00
AGN 130 - Soil and Water Conservation - Credits: 3.00
AGS 242 - Animal Health - Credits: 3.00
ENG 105 - Composition I - Credits: 3.00

Total: 12 Credits

Term III

AGA 114 - Principles of Agronomy - Credits: 3.00
AGA 283 - Pesticide Application Certification - Credits: 2.00
AGS 216 - Equine Science - Credits: 3.00
MAT 156 - Statistics - Credits: 3.00

Total: 11 Credits

Term IV

AGB 802 - Agribusiness Internship I - Credits: 2.00

Total: 2 Credits

Term V

AGS 319 - Animal Nutrition - Credits: 3.00
AGS 331 - Animal Reproduction - Credits: 3.00
LIT 101 - Introduction to Literature - Credits: 3.00

Total: 9 Credits

Term VI

AGB 330 - Farm Business Management - Credits: 3.00
AGN 120 - Wildlife and Agriculture - Credits: 3.00
CHM 121 - Introduction to General Chemistry - Credits: 3.00

Total: 9 Credits

Term VII

AGB 235 - Introduction to Agriculture Markets - Credits: 3.00
AGS 226 - Beef Cattle Science - Credits: 3.00
BUS 128 - Foundation to Entrepreneurship - Credits: 3.00

OR
Construction Management, A.A.S.

Construction Management Technology is a seven-term (21-month) Associate of Applied Science (A.A.S.) degree program. Students who complete the one-year Construction Technology diploma program at the Centerville campus can obtain their A.A.S. degree by completing an additional three terms (nine months) of coursework in general education and management on the Ottumwa or Centerville campuses or at any Indian Hills County Service Center. Students may enter this major at the beginning of any term upon completion of the Construction Technology program.

This program is designed to prepare students for management/ supervisory positions in the building, manufacturing, and maintenance industries. The graduates of this program will be trained to plan, organize, direct, control and coordinate activities concerned with the construction/maintenance of structure facilities and related systems.

Students who have completed an apprenticeship program approved by the Bureau of Apprenticeship and Training and the Iowa Department of Education will be allowed to articulate up to 30 hours of college credit into the Construction Management Technology A.A.S. program. Students will need to complete an additional 30 hours of credit in general education and management courses to earn the A.A.S. degree. For more information, contact the Dean of the Centerville Campus at (800) 670-3641, ext. 2224.

To enroll, complete an application and attend any required academic orientation.

Program Total: 60 Credits

Term I

- CON 197 - Construction Lab I - Credits: 6.00
- CON 276 - Construction Technology I - Credits: 3.00
- CSC 105 - Computer Essentials - Credits: 1.00

Total: 10 Credits

Term II

- CON 198 - Construction Lab II - Credits: 6.00
- CON 277 - Construction Technology II - Credits: 3.00
- MAT 762 - Technical Math for Industry - Credits: 2.00

Total: 11 Credits

Term III

- CON 199 - Construction Lab III - Credits: 6.00
- CON 278 - Construction Technology III - Credits: 3.00
- ENG 111 - Technical Writing - Credits: 3.00
  OR
- ENG 105 - Composition I - Credits: 3.00

Total: 12 Credits
Term IV

- CON 200 - Construction Lab IV - Credits: 6.00
- CON 279 - Construction Technology IV - Credits: 3.00

Total: 9 Credits

Term V

- BUS 102 - Introduction to Business - Credits: 3.00 OR
- BUS 104 - Business Essentials - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00 OR
- ENG 106 - Composition II - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00
  GES XXX General Education Science 3.00 Credits

Total: 9 Credits

Term VI

- ECN 120 - Principles of Macroeconomics - Credits: 3.00
  OR
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
  OR
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
  OR
- MKT 110 - Principles of Marketing - Credits: 3.00
  OR
- MGT 101 - Principles of Management - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
  OR
- PSY 112 - Psychology of Human Relations - Credits: 3.00
  OR
- SOC 110 - Introduction to Sociology - Credits: 3.00
  XXX XXX - General Education: Mathematics - Credits: 3.00*

Total: 12 Credits

Term VII

- MGT 170 - Human Resource Management - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- Approved General Education Course - Credits 3.00

Total: 9 Credits

Students must take a minimum of 15 semester hours from the following categories.
Students must select at least one course from the culture, mathematical reasoning and scientific systems categories in order to complete the general education requirements of the program.

- XXX XXX - Approved Culture Course - Credits: 3.00 *
- XXX XXX - Approved Mathematical Reasoning Course - Credits: 3.00 *
- XXX XXX - Approved Scientific Systems Course - Credits: 3.00 *
- XXX XXX - Arts and Sciences Elective - Credits: 3.00
- XXX XXX - Arts and Sciences Elective - Credits: 3.00

Students must take a minimum of 15 semester hours of Management courses from the following list:

- BUS 102 - Introduction to Business - Credits: 3.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- ECN 120 - Principles of Macroeconomics - Credits: 3.00
- ECN 130 - Principles of Microeconomics - Credits: 3.00
- MGT 101 - Principles of Management - Credits: 3.00
- MGT 170 - Human Resource Management - Credits: 3.00
- MKT 110 - Principles of Marketing - Credits: 3.00

Notes:

*Refer to General Education Course Requirements (A.A.S.) for approved courses.

Construction Technology, A.A.S.

Offered at Centerville Campus

Construction Technology is a dual-track program offering a four-term (12-month) diploma and an eight-term (24-month) Associate of Applied Science degree. Students completing the one-year diploma program will receive training and practical experience in safety, blueprint reading, framing, drywall installation and finishing, cabinet installation, trim and interior finish, basic stair building, window and door installation, insulation systems and building materials. Opportunities for students graduating with a diploma include apprenticeships in the union and merit shop programs, maintenance departments, self-employment and work in various specialty trades.

In addition, students can earn an Associate of Applied Science (AAS) degree by completing the second year of the Construction Technology program. Second-year students will focus on estimating, residential wiring, heating and air conditioning design, plumbing, concrete and masonry installation, advanced framing and stair building, and building science.

Students will combine classroom instruction with lab assignments that will challenge students to make leadership decisions and accept leadership roles in the construction of IHCC building projects.

Students must also complete all college general education requirements for an AAS degree.

Students earning their AAS degree will be prepared for supervisory positions in construction, manufacturing and maintenance industries.

To enroll, complete an application and attend any required academic orientation and information session. This program may be entered at the beginning of any term.

Program Learning Outcomes

1. Develop student’s knowledge of residential construction.
2. Describe building components of a house using correct terminology.
3. Apply knowledge of building science regarding proper water management.
4. Identify hand and power tools found on a typical jobsite.
5. Demonstrate knowledge of hand & power tool safety & utilization.
6. Create an estimate for residential application.
7. Evaluate & provide solutions to obstacles typically found with rough plumbing.
8. Explain the necessary steps to finish concrete flatwork.

Program Total: 78 Credits

Term I

- CON 197 - Construction Lab I - Credits: 6.00
- OR
- CON 450 - Construction Lab IA - Credits: 3.00
- AND
- CON 451 - Construction Lab IB - Credits: 3.00
- CON 276 - Construction Technology I - Credits: 3.00
- CSC 105 - Computer Essentials - Credits: 1.00

Total: 10 Credits

Term II

- CON 198 - Construction Lab II - Credits: 6.00
- OR
- CON 452 - Construction Lab IIA - Credits: 3.00
- AND
- CON 453 - Construction Lab IIB - Credits: 3.00
- CON 277 - Construction Technology II - Credits: 3.00
- MAT 762 - Technical Math for Industry - Credits: 2.00

Total: 11 Credits

Term III

- CON 199 - Construction Lab III - Credits: 6.00
- CON 278 - Construction Technology III - Credits: 3.00
- ENG 111 - Technical Writing - Credits: 3.00
- OR
- ENG 105 - Composition I - Credits: 3.00

Total: 12 Credits

Term IV

- CON 200 - Construction Lab IV - Credits: 6.00
- OR
- CON 932 - Internship - Credits: 6.00
- CON 279 - Construction Technology IV - Credits: 3.00

Total: 9 Credits

Term V

- CON 124 - Construction Estimating I - Credits: 3.00
- CON 245 - Residential Wiring - Credits: 2.00
- CON 279 - Construction Technology IV - Credits: 3.00
- GES XXX-General Education: Science - Credits: 3.00 *
Total: 10 Credits

**Term VI**
- CON 125 - Construction Estimating II - Credits: 3.00
- CON 295 - Construction Lab VI - Credits: 2.00
- CON 304 - Introduction to Building Science - Credits: 3.00

Total: 8 Credits

**Term VII**
- CON 248 - Heating, Plumbing and Air Conditioning - Credits: 2.00
- CON 297 - Construction Lab VII - Credits: 2.00
- CON 299 - Advanced Construction Technology - Credits: 3.00
- GEM XXX-General Education: Mathematics - Credits-3.00 *

Total: 10 Credits

**Term VIII**
- CON 271 - Concrete & Masonry Technology - Credits: 3.00
- CON 298 - Construction Lab VIII - Credits: 2.00
  - GEB XXX: General Education: Behavioral/Social Science Credits 3.00

Total: 8 Credits

Notes:
*Optional Course
- CON 310 - Architectural Design Fundamentals - Credits: 3.00

**Students must complete at least 12 credit hours of Approved General Education courses and must complete at least one course in each of the areas of communication, computer/information literacy, culture, mathematical reasoning and scientific systems to earn the A.A.S. degree. Refer to General Education Course Requirements (A.A.S.) for approved courses.

**Construction Trades, Diploma**

Offered at Centerville Campus

Construction Trades is a 12-month (four-term) diploma program where students receive training and practical experience in basic building skills such as blueprint reading, framing, drywall work and window and door installation. Students learn to use the most up-to-date building techniques including energy efficiency, insulated foundations and modular plumbing.

Students can also take an additional year of courses to earn their Associate of Applied Science degree. Those continuing will learn to perform estimating, wiring, plumbing, heating and air conditioning design, concrete and masonry installation and finishing work.

Students may enroll in this program at the beginning of any term. To enroll, complete an application and attend any required orientation and information session.

**Program Learning Outcomes**
1. Develop student's knowledge of residential construction.
2. Describe building components of a house using correct terminology.
3. Apply knowledge of building science regarding proper water management.
4. Identify hand and power tools found on a typical jobsite.
5. Demonstrate knowledge of hand & power tool safety & utilization.
6. Create an estimate for residential application.
7. Evaluate & provide solutions to obstacles typically found with rough plumbing.
8. Explain the necessary steps to finish concrete flatwork.

Program Total: 42 Credits

Term I
- CON 197 - Construction Lab I - Credits: 6.00
- CON 276 - Construction Technology I - Credits: 3.00
- CSC 105 - Computer Essentials - Credits: 1.00
Total: 10 Credits

Term II
- CON 198 - Construction Lab II - Credits: 6.00
- CON 277 - Construction Technology II - Credits: 3.00
- MAT 762 - Technical Math for Industry - Credits: 2.00
Total: 11 Credits

Term III
- CON 199 - Construction Lab III - Credits: 6.00
- CON 278 - Construction Technology III - Credits: 3.00
- ENG 111 - Technical Writing - Credits: 3.00
  OR
- ENG 105 - Composition I - Credits: 3.00
Total: 12 Credits

Term IV
- CON 200 - Construction Lab IV - Credits: 6.00
- CON 279 - Construction Technology IV - Credits: 3.00
Total: 9 Credits

Criminal Justice, A.A.S.

Offered Only at Main Campus

The 21-month (seven-term) Criminal Justice program prepares students for careers in the area of public safety. The program focuses on major issues concerning criminal justice as a profession. The program director and instructors have the responsibility to the community and the public to carefully screen and advise those persons choosing criminal justice as a profession.

All applicants to this program will undergo a criminal background check. This program is closed to all applicants with a felony record. It would be unfair for Indian Hills to allow a student to complete the entire criminal justice program only to be refused employment because of a felony or serious misdemeanor conviction. This program also demands completion of a firearms qualification course. Federal law prohibits individuals convicted of domestic abuse from possessing a firearm. Students enrolled in this program will experience unique pre-employment qualifications, which may include passing extensive criminal and
character background checks, physical requirements, polygraph testing, oral boards, drug screening and/or other requirements pertinent to current hiring practices.

Students will enter this major at the beginning of the Fall term. The following sequence of courses is based upon a Fall entry. To enroll, complete an application and attend any required academic orientation and information session. Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

Students also have the option of earning an Associate of Arts degree with a major in Criminal Justice. This option is designed for students interested in transferring to a four-year college or university to earn a baccalaureate degree.

**Program Learning Outcomes**
1. Understand the major subsystems in the criminal justice field and how each functions.
2. Understand the impact the United States Constitution has on various criminal justice components and their actors.
3. Demonstrate sound ethical values when making decisions in the criminal justice system.
4. Know the general concepts of criminal law.
5. Identify the major theories of crime causation.

**Program Total: 81 Credits**

**Term I**
- CRJ 100 - Intro to Criminal Justice - Credits: 3.00
- CRJ 101 - Ethics in Criminal Justice - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00

Total: 12 Credits

**Term II**
- ENG 106 - Composition II - Credits: 3.00
- SOC 147 - Foreign and Domestic Terrorism - Credits: 3.00
- SOC 242 - Introduction to Corrections - Credits: 3.00
- SOC 244 - Criminal Procedures - Credits: 3.00

Total: 12 Credits

**Term III**
- CRJ 110 - Patrol Procedures - Credits: 3.00
- CRJ 141 - Criminal Investigation - Credits: 3.00
- MAT 110 - Math for Liberal Arts - Credits: 3.00
  OR
- MAT 156 - Statistics - Credits: 3.00
- SOC 245 - Criminal Law - Credits: 3.00

Total: 12 Credits

**Term IV**
- CRJ 248 - Firearms - Credits: 2.00
- CSC 110 - Introduction to Computers - Credits: 3.00
- GES General Education: Science - Credits 3.00
- SPC 112 - Public Speaking - Credits: 3.00
Total: 11 Credits

Term V

- CRJ 106 - Interviewing & Writing Strategies - Credits: 3.00
- CRJ 242 - Applied Criminalistics - Credits: 3.00
- CRJ 263 - Criminal Justice Careers Seminar - Credits: 3.00
- CRJ 288 - Police Physical Fitness and Conditioning - Credits: 1.00
- SOC 110 - Introduction to Sociology - Credits: 3.00

Total: 13 Credits

Term VI

- CRJ 210 - Law Enforcement Management - Credits: 3.00
- CRJ 306 - Police Physical Fitness and Conditioning II - Credits: 1.00
- POL 111 - American National Government - Credits: 3.00
- SOC 230 - Juvenile Delinquency - Credits: 3.00
- SOC 240 - Criminology - Credits: 3.00

Total: 13 Credits

Term VII

- CRJ 150 - Defensive Tactics - Credits: 1.00
- CRJ 932 - Internship - Credits: 7.00

Total: 8 Credits

Culinary Arts, A.A.S.

Offered at Main Campus

Culinary Arts is a 21-month (seven-term) program preparing students with the culinary skills and knowledge necessary to pursue a variety of food-related careers. Experiences are provided in all aspects of cooking and baking. Areas of study include terminology, equipment, food handling and storage, food preparation, sanitation, menu planning, nutrition, decorating, garnishing, merchandising and supervisory skills. Students are required to wear chef uniforms consisting of coat, hat, scarf and pants.

The Culinary Arts program is accredited by the American Culinary Federation.

To enroll, complete an application and attend any required academic orientation and information session. The Culinary Arts program may only be entered at the beginning of the Fall Term. Students meeting all program and graduation requirements receive an Associate of Applied Science degree. A diploma option is available.

Program Learning Outcomes

1. Student will demonstrate the ability to execute culinary technique efficiently in a professional kitchen environment including both culinary and baking disciplines.
2. Student will demonstrate an understanding of advanced international technique for proficiency in the global workplace.
3. Student will demonstrate an understanding of basic managerial principles through technology usage and standard culinary business practices to provide practical financial skills important to the industry.
4. Student will demonstrate an understanding of current nutritional guidelines and practices for the health and well-being of our clients.
5. Student will demonstrate life skills and effective communication through practical front of the house (FOH) dining service experiences offered through our numerous catering events both on and off campus.
6. Student will demonstrate advanced practical skills opportunities through internships and capstone design projects.
7. Student will demonstrate acquired abilities by performing at various levels of industry related employment and through administration of practical and written examinations given under the guidance of industry peers and American Culinary Federation requirements.

Program Total: 82-84 Credits

Term I
- CSC 110 - Introduction to Computers - Credits: 3.00
- HCM 101 - Safety/Sanitation - Credits: 1.00
- HCM 102 - Food Service Technology - Credits: 1.00
- HCM 163 - Culinary Skills(lab) - Credits: 3.00
- HCM 202 - Food Service Lab 1 - Credits: 2.00
- HCM 261 - Math Principles - Credits: 1.00
- HCM 346 - Culinary Seminar - Credits: 1.00

Total: 12 Credits

Term II
- HCM 145 - Garde Manger(lab) - Credits: 3.00
- HCM 146 - Cold Food Principles(lec) - Credits: 1.00
- HCM 203 - Food Service Lab 2 - Credits: 2.00
- HCM 232 - Culinary Nutrition(lec/lab) - Credits: 2.00
- General Education: Humanities - Credits-3.00 *

Total: 11 Credits

Term III
- BUS 102 - Introduction to Business - Credits: 3.00
- HCM 149 - Principles of Cooking (lab) - Credits: 4.00
- HCM 150 - Shellfish, Poultry, Meats(lec) - Credits: 1.00
- HCM 151 - Stocks, Soups, Sauces - Credits: 1.00
- HCM 200 - Dining Service - Credits: 2.00
- General Education: Writing - Credits-3.00 OR*
- General Education: Speech - Credits-3.00

Total: 14 Credits

Term IV
- HCM 114 - Basic Baking (lec) - Credits: 2.00
- HCM 115 - Basic Baking (lab) - Credits: 4.00
- HCM 201 - Fine Dining Experience (lab) - Credits: 1.00
- HCM 264 - Culinary Computer Apps. - Credits: 2.00
- General Education: Science - Credits-3.00

Total: 12 Credits
Term V
- HCM 118 - Advanced Baking (lec) - Credits: 2.00
- HCM 119 - Advanced Baking (lab) - Credits: 4.00
- MGT 101 - Principles of Management - Credits: 3.00
- General Education: Mathematics - Credits: 3.00*

Total: 12 Credits

Term VI
- HCM 174 - International Cuisine (lab) - Credits: 4.00 for students who have not taken HCM 184 or HCM 185
  or
- HCM 184 - International Cuisine Excursion I - Credits: 6.00
  or
- HCM 185 - International Cuisine Excursion II - Credits: 6.00
- HCM 211 - Culinary Management - Credits: 4.00
- HCM 341 - Catering and Banqueting (lec/lab) - Credits: 2.00
- MKT 110 - Principles of Marketing - Credits: 3.00

Total: 13-15 Credits

Term VII
- HCM 400 - Food Service Entrepreneurship (lec) - Credits: 3.00
- HCM 401 - Culinary Industry - Credits: 3.00
- HCM 512 - Culinary Internship - Credits: 2.00

Total: 8 Credits

Notes:
*Refer to General Education Course Requirements (A.A.S.) for approved courses.

**Completing a dual major in this program is an option, see Academic Policies for more information.

Additional Diplomas and Certificates
Diplomas available within this program include:
- Culinary Diploma

Culinary Arts, Diploma
Offered at Main Campus

The Culinary Arts Diploma Program is 9-month (three-term) program. Experiences are provided in aspects of cooking and baking. The Culinary Arts program is accredited by the American Culinary Federation. To enroll, complete an application and attend any required academic orientation and information session.

Program Total: 36 Credits
Term I

- CSC 110 - Introduction to Computers - Credits: 3.00
- HCM 101 - Safety/Sanitation - Credits: 1.00
- HCM 102 - Food Service Technology - Credits: 1.00
- HCM 163 - Culinary Skills(lab) - Credits: 3.00
- HCM 202 - Food Service Lab 1 - Credits: 2.00
- HCM 261 - Math Principles - Credits: 1.00
- HCM 346 - Culinary Seminar - Credits: 1.00

Total: 12 Credits

Term II

- HCM 145 - Garde Manger(lab) - Credits: 3.00
- HCM 146 - Cold Food Principles(lab) - Credits: 1.00
- HCM 203 - Food Service Lab 2 - Credits: 2.00
- HCM 232 - Culinary Nutrition(lab) - Credits: 2.00
- General Education: Humanities - Credits: 3.00

Total: 11 Credits

Term III

- BUS 102 - Introduction to Business - Credits: 3.00
- HCM 149 - Principles of Cooking (lab) - Credits: 4.00
- HCM 150 - Shellfish, Poultry, Meats(lab) - Credits: 1.00
- HCM 151 - Stocks, Soups, Sauces - Credits: 1.00
- HCM 200 - Dining Service - Credits: 2.00
- General Education: Speech - Credits: 3.00 OR
- General Education: Writing - Credits: 3.00

Total: 14 Credits

Entrepreneurship, Certificate

The Entrepreneurship certificate program is designed to be added on to any other program of study at the college to prepare students to become business owners and leaders in their respective fields. This twelve credit program consists of four courses designed to give students a deep understanding of what is required to become a successful entrepreneur and how to overcome the struggles that most new businesses face. Indian Hills Entrepreneurship graduates will recognize problems as potential opportunities, and be able to turn solutions into new businesses.

Program Total: 12 Credits

Term I

- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- BUS 149 - Small Business Financial Management - Credits: 3.00
- BUS 155 - Customer Discovery and Development - Credits: 3.00
- BUS 910 - Leading and Growing Entrepreneurial Companies - Credits: 3.00
Landscape and Turfgrass Technology, A.A.S.

Offered at Main and Centerville Campuses

Landscape and Turfgrass Technology is a 21-month (seven-term) program designed for students interested in working outdoors to provide quality recreational and working environments. The program's diverse training gives students knowledge of plants that range from flowers to turfgrass to trees and shrubs. Students will also develop the skills to maintain these plants properly. The student will learn entrepreneurial skills to operate a business as well as how to purchase and maintain the equipment they will be using.

Students meeting all program and graduation requirements receive an Associate of Applied Science degree. This major may be entered at the beginning of any term.

Program Learning Outcomes

1. Develop students' knowledge of Landscape, Turfgrass, and Greenhouse Systems
2. Develop student's skills in the use of fertilizers and pesticides for positive environmental impact.
3. Define basic horticultural terminology
4. Identify plants and their life cycles
5. Create landscape designs and estimates for implementation
6. Identify equipment commonly used in Landscape, turfgrass, and greenhouse applications
7. Demonstrate landscape, turfgrass, and greenhouse equipment safety and utilization
8. Demonstrate desirable workplace skills

Program Total: 68 Credits

Term I

- AGA 154 - Fundamentals of Soil Science - Credits: 3.00
- AGH 221 - Principles of Horticulture - Credits: 3.00
- BIO 101 - Introductory Biology - Credits: 2.00
- BIO 103 - Introductory Biology Lab - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- ENV 142 - Natural Resources - Credits: 3.00

Total: 13 Credits

Term II

- AGH 154 - Residential Landscape Design - Credits: 3
- AGH 430 - Turf and Landscape Equipment - Credits: 3.00
- CHM 121 - Introduction to General Chemistry - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00

Total: 12 Credits

Term III

- AGH 112 - Introduction to Turfgrass Management - Credits: 3.00
- AGH 123 - Woody Plants Materials - Credits: 3.00
- AGH 283 - Pesticide Application Certification - Credits: 2.00
- MAT 156 - Statistics - Credits: 3.00
Total: 11 Credits

Term IV

- AGB 802 - Agribusiness Internship I - Credits: 2.00

Total: 2 Credits

Term V

- AGH 120 - Herbaceous Plant Materials - Credits: 3.00
- AGH 166 - Turf and Landscape Irrigation - Credits: 3.00
  GEH XXX - General Education: Humanities Credits: 3.00*

Total: 9 Credits

Term VI

- AGH 131 - Greenhouse Management - Credits: 3
- AGN 130 - Soil and Water Conservation - Credits: 3.00
- BUS 102 - Introduction to Business - Credits: 3.00
  OR
- AGB 330 - Farm Business Management - Credits: 3.00
- AGP 450 - Fundamentals of GIS - Credits: 3.00

Total: 12 Credits

Term VII

- AGH 432 - Outdoor Power Equipment for Small Engines - Credits: 3.00
- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
  OR
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 9 Credits

Dual Credit Option:

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses. The Cultural elective should be a three credit Literature course. If the student does not take the Freehand Drawing option within the program, they need to add another credit to the additional Humanities or Fine Arts credits.

- Composition II - Credits: 3.00
- Humanities & Fine Arts Electives - Credits: 4.00
- U.S. History or Western Civilization - Credits: 3.00
- Social Science Electives - Credits: 9.00
- How to be Successful in College - Credits 3.00
- Distributed Core Electives - Credits: 4.00

*Refer to General Education Course Requirements (A.A.S.) for approved courses.
Precision Farming, A.A.S.

Offered at Centerville Campus

The Precision Farming program is designed to give students the skills and knowledge necessary to start or further develop an agricultural business, and/or work in a precision agriculture related field. During the course of this program students will be exposed to strategies designed to provide profitability for the farmer, environmental protection, integration of technology.

Program Learning Outcomes
1. Develop students knowledge of precision farming.
2. Develop students skill in implementation of precision technology.
3. Define basic agricultural terminology.
4. Apply precision technology to existing agricultural systems.
5. Develop a sustainable farm business plan.
6. Analyze precision technologies for their value to various farming operations.
7. Evaluate marketability of commodities based on quality.

Program Total: 68 Credits

Term I
- AGA 154 - Fundamentals of Soil Science - Credits: 3.00
- AGS 113 - Survey of the Animal Industry - Credits: 3.00
- BIO 101 - Introductory Biology - Credits: 2.00
- BIO 103 - Introductory Biology Lab - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- ENV 142 - Natural Resources - Credits: 3.00

Total: 13 Credits

Term II
- AGA 450 - Issues in Sustainable Agriculture - Credits: 3.00
- AGN 130 - Soil and Water Conservation - Credits: 3.00
- AGP 450 - Fundamentals of GIS - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00

Total: 12 Credits

Term III
- AGA 114 - Principles of Agronomy - Credits: 3.00
- AGA 283 - Pesticide Application Certification - Credits: 2.00
- AGP 333 - Precision Farming Systems - Credits: 3.00
- MAT 156 - Statistics - Credits: 3.00

Total: 11 Credits

Term IV
- AGB 802 - Agribusiness Internship I - Credits: 2.00

Total: 2 Credits
Term V

- AGA 211 - Grain and Forage Crops - Credits: 3.00
- AGM 330 - Fundamentals of Electricity - Credits: 3.00
- LIT 101 - Introduction to Literature - Credits: 3.00

Total: 9 Credits

Term VI

- AGB 330 - Farm Business Management - Credits: 3.00
- AGM 336 - Agriculture Electronic Devices & Sys - Credits: 3.00
- AGN 120 - Wildlife and Agriculture - Credits: 3.00
- CHM 121 - Introduction to General Chemistry - Credits: 3.00

Total: 12 Credits

Term VII

- AGB 235 - Introduction to Agriculture Markets - Credits: 3.00
- BUS 128 - Foundation to Entrepreneurship - Credits: 3.00
  OR
- BUS 130 - Introduction to Entrepreneurship - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 9 Credits

Truck Driving CDL, Certificate

Offered at North Campus

Indian Hills Community College offers eight six-week programs and two weekend programs to train drivers each year. Students must have a valid driver's license and a good driving record. Applicants must be at least 18 years old.

The day classes meet Monday through Thursday from 8 a.m. to 4 p.m. over a six-week period, for a total of 10 college credits. The weekend classes meet from 7 a.m. to 5:30 p.m. Saturday and Sunday for nine weekends, also for 10 college credits.

The North Campus driving range consists of several miles of hard-surface pavement. Over-the-road trips are conducted during the last four weeks of the program.

The training program emphasizes one-on-one instruction by professionals who have many years of experience. Students learn with modern trucks and trailers. Students successfully completing the program are awarded a certificate and will have the practical driving and operational skills necessary to safely and efficiently operate commercial motor vehicles as entry-level drivers. Under federal law, students under 21 years of age are restricted to drive in the state in which they reside.

Prior to first day of class, students must obtain a CDL Permit, a DOT physical/drug screen and a Certified Driving Record.

To enroll, complete an application and attend any required academic orientation.

Program Learning Outcomes

1. Demonstrate competencies of basic maneuvers in operating a combination vehicle, including backing skills.
2. Identify potential safety concerns or issues when performing a pre-trip inspection and citing safety hazards while performing the road trip.
3. Demonstrate driving proficiency of basic skills in road training to obtain a Commercial Driver's License Class A.
Program Total: 10 Credits

Term I

- TDT 140 - Driver Training CDL - Credits: 10.00

Total: 10 Credits

Health Sciences

All prospective students in specific Health Sciences programs (Clinical Laboratory Sciences, Dental Assisting, Dental Hygiene, Early Childhood Education, Emergency Medical Services, Health Informatics, Medical Assistant, Nursing, Nutrition & Dietary Management, Occupational Therapy Assistant, Pharmacy Technology, Physical Therapist Assistant, Radiologic Technology, Respiratory Care and Surgical Technology) are required to take the ACT or ACCUPLACER test, submit high school transcripts or a High School Equivalency Diploma certificate and complete an IHCC application. To be considered for these programs, a prospective student must have at least a 2.0 high school or college grade point average. If no grade point average is applicable, a minimum standardized score on the High School Equivalency Diploma examination is required. An applicant must have a minimum score on the ACCUPLACER or ACT. Meeting minimum requirements does not guarantee acceptance into a program.

Students enrolled in Health Sciences programs are required to have criminal background and adult and child abuse record checks. Criminal convictions or a history of abuse may delay or prevent students from participating in clinical/practicum education. Students unable to participate in clinical/practicum courses will be unable to complete their program.

Clinical Laboratory Sciences

Indian Hills offers three programs that prepare students to work at different levels in medical laboratory settings. Students can earn a certificate in Phlebotomy Technician by completing two terms. The Clinical Laboratory Assistant program is a nine-month diploma program designed to prepare students for entry-level positions in clinical laboratory settings. Students can also complete the 21-month Medical Laboratory Technology program to earn an Associate of Applied Science degree.

Clinical Laboratory Assistant, Diploma

Offered at Main Campus

The Clinical Laboratory Assistant program is a nine-month (three-term) diploma program designed to prepare students for entry-level positions in clinical laboratory settings such as hospitals, clinics and outpatient laboratory facilities. Clinical laboratory assistants perform phlebotomy, specimen processing, quality control and laboratory orientation and regulation under the supervision of physicians, laboratory scientists or technologists. The program includes instruction in computer skills, laboratory billing practices and the performance of assistant-level testing according to the standard operating procedures.

To enroll, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT, or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. Admission to this program is based on GPA and test scores. This program may be entered only at the beginning of the Fall term.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the clinical lab practicum.

Upon successful completion of the program, students will be awarded a diploma for Clinical Laboratory Assistant and are eligible to take the ASCP Board of Certification exam.

The Clinical Laboratory Assistant program is approved by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road., Suite 720, Rosemont, IL. 60018, (773) 714-8880.

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Program Learning Outcomes

1. Apply basic knowledge, principles, and concepts, in order to and perform as a competent, entry-level Clinical Laboratory Assistant.
2. Apply critical/analytical thinking, interpretive, and problem solving skills as appropriate for a Clinical Laboratory Assistant.
3. Utilize effective and appropriate communication.
4. Maintain professional, legal, and ethical standards of practice.
5. Develop an appreciation and awareness for professional growth and lifelong learning.
6. Provide the area healthcare communities with graduates possessing the attitudes, knowledge, and skills necessary to function as a competent Clinical Laboratory Assistant.

Program Total: 28 Credits

Term I

- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- CSC 105 - Computer Essentials - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- MLT 135 - Clinical Laboratory Basics I - Credits: 3.00
  OR
- MLT 112 - Principles of Phlebotomy - Credits: 2.00 AND
- MLT 113 - CLA Basics Bridge - Credits: 1.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00 OR
- SPC 122 - Interpersonal Communication - Credits: 3.00

Total: 12 Credits

Term II

- HSC 141 - Pharmaceutical Applications - Credits: 1.00
- HSC 212 - Pathophysiology - Credits: 3.00
- MLT 135 - Clinical Laboratory Basics I - Credits: 3.00
- MLT 175 - CLA Practicum I - Credits: 1.00

Total: 8 Credits

Term III

- HSC 227 - CLA Administrative Procedures - Credits: 2.00
- HSC 230 - Employment Preparation - Credits: 1.00
- MLT 137 - Clinical Laboratory Basics III - Credits: 3.00
- MLT 176 - CLA Practicum II - Credits: 1.00
- MLT 295 - Topics in Clinical Laboratory Science I - Credits: 1.00

Total: 8 Credits

Medical Laboratory Technology, A.A.S.

Offered at Main Campus

The Medical Laboratory Technology program is a 24-month program that begins in the Summer term. Students who have completed all Term I courses are considered Advanced Standing students and may begin in Fall term. Medical Laboratory Technicians are skilled professionals who assist the pathologist in examining for disease by using various chemical and
microscopic procedures. The medical laboratory technician adjusts and operates diagnostic equipment, microscopes and computerized instruments used in the medical laboratory setting.

Clinical and laboratory experiences are available in the IHCC area. Upon successful completion of the program, students will be awarded an AAS degree in Medical Laboratory Technology and are eligible to take the ASCP Board of Certification Examination.

To apply for the Medical Laboratory Technology program, prospective students must complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT, or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. Admission is based on GPA and test scores.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to beginning any clinical courses.

The Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Rd., Suite 720, Rosemont, IL 60018, (773) 714-8880.

Program Learning Outcomes
1. Apply basic knowledge, principles, and concepts, in order to and perform as a competent, entry-level Medical Laboratory Technician.
2. Apply critical/analytical thinking, interpretive, and problem solving skills as appropriate for a Medical Laboratory Technician.
3. Utilize effective and appropriate communication.
4. Maintain professional, legal, and ethical standards of practice.
5. Develop an appreciation and awareness for professional growth and lifelong learning.
6. Provide the area healthcare communities with graduates possessing the attitudes, knowledge, and skills necessary to function as a competent Medical Laboratory Technician.

Program Total: 77.5 Credits

Term I
- CHM 121 - Introduction to General Chemistry - Credits: 3.00
- GEM XXX-General Education: Mathematics - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 122 - Interpersonal Communication - Credits: 3.00

Credits: 9

Term II
- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- CSC 105 - Computer Essentials - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- MLT 104 - Laboratory Math - Credits: 1.00
- MLT 115 - Clinical Lab Fundamentals - Credits: 3.00
  OR
- MLT 114 - MLT Fundamentals Bridge - Credits: 1.00
  AND
- MLT 135 - Clinical Laboratory Basics I - Credits: 3.00
  OR
- MLT 112 - Principles of Phlebotomy - Credits: 2.00

Credits: 10
Term III

- HSC 212 - Pathophysiology - Credits: 3.00
- MLT 165 - Medical Lab. Principles and Techniques - Credits: 3.5
- MLT 166 - MLT Critical Analysis - Credits: 1.00
- MLT 180 - Clinical Lab Practicum I - Credits: 1.00
  OR
- PHB 270 - Phlebotomy Clinical - Credits: 1.00
  OR
- MLT 175 - CLA Practicum I - Credits: 1.00
  OR
- MLT 176 - CLA Practicum II - Credits: 1.00

Credits: 8.5

Term IV

- CHM 132 - Introduction to Organic and Biochemistry - Credits: 4.00
- MLT 232 - Advanced Hematology and Coagulation - Credits: 5.00
- MLT 270 - Immunology and Serology - Credits: 2.00

Credits: 11

Term V

- MLT 120 - Urinalysis - Credits: 3.00
- MLT 253 - Parasitology and Mycology - Credits: 2.00
- MLT 261 - Immunohematology - Credits: 5.00
- PSY 111 - Introduction to Psychology - Credits: 3.00

Credits: 13

Term VI

- MLT 245 - Clinical Chemistry - Credits: 5.00
- MLT 255 - Clinical Microbiology - Credits: 5.00

Credits: 10

Term VII

- HSC 230 - Employment Preparation - Credits: 1.00
- MLT 181 - Clinical Lab Practicum II - Credits: 6.00
- MLT 296 - Topics in Clinical Laboratory - Credits: 1.00

Credits: 8

Term VIII

- MLT 182 - Clinical Lab Practicum III - Credits: 6.00
- MLT 290 - Clinical Seminar and Review - Credits: 2.00

Credits: 8
Phlebotomy Technician, Certificate

Offered at Main Campus

The Phlebotomy Technician program is a two-term program that prepares the student to be a professional phlebotomy technician. Phlebotomy technicians perform various types of specimen collection and processing, applying critical thinking and problem-solving skills in various situations. Upon successful completion of the program, the student will be awarded a certificate in Phlebotomy Technician, and be eligible to take the National ASCP Phlebotomy Technician certification exam. Graduates may work in hospitals, clinics, physician office laboratories, donor collection facilities, public health laboratories, veterinary offices or industrial laboratories.

To enroll, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. Admission to this program is based on GPA and test scores. This program may be entered only in the Winter term.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the clinical courses.

Program Learning Outcomes
1. Apply basic knowledge and concepts, and perform as a competent, entry-level Phlebotomy Technician in the collection and transport of various types of specimens for analyses.
2. Apply critical/analytical thinking, interpretive, and problem solving skills as appropriate for a Phlebotomy Technician.
3. Utilize effective and appropriate communication.
4. Maintain professional, legal, and ethical standards of practice.
5. Develop an appreciation and awareness for professional growth and lifelong learning.
6. Provide the area healthcare communities with graduates possessing the attitudes, knowledge, and skills necessary to function as a competent Phlebotomy Technician.

Program Total: 9 Credits

Term I

- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- HSC 113 - Medical Terminology - Credits: 2.00
- HSC 230 - Employment Preparation - Credits: 1.00
- MLT 112 - Principles of Phlebotomy - Credits: 2.00

Total: 8 Credits

Term II

- PHB 270 - Phlebotomy Clinical - Credits: 1.00

Total: 1 Credit

Early Childhood Education

Students interested in careers in early childhood education have two options. They can seek a Child Care Technician diploma or can complete an Associate of Applied Science degree in Early Childhood Education. Those pursuing a diploma can complete the first three terms of the Early Childhood Associate daytime program or they can enroll in the Child Care Technician online/hybrid program.
Early Childhood Education, A.A.S.

Offered at Main Campus and Online

The Early Childhood Associate program is a 21-month (seven-term) program that prepares graduates to be associate/head teachers initiating educational activities in early childhood facilities such as preschools, Headstart, full-day programs and public school systems. Employment opportunities also include becoming an entrepreneur or a nanny. Upon completion of the first three terms, a student is awarded the Child Care Technician diploma. Students may then enter the workforce or take the final four terms of the Early Childhood Associate program to earn their Associate of Applied Science degree. To apply for the Early Childhood Associate program, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. This program may be entered at the beginning of the Fall or Winter terms. Winter term applicants must enroll in entry-level courses in an online format. For the sequence of online course offerings, see the Child Care Technician program.

State and National criminal background and child abuse record checks are required in Term I.

This program is accredited by the National Association for Education of Young Children, 1313 L. Street, NW., Washington, D.C. 20005.

Program Learning Outcomes

1. Promote child development and learning.
2. Build family and community relationships.
3. Observe, document, and assess to support young children and families.
4. Use developmentally effective approaches to learning.
5. Use content knowledge to build meaningful curriculum for young children.
6. Become a professional in the early childhood field.

Program Total: 74 Credits

Term I

- CSC 105 - Computer Essentials - Credits: 1.00
- ECE 103 - Introduction to Early Childhood Education - Credits: 3.00
- ECE 108 - ECE Fieldwork Certifications - Credits: 1.00
- ECE 133 - Child Health, Safety and Nutrition - Credits: 3.00
- ECE 170 - Child Growth and Development - Credits: 3.00

Total: 11 Credits

Term II

- ECE 158 - Early Childhood Curriculum I - Credits: 3.00
- ECE 221 - Infant/Toddler Care and Education - Credits: 3.00
- ECE 263 - EC Field Experience I - Credits: 1.50
- PSY 111 - Introduction to Psychology - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00

Total: 13.5 Credits
Term III

- ECE 159 - Early Childhood Curriculum II - Credits: 3.00
- ECE 243 - Early Childhood Guidance - Credits: 3.00
- ECE 264 - EC Field Experience II - Credits: 1.50
- EDU 235 - Children's Literature - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00

Total: 13.5 Credits

Term IV

- ECE 141 - Designing Curriculum - Credits: 3.00
- ENG 106 - Composition II - Credits: 3.00
- HIS 151 - U.S. History to 1877 - Credits: 3.00
  OR
- HIS 152 - U.S. History since 1877 - Credits: 3.00

Total: 9 Credits

Term V

- ECE 259 - Topics in Early Childhood Education - Credits: 3.00
- XXX XXX - Foreign Language, Religion or Philosophy Elective - Credits: 3.00
- XXX XXX - Approved Mathematical Reasoning Course - Credits: 3.00 *

Total: 9 Credits

Term VI

- BIO 101 - Introductory Biology - Credits: 2.00
- BIO 103 - Introductory Biology Lab - Credits: 1.00
- ECE 276 - Classroom Teaching - Credits: 2.00
- ECE 287 - Exceptional Learner - Credits: 3.00
- HSC 230 - Employment Preparation - Credits: 1.00

Total: 9 Credits

Term VII

- ECE 290 - Early Childhood Program Administration - Credits: 3.00
- LIT 101 - Introduction to Literature - Credits: 3.00
- XXX XXX - Fine Arts Elective - Credits: 3.00

Total: 9 Credits

Dual Major Option:

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses. The Math elective should be MAT 110 or higher. For A.A. degree required course options, see General Education Course Requirements (A.A., A.S.)

- Math or Science Elective - Credits: 2.00
- Social Science Elective - Credits: 3.00
Students planning to enter a baccalaureate program in Early Childhood/Elementary Education should begin the process of selecting a school as freshmen. Each four-year institution has specific requirements that students need to be aware of early in the program. It may be to the student’s advantage to add the necessary credits to earn an Associate of Arts degree (see Dual Major Option above) in addition to the Early Childhood Associate of Applied Science degree.

The IHCC Early Childhood Associate degree has articulation agreements with Buena Vista University and Iowa Wesleyan College. Students should meet with the Early Childhood Program Director to learn about specific articulation arrangements. Courses for the degree at Buena Vista are offered as an evening program. Students planning to attend Buena Vista are encouraged to take the Praxis I as freshmen. They are also advised to enroll in the following additional courses during their second year:

Term VI PSY 281 - Educational Psychology 3 credits
Term VIIIPOL 111 - American National Government 3 credits

Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

### Early Childhood, Diploma - Online/Hybrid, Diploma

Offered at Main Campus and Online

The Early Childhood, Diploma option begins each Fall or Winter term. This program is designed to provide the flexibility needed for currently-employed early childhood professionals. All courses are available in online and face-to-face formats, making it convenient for the working student. This course schedule identifies terms courses are available online. Students must complete entry-level courses prior to enrolling in advanced courses. State and national criminal background, child abuse record checks are required prior to the field experiences.

To apply for the Early Childhood, Diploma option, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142.

### Program Learning Outcomes

1. Promote child development and learning.
2. Build family and community relationships.
3. Observe, document, and assess to support young children and families.
4. Use developmentally effective approaches to learning.
5. Use content knowledge to build meaningful curriculum for young children.
6. Become a professional in the early childhood field.

Program Total: 38 Credits

### Term I

- CSC 105 - Computer Essentials - Credits: 1.00
- ECE 108 - ECE Fieldwork Certifications - Credits: 1.00
- ECE 133 - Child Health, Safety and Nutrition - Credits: 3.00
- ECE 170 - Child Growth and Development - Credits: 3.00

Total: 8 Credits
Term II
- ECE 103 - Introduction to Early Childhood Education - Credits: 3.00
- ECE 221 - Infant/Toddler Care and Education - Credits: 3.00
- ENG 105 - Composition I - Credits: 3.00

Total: 9 Credits

Term III
- ECE 158 - Early Childhood Curriculum I - Credits: 3.00
- ECE 243 - Early Childhood Guidance - Credits: 3.00
- ECE 263 - EC Field Experience I - Credits: 1.50
- EDU 235 - Children's Literature - Credits: 3.00

Total: 10.5 Credits

Term IV
- ECE 159 - Early Childhood Curriculum II - Credits: 3.00
- ECE 264 - EC Field Experience II - Credits: 1.50
- PSY 111 - Introduction to Psychology - Credits: 3.00
- SPC 112 - Public Speaking - Credits: 3.00
- OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00

Total: 10.5 Credits

Notes:
*Prior to enrolling in ECE 263 -EC Field Experience I or ECE 264 - EC Field Experience II, students must complete the following course or have documentation of completion of the specified components:

ECE 108 - ECE Fieldwork Certifications or documentation of 1) current CPR certification, 2) child abuse mandatory reporter certification, 3) bloodborne pathogen training and 4) current First Aid certification.

Emergency Medical Services

Indian Hills offers five emergency medical services programs. All of the EMS courses comply with the National Emergency Medical Services Education Standards and prepare students to take the National Registry of Emergency Medical Technician practical and certification examinations. The EMT-Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

The Emergency Medical Responder and Advanced Emergency Medical Technician programs are only offered every other year, or as interest dictates. If you have reached this page as a result of selecting to view Program Details on either of these programs, then they are not currently available. Contact Josh Hemminger for more details about program availability.

Emergency Medical Technician, Certificate

Offered at Main Campus

The Emergency Medical Technician program prepares the student to be an EMT. This two-term program is comprised of classroom, laboratory and clinical experiences that provide the student with the fundamental knowledge and skills to function in
a pre-hospital or hospital emergency situation. Students successfully completing the program will receive an Emergency Medical Technician certificate and be prepared to take the NREMT certification exam. Graduates are also eligible for advanced standing status in the Paramedic Associate of Applied Science degree program.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores. This program may be entered in the Fall or Spring terms.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the start of clinical requirements in term 2.

**Program Learning Outcomes**

1. Promote safety, well-being, and professionalism in the EMS profession.
2. Develop methods to establish rapport with patients, family members, public service professionals, health professionals, and medical providers.
3. Integrate anatomy, physiology, and pathophysiology to properly assess and treat a variety of medical conditions.
4. Integrate anatomy, physiology, and pathophysiology to properly assess and treat a variety of traumatic injuries.
5. Use appropriate communication techniques to provide proper documentation and verbal reports for patient care.
6. Prepare graduates to enter the workforce as competent and confident entry-level EMS providers.

**Program Total: 8 Credits**

**Term I**

- EMS 260 - Emergency Medical Technician I - Credits: 4.00

Total: 4 Credits

**Term II**

- EMS 360 - Emergency Medical Technician 2 - Credits: 4.00
- EMS 365 - Emergency Medical Technician 2 Clinical - Credits: 1.00

Total: 5 Credits

**Paramedic Core, Diploma**

Offered at Main and Centerville Campuses

The Paramedic core option offers an alternative format for completion of the core courses of the Paramedic AAS degree program. This seven-term, part-time program begins in the Summer or Winter term on the Main Campus. Students may enroll on the Centerville Campus in the Fall term of the even-numbered years. Upon successful completion of this program, students will be eligible to take National Registry certification testing.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. Current EMT certification is required for admission to this program.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the clinical courses.

The Paramedic Core program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).
Program Learning Outcomes

1. Promote safety, well-being, and professionalism in the EMS profession.
2. Develop methods to establish rapport with patients, family members, public service professionals, health professionals, and medical providers.
3. Integrate anatomy, physiology, and pathophysiology to properly assess and treat a variety of medical conditions.
4. Integrate anatomy, physiology, and pathophysiology to properly assess and treat a variety of traumatic injuries.
5. Use appropriate communication techniques to provide proper documentation and verbal reports for patient care.
6. Prepare graduates to enter the workforce as competent and confident entry-level EMS providers.

Program Total: 42.5 Credits

Term I

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00

Total: 4 Credits

Term II

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00

Total: 4 Credits

Term III

- EMS 700 - Introduction to Paramedicine - Credits: 1.00
- EMS 703 - Pharmacology and Pathophysiology for the Para - Credits: 3.5
- EMS 706 - Treatments in Advanced Emergency Care - Credits: 2.00

Total: 6.5 Credits

Term IV

- EMS 710 - Advanced Patient Assessment - Credits: 2.00
- EMS 713 - Cardiology for the Paramedic - Credits: 4.00
- EMS 715 - Paramedic Clinical I - Credits: 2.00

Total: 8 Credits

Term V

- EMS 720 - Medical Emergencies for the Paramedic - Credits: 5.50
- EMS 725 - Paramedic Clinical 2 - Credits: 3.00

Total: 8.5 Credits

Term VI

- EMS 730 - Trauma Emergencies for the Paramedic - Credits: 3.00
- EMS 733 - Special Populations for the Paramedic - Credits: 3.00
- EMS 735 - Paramedic Clinical 3 - Credits: 3.00
- EMS 820 - Prehospital Trauma Life Support - Credits: 1.00
Total: 10.5 Credits

Term VII

- EMS 740 - Advanced EMS Operations - Credits: 2.00
- EMS 743 - Paramedic Seminar - Credits: 2.00
- EMS 745 - Paramedic Clinical 4 - Credits: 4.00

Total: 8 Credits

Paramedic, A.A.S.

Offered at Main Campus

This 24-month (eight-term) program prepares the student to take the National Registry-certified Paramedic exam. Paramedics provide medical care in pre-hospital or emergency settings operating through orders or protocols from a medical control physician. Skills include cardiac monitor interpretation, IV initiation, drug administration, advanced airway maneuvers and trauma care. Students will complete hospital clinical time and ambulance ride time in area facilities. Students meeting all program and graduation requirements receive an Associate of Applied Science degree and will be eligible to take the National Registry certification testing.

Students with current EMS certification qualify for advanced standing in the program. This program may be entered in the Fall or Spring terms.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. This program begins in the Fall term of each year.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the clinical courses.

The Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Program Learning Outcomes

1. Promote safety, well-being, and professionalism in the EMS profession.
2. Develop methods to establish rapport with patients, family members, public service professionals, health professionals, and medical providers.
3. Integrate anatomy, physiology, and pathophysiology to properly assess and treat a variety of medical conditions.
4. Integrate anatomy, physiology, and pathophysiology to properly assess and treat a variety of traumatic injuries.
5. Use appropriate communication techniques to provide proper documentation and verbal reports for patient care.
6. Prepare graduates to enter the workforce as competent and confident entry-level EMS providers.

Program Total: 79.5 Credits

Term I

- EMS 260 - Emergency Medical Technician I - Credits: 4.00
- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00

Total: 9 Credits
Term II

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- EMS 360 - Emergency Medical Technician 2 - Credits: 4.00
- EMS 365 - Emergency Medical Technician 2 Clinical - Credits: 1.00

Total: 9 Credits

Term III

- BIO 187 - Microbiology w/lab - Credits: 4.00
- EMS 830 - Emergency Vehicle Operations - Credits: 1.00
- GEM XXX General Education: Mathematics
- ENG 105 - Composition I - Credits: 3.00

Total: 11 Credits

Term IV

- EMS 700 - Introduction to Paramedicine - Credits: 1.00
- EMS 703 - Pharmacology and Pathophysiology for the Para - Credits: 3.5
- EMS 706 - Treatments in Advanced Emergency Care - Credits: 2.00
- PSY 111 - Introduction to Psychology - Credits: 3.00

Total: 9.5 Credits

Term V

- EMS 710 - Advanced Patient Assessment - Credits: 2.00
- EMS 713 - Cardiology for the Paramedic - Credits: 4.00
- EMS 715 - Paramedic Clinical I - Credits: 2.00
- PSY 121 - Developmental Psychology - Credits: 3.00

Total: 11 Credits

Term VI

- EMS 720 - Medical Emergencies for the Paramedic - Credits: 5.50
- EMS 725 - Paramedic Clinical 2 - Credits: 3.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00
  OR
- SPC 122 - Interpersonal Communication - Credits: 3.00

Total: 11.5 Credits

Term VII

- EMS 820 - Prehospital Trauma Life Support - Credits: 1.00
- EMS 730 - Trauma Emergencies for the Paramedic - Credits: 3.00
- EMS 733 - Special Populations for the Paramedic - Credits: 3.00
• EMS 735 - Paramedic Clinical 3 - Credits: 3.00

Total: 10.5 Credits

Term VIII

• EMS 740 - Advanced EMS Operations - Credits: 2.00
• EMS 743 - Paramedic Seminar - Credits: 2.00
• EMS 745 - Paramedic Clinical 4 - Credits: 4.00

Total: 8 Credits

Dual Major Option

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses.

• Composition II - Credits: 3.00
• Literature Elective - Credits: 3.00
• Humanities & Fine Arts Electives - Credits: 2.00
• U.S. History or Western Civilization - Credits: 3.00
• Distributed Core Electives - Credits: 4.00
• General Electives - Credits: 3.00
• How to be Successful in College - Credits: 3.00

Additional Diplomas and Certificates

Diplomas and certificates available within this program include:

• Advanced EMT Certificate
• Paramedic Core Diploma

Health Informatics

Indian Hills offers four health informatics programs: Health Unit Coordinator, Healthcare Documentation Specialist, Medical/Insurance Coding and Health Information Technology. The amount of time it takes to complete these programs ranges from six months to 21 months. Each program utilizes an online delivery format providing students with a great deal of flexibility in determining the time of day they are able to complete their coursework. Students completing three of the programs receive diplomas while graduates of the Health Information Technology program are awarded Associate of Applied Science degrees.

Health Information Technology, A.A.S.

Offered Online Only

This 21-month (seven-term) program prepares the student to become a health information technician, a specialist who is responsible for maintaining permanent health records. Students become familiar with health records, documentation standards and the equipment necessary to process health information through practical experience in the health information departments of health care facilities. Employment opportunities are available in hospital health information departments, outpatient clinics, health centers, insurance companies and government health agencies. Graduates of this program are eligible to take the Certification Examination of the American Health Information Management Association. Upon successful completion of the examination, the graduate becomes a Registered Health Information Technician (RHIT).

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT, or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641)
683-5142 or (800) 726-2585, ext. 5142. This program may be entered in the Fall or Spring terms, is offered online. Students meeting all program and graduation requirements receive an Associate of Applied Science degree.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the beginning of professional experience courses.

This program is accredited by the Commission on the Accreditation for Health Informatics and Information Management Education (CAHIIM), 200 East Randolph St. Suite 5100, Chicago, IL 60601-5800, (312) 235-3255.

Program Learning Outcomes

1. Possess the knowledge, skills and attitudes required of an entry level Health Information Technician.
2. Communicate effectively with clients, family and health care team members.
3. Adhere to ethical and legal principles in relation to standards of practice.
4. Demonstrate accountability for professional behavior, development and growth.
5. Use written documentation that is concise and grammatically correct.
6. Demonstrate leadership and management techniques in preparation for the Registered Health Information Technician certification.

Program Total: 81 Credits

Term I

- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- BIO 199 - Basic Anatomy and Physiology Lab I - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- HIT 125 - Essentials of Health Records - Credits: 2.00
- HIT 126 - Health Records Laboratory - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- HSC 141 - Pharmaceutical Applications - Credits: 1.00

Total: 11 Credits

Term II

- HIT 130 - Health Record Systems - Credits: 3.00
- HIT 260 - ICD-10 Diagnostic Coding - Credits: 2.00
- HIT 270 - ICD-10 Procedural Coding - Credits: 2.00
- HIT 530 - Professional Experience I - Credits: 1.00
- HIT 700 - Virtual Lab Exploration I - Credits: 1.00
- HSC 212 - Pathophysiology - Credits: 3.00
- MTR 156 - HDS Fundamentals - Credits: 2.00

Total: 14 Credits

Term III

- HIT 141 - Health Law and Ethics - Credits: 3.00
- HIT 290 - Reimbursement Methods - Credits: 3.00
- HIT 325 - CPT Coding - Credits: 3.00
- HIT 701 - Virtual Lab Exploration II - Credits: 1.00

Total: 10 Credits
Term IV

- HIT 161 - Health Information E-Systems - Credits: 3.00
- HIT 410 - Practical Coding Application - Credits: 3.00
- HIT 531 - Professional Experience II - Credits: 5.00
- HSC 230 - Employment Preparation - Credits: 1.00

Total: 12 Credits

Term V

- HIT 221 - Compliance/Risk Management - Credits: 3.00
- HIT 225 - Leadership and Organization - Credits: 3.00
- HIT 702 - Virtual Lab Exploration III - Credits: 1.00
- XXX XXX - Approved Culture Course - Credits: 3.00 *
- XXX XXX - Approved Mathematical Reasoning Course - Credits: 3.00 *

Total: 13 Credits

Term VI

- ENG 105 - Composition I - Credits: 3.00
- HIT 227 - Health Statistics - Credits: 3.00
- HIT 440 - Quality Management - Credits: 3.00
- XXX XXX - Approved Communication Course - Credits: 3.00 *

Total: 12 Credits

Term VII

- ENG 106 - Composition II - Credits: 3.00
- HIT 532 - Professional Experience III - Credits: 5.00
- HIT 950 - HIT Seminar - Credits: 1.00

Total: 9 Credits

Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

** Completing a dual major in this program is an option, see Academic Policies for more information.

Health Unit Coordinator, Diploma

Offered Online Only

The Health Unit Coordinator program is a six-month (two-term) program that begins in the Fall and Spring terms of each year. This program is offered online. This program prepares the graduate to be employed in a Medical/Surgical unit of a hospital, a skilled nursing facility, insurance company, clinic or a health maintenance organization. The health unit coordinator (unit clerk/secretary) works closely with health professionals providing communication support to nursing service and ancillary departments in the collection and dissemination of patient data. Students successfully completing program and graduation requirements will receive a diploma. Graduates of this program are eligible to take the Certification Examination of the National Association of Health Unit Coordinators, Inc. (NAHUC). Upon successful completion of the Examination, the graduate becomes a Certified Health Unit Coordinator (HUC).
To enroll, complete an IHCC application, submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT, or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the beginning of practicum courses.

**Program Learning Outcomes**

1. Possess the knowledge, skills and attitudes required of an entry level Health Unit Coordinator.
2. Communicate effectively with clients, family and health care team members.
3. Adhere to ethical and legal principles in relation to standards of practice.
4. Demonstrate accountability for professional behavior, development and growth.
5. Use written documentation that is concise and grammatically correct.

**Program Total: 21 Credits**

**Term I**

- BCA 134 - Word Processing - Credits: 3.00
- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- HSC 113 - Medical Terminology - Credits: 2.00
- HSC 141 - Pharmaceutical Applications - Credits: 1.00
- HSC 220 - Legal Principles in Health Care - Credits: 3.00

**Total: 12 Credits**

**Term II**

- HSC 230 - Employment Preparation - Credits: 1.00
- HUC 121 - Health Unit Coordinator - Credits: 5.00
- HUC 122 - HUC Practicum - Credits: 2.00
- HUC 150 - HUC Seminar - Credits: 1.00

**Total: 9 Credits**

*Optional Courses*

- PNN 147 Nursing Essentials I - Credits - 3.00
- HSC 220 Legal Principles in Health Care - 3.00

**Medical / Insurance Coding, Diploma**

Offered Online Only

This 12-month (four-term) online program prepares the student for a position as a medical insurance coding technician at a medical office, hospital or medical facility. Upon successful completion of the program requirements, students graduate with a diploma in Medical/Insurance Coding. Graduates may wish to become a Certified Coding Associate (CCA) by passing the certification examination administered by the American Health Information Management Association (AHIMA).

The Medical/Insurance Coding Program is an approved comprehensive coding program through the Professional Certificate Approval Program Council (PCAP) through the American Health Information Management Association (AHIMA), 233 N. Michigan Ave., 21st Floor Chicago, IL 60601-5809, (800) 335-5535, www.ahima.org

Prospective students must complete an application, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling (641) 683-5142 or (800) 726-2585, extension 5142. This program begins in the Fall & Spring terms of each year.
Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the beginning of practicum courses.

**Program Learning Outcomes**
1. Possess the knowledge, skills and attitudes required of an entry level Medical/Insurance Coder.
2. Communicate effectively with clients, family and health care team members.
3. Adhere to ethical and legal principles in relation to standards of practice.
4. Demonstrate accountability for professional behavior, development and growth.
5. Use written documentation that is concise and grammatically correct.

**Program Total: 45 Credits**

**Term I**
- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- BIO 199 - Basic Anatomy and Physiology Lab I - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- HIT 125 - Essentials of Health Records - Credits: 2.00
- HIT 126 - Health Records Laboratory - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- HSC 141 - Pharmaceutical Applications - Credits: 1.00

Total: 11 Credits

**Term II**
- HIT 130 - Health Record Systems - Credits: 3.00
- HIT 260 - ICD-10 Diagnostic Coding - Credits: 2.00
- HIT 270 - ICD-10 Procedural Coding - Credits: 2.00
- HIT 530 - Professional Experience I - Credits: 1.00
- HIT 700 - Virtual Lab Exploration I - Credits: 1.00
- HSC 212 - Pathophysiology - Credits: 3.00

Total: 12 Credits

**Term III**
- HIT 141 - Health Law and Ethics - Credits: 3.00
- HIT 290 - Reimbursement Methods - Credits: 3.00
- HIT 325 - CPT Coding - Credits: 3.00
- HIT 701 - Virtual Lab Exploration II - Credits: 1.00

Total: 10 Credits

**Term IV**
- HIT 161 - Health Information E-Systems - Credits: 3.00
- HIT 410 - Practical Coding Application - Credits: 3.00
- HIT 531 - Professional Experience II - Credits: 5.00
- HSC 230 - Employment Preparation - Credits: 1.00

Total: 12 Credits
Medical Scribe, Diploma

Offered Online

The Medical Scribe program is a six-month (two-term) program that begins in the Fall and Spring terms each year. The program is offered in an online format.

A Medical Scribe requires knowledge of medical terminology, healthcare standards, documentation requirements, and organization of health records. The Medical Scribe translates from oral to written form information about patients dictated by health professionals. This includes editing of provider documentation via speech recognition technology and the use of electronic health records. Medical Scribes should possess specific competencies that include: correct utilization of medical terminology, accuracy, keyboarding speed, correct grammar and spelling, auditory discrimination, ear and hand coordination, proofreading and editing skills along with high level computer and word processing equipment expertise.

Upon successful completion of the program, students are awarded a diploma.

To apply, students must complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142.

Program Total: 23 Credits

Term I

- BCA 134 - Word Processing - Credits: 3.00
- BIO 161 - Basic Anatomy and Physiology - Credits: 3.00
- HSC 113 - Medical Terminology - Credits: 2.00
- HSC 141 - Pharmaceutical Applications - Credits: 1.00
- HSC 220 - Legal Principles in Health Care - Credits: 3.00

Total: 11 Credits

Term II

- HSC 212 - Pathophysiology - Credits: 3.00
- HSC 230 - Employment Preparation - Credits: 1.00
- MTR 156 - HDS Fundamentals - Credits: 2.00
- MTR 200 - HDS Technology - Credits: 3.00
- MTR 300 - HDS Seminar - Credits: 3.00

Total: 12 Credits

Nursing

The nursing program has two levels; Level I (Practical Nursing) is a one-year (four-term) program and Level I and II (Associate Degree Nursing) is a two-year (eight-term) program.

The Practical Nursing program prepares the student to function as a nurse who has the knowledge and skills to utilize the nursing process in the provision of care for individuals, families or communities with basic health care needs. Upon successful completion of the program and graduation requirements, the student will receive a diploma in Practical Nursing and be eligible to take the National Council Licensure Examination for Practical Nurses.

The Associate Degree Nursing program builds on the knowledge and skills gained during Level I and focuses on critical thinking, prioritization, leadership and advanced nursing skills required to manage an acute care clinical area and care for individuals, families or communities with complex health care needs. Upon successful completion of the program and graduation
requirements, the student will receive an Associate of Applied Science Degree in Nursing (ADN) and be eligible to take the National Council Licensure Examination for Registered Nurses.

Advanced standing students (students completing Level I requirements) are eligible to start the Associate Degree Nursing program at the beginning of the fifth term. To qualify for advanced standing, a student must meet the following requirements:

1. graduation from an approved school of practical nursing and/or successful completion of the National Council Licensure Exam for Practical Nurses.
2. completion of Composition I, Introduction to Psychology, Computer Essentials, Human Anatomy, Human Anatomy Lab, Human Physiology and Human Physiology Lab. Grades from these classes must be "C" or above to be acceptable.

To be considered for the Practical or Associate Degree Nursing Program, prospective students 1) must complete an application; 2) submit a high school transcript or High School Equivalency Diploma scores and college transcripts; and 3) take one of the following tests: ACT, SAT or ACCUPLACER. 4) In addition you must take the ATI TEAS examination. 5) Submit an active Iowa Direct Care Workers Registry Card.

Criminal background and dependent adult and child abuse record checks are required prior to the clinical courses.

Previous licensure: Clinical participation is not allowed by persons who have been denied licensure by the Iowa Board of Nursing or whose license is currently suspended, surrendered or revoked in any country or U.S. jurisdiction due to disciplinary action.

These programs are approved by the Iowa Board of Nursing, Riverpoint Business Park, 400 SW Eighth St. Suite B, Des Moines, IA 50309-4685, (515) 281-3255. The Associate Degree Nursing program has been validated for participation in the Iowa Articulation Plan by the Iowa Board of Nursing.

NOTE: Students completing any course with a prefix of ADN, BIO and PNN must receive a "C" or higher to progress to the next term of classes. If needed, students may retake these courses once to receive a satisfactory grade and remain eligible for the program. PSY 111 Introduction to Psychology must be taken before enrolling in Term III of the student’s first year.

Associate Degree Nursing, A.A.S.

Offered at Main and Centerville Campuses

This is a 24-month (eight-term), full-time program. This program begins annually and may be entered in the Summer term on both the Ottumwa and Centerville Campuses and in the Winter term on the Ottumwa Campus.

Educational and clinical experiences at area hospitals and health care agencies are provided in a Monday through Thursday day format. Graduates receive an Associate of Applied Science degree and are eligible to take the National Council Licensure Examination for Registered Nurses.

To be considered for admission to the Associate Degree Nursing program, prospective students must: 1) complete an application; 2) submit a high school transcript or High School Equivalency Diploma scores and college transcripts; and 3) take one of the following tests: ACT, SAT or ACCUPLACER. 4) take the TEAS examination and; 5) submit an active Iowa Direct Care Registry card. If you are applying for the Advanced Standing Program and there has been a gap in time since graduating from the PN year, you must also submit an active LPN license. Pre-requisites to the Advanced Standing Program are: Human Anatomy, Human Anatomy Lab, Human Physiology, Human Physiology Lab, Composition I, Introduction to Psychology, and Computer Essentials.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to beginning any clinical courses. We use Castle Branch for our background check, drug screen, and clinical requirement tracking company. The cost for that account is $156, payable prior to the start of the program.

This program is approved by the Iowa Board of Nursing, Riverpoint Business Park, 400 SW Eighth St. Suite B, Des Moines, IA 50309-4685, (515) 281-3255. The Associate Degree Nursing program also has been validated for participation in the Iowa Articulation Plan by the Iowa Board of Nursing.

NOTE: Students completing any course with a prefix of ADN, BIO and PNN must receive a "C" or higher to progress to the next term of classes. If needed, students may retake these courses once to receive a satisfactory grade and remain eligible for the program. PSY 111 Introduction to Psychology must be taken before enrolling in Term III of the student’s first year.
Program Learning Outcomes

1. Demonstrate knowledge, comprehension, and application of social and scientific principles in the analysis and synthesis of data as a health care provider in a variety of health care settings.
2. Utilize the nursing process in the provision of nursing care to meet the complex health care needs of culturally diverse clients in order to promote, restore, maintain or support self-care status across the lifespan.
3. Collaborate with health care providers to manage client care using appropriate institutional and community resources.
4. Communicate therapeutically with clients, families and health care team members.
5. Adhere to the ethical and legal principles in relation to standards of practice.
6. Implement strategies for organization, prioritization, delegation, and assignment of nursing care in the management of multiple clients.
7. Demonstrate accountability for professional behavior, development and growth.

Program Total: 83 Credits

Term I

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- PNN 108 - Beginning Principles of Nursing - Credits: 2.00
- PNN 265 - Nutrition - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00

Total: 12 Credits

Term II

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- PNN 148 - Nursing Essentials II - Credits: 2.00
- PNN 231 - Pharmacology - Credits: 3.00
- PNN 501 - Nursing of Adults I - Credits: 3.00
- PNN 725 - Clinical Experience I - Credits: 2.00

Total: 14 Credits

Term III

- CSC 105 - Computer Essentials - Credits: 1.00
- PNN 401 - Mental Health Nursing I - Credits: 1.00
- PNN 431 - Maternal Child Nursing I - Credits: 2.00
- PNN 714 - Nursing Clinical II - Credits: 2.00
- PSY 121 - Developmental Psychology - Credits: 3.00

Total: 9 Credits

Term IV

- ENG 105 - Composition I - Credits: 3.00
- PNN 311 - PN Issues and Trends - Credits: 1.00
- PNN 331 - Nursing Seminar I - Credits: 1.00
- PNN 504 - Nursing of Adults II - Credits: 3.00
- PNN 717 - Nursing Clinical III - Credits: 2.00
Total: 10 Credits

Term V

- ADN 142 - Advanced Nursing Concepts - Credits: 2.00
- ADN 231 - Advanced Pharmacology - Credits: 2.00
- ADN 578 - Assessment and Pathophysiology - Credits: 3.00
- ADN 711 - Nursing Clinical IV - Credits: 2.00

Total: 9 Credits

Term VI

- ADN 421 - Maternal Child Nursing II - Credits: 3.00
- ADN 714 - Nursing Clinical V - Credits: 2.00
- BIO 187 - Microbiology w/lab - Credits: 4.00

Total: 9 Credits

Term VII

- ADN 492 - Advanced Mental Health Nursing - Credits: 2.00
- ADN 717 - Nursing Clinical VI - Credits: 2.00
- SPC 112 - Public Speaking - Credits: 3.00
  OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
- MAT 120 - College Algebra - Credits: 3.00
  OR
- MAT 156 - Statistics - Credits: 3.00

Total: 10 Credits

Term VIII

- ADN 311 - RN Issues and Trends - Credits: 1.00
- ADN 579 - Management of Patients With Complex Health Conditions - Credits: 3.00
- ADN 720 - Nursing Clinical VII - Credits: 2.00
- ADN 841 - Nursing Seminar II - Credits: 1.00
- SOC 110 - Introduction to Sociology - Credits: 3.00

Total: 10 Credits

Dual Major Option

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses. For A.A. degree required course options, see General Education Course Requirements (A.A., A.S.)

- Composition II - Credits: 3.00
- Literature - Credits: 3.00
- Humanities or Fine Arts Electives - Credits: 5.00
- U.S. History or Western Civilization - Credits: 3.00
- How to Be Successful in College - Credits: 2.00
Practical Nursing, Diploma

Offered at Main and Centerville Campuses

The full-time Practical Nursing program is a 12-month (four-term) program that begins in the Summer term on both the Ottumwa and Centerville Campuses and in the Winter term on the Ottumwa Campus. Courses and clinical experiences will be offered in a Monday through Thursday format. This program is designed to prepare the student to function as a practical nurse in a variety of health care settings. Practical nurses are responsible for providing nursing care to stable patients under the direct supervision of a registered nurse. Classes are scheduled on two days each week at the Ottumwa or Centerville Campus. Required clinical experiences are offered two days each week at area hospitals and long term care facilities.

To be considered for admission to the Practical Nursing program, prospective students must: 1) complete an application; 2) submit a high school transcript or High School Equivalency Diploma scores and college transcripts; and 3) take one of the following tests: ACT, SAT, ACCUPLACER. 4) take the ATI TEAS examination; and 5) submit an active Iowa Direct Care Worker Registry card.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to beginning any clinical courses. We use Castle Branch for our background check, drug screen, and clinical requirement tracking company. The cost for that account is $156, payable prior to the start of the program.

Graduates receive a diploma in Practical Nursing upon successful completion of this program and are eligible to take the National Council Licensure Examination for Practical Nurses.

The Practical Nursing program is approved by the Iowa Board of Nursing, Riverpoint Business Park, 400 SW Eighth Street, Suite B, Des Moines, IA 50309-4685, (515) 281-3255.

NOTE: Students completing any course with a prefix of ADN, BIO and PNN must receive a "C" or higher to progress to the next term of classes. If needed, students may retake these courses once to receive a satisfactory grade and remain eligible for the program. PSY 111 Introduction to Psychology must be taken before enrolling in Term III of the student’s first year.

Program Learning Outcomes
1. Provide basic nursing care under supervision to promote, maintain, or restore self-care status.
2. Possess knowledge from the physiological, psychological and social sciences that provides a foundation for the provision of holistic client care.
3. Utilize the nursing process to provide nursing theory-based client care.
4. Possess effective oral and written communication skills.
5. Engage in therapeutic communication with clients and families.
6. Know the ethical and legal parameters of his/her scope of practice and operate within these parameters.
7. Recognize the need for continuing education to maintain competency.

Program Total: 45 Credits

Term I

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- PNN 265 - Nutrition - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- PNN 108 - Beginning Principles of Nursing - Credits: 2.00

Total: 12 Credits

Term II

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
• PNN 148 - Nursing Essentials II - Credits: 2.00
• PNN 231 - Pharmacology - Credits: 3.00
• PNN 501 - Nursing of Adults I - Credits: 3.00
• PNN 725 - Clinical Experience I - Credits: 2.00

Total: 14 Credits

Term III

• CSC 105 - Computer Essentials - Credits: 1.00
• PNN 401 - Mental Health Nursing I - Credits: 1.00
• PNN 431 - Maternal Child Nursing I - Credits: 2.00
• PNN 714 - Nursing Clinical II - Credits: 2.00
• PSY 121 - Developmental Psychology - Credits: 3.00

Total: 9 Credits

Term IV

• ENG 105 - Composition I - Credits: 3.00
• PNN 311 - PN Issues and Trends - Credits: 1.00
• PNN 331 - Nursing Seminar I - Credits: 1.00
• PNN 504 - Nursing of Adults II - Credits: 3.00
• PNN 717 - Nursing Clinical III - Credits: 2.00

Total: 10 Credits

Other Health Sciences Programs

Indian Hills offers a variety of other programs to complete its comprehensive group of Health Sciences instructional programs. These programs prepare students for entry-level positions in the healthcare industry.

Graduates of these programs are awarded Associate of Applied Science degrees or diplomas.

Computed Tomography, Certificate

To provide a program of computed tomography for registered radiologic technologists that builds on previous educational experiences and affords the student the opportunity to acquire attitudes, knowledge and skills necessary to become effective members of the health care team and serve the health needs of society.

This is an Advanced Standing certificate program for a Registered Radiologic Technologist or a graduate from an accredited radiography program that completes their boards within the first term of the CT Certificate Program.

Program Learning Outcomes
1. Identify cross-sectional anatomy in the head and the neck.
2. Describe the relationship of the head and neck structures to its surrounding structures.
3. Evaluate pathology in the head and neck.
4. Identify cross-sectional anatomy in the thorax.
5. Describe the relationship of the thorax structures to its surrounding structures.
6. Evaluate pathology in the thorax.
7. Identify cross-sectional anatomy in the abdomen and pelvis.
8. Describe the relationship of the abdomen and pelvis structures to its surrounding structures.
9. Evaluate pathology in the abdomen and pelvis.
10. Identify cross-sectional anatomy in the upper and lower extremities, including joints.
11. Describe the relationship of the upper and lower extremities structures to its surrounding structures.
12. Evaluate pathology in the upper and lower extremities, including joints.

Program Total: 10 Credits

Term I

- RAD 900 - RT Sectional - Credits: 3.00
- RAD 905 - CT Procedures for RTs - Credits: 3.00
- RAD 910 - CT Clinical I-A - Credits: 7.00

Total: 6 Credits

Term II

- RAD 920 - CT Patient Care and Safety - Credits: 1.00
- RAD 925 - CT Principles and Instrumentation - Credits: 3.00
- RAD 915 - CT Clinical I-B - Credits: 12.00

Total: 4 Credits

Dental Assisting, Diploma

Offered at Main Campus

The Dental Assisting program is a 12-month (four-term) program designed to prepare individuals to assist the dentist with patient care, expose and process dental radiographs, prepare procedural setups for dental treatment, maintain infection control and hazardous waste protocols and perform office administrative functions. Students meeting all program and graduation requirements will earn an IHCC diploma.

The program in Dental Assisting is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is: http://www.ada.org/en/coda.

Dental Assistants who meet the eligibility and exam requirements can sit for the Dental Assisting National Board Examination and earn the credential of "Certified Dental Assistant" (CDA). State examination and registration with the Iowa Dental Board are required to practice in the State of Iowa and are separate from the DANB. The state requirements for "Registered Dental Assistant" (RDA) are structured within the program.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. This program begins in the Fall term of each year.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to beginning the program.

Program Learning Outcomes

1. Students will demonstrate professionalism, scientific and clinical knowledge and skills necessary to function as an entry level dental assistant.
2. Students will use critical thinking/problem solving skills in the classroom and clinical settings.
3. Students will communicate effectively with dentists, staff and patients in a professional manner.
4. Students will participate in activities to maintain professional growth and development.

Program Total: 45.5 Credits
Term I
- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- DEA 256 - Dental Anatomy - Credits: 2.00
- DEA 293 - Microbiology and Infection Control for the Dental Assistant - Credits: 2.00
- DEA 517 - Dental Assisting I - Credits: 3.5
- HSC 113 - Medical Terminology - Credits: 2.00

Total: 14.5 Credits

Term II
- DEA 268 - Pharmacology and Emergency Procedures for Dental Assisting - Credits: 2.00
- DEA 312 - Dental Radiography - Credits: 3.00
- DEA 403 - Dental Materials - Credits: 3.00
- DEA 518 - Dental Assisting II - Credits: 1.50

Total: 9.5 Credits

Term III
- DEA 211 - Nutrition for Dental Assistants - Credits: 1.00
- DEA 321 - Dental Radiography II - Credits: 2.00
- DEA 519 - Dental Assisting III - Credits: 1.50
- DEA 573 - Assisting Clinical I - Credits: 4.00
- DEA 702 - Dental Office Procedures - Credits: 2.00

Total: 10.5 Credits

Term IV
- DEA 574 - Assisting Clinical II - Credits: 4.00
- DEA 592 - Seminar for Dental Assisting - Credits: 1.00
- DEA 603 - Dental Specialties - Credits: 2.00
- HSC 230 - Employment Preparation - Credits: 1.00
- SPC 122 - Interpersonal Communication - Credits: 3.00

Total: 11 Credits

Dental Hygiene, A.A.S.

Offered at Main Campus

The Dental Hygiene program is a 24-month (eight term) program that prepares the student to be an oral health professional. The curriculum is comprised of Dental Hygiene and general education courses as required by the Commission on Dental Accreditation. The Dental Hygiene program contains didactic, laboratory and clinical experiences.

The program in Dental Hygiene is accredited by the Commission on Dental Accreditation (CODA). The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is: http://www.ada.org/prof/ed/programs/search_index.asp.
Graduates will become employed in private dentist's offices, public health agencies, community health offices, hospitals and schools. Upon successful completion, students are awarded Associate of Applied Science degrees in Dental Hygiene. Graduates of the program will be eligible to sit for the National Board Dental Hygiene (NBDHE) and clinical board exam CRDTS.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. This program will begin in the Fall term of each year.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to beginning the program.

**Note:** Indian Hills Community College would like to inform all students that may enter the dental hygiene program, that they will have exposure to infectious diseases. However, infection control procedures are mandated to prevent the contamination and spread of diseases.

**Program Learning Outcomes**
1. Systematically collect, analyze and record data on the general, oral and psychological health status of a variety of clients using methods consistent with medicolegal principles.
2. Use critical decision making skills to reach conclusions about the client's dental hygiene needs based on all available assessment data.
3. Collaborate with the client, and/or other health professions to formulate a comprehensive dental hygiene care plan that is client centered and based on current scientific evidence.
4. Provide care to all clients using an individualized approach that is humane, empathetic, and caring.
5. Provide screening, referral, and educational services that allow clients to access the resources of the health care system.
6. Provide community oral health services in a variety of settings.
7. Provide specialized treatment that includes preventive and therapeutic services designed to achieve and maintain oral health.
8. Evaluate the effectiveness of the implemented clinical, preventive, and educational services and modify as needed.
9. Evaluate and utilize methods to ensure the health and safety of the client and dental hygienist in the delivery of dental hygiene services.
10. Respect the goals, values, beliefs, and preferences of the patient while promoting optimal oral and general health.
11. Respect the goals, values, beliefs and preferences of the patient while promoting optimal oral and general health.
12. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.

**Program Total: 86 Credits**

**Term I**
- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- DEA 256 - Dental Anatomy - Credits: 2.00
- ENG 105 - Composition I - Credits: 3.00
- XXX XXX General Education: Mathematics - Credits 3.00

**Total: 12 Credits**

**Term II**
- CHM 121 - Introduction to General Chemistry - Credits: 3.00
- DEA 312 - Dental Radiography - Credits: 3.00
- DEA 403 - Dental Materials - Credits: 3.00

**Total: 9 Credits**

**Term III**
- BIO 187 - Microbiology w/lab - Credits: 4.00
- CHM 132 - Introduction to Organic and Biochemistry - Credits: 4.00
- CSC 105 - Computer Essentials - Credits: 1.00
- DEA 321 - Dental Radiography II - Credits: 2.00

Total: **11 Credits**

**Term IV**

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- SOC 110 - Introduction to Sociology - Credits: 3.00

Total: **10 Credits**

**Term V**

- DHY 117 - Advanced Dental Anatomy - Credits: 2.00
- DHY 165 - Advanced Dental Radiography - Credits: 2.00
- DHY 176 - Clinical Procedures - Credits: 3.00
- DHY 235 - Nutrition for Dental Hygiene - Credits: 2.00

Total: **9 Credits**

**Term VI**

- DHY 123 - Oral Histology and Embryology - Credits: 2.00
- DHY 143 - Oral Pathology - Credits: 2.00
- DHY 154 - Dental Emergency Management - Credits: 1.00
- DHY 185 - Advanced Clinical Procedures - Credits: 3.00
- DHY 229 - Dental Preventative Health - Credits: 2.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00
  OR
- SPC 122 - Interpersonal Communication - Credits: 3.00
- DHY 263 - Intro to Dental Hygiene Practicum - Credits: 1.00

Total: **14 Credits**

**Term VII**

- DHY 135 - Pharmacology and Pain Control - Credits: 3.00
- DHY 208 - Periodontology - Credits: 2.00
- DHY 245 - Ethics and Jurisprudence - Credits: 2.00
- DHY 300 - Dental Hygiene Practicum - Credits: 5.50

Total: **12.5 Credits**
Term VIII

- DHY 258 - Community Health Concepts - Credits: 2.00
- DHY 315 - Seminar for Dental Hygiene - Credits: 1.00
- DHY 320 - Advanced Dental Hygiene Practicum - Credits: 5.50

Total: 8.5 Credits

Occupational Therapy Assistant, A.A.S.

Offered at Main Campus

The Occupational Therapy Assistant Program is a 21-month (seven-term) program that prepares the student to become an Occupational Therapy Assistant (OTA). The occupational therapy assistant works with, and under the supervision of an occupational therapist, to improve and support functional performance in daily activities. OTAs, within their scope of practice, assist with the process of client evaluation, goal setting, implementation of care and documentation of occupational therapy services. Upon completion of the program, the associate degree graduate will be educationally-prepared to provide service throughout the lifespan to individuals who have difficulties due to developmental, physical, cognitive and emotional impairments.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT, or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. Following acceptance, applicants are required to complete a minimum of 10 hours of observation in more than one clinical site and a written paper about Occupational Therapy. Accepted students must attend the mandatory orientations. This program may be entered only at the beginning of the Fall term. Students meeting all program and graduation requirements receive an Associate of Applied Science degree and are eligible to take the certification examination given by the National Board for Certification in Occupational Therapy (NBCOT) to become a certified occupational therapy assistant (COTA). Licensure for occupational therapy assistants is required in most states, including Iowa.

Criminal background, drug screening, and dependent adult and child abuse record checks are required prior to the clinical courses.

This program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE’s telephone number is (301) 652-AOTA and their website is www.acoteonline.org. Graduates are eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT), www.nbcot.org. After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). In addition, most states require licensure in order to practice; and 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.

Program Learning Outcomes

1. Demonstrate growth in personal & professional behaviors through ongoing self-assessment and personal development plans which promote integrity, relationships, teamwork, and investigate life-long learning.
2. Demonstrate preparation to provide quality services in a variety of practice environments to promote regional economic advancement through traditional and innovative intervention for our communities.
3. Demonstrate ability to deliver OTA services @ entry level competency under the supervision of an occupational therapist.
4. Recognize importance of and demonstrate the ability to effectively use occupations identified by the client/group/population for intervention development, therapeutic interventions, health promotions and disease prevention in the client context (culture, inclusion, tradition, and acceptance).
5. Evaluate positive and adverse effects on occupational performance throughout the lifespan, and demonstrates the ability to explore and use community resources to promote the occupational function of clients in least-restrictive environment (acceptance, inclusion, & accessibility).
6. Demonstrate the values, attitudes, and behaviors congruent with occupational therapy profession's philosophy, standards and ethics.
7. Recognize the importance of evidence in professional practice, and consistently seeks to improve therapeutic skills through professional development activities (inspiring learning, academic excellence, and student success)
8. Appreciate and adapt to diverse and alternative cultures, processes, and ideas.

Program Total: 80 Credits

Term I

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- OTA 106 - Trends in OTA - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00

Total: 13 Credits

Term II

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- ENG 105 - Composition I - Credits: 3.00
- OTA 121 - Principles of OT - Credits: 4.00
- PSY 121 - Developmental Psychology - Credits: 3.00

Total: 14 Credits

Term III

- OTA 131 - Pediatric Practice for the OTA - Credits: 4.00
- OTA 141 - Therapeutic Media in OT - Credits: 3.00
- OTA 212 - Functional Kinesiology - Credits: 3.00
- OTA 801 - OTA Level IA Fieldwork - Credits: 1.00

Total: 11 Credits

Term IV

- HSC 212 - Pathophysiology - Credits: 3.00
- OTA 151 - Adult Physical Disability Practice for the OTA - Credits: 4.00
- OTA 161 - Traditional and Emerging Practice in OT - Credits: 2.00
- OTA 811 - OTA Level IB Fieldwork - Credits: 1.00
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 112 - Public Speaking - Credits: 3.00
  OR
- SPC 122 - Interpersonal Communication - Credits: 3.00

Total: 13 Credits

Term V

- HSC 226 - Health Society and Aging - Credits: 3.00
OTA 171 - Psychosocial Practice for the OTA - Credits: 3.00  
OTA 821 - OTA Level IC Fieldwork - Credits: 1.00  
SOC 110 - Introduction to Sociology - Credits: 3.00  
GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 13 Credits

**Term VI**

- OTA 210 - Professional Issues in OT - Credits: 2.00  
- OTA 831 - OTA Level IIA Fieldwork - Credits: 6.00

Total: 8 Credits

**Term VII**

- OTA 220 - Clinical Reasoning for OTA - Credits: 2.00  
- OTA 841 - OTA Level IIB Fieldwork - Credits: 6.00

Total: 8 Credits

**Dual Credit Option**

Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses. The Math elective should be MAT 110 or higher.

- Composition II - Credits: 3.00  
- Public Speaking or Fundamentals of Oral Communication - Credits: 3.00  
- Literature - Credits: 3.00  
- Humanities & Fine Arts - Credits: 5.00  
- U.S. History or Western Civilization - Credits: 3.00  
- How to be Successful in College - Credits: 3.00

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

**Physical Therapist Assistant, A.A.S.**

Offered at Main Campus

This 21-month (seven-term) program prepares the student to be a Physical Therapist Assistant (PTA). The PTA is a health care worker who assists the Physical Therapist. PTAs administer treatments to patients working under the supervision of and as an assistant to a physical therapist. Treatments may include administering active and passive manual exercises and modalities such as massage, heat, light, ultrasound and electrical stimulation to patients with relatively stable conditions. Other duties include assisting patients in improving their function, collecting data on patient progress and documenting treatment.

To apply, complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT, or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. Following acceptance, applicants are required to complete 40 hours of observation in a clinical site. Accepted students must attend the required mandatory orientations. This program may be entered only at the beginning of the Fall term. Students meeting all program and graduation requirements receive an Associate of Applied Science degree, and are eligible to take the National Physical Therapist Assistant Examination.

Criminal background, drug screening, CPR & First aid, physical examination with documentation of immunizations and dependent adult and child abuse record checks are required prior to the clinical courses.
The Physical Therapist Assistant (PTA) Program at Indian Hills Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: http://www.capteonline.org.

Program Learning Outcomes

1. Communicate verbally and nonverbally with the patient, the Physical Therapist, health care delivery personnel and others in an effective, appropriate and capable manner.
2. Demonstrate sensitivity to individual and cultural differences in all aspects of physical therapy services.
3. Exhibit conduct that reflects a commitment to meet or exceed the expectations of members of society receiving health care services and of the profession of physical therapy.
4. Demonstrate problem solving and judgment skills such that they are able to provide safe, efficient and effective physical therapy interventions under the supervision of a physical therapist.
5. Provide effective education to others regarding physical therapy and physical therapy services.
6. Demonstrate competence in performing delegated data-collection techniques necessary for performance of patient interventions in a safe, effective, efficient manner.
7. Implement the plan of care written for an individual patient such that goals and outcomes are achieved and discharge planning is performed.
8. Complete thorough, accurate, logical, concise, timely and legible documentation that follows guidelines and specific documentation formats required by state practice acts, the practice setting and other regulatory agencies.
9. Provide services only under the appropriate supervision of a physical therapist.
10. Participate in the administration, organizational planning and operation of the physical therapy services.
11. Demonstrate social responsibility, citizenship, and advocacy, including participation in community and service organizations and activities.
12. Participate in career development based on self-assessment, performance appraisals, work setting and special interest.

Program Total: 82.5 Credits

Term I

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- CSC 105 - Computer Essentials - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- PTA 109 - PTA Trends - Credits: 2.50
- PTA 111 - PTA Fundamentals - Credits: 4.00

Total: 13.5 Credits

Term II

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- PTA 118 - Functional Human Anatomy - Credits: 4.00
- PTA 310 - PTA Clinical I - Credits: 1.00
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 12 Credits

Term III

- ENG 105 - Composition I - Credits: 3.00
- PSY 111 - Introduction to Psychology - Credits: 3.00
- PTA 121 - PTA Kinesiology - Credits: 3.00
- PTA 191 - PTA Modalities - Credits: 4.00
Term IV
- PSY 121 - Developmental Psychology - Credits: 3.00
- PTA 202 - Cardiopulmonary and Integumentary Rehab - Credits: 2.00
- PTA 203 - PTA Therapeutic Exercise - Credits: 2.00
- PTA 311 - PTA Clinical II - Credits: 1.00
- SPC 112 - Public Speaking - Credits: 3.00
  OR
- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00
  OR
- SPC 122 - Interpersonal Communication - Credits: 3.00
- GEH XXX - General Education: Humanities - Credits: 2.00*

Total: 13 Credits

Term V
- HSC 141 - Pharmaceutical Applications - Credits: 1.00
- HSC 226 - Health Society and Aging - Credits: 3.00
- PTA 410 - PTA Clinical III - Credits: 2.00
- PTA 216 - PTA Orthopedics - Credits: 4.00

Total: 10 Credits

Term VI
- ENG 106 - Composition II - Credits: 3.00
- HSC 212 - Pathophysiology - Credits: 3.00
- PTA 248 - PTA Neurology - Credits: 4.00
- PTA 252 - Professional Issues - Credits: 3.00

Total: 13 Credits

Term VII
- PTA 290 - PTA Capstone - Credits: 3.00
- PTA 416 - Clinical Experience IV - Credits: 5.00

Total: 8 Credits

Dual Major Option
Students who wish to complete an Associate of Arts degree along with this program can do so by taking these additional courses.

The Cultural electives should be one three-credit Literature course and a three-credit Humanities or Fine Arts course. The Math elective should be Mat 110 or higher and the Speech elective should be SPC 112 or SPC 101.

- Humanities and/or Fine Arts elective - Credits: 2.00
- U.S. History or Western Civilization - Credits: 3.00
- Distributed Core Electives - Credits: 4.00
- General Electives - Credits: 3.00
- How to be Successful in College - Credits: 3.00
* Refer to General Education Course Requirements (A.A.S.) for approved courses.

**Radiologic Technology, A.A.S.**

Offered at Main Campus

The Radiologic Technology program is a two-year (eight-term) comprehensive program consisting of general studies, radiologic courses and clinical experiences. The classroom courses are taught at the IHCC Ottumwa campus and clinical experience is obtained at various approved clinical sites. The second year of the program is offered in an online/hybrid format, allowing greater schedule flexibility as the student participates in the advanced clinical setting. More than 60 percent of the student's education will be provided in hospital or clinic radiology departments to assure hands-on experience. Activities include producing diagnostic radiographs, assisting physicians with procedures and providing physical and emotional care for patients.

Prospective students must complete an IHCC application and submit high school transcripts or High School Equivalency Diploma scores and take one of the following: ACT, SAT or ACCUPLACER test. Testing may be scheduled by calling the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, ext. 5142. This program may be entered only at the beginning of the Fall term.

Criminal background, drug screening, dependent adult and child abuse record checks and American Heart BLS for Healthcare Provider CPR are required prior to beginning any clinical courses.

Upon successful completion of all program and graduation requirements, the student will receive an Associate of Applied Science degree and will be eligible to take the American Registry of Radiologic Technology Examination. This program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive Suite 2850, Chicago, IL 60606-3182, (312) 704-5300.

**Program Learning Outcomes**

1. Students will demonstrate clinical competence as a radiologic technologist.
2. Students will demonstrate communication skills.
3. Students will possess critical thinking and problem solving skills.
4. Students will demonstrate professionalism.

**Program Total: 80 Credits**

**Term I**

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- HSC 113 - Medical Terminology - Credits: 2.00
- RAD 108 - Radiology and Medical Imaging - Credits: 2.50
- RAD 125 - RT Position I - Credits: 2.00
- RAD 126 - Position and Film Critique Lab I - Credits: 1.50

Total: 12 Credits

**Term II**

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00
- ENG 105 - Composition I - Credits: 3.00
- RAD 127 - RT Positioning II - Credits: 2.00
- RAD 128 - Positioning and Film Critique Lab II - Credits: 1.00
- RAD 205 - RT Clinical I - Credits: 2.00
- RAD 325 - RT Imaging I - Credits: 3.00
Total: 15 Credits

Term III

- PSY 111 - Introduction to Psychology - Credits: 3.00
- RAD 129 - RT Positioning III - Credits: 2.00
- RAD 130 - Positioning and Film Critique Lab III - Credits: 1.00
- RAD 225 - RT Clinical II - Credits: 2.00
- RAD 335 - RT Imaging II - Credits: 1.50
- GEM XXX - General Education: Mathematics - Credits: 3.00*

Total: 9.5 Credits

Term IV

- RAD 131 - RT Positioning IV - Credits: 2.00
- RAD 132 - Positioning and Film Critique Lab IV - Credits: 1.50
- RAD 265 - RT Clinical III - Credits: 3.50
- RAD 875 - Diagnostic Imaging Protection - Credits: 1.50

Total: 8.5 Credits

Term V

- RAD 525 - RT Clinical IV - Credits: 3.50
- RAD 785 - Radiographic Legal and Ethical Aspects - Credits: 1.50
- RAD 816 - Physics in Medical Imaging I - Credits: 1.00
- RAD 885 - RT Biology - Credits: 1.00
- GEH XXX - General Education: Humanities - Credits 3.00* OR
  GEB XXX - General Education: Behavioral/Social Science Credits 3.00*

Total: 10 Credits

Term VI

- CSC 105 - Computer Essentials - Credits: 1.00
- RAD 545 - RT Clinical V - Credits: 3.50
- RAD 738 - Radiologic Pathology - Credits: 2.00
- RAD 826 - Physics in Medical Imaging II - Credits: 1.50

Total: 8 Credits

Term VII

- RAD 133 - Advanced Radiographic Procedures - Credits: 2.00
- RAD 595 - RT Clinical VI - Credits: 3.50
- RAD 715 - Digital Imaging - Credits: 3.00

Total: 8.5 Credits

Term VIII

- RAD 635 - RT Clinical VII - Credits: 3.50
• RAD 685 - RT Seminar - Credits: 5.00

Total: 8.5 Credits

Notes:

* Refer to General Education Course Requirements (A.A.S.) for approved courses.

*Optional Courses

• RAD 886 - Introduction to Mammography - Credits: 2.00
• RAD 887 - Introduction to CT - Credits: 2.00
• RAD 888 - Introduction to MRI - Credits: 2.00

Surgical Technology, Diploma

Offered at Main Campus

The Surgical Technology program is offered at Indian Hills Community College through a distance education agreement with Kirkwood Community College, Cedar Rapids, Iowa. Students take the Surgical Technology courses on the Iowa Communications Network (ICN) in Ottumwa and the Arts and Sciences courses are taken at IHCC. Labs are provided at Ottumwa Regional Hospital and clinic sites are assigned in eastern/central Iowa, etc. This 12-month program, which begins each fall, prepares students to provide care to patients during surgery and assist the surgical team in the operating room. Upon successful completion of the program, graduates are awarded a diploma in Surgical Technology from Kirkwood Community College. An additional sequence of Arts and Sciences courses taken during the second year will allow the student to earn an Associate of Applied Science degree. This option provides students with a range of professional opportunities throughout their career. Diploma and AAS graduates are eligible to take the national certification exam for surgical technologists.

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings. The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room or environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

To apply to the Surgical Technology program students must: 1) complete a Kirkwood College Application (online at www.kirkwood.edu); 2) complete an IHCC application to take the Arts and Sciences courses; 3) send high school transcripts or High School Equivalency Diploma scores, plus any additional transcripts, to Kirkwood Community College and Indian Hills Community College; 4) take the ACT or ACCUPLACER test. This may be arranged through the IHCC Testing Center at (641) 683-5142 or (800) 726-2585, extension 5142; and 5) attend a scheduled Program Conference; 6) complete the prerequisite courses Human Anatomy, Human Anatomy Lab, and Medical Terminology. All of these requirements must be met prior to acceptance. Students are admitted on a first-come-first-serve basis. Notification of acceptance will be sent from Kirkwood Community College.

This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the American College of Surgeons (ACS) and the Association of Surgical Technologists (AST) based on the recommendations of the Accreditation Review Committee on Education in Surgical Technology and Surgical Assisting (ARC-STSA). CAAHEP may be contacted at 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, or (712) 210-2350 or www.caahep.org. ARC-STSA can be contacted at 6 West Dry Creek Circle, Suite 110, Littleton, CO 80120 or www.arcst.org.

Criminal background, health physical, current immunizations, health insurance, mandatory reporting, HIPAA, OSHA, drug screening, dependent adult and child abuse record checks, and additional compliance items are required prior to beginning any clinical courses.

Program Total: 47.5 Credits
Prerequisites (IHCC)

- BIO 175 - Human Anatomy - Credits: 3.00
- BIO 176 - Human Anatomy Lab - Credits: 1.00
- HSC 115 - Medical Terminology - Credits: 4.00
  OR
- HSC 113 - Medical Terminology - Credits: 2.00

Total: 8 Credits

Fall Semester (Kirkwood)

- HSC 107 - Professionals in Health - Credits: 2.00
- SUR 126 - Surgical Technology I - Credits: 4.50
- SUR 128 - Surgical Technology I Lab - Credits: 2.00
- SUR 182 - Microbiology for Surg. Techs - Credits: 1.00

Total: 9.5 Credits

Fall Term (IHCC)

- BIO 178 - Human Physiology - Credits: 3.00
- BIO 179 - Human Physiology Lab - Credits: 1.00

*Total: 13.5 Credits

*Fall Semester (Kirkwood) and Fall Term (Indian Hills) are taken simultaneously so the student is taking a total of 16.5 credits.

Winter Term (IHCC)

- SPC 101 - Fundamentals of Oral Communication - Credits: 3.00

Total: 3 Credits

Spring Semester (Kirkwood)

- SUR 322 - Surgical Technology II - Credits 3.00
- SUR 323 - Surgical Technology II Lab - Credits 1.00
- SUR 340 - Surgical Specialties I - Credits 1.00
- SUR 420 - Surgical Technology Pharmacology - Credits 2.00
- SUR 440 - Biomedical Science for Surgical Technology - Credits 2.00

Total: 9 Credits

Summer Semester (Kirkwood)

- SUR 520 - Surgical Technology Practicum I - Credits: 2.00
- SUR 341 - Surgical Specialties II - Credits: 3.00
- SUR 523 - Surgical Technology Practicum II - Credits: 9.00

Total: 14 Credits
Surgical Technology AAS Degree

- Communication Elective - Credits 3.00
- MGT 101 - Introduction to Management-Credits 3.00
- PSY 111 - Introduction to Psychology-Credits 3.00
- GEH XXX - Humanities Elective - Credits: 3.00
- Electives - Credits: 5.00
- Homeostatic Physiology - Credits: 3

Total: 20 Credits

Health Sciences-Related Programs

Health Sciences Related Programs

Customized Programs

Customized training can be developed for a variety of health care-related fields. Call the Rural Health Education Partnership office at (641) 683-5337 or (800) 726-2585, ext. 5337, to arrange individualized, customized courses/programs.

Short-Term Preparatory Certificate

Short-Term Preparatory Certificate programs offered at Indian Hills Community College are designed to prepare a student for employment in an entry-level health care position or expand the role of the health care provider. Courses are available at regularly scheduled intervals during the calendar year. To enroll in the courses or obtain additional information about the programs, contact the Health Sciences Division at (641) 683-5281 or (800) 726-2585, ext. 5281.

Short-Term Nursing and Related Programs

Activity Coordinator

The activity coordinator program prepares the student to develop, organize and coordinate available facility and community resources to provide ongoing activities for residents in health care facilities. The 75-hour course is comprised of lecture and activity design/preparation. This program meets the requirements of the state-approved curriculum. A certificate is awarded upon successful completion.

Credit Hours: 3

LPN Expanded IV Therapy

The Expanded IV Therapy program prepares the licensed practical nurse to perform procedures related to the expanded scope of intravenous therapy in health care facilities as identified in 655 IAC 6.5(3). This 45-hour course meets the requirements of the state-mandated curriculum. The course has a combination of classroom, laboratory and clinical experiences. A certificate is awarded upon successful completion of the course. The student must be a Licensed Practical Nurse in Iowa with an unrestricted license and the equivalent of one year full-time work experience.

Credit Hours: 2.5
LPN Supervision

The LPN Supervision program provides the licensed practical nurse with the knowledge and skills required to successfully manage resident care and personnel in the health care facility. This 42-hour course meets the requirements of the state-mandated curriculum as approved by the Iowa Board of Nursing through the Iowa Administrative Code. The student must be a Licensed Practical Nurse in Iowa.

Credit Hours: 1.5

Medication Aide

This course prepares the Certified Nurse Aide employed in a nursing facility, residential or living facility, to safely administer non-parenteral medications under direct supervision of a registered nurse. This 65-hour course is comprised of 45 hours of lecture and 20 hours of clinical experience in a long-term care facility. This program meets the requirements of the state-approved curriculum. A certificate is awarded upon successful completion of the course. To be eligible for this program, the student must be a certified nurse aide (CNA) on the state registry or a resident assistant (RA). The facility employing the student must write a letter of sponsorship. The CNA/RA must be employed by the sponsoring facility for six (6) months or longer.

Credit Hours: 2.5

Medication Manager

The Medication Manager program prepares the student to administer eye, ear, oral or topical medications to individuals in facilities housing 15 or fewer residents. This 15-hour course is comprised of 10 hours of lecture and five hours laboratory skills and testing. A certificate is awarded upon successful completion of written and skills state-mandated testing. This course meets the requirements of the state approved curriculum.

Credit Hour: 1

LPN Supervision

The LPN Supervision program provides the licensed practical nurse with the knowledge and skills required to successfully manage resident care and personnel in the health care facility. This 45-hour course meets the requirements of the state-mandated curriculum as approved by the Iowa Board of Nursing through the Iowa Administrative Code. The student must be a Licensed Practical Nurse in Iowa with an unrestricted license and the equivalent of one year full-time work experience.

Credit Hours: 1.5

Nurse Aide (Nursing Essentials I)

This program provides the student with the knowledge, skills and attitudes to function as a Nurse's Aide in a health care facility. To qualify for employment in a long-term care facility, students must meet the requirements of this 75-hour course. This course is comprised of 30 hours of lecture, 15 hours of laboratory and 30 hours of supervised clinical experience in a long-term care facility. In addition to course requirements, the student must successfully complete the written and skills state-mandated examination. A certificate is awarded upon completion of these requirements. This course meets the requirements of the Iowa Department of Health, Inspections and Appeal Division.

Credit Hours: 3
Nurse Aide (Advanced)

This course is designed as an optional unit of instruction to follow the approved 75-hour Nurse Aide course. Course theory builds on the content introduced in the Nurse Aide course and emphasizes the knowledge, attitude and skills necessary for providing patient care in the acute setting. Prerequisite is Nursing Essentials I.

Credit Hours: 3

Rehabilitation/Restorative Aide

This program prepares the certified nurse aide (CNA) to carry out rehabilitative plans of care written by a licensed physical therapist. This 65-hour course is comprised of lecture and laboratory experiences. This program meets the requirements of the state-approved curriculum. A certificate is awarded upon successful completion of the course. To be eligible for this program, the student must be a certified nurse's aide (CNA) on the state registry. The facility employing the student must write a letter of sponsorship. The CNA must be employed by the sponsoring facility for six months or longer.

Credit Hours: 2.5

Resident Attendant

This course introduces the essential knowledge, technical skills and communication techniques to function as a resident attendant. Classroom and clinical experience will be incorporated to prepare the student to address the biopsychosocial and spiritual needs of individuals with mental illness, mental retardation/disabilities or with dual diagnosis.

Credit Hours: 3

Fire Service Outreach Programs

Fire Service Outreach Programs

Fire Service Training Programs are offered through the Health Sciences Division. The following continuing education courses are available to be scheduled for volunteer fire departments within the IHCC service area. For information concerning Fire Fighter Course options or to request fire fighter continuing education courses, call (641) 683-5337 or (800) 726-2585, ext. 5337, or email lreeves@indianhills.edu

Essentials of Fire Fighter I

Essentials of Fire Fighter I is a 84-contact hour course available only to members of Iowa volunteer fire departments. Through both classroom and hands-on instruction, this course teaches modules on fire fighter safety, fire characteristics, fire suppression techniques, equipment usage, fire prevention and public safety strategies. Certification testing is available through the Iowa Fire Service Training Bureau. Fire fighters are eligible to test following successful course completion.

Essentials of Fire Fighter II

Essentials of Fire Fighter II is a 33-contact hour course available only to members of Iowa volunteer fire departments who have completed Fire Fighter I. Through both classroom and hands-on instruction, this course teaches modules on the Incident Management System, alarms and suppression systems, building collapse, rescue and extrication, hose tools and hydrants, foam fire stream systems, ignitable liquids and gases, communication and documentation. Certification testing is available through the Iowa Fire Service Training Bureau. Fire fighters are eligible to test following successful course completion.
Driver/Operator: Pumping Operations

This program presents general principles of pump operations, along with the application of those principles wherever feasible. It will guide driver/operators in the proper operation and care of apparatus. An overview of the qualities and skills needed by a driver/operator, safe driving techniques, types of pumping apparatus, positioning apparatus to maximize efficiency and water supply, fire pump theory and operation, hydraulic calculations, water supply considerations, relay pumping principles, water shuttle procedures, foam system operation and apparatus maintenance is covered.

Specialty Certification Programs

ACLS Prep

This program is designed to prepare the participant with minimal or no previous ACLS knowledge to successfully complete an ACLS course. Included is a thorough ECG dysrhythmia review, emergency drug pharmacology, ACLS science, electrical therapy, treatment algorithms and an introduction to the ACLS team concept.

ACLS Provider & Update

This course is designed to provide the student with advanced emergency cardiovascular knowledge and skills. Treatment protocols will be based on the current American Heart Association guidelines.

PALS Provider & Update

This course is designed to provide the student with the knowledge and skills necessary to care for newborn and pediatric patients in emergency medical situations. This course is based on current American Heart Association guidelines.

PEARS Provider & Update

This course is designed for healthcare providers who less frequently see critically ill children. The course is designed to prepare the learner to initiate and manage the first few minutes of a pediatric arrest or prevent the arrest of a pediatric victim at risk of cardiopulmonary distress. Treatment protocols will be based on the current American Heart Association guidelines.

Neonatal Resuscitation

This course is designed to teach an evidence-based approach to newborn resuscitation. The causes, prevention and management of mild to severe neonatal asphyxia are explained so that health professionals may develop optimal knowledge and skill in resuscitation. This course is based on American Academy of Pediatrics and American Heart Association guidelines.

AMLS & AMLS Refresher

This course is designed to provide the student with the knowledge and skills necessary to care for patients with emergency medical conditions. The course is based on the current National Association of Emergency Medical Technician's Advanced Medical Life Support (AMLS) curriculum.

PHTLS & PHTLS Refresher

This course is designed to provide the student with the knowledge and skills necessary to care for patients in emergency trauma situations. The course is based on the current National Association of Emergency Medical Technician's PreHospital Trauma Life Support (PHTLS) curriculum.
GEMS

This course was developed by the American Geriatrics Society and the National Council of State EMS Training Coordinators, and is designed to prepare emergency medical providers to deliver state-of-the-art care to the older adult. Health care providers will be instructed on the use of the GEMS diamond to assess and manage ill, injured or disabled older adults. Physical assessment, environmental issues and social aspects affecting the older adult will be discussed.

Emergency Vehicle Operations

This course is designed to provide the student with the knowledge and skills necessary to safely operate an emergency vehicle. Driving skills and the moral, ethical and legal consequences of emergency vehicle operation will be presented.

TNCC

This course is intended for RN's who work in the Emergency Room setting (at least six months of experience is recommended). Other health care professionals may audit the course on a space available basis. The course covers nursing care of the trauma patient in the ER setting.

Mandatory Reporter Dependent Adult Abuse Course

This program meets the Iowa Code 235.B.16(5) requirements for dependent adult abuse reporting for foster parents, social workers and other healthcare providers as mandatory reporters of abuse.

Mandatory Reporter Child Abuse Course

This program meets the Iowa Code 235.B.16(5) requirements for child abuse reporting for foster parents, social workers and other healthcare providers as mandatory reporters of abuse.

AHA Training Center

Indian Hills Community College is an approved Training Center for the American Heart Association and is eligible to provide Healthcare Provider and Lay Rescuer courses.

Health Care Provider Courses

AHA First Aid

This course provides an introduction to the basic concepts of first aid. Identification and treatment of medical, environmental and injury emergencies will be discussed. This course meets the standards established by the American Heart Association.

Heartsaver Pediatric First Aid

Heartsaver Pediatric First Aid teaches management of pediatric illnesses and injuries in the first few minutes until professional help arrives. This course includes first aid basics, medical and injury emergencies and environmental emergencies. The course is designed for anyone involved in childcare who might need to respond to first aid emergencies with credentialed training.
Healthcare Basic Life Support (BLS for Healthcare Providers)

This course is designed to provide the student with the knowledge and skills necessary to provide basic life support and cardiopulmonary resuscitation (CPR) at the healthcare provider-level based upon current American Heart Association guidelines.

Lay Rescuer Courses

Heartsaver CPR with AED - Adult

This course covers the basic techniques of adult CPR and use of an AED. Students also gain experience in the use of barrier devices in CPR and give first aid for choking in the responsive victim. The four major emergencies (heart attack, stroke, cardiac arrest and foreign body airway obstruction) are discussed.

Heartsaver AED with Pediatric CPR

This course introduces the basic techniques of adult CPR and use of an AED. Pediatric CPR skills may be taught if students live or work in a setting where children are present. The use of barrier devices in CPR and the provision of first aid for choking in the responsive adult, child and infant victims are discussed. The four major emergencies (heart attack, stroke, cardiac arrest and foreign body airway obstruction) are discussed.

Heartsaver First Aid/CPR/AED

This course prepares rescuers to effectively recognize and treat adult emergencies in the critical first minutes until emergency medical services personnel arrives. A complete health and safety training solution for first aid, adult CPR and AED is presented.

Heartsaver CPR with AED - Adult/Child/Infant

This course prepares lay rescuers to recognize and treat life-threatening emergencies, including cardiac arrest and choking for adult, child and infant victims and use of an AED for adult cardiac arrest victims. The warning signs of a heart attack and stroke in adults and breathing difficulties in children are discussed.

CPR for Family and Friends

This modular course prepares lay rescuers with skills in CPR and relief of foreign body obstruction in the responsive victim. Information about the AHA adult and pediatric Chain of Survival, signs of heart attack, cardiac arrest, stroke and choking in adults is presented. Signs of choking in infants and children, prevention of the most common causes of fatal pediatric injuries and the reduction of risk of sudden infant death syndrome are addressed.

Instructor Courses

Courses are also available for Heartsaver First Aid Instructor, BLS Instructor, ACLS Instructor and PALS Instructor. For information concerning course options, registration or to schedule a course, contact Diana Harness at (641) 683-5205 or (800) 726-2585, ext. 5205, or email her at dharness@indianhills.edu.
General Education Outcomes

The general education curriculum builds a foundation of knowledge that allows for a broad understanding of life; it also defines and promotes effective communication and critical thinking skills that create for the student the basis for making learning a lifelong goal.

IHCC is committed to preparing its students for a challenging future. The Career and Technical and Health Sciences divisions at the college educate students to excel in their chosen professions while Arts and Sciences students learn the essentials necessary for them to succeed in baccalaureate programs. All students, however, take General Education courses designed to impart common knowledge, intellectual concepts and attitudes that every educated person should possess.

Though General Education requirements vary by program, all General Education courses enrich students' lives academically, professionally and personally.

General Education Categories and Goals

The General Education components of programs at Indian Hills Community College address the following:

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Communicate effectively to the intended audience</td>
</tr>
<tr>
<td>Computer/Information</td>
<td>Apply technology and information for academic, professional and/or personal purposes</td>
</tr>
<tr>
<td>Literacy</td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>Understand people, cultures, diversity, aesthetics and/or historical purposes</td>
</tr>
<tr>
<td>Mathematical Reasoning</td>
<td>Apply mathematical techniques to solve problems</td>
</tr>
<tr>
<td>Scientific Systems</td>
<td>Demonstrate scientific understanding, including knowledge of systems, methodology and application</td>
</tr>
</tbody>
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Articulation Agreements

High School Level

Aviation Maintenance Program
Students who can submit a transcript of courses from an approved Federal Aviation Administration (FAA) 147 school showing successful completion of either the airframe or power plant rating, and can produce the actual FAA mechanic’s certificate with either the airframe or power plant rating, are eligible for articulation into this program. Indian Hills will articulate the transcript subject by subject. Students will be eligible to receive up to a maximum of 30 semester hours of credit toward an Associate of Applied Science degree in the Aviation Maintenance Technology program. Students must then enroll for a minimum of three terms to obtain the other rating and qualify for graduation. For information, contact either the Indian Hills Marketing/Recruiting Office at (641) 683-5153 or the Aviation Department at (641) 683-5214. Indian Hills can be contacted toll-free at (800) 726-2585.

Statewide Articulation
A statewide agreement has been established by which students at any Iowa high school can transfer some courses to similar technical course offerings at any Iowa community college. Indian Hills participates in this agreement and will articulate these
courses into areas where like courses are offered. For additional information, students should contact their high school counselor or an Indian Hills Community College representative.

**High School Articulation Agreements**

Indian Hills Community College maintains secondary-to-postsecondary articulation agreements with all Area XV high schools and many other schools in Iowa and Missouri. These agreements are by course and are based upon mutually established competencies which include, but are not restricted to, the state-mandated minimums. These articulated courses are accepted by Indian Hills on the basis of a signed agreement which indicates the satisfactory completion of the high school level course(s) by the applicant. Indian Hills does not require acceptance testing and does not charge for the community college credits granted under these agreements.

To take advantage of these agreements, students should contact their high school counselor. All agreements must be accepted by Indian Hills Community College prior to the term in which the credits apply.

**Baccalaureate Level**

**Associate in Arts and Associate in Science Articulation**

The IHCC Arts and Sciences Division maintains transfer agreements with many public and private institutions in Iowa and the surrounding states. Articulation agreements are those made between Indian Hills and other colleges, which allow for the smooth transfer of IHCC students into four-year programs awarding the baccalaureate degree. Articulation agreements are based upon the assumption that transferring students have completed their Associate of Arts or Associate of Science degree. Students without A.A. or A.S. degrees may still transfer; however, credits at the transferring institution will be accepted on a course-by-course basis only.

An agreement with the state universities in Iowa allows students to transfer completed Associate of Arts degrees. The agreement requires that transferring students maintain a minimum grade point average of 2.0 in all courses. Students must also meet the following requirements:

1. Communications - 8 semester hours
2. Humanities - 8 semester hours
3. Math and Science - 8 semester hours
4. Social Sciences - 8 semester hours
5. Distributed electives - 8 semester hours will be taken from the above four divisions

An agreement with the state universities in Iowa allows students to transfer completed Associate of Science degrees. The agreement requires that transferring students maintain a minimum of 2.0 in all courses. Students must also meet the following requirements:

1. Communications -- 8 semester hours
2. Humanities and Social Sciences -- 8 semester hours
3. Math and Science -20 semester hours (at least one course in each)
4. Distributed electives - 4 semester hours taken from the above divisions

It is understood that where a foreign language is required, the student can meet this requirement either at IHCC or at the transfer institution. All students should work out their transfer programs as early as possible through the academic advising office.

Although all colleges will accept transfer credit from IHCC, the following colleges have committed to admitting the IHCC student with an A.A. degree at a junior-level standing:

- Bellevue University
- Buena Vista University
- Drake University
- Graceland University
- Iowa State University
- Iowa Wesleyan University
- Northwestern College
- Ottawa University
- Palmer College of Chiropractic
- Purdue University Global
- Truman State University
- University of Iowa
The following colleges have indicated they are willing to accept certain Associate of Applied Science (A.A.S.) degrees, for students who wish to transfer:

- Allen College
- Bellevue University
- Buena Vista University
- Graceland University
- Iowa Wesleyan University
- Mercy College of Health Sciences
- Saint Joseph’s College
- Southern Illinois University at Carbondale
- The College of St. Scholastica
- University of Northern Iowa
- Western Illinois University
- William Penn University

It is advised that students pursuing and A.A.S. degree work closely with the transfer admissions department of the college to which they plan to transfer.

State Authorization Reciprocity Agreement (SARA)

Indian Hills Community College is an institutional participant in the National Council for State Authorization Reciprocity Agreements (NC-SARA), a voluntary and regional method to oversee distance education. As a result of Indian Hills Community College's participation in SARA and approved by its home state of Iowa, Indian Hills Community College may offer distance education programs in SARA member states without further approval from the individual state. SARA only applies to distance education and does not cover instruction provided on-ground at any of Indian Hills Community College's campuses. www.nc-sara.org

Continuing Education & Workforce Solutions

The Continuing Education and Workforce Solutions (CEWS) Department coordinates non-credit programming at Indian Hills Community College. The department facilitates courses in a variety of areas, including: Career Supplementary, General Interest, Professional Relicensure, Short-Term Certificates, and State and Court Mandated.

In addition, customized training is offered for businesses and organizations throughout Indian Hills' 10-county region. Courses can be customized in most content areas. Call (641) 683-5249 for more details.

Enrollment/Tuition

Tuition for CEWS courses varies based on length and content. Go to http://www.indianhills.edu/cews/index.php to view the college’s most current course offerings. Persons can register for a course by calling (641) 683-5249 or online through the IHCC WebAdvisor system.

Preregistration is required for most courses. Students are encouraged to register at least one week prior to the start of the course. Courses may be cancelled if there are insufficient registrations. Refunds will be given if a student cancels a registration at least three business days prior to the start of the course. Refunds will be automatically distributed if Indian Hills cancels a course for any reason.
Career Supplementary Courses

Changing technology and best practices in business and industry require that both employers and employees upgrade their skills regularly. Indian Hills Community College offers a wide variety of short courses to meet this need.

Examples of course topics include:

- 21st Century Skills
  - Appropriate Communication
  - Critical Thinking
  - Positive Attitude
  - Working in Teams
- Blueprint and Precision Reading
- Clerical
- CNC (Computer Numerical Control)
- Computer
  - Access
  - Excel
  - Outlook
  - PowerPoint
  - QuickBooks
- Web Programming
  - Electrical Maintenance
  - Hydraulics and Fluid Power
  - Human Resources (SHRM)
  - Leadership
  - Lean
  - Management
  - Mechanical Maintenance
  - Mediation
  - OSHA Seminars
  - Small Business/Entrepreneurial
  - Social Media
  - Welding

Indian Hills also works with online content provider Ed2Go on a variety of relevant workplace topics. Go to www.ed2go.com/ihcc/ to search their online course database.

General Interest Courses

Persons are encouraged to take a course "just for fun." A variety of courses are offered to let students explore areas of interest outside of their primary career. Indian Hills also facilitates a variety of exploratory workshops for kids.

Examples of general interest topic areas include:

- Art
- Auto Maintenance
- Baking/Cake Decorating
- Computer
- Dog Training
- Exercise/Dance
- Foreign Language
- Jewelry Making
- Personal Finance
- Photography
- Quilting/Sewing
- Wine Pairing/Tasting
- Woodworking

Professional Relicensure Courses

Some professionals are required by Iowa law to complete continuing education courses in order to renew professional licenses. Indian Hills offers relicensure courses for the following professions:

- Childcare
- Cosmetology
- Electrical/Mechanical/Plumbing/Safety
- Health Professions
- Real Estate
Short-Term Certificates

Certificates that are industry recognized can be earned through Indian Hills in the following subject areas:

- Activity Coordinator
- Advanced Cardiac Life Support (ACLS)
- AWS Welding
- Certified Nurse Aide
- Certified Production Technician
- CPR/AED
- Coaching
- Financial Services
- Medication Manager
- OSHA
- Paralegal
- Pediatric Advanced Life Support (PALS)
- Serv-Safe

State- and Court-Mandated Courses

These courses are required by state law to receive certain permits or court mandated:

- Anger Management
- Children in the Middle
- Drinking Driver (DUI)
- Driver Improvement
- Motorcycle Safety
- School Bus Driver In-Service

Regional Entrepreneurship Center

The mission of the Regional Entrepreneurship Center is to have a measurable, positive impact on economic growth in the 10-county Indian Hills region by incubating start-up and early-stage companies, both in the REC and in community-based centers.

The REC provides a variety of services to start-up businesses throughout our region. These include: business training programs, assistance identifying financing, connections to college/corporate partners and networking activities, just to name a few. In the physical center, space is provided at an inexpensive rate and tenant companies have access to high speed internet, 3-phase power, and conference and training rooms. The Small Business Development Center is also housed within the REC.

Small Business Development Center

The Small Business Development Center provides confidential and free management assistance to business owners and those starting a business. The center can provide assistance on financing sources, business plan preparation, financial analysis, accounting system design, general management, marketing/sales plans and inventions/new product development. The center offers confidential, one-on-one consulting at no cost, schedules entrepreneurial and small business management training programs and assists with manufacturer buy-outs, expansions or start-ups.

IowaWORKS

The purpose of IowaWORKS is to respond to the regional economy’s need for worker preparation and help Iowans to sustain gainful employment. IowaWORKS operates the Workforce Investment Act and Promise Jobs programs. These programs offer services to individuals (youth and adults) who are experiencing difficulty securing employment as well as assistance to those who have lost their jobs due to a business closing or lay-off. Upon completion of assessment, individual need determines the support and services offered, which may include career counseling, job search assistance, vocational assessment, labor market
information, resume writing, child care assistance, transportation assistance and, in some situations, assistance with work- or school-related expenses. On-the-job training programs are offered as well as workshops and seminars for program participants, employers and school systems.

Course Descriptions

Accounting

ACC 111 - Introduction to Accounting
- Credits: 3.00
This course introduces the basic principles of accounting and the recording of simple business transactions for service and merchandising businesses as a sole proprietorship. It includes the accounting procedures of journalizing transactions, posting to the ledger, creating a trial balance and financial statements, and closing procedures. Additional topics include cash control and payroll.

ACC 150 - Financial Reports and Presentations
- Credits: 2.00
This course is designed to help the student gain an understanding of designing reports and presentations with hands-on experience. The course will progress from basic to more advanced concepts of reports and presentations using the appropriate software.

ACC 152 - Financial Accounting
- Credits: 4.00
This course will include basic principles and practices of accounting including debits and credits, journals and ledgers, internal control systems, and accounting for merchandising operations, liquid and fixed assets, receivables, current and long-term liabilities, investments and corporations. Cash flow statements, financial analysis, and the accounting cycle will be completed.

ACC 156 - Managerial Accounting
- Credits: 4.00
The course will also cover the nature, measurements and analysis of accounting data used by management in the decision making process. Data will be extracted and relationships analyzed from the main financial statements including the income statement, statement of owners’ equity, balance sheet and statement of cash flows.

Prerequisite(s): ACC 122

ACC 191 - Financial Analysis
- Credits: 3.00
This course covers the analysis of accounting data used by management in the decision making process. Data will be extracted and relationships analyzed from the main financial statements including the income statement, statement of owners’ equity, balance sheet and statement of cash flows.

Prerequisite(s): ACC 122

ACC 211 - Intermediate Accounting
- Credits: 3.00
This course expands on the principles learned in Principles of Accounting I and II. Revenue recognition along with comprehensive income will be introduced as well as the timing of transactions. The principle of valuation will be explained with the time value of money concepts and how they apply to the valuation of long term accounting items.

Prerequisite(s): ACC 122

ACC 231 - Intermediate Accounting
- Credits: 4.00
This course expands on the practices learned in Principles of Accounting I and II as well as introducing International Standards. An emphasis of the standards and principles of FASB will be explained along with the time value of money concepts and how they apply to the valuation of long term accounting items.

Prerequisite(s): ACC 122

ACC 261 - Income Tax Accounting
- Credits: 3.00
This course examines the proper reporting of tax issues and the legal requirements for completing the tax forms for individual, business and payroll taxes. The student will be introduced to standard IRS tax forms, giving the students the opportunity to understand the principles of tax applied to both individual and partnership situations.

Prerequisite(s): ACC 122

ACC 311 - Computer Accounting
- Credits: 3.00
This course is designed to provide students with hands-on accounting on the computer using the popular accounting software and will incorporate the fundamentals of accounting and how it relates to computers.

ACC 340 - QuickBooks for Individuals
- Credits: 2.00
This course is designed to provide students with hands-on accounting on the computer using the popular QuickBooks Pro software and will incorporate the fundamentals of accounting for sole proprietorships.
ACC 929 - Individual Projects
- Credits: 4.00
Students will complete an accounting simulation, integrating accounting assistant skills in a simulated accounting environment. Completion of this capstone course will give the student an overview of transactions and reporting in an accounting setting, using fundamental concepts gained from previously completed courses.

ACC 931 - Accounting Internship
- Credits: 1.00
This course provides the opportunity to enhance academic preparation and professional growth through hands-on work experience in accounting. Students gain valuable real world experience. Students must have a cumulative GPA of 2.5 or higher and have completed 30 semester credit hours toward an Associate Degree.
Prerequisite(s): Permission of Instructor.

ACC 932 - Internship
- Credits: 4.00
Students enrolled in this course will work in an industry accounting department. Emphasis will be on the integration of academic skills with practical work experience.
Prerequisite(s): Permission of Instructor.

Administrative Assistant

ADM 106 - Introduction to Keyboarding
- Credits: 2.00
This is a beginning course for students who have no previous keyboarding instruction. Students learn fundamentals of alphabetic and numeric keyboarding and proper formatting of letters, reports, memos and simple tables using basic word processing techniques. All keyboarding is taught on personal computers.

ADM 108 - Keyboarding Skill Development
- Credits: 1.00
This course covers the development of keyboarding techniques using the touch method on the computer keyboard to learn/review the alphabetic, numeric, and symbol keys. The keyboarding goal is a minimum rate of 35 words a minute with three or fewer errors on a three-minute timing. This course has been designated as a pass/no pass course.

ADM 123 - Document Formatting
- Credits: 3.00
This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, producing, and proofreading documents: memos, letters, envelopes, tables, reports, and other miscellaneous business documents. (30-30)

ADM 131 - Office Calculators
- Credits: 1.00
This course will introduce a student to the functions of the electronic calculator from basic math functions to hands-on business applications.

ADM 133 - Business Math and Calculators
- Credits: 3.00
Provides for the integration of business math concepts and formulas. Emphasizes current business math practices built on the foundation of mathematical problem solving.

ADM 134 - Business Math
- Credits: 2.00
The students will learn basic math skills and apply them to practical and real business-related problems in the areas of retailing, insurance, financial statements, depreciation, other business expenses, interest and banking services.

ADM 136 - Secretarial Lab
- Credits: 1.00
A student will enhance keyboarding skills by utilizing computer software packages. He or she will learn the touch method of using a ten-key calculator.

ADM 148 - Transcription
- Credits: 2.00
This course builds and strengthens skills in machine transcription. Students are provided instruction for using transcription equipment with emphasis on language skills, including spelling, capitalization, punctuation, and word usage. Emphasis will be on editing, proofreading and mailability of documents.

ADM 159 - Proofreading and Editing
- Credits: 3.00
This course emphasizes the applications designed to sharpen skills in detecting and correcting errors in written communications including memos, letters, reports, databases, presentation slides, advertisements and spreadsheets.

ADM 162 - Office Procedures
- Credits: 3.00
Office procedures are studied and knowledge and techniques are applied to practical business applications. Special attention is focused on mailing procedures, filing, office communications, travel arrangements, office ethics and stress management.

ADM 180 - Administrative Management
- Credits: 3.00
Administrative Management deals with concepts relevant to resolving issues in business, emphasizing the use of reasoning and analytical skills, team concepts and diversity, and their application to business decisions. Case studies are used.

ADM 198 - Legal Terminology
- Credits: 2.00
This course is a study of the basic terminology used in a legal office. Emphasis will be placed on legal terminology definitions, and on a study of court cases that pertain to the topics being covered.

ADM 218 - Initiating the Career Search
- Credits: 1.00
This course introduces students to the process of preparing written, oral and electronic communications for professional audiences and job seeking purposes. Instruction will be specific to student’s career field and may include generating and revising career documents, preparing and rehearsing for in-person or on the telephone...
employment interviews and generating and classifying materials for a career marketing tool such as a portfolio.

**ADM 219 - Managing the Career Search**  
- Credits: 1.00  
This course advances students' skills, knowledge, and products introduced in ADM 218 - Initiating the Career Search. Instruction will be specific to the student's career field and may include refining written career search documents, interview techniques and strategies and a career portfolio. Attention may be paid to the initial phases of assuming a new position including negotiating a salary, establishing work duties and surviving the first year on the job.

**Prerequisite(s):** ADM 218

**ADM 221 - Career Development Skills**  
- Credits: 2.00  
This course teaches the student the skills required to locate prospective employers and to obtain a position in the chosen field. Topics covered include company and job research, application forms, resumes, letters, telephone techniques and interviews.

**ADM 900 - Internship**  
- Credits: 4.00  
Students enrolled in this course will work in an office setting. Emphasis will be on the integration of academic skills with practical work experience.

**Prerequisite(s):** Instructor and/or Program Chair approval.

**ADM 929 - Individual Projects**  
- Credits: 4.00  
Students will complete an office simulation, integrating administrative assistant skills in a simulated office environment. Completion of this capstone course will give the student an overview of tasks in an office setting, using fundamental concepts gained from previously-completed courses.

## Agriculture – Agronomy

**AGA 114 - Principles of Agronomy**  
- Credits: 3.00  
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. Includes hands-on learning experiences.

**AGA 116 - Agricultural Issues**  
- Credits: 1.00  
This course will explore current issues facing production agriculture as well as examine production practices in various regions of the U.S. All or part of this course will include travel.

**AGA 154 - Fundamentals of Soil Science**  
- Credits: 3.00  
Introduces physical, chemical, and biological properties of soils, their formation, classification, and distribution. Uses soil survey and other information sources in balancing agronomic, economic, and environmental concerns in soil management.

**AGA 450 - Issues in Sustainable Agriculture**  
- Credits: 3.00  
This course provides a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental and social impacts of agriculture. Students will identify and apply the principles of sustainable agriculture as they relate to basic production. Lab work required.

**AGA 455 - Organic Crop Production**  
- Credits: 3.00  
A variety of organic crop production issues will be discussed. Topics will include: capital outlay, production methods, biological pest management and record keeping procedures. Organic certification practices will be emphasized. Lab work required.

**AGM 336 - Agriculture Electronic Devices & Sys**  
- Credits: 3.00  
This course offers instruction on control and instrument systems including sensor and actuator principles, interface electronics, system identification, installation and set-up. Applications within the context of precision agriculture to include GPS, auto-steer, auto-guidance system, spray controller systems, and optical sensors applications will be stressed.

**AGM 330 - Fundamentals of Electricity**  
- Credits: 3.00  
This course offers instruction in basic concepts associated with agriculture electronic devices. Skills regarding the uses of electronic diagnostic instruments, repair tools and other basic electronic skills necessary to troubleshoot, repair and install agriculture electronic and mechanical control devices associated with applications of Precision Agriculture will be emphasized.
Agriculture – Animal Science

AGS 113 - Survey of the Animal Industry
- Credits: 3.00
Introduces students to the various species and breeds of domestic animals to create an understanding of the principles of food animal production, product marketing, and issues confronting the animal industry.

AGS 216 - Equine Science
- Credits: 3.00
This course is an introduction to concepts, practices and decisions necessary when managing horses through stages of their lives. Lab work required.

AGS 226 - Beef Cattle Science
- Credits: 3.00
Introduces principles, practices, and decisions impacting beef cattle production.

AGS 242 - Animal Health
- Credits: 3.00
This course examines health issues affecting major livestock species. Course will focus on disease identification, prevention of disease, herd health planning, responsible drug use, and use of veterinary expertise.

AGS 319 - Animal Nutrition
- Credits: 3.00
Examines the nutritional principles, digestive systems, composition, and nutritional characteristics of common feedstuffs, ration formulation, and recommended animal feeding programs.

AGS 331 - Animal Reproduction
- Credits: 3.00
Increases understanding of animal genetics, breeding systems, and male and female reproductive organs. Breeding information analysis, heat detection, and keeping reproduction records are skills covered in this course.

Agriculture – Farm Management Business

AGB 212 - Agriculture Law and Taxation
- Credits: 3.00
Students will work toward developing positions and solutions to current and future agricultural issues by investigating the scientific, technical, economic, environmental and social ramifications of agriculture and agricultural policy. The class will investigate the political process in relation to agricultural issues.

AGB 230 - Land Management Experiences
- Credits: 6.00
This course will be planned with the instructor before the students may begin. These experiences will require a completed written proposal to include the project outline, location and anticipated outcomes. Projects may take place on private land or in conjunction with a private or public entity. Upon completion of the project a conclusive statement paper will be submitted.

AGB 235 - Introduction to Agriculture Markets
- Credits: 3.00
Presents basic concepts and economics principles related to markets for agricultural inputs and products. Reviews 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. Analyzes the implications of consumer preferences at the farm level. Introduces hedging, futures, and other risk management tools.

AGB 330 - Farm Business Management
- Credits: 3.00

AGB 802 - Agribusiness Internship I
- Credits: 2.00
Students are placed on-the-job in agribusiness firms which most nearly fit their career goals with the purpose of giving experiences and developing skills and knowledge which cannot be furnished in the classroom.

AGB 949 - Special Topics
- Credits: 1.00
This course is designed to give students the opportunity to explore a specific interest in sustainable agriculture. Emphasis is placed on subject matter and appropriate research.

Agriculture – Horticulture

AGH 112 - Introduction to Turfgrass Management
- Credits: 3.00
Introduces the students to the field of turfgrass science. Applies principles and practices involved in successful maintenance of turfgrass areas.

AGH 120 - Herbaceous Plant Materials
- Credits: 3.00
This course will cover the identification, botanical characteristics, origins, propagation, uses and general culture of herbaceous plants, woody vines and groundcovers.

AGH 123 - Woody Plants Materials
- Credits: 3.00
This course covers the identification, morphology, landscape use and culture of native and non-native woody trees and shrubs of the Upper Midwest.
AGH 131 - Greenhouse Management  
-Credits: 3  
This course covers all major aspects of planting, management and maintenance of the controlled environment. Monitoring and environmental manipulation of temperature, media, light, fertility and irrigation as it relates to production of greenhouse crops.

AGH 151 - Landscape Design Techniques  
-Credits: 2.00  
This course will cover basic landscape design principles and will provide an introduction to landscaping applications.

AGH 154 - Residential Landscape Design  
-Credits: 3  
Residential Landscape Design explores the basic principles and skills of designing a landscape emphasizing on the proper plans, hardscapes, scales, balance and many other principles to complete and sell a landscape design. Students in this class will examine the basic elements of residential and small commercial landscape design and will have the opportunity to prepare a number of designs using various formats.

AGH 166 - Turf and Landscape Irrigation  
-Credits: 3.00  
Assists students in developing career skills for many areas of irrigation and water management.

AGH 211 - Advanced Turfgrass Management  
-Credits: 3.00  
This course covers turfgrass management practices on golf and recreational areas with practical experience in maintaining turf on outdoor campus grounds.

AGH 221 - Principles of Horticulture  
-Credits: 3.00  
Provides an introduction to horticulture covering the basic knowledge and skills associated with growth and development of plants including fruits, vegetables, turfgrass, and ornamentals.

AGH 241 - Sports Turf  
-Credits: 2.00  
This course will cover a variety of sports played on athletic fields. Student will study the sport, site selection and preparation, turfgrass specie selection, establishment, and maintenance of the field.

AGH 248 - Identifying Plant and Landscape Problems  
-Credits: 3.00  
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.

AGH 252 - Horticulture Pest Management  
-Credits: 3.00  
This course will cover identifying and controlling insects, weeds, and diseases pertaining to trees, shrubs, greenhouse crops, turf, fruits, vegetables and herbaceous plants.

AGH 283 - Pesticide Application Certification  
-Credits: 2.00  
This course will familiarize the student with the different laws and regulations that must be followed when applying various chemicals. Subjects covered will include material in the Iowa Core Manual as well as the Category 3 Commercial Applicator Manual. Successful completion of the course will prepare the student for taking the Iowa Pesticide Applicator certification exam.

AGH 430 - Turf and Landscape Equipment  
-Credits: 3.00  
This course provides an introduction to the types of equipment used in the turfgrass and landscape industry such as tractors, sprayers, mowers, etc. Students will learn to operate equipment safely and gain the concepts of proper maintenance techniques. Tools used to maintain this equipment will also be covered along with a basic parts introduction.

AGH 431 - Maintaining Turf and Landscape Equipment  
-Credits: 3.00  
This course covers the fundamentals of turfgrass 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.

AGH 432 - Outdoor Power Equipment for Small Engines  
-Credits: 3.00  
This course examines the uses of small engines in the turf and landscape industry. Selection, maintenance, and repair are the main foci of this course. Both 2-cycle and 4-cycle operation and repair will be discussed and examined in detail.

AGH 805 - Horticulture Internship  
-Credits: 2.00  
This course is structured work experience in the horticulture industry related to the student's career objectives.

AGH 941 - Horticulture Practicum  
-Credits: 1.00  
This course will provide the student with both theoretical background, hands-on-learning, as well as current information regarding horticultural knowledge, techniques and accepted procedures.

AGN 115 - Integrated Agroforestry  
-Credits: 3.00  
This course will introduce students to a highly flexible, intensively managed system of sustainable agriculture. This system combines several different agroforestry practices including forest farming, alley cropping, riparian buffer strips, shelter belts, silvopasture and others. Lab work required.

AGN 120 - Wildlife and Agriculture  
-Credits: 3.00  
The focus of this course will be on wildlife conservation and management practices for agricultural lands. Commercial usages will be studied along with protective usages for land. Lab work required.
AGN 125 - Woodland Management
- Credits: 3.00
This course focuses on planning and using managerial, economic and wildlife techniques to meet the objectives of land use. Economic topics will include investment of financial resources, marketing and time issues. Lab work required.

AGN 127 - Agrarian Systems and Ecology
- Credits: 3.00
The ecological and economical, management of sustainable resources as they relate to agricultural practices will be the focus of this course. Students will be able to put into perspective the historical evolution of agrarian practices and how they relate to future practices in agriculture, forestry, wildlife and water and soil management.

AGN 130 - Soil and Water Conservation
- Credits: 3.00
Emphasis will be on environmental practices as they relate to conservation management of our natural resources. Students will discuss soil erosion, water quality and soil and water management. Lab work required.

Agriculture – Precision Agriculture

AGP 333 - Precision Farming Systems
- Credits: 3.00
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.

AGP 450 - Fundamentals of GIS
- Credits: 3.00
Class focus will be on fundamental processes of Geographic Information Systems with emphasis on its application to agriculture. File formats, data base management, spatial analysis and manipulation of data will be covered. This class will concentrate on creating maps using geo referenced data from mapping and yield monitoring. Lab work required.

Anthropology

ANT 105 - Cultural Anthropology
- Credits: 3.00
This course is designed to give students a comprehensive introduction to cultural anthropology and provide students with an overview of the principles and processes of cultural anthropology. Students will be introduced to the complexity and breadth of human behavior and the human condition.

Art

ART 100 - The Arts Today
- Credits: 1.00
This course is an investigation into the creative and performing arts. The student will attend a variety of fine arts events and exhibits.

ART 101 - Art Appreciation
- Credits: 3.00
Art appreciation is a general survey course in the visual arts. This course is designed to give the student an understanding and awareness of art in relationship to his/her environment.

ART 103 - Art Excursions I
- Credits: 1.00
Enrollees will visit and study the art forms in a major American city. This will include major architecture and artwork housed in museums and institutions of the city. Class discussions and individual projects will be related to the visit.

ART 104 - Art Excursions II
- Credits: 1.00
Enrollees will visit and study the art forms in a major American city. This will include major architecture and artwork housed in museums and institutions of the city. Class discussions and individual projects will be related to the visit.

Prerequisite(s): ART 103

ART 107 - Arts and Crafts
- Credits: 3.00
This is a studio course that explores the areas of basic craft skills, techniques and materials.

ART 113 - Graphic Design
- Credits: 3.00
This course is a study of graphic design as it relates to contemporary print media. The student will explore the creative, conceptual, and mechanical applications. A discerning sensitivity to effective visual communications through design is stressed.

Prerequisite(s): Permission of Instructor.

ART 114 - Graphic Design II
- Credits: 3.00
As an advanced course of study in graphic design, students continue to explore the conceptual and mechanical processes necessary in producing presentation quality graphics for commercial applications. Special consideration is given to developing methods of visual communication that effectively promote ideas, products and/or services.

Prerequisite(s): ART 113

ART 118 - Design, Form and Function
- Credits: 2.00
This is an introductory course emphasizing two-dimensional design as a fundamental framework to working with graphic media. Students directly apply traditional design concepts to resolving graphic design problems. While using type, line art, and photography students develop mechanical and aesthetic skills in producing camera-ready art for commercial applications.
ART 119 - 2-D Design  
- Credits: 2.00  
This introductory course encourages students to explore and apply theories of visual organization frequently utilized by designers and artists. Students will creatively resolve a number of visual problems in two and three-dimensional media. Students are encouraged to develop creative and conceptual skills through the language of art.

ART 120 - 2-D Design  
- Credits: 3.00  
2D Design is an introductory course for both art and non-art majors. This course encourages students to explore and apply theories of visual organization frequently utilized by designers and artists. Students will creatively resolve a number of visual problems through the exploration of varied media. Students are encouraged to develop creative and conceptual skills through the language of art.

ART 122 - 3-D Design  
- Credits: 2.00  
Students will be prepared for and provided experiences in the use of the three dimensional design principles and elements. The skills of materials manipulation and the vocabulary of three dimensional design will also be emphasized.

ART 123 - 3-D Design  
- Credits: 3.00  
3D Design is an introductory art course for both art and non-art majors. Students will be prepared for and provided experiences in the use of the three dimensional design principles and elements. The skills of materials manipulation and the vocabulary of three dimensional design will also be emphasized.

ART 133 - Drawing  
- Credits: 3.00  
Experience in the interpretation of visual form through drawing media will be stressed during this course. There will be an emphasis on the elements and principles of art.

ART 134 - Drawing II  
- Credits: 3.00  
This is an advanced course in drawing. Experience in the interpretation of visual forms through drawing media will be stressed during this course. This course is a continuation of Drawing I.  
Prerequisite(s): ART 133

ART 137 - Freehand Drawing  
- Credits: 1.00  
This course will expose the student to a variety of traditional freehand drawing techniques and materials. Accurate observation and development of skills in the use of line, contrast, texture and proportion will be stressed.

ART 140 - Painting  
- Credits: 2.00  
This course introduces the student to painting techniques in acrylic, oil and other media.

ART 141 - Painting II  
- Credits: 2.00  
This course is a continuation of Painting I. The student will explore advanced techniques in acrylic, oil or other painting media.  
Prerequisite(s): ART 140

ART 142 - Painting III  
- Credits: 2.00  
The student will be provided the opportunity to develop advanced painting skills in acrylic, oil, or other painting media.  
Prerequisite(s): ART 141

ART 145 - Water Color  
- Credits: 3.00  
This course provides experience painting with watercolors, including a study of techniques, materials and interpretations.

ART 146 - Pastels  
- Credits: 3.00  
This course is designed to acquaint the serious art student with the qualities and processes used in the pastel medium. Both historical and contemporary approaches will be briefly discussed. The course will emphasize composition, conceptual approaches and aesthetic issues. Methods of creative thinking and personal expression will also be explored.

ART 149 - Digital Design 2: PHOTOSHOP  
- Credits: 2.00  
This is a survey course exploring the essential elements of raster-based image editing, specifically PHOTOSHOP. Basic program navigation, image manipulation, scanning, topographic usage and artistic uses of digital imagery for graphic design production are emphasized. To succeed in this course, a student should have prior background in computer navigation.

ART 150 - Digital Design 3: INDESIGN  
- Credits: 2.00  
This survey course reviews the functions of a premiere page-layout program utilized in the graphic industry. The course will emphasize basic program navigation, combining typography and graphic art, and the essential elements of sound publication design. To succeed in this course, a student should have prior background in computer navigation.

ART 156 - Digital Design I: ILLUSTRATOR  
- Credits: 2.00  
This is a basic survey course that covers the essential elements of a vector-based program, specifically ADOBE ILLUSTRATOR, for various graphic applications. Basic program navigation, line drawing, typography, artistic and fundamental uses of the program for graphic illustration and design are emphasized. To succeed in this course, the student should have prior background in computer navigation.

ART 170 - Ceramics  
- Credits: 2.00  
This is an art studio course with emphasis on the fundamentals of hand forming and glazing clay objects. Slab, coil, pinch, and various other forming techniques will be introduced and practiced.
ART 171 - Ceramics II  
- Credits: 2.00  
This an art studio course with an emphasis on the use of the potter's wheel. Refinement of hand-forming skills, glaze preparation, glaze application and firing techniques are also included in this course.  
Prerequisite(s): ART 170

ART 172 - Ceramics III  
- Credits: 2.00  
The student will be provided the opportunity to develop advanced ceramic skills and to complete advanced individual explorations into complex ceramic materials and manipulation.  
Prerequisite(s): ART 171

ART 184 - Photography  
- Credits: 3.00  
This course is an introduction to the technical and aesthetic properties of digital photography with an emphasis on the use of a digital SLR camera as a tool for electronic photographic image making. Additionally, students will learn to create efficient digital workflow using basic image editing skills and software programs. Students will learn the technical aspects of photography as well as how to use the camera as a tool for creating art and idea expression.

ART 185 - Photography II  
- Credits: 3.00  
This course builds on the skills acquired in Photography. Photography II is designed for students who are seriously interested in the practical experience of digital photography. By exploring photographic and digital media with the camera and computer, students will be able to develop a body of work that reflects a range of problem solving and ideation, and develops versatility with techniques to demonstrate their abilities. Prerequisite: ART 184 Photography.  
Prerequisite(s): ART 184

ART 190 - History of Photography  
- Credits: 3.00  
This course provides an introduction to the history of still photography as an art medium. The course will cover developments of the photographic image from 1839 to present. Emphasis will be placed on individual artists, artistic movements, and photography as a communication tool. Students will study basic aspects of photography, including but not limited to camera types and usage, traditional darkroom techniques using black and white film, lighting and composition. Students should own or have the use of a focusing camera.

ART 203 - Art History I  
- Credits: 3.00  
This course is a study of Western traditions in art history, starting with prehistoric art and continuing through the classical, medieval, Renaissance, and Baroque periods.

ART 204 - Art History II  
- Credits: 3.00  
This course is a study of Western traditions in art history, starting with the Baroque period and continuing through to the art of today.

ART 289 - Photojournalism  
- Credits: 3.00  
Photojournalism introduces students to the world of photography and journalism. The law, ethics, and history of photography in journalism will complement the major units of study: operation and care of the camera, taking pictures of newsworthy people, places, sports, political, and community events, print processing, and digital management skills.  
Prerequisite(s): ART 184

ART 302 - Studio and Portrait Photography  
- Credits: 3.00  
Emphasizing creative solutions to complex photographic problems, this course is for those interested in discovering the versatility and creative potential of the studio environment. Learn how controlled studio lighting enhances a photograph. The course incorporates lecture, demonstrations and a series of assignments in still life, portraiture, and product set-ups. This course introduces a range of techniques including studio and lifestyle portraiture.  
Prerequisite(s): ART 184

ART 303 - Commercial Photography  
- Credits: 2.00  
Introduction to Commercial Photography. Includes basic techniques of lighting, camera work, and reproduction of commercial photography.  
Prerequisite(s): ART 184

ART 304 - Architecture and Landscape Photography  
- Credits: 2.00  
This course is designed for students that want to further enhance their photographic abilities in architecture and landscape photography. Students will learn how light alters the visual impact of architecture and landscape forms. Students will learn how to create images of interior architectural design, exterior architectural design, and outdoor environments.  
Prerequisite(s): ART 184

ART 305 - Wedding and Event Photography  
- Credits: 2.00  
This course is designed for students that want to further enhance their photographic abilities in wedding and event photography. Students will learn equipment, lighting and posing utilized for weddings and event photography. Methods, techniques and business practices for professional wedding and event photographers will be included.  
Prerequisite(s): ART 184

ART 306 - Photography Portfolio  
- Credits: 1.00  
Students will identify different types of photographs that represent the spectrum of photographic subjects and disciplines they have been educated in. Students will assemble and present a body of work in a professional portfolio of images appropriate to their professional, educational or personal goals. This course concludes with a public exhibition of the students work.  
Prerequisite(s): ART 184
ART 307 - Photography Practicum I
- Credits: 1.00
The purpose of this course is to collect images for your professional portfolio. Students will be assigned to an on campus or off campus organization to take images of events, people, architecture, or commercial projects. Students will be responsible for capturing images, editing images, and developing images.
Prerequisite(s): ART 184

ART 308 - Photography Practicum II
- Credits: 1.00
The purpose of this course is to collect images for your professional portfolio. Students will be assigned to an on campus or off campus organization to take images of events, people, architecture, or commercial projects. Students will be responsible for capturing images, editing images, and developing images.
Prerequisite(s): ART 307

ART 309 - Photography Practicum III
- Credits: 1.00
The purpose of this course is to collect images for your professional portfolio. Students will be assigned to an on campus or off campus organization to take images of events, people, architecture, or commercial projects. Students will be responsible for capturing images, editing images, and developing images.
Prerequisite(s): ART 308

ART 310 - Photography Practicum IV
- Credits: 1.00
The purpose of this course is to collect images for your professional portfolio. Students will be assigned to an on campus or off campus organization to take images of events, people, architecture, or commercial projects. Students will be responsible for capturing images, editing images, and developing images.
Prerequisite(s): ART 309

ART 350 - Art Seminar I
- Credits: 1.00
This course is designed for advanced intensive study for the student desiring development beyond or outside the formal art studio courses. Assignments by contract are required.
Prerequisite(s): Permission of the instructor.

ART 352 - Art Seminar II
- Credits: 2.00
This course is designed for advanced intensive study for the student desiring development beyond or outside the formal art studio courses. Assignments by contract are required.
Prerequisite(s): Permission of the instructor.

ART 354 - Art Seminar III
- Credits: 3.00
This course is designed for advanced intensive study for the student desiring development beyond or outside the formal art studio courses. Assignments by contract are required. Consent of the instructor is also required.
Prerequisite(s): Permission of the Instructor.

ART 850 - Wilderness Art Workshop
- Credits: 2.00
Workshop members will travel and camp in a wilderness area. The experience will include demonstrations, instruction in drawing and painting in an outdoor setting, sketching from nature and the completion of finished artworks based upon backwoods, wilderness observations.
Prerequisite(s): Permission of Instructor.

ART 924 - Honors Project
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences fine arts instructor on a fine arts research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.
Prerequisite(s): Permission of Instructor.

ART 928 - Independent Study
- Credits: 1.00
This course explores specialized topics in the field of fine arts. A contract between the student and an Arts and Sciences Fine Arts instructor outlining the educational project is required.
Prerequisite(s): Permission of Instructor.

Associate Degree Nursing

ADN 142 - Advanced Nursing Concepts
- Credits: 2.00
This course provides advanced theory related to the nursing process. Principles of intravenous therapy, transfusion therapy, total parenteral nutrition (TPN), and central venous access are discussed. Community-based nursing care and disaster planning are explored. Advanced mental health concepts including therapeutic environment and communication are examined.
Prerequisite(s): Satisfactory completion of the practical nursing program or licensure as a practical nurse (LPN) and enrolled in the second year of the IHCC Associate Degree Nursing program.
Corequisite(s):

ADN 231 - Advanced Pharmacology
- Credits: 2.00
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.
Prerequisite(s): Satisfactory completion of the practical nursing program or licensure as a practical nurse (LPN) and enrolled in the second year of the IHCC Associate Degree Nursing program.

ADN 311 - RN Issues and Trends
- Credits: 1.00
This course provides an overview of nursing trends and incorporates ethical and legal issues, nursing organizations and publications, leadership responsibilities, and preparation for licensure and employment.
Prerequisite(s): The student must be enrolled in the second year of the ADN Program.
ADN 421 - Maternal Child Nursing II  
- Credits: 3.00  
This course provides a comprehensive perspective of family-centered maternal-infant nursing and an in-depth study of children with associated health deviations. The psychological adaptation of the child-bearing family and assisting the sick child and the family to cope with illness and hospitalization is discussed. Health promotion and health teaching are emphasized.  
Corequisite(s): ADN 714

ADN 492 - Advanced Mental Health Nursing  
- Credits: 2.00  
This course examines advanced psychiatric mental health nursing concepts. Students gain an understanding of their role in creating a therapeutic environment. Emphasis is placed on utilizing the nursing process to provide care for clients with psychiatric disorders.  
Prerequisite(s): ADN 717 ADN 421

ADN 578 - Assessment and Pathophysiology  
- Credits: 3.00  
This course provides the student with advanced assessment knowledge and techniques essential for the management of nursing care for patients with complex medical-surgical conditions. Consideration is given to the assessment of special populations. In-depth pathophysiology of body system disorders is discussed. The concepts of fluid and electrolyte and acid-base balance are addressed. This course provides the foundation for nursing care management of complex patients.  
Corequisite(s): ADN 711

ADN 579 - Management of Patients With Complex Health Conditions  
- Credits: 3.00  
Complex medical-surgical conditions of the respiratory, cardiovascular, hematological, musculoskeletal, renal, reproductive, biliary/gastrointestinal, endocrine, integumentary and neurological systems are discussed. Emphasis is placed on the nursing management of patients with complex medical-surgical conditions which require prioritization of nursing diagnoses and interventions. The importance of collaboration and patient education is addressed.  
Prerequisite(s): ADN 492 ADN 578; ADN 717  
Corequisite(s): ADN 720; ADN 841

ADN 711 - Nursing Clinical IV  
- Credits: 2.00  
This course provides the student with an opportunity to observe and initiate therapeutic interactions with patients experiencing alterations in mental health. In addition, the student will assume an expanded role in the acute care and community setting. The use of advanced nursing skills will be emphasized.  
Corequisite(s): ADN 578

ADN 714 - Nursing Clinical V  
- Credits: 2.00  
This course provides the student with the opportunity to care for patients throughout the lifespan. A specialty experience may be provided. Application of the nursing process and implementation of patient teaching for patients with complex health care needs will be emphasized.  
Prerequisite(s): ADN 711 ADN 142 ADN 231 ADN 578  
Corequisite(s): ADN 421

ADN 717 - Nursing Clinical VI  
- Credits: 2.00  
This course provides the student with the opportunity to care for patients throughout the lifespan. Specialty rotations may be assigned. These experiences allow the student to gain understanding of the role of a professional nurse.  
Prerequisite(s): ADN 714  
Corequisite(s): ADN 479

ADN 720 - Nursing Clinical VII  
- Credits: 2.00  
This course provides the student with the opportunity to care for patients throughout the lifespan. Preceptor rotations will be provided. These experiences allow the student to gain knowledge of community resources and to enhance the student's understanding of the role of the professional nurse.  
Prerequisite(s): ADN 717  
Corequisite(s): ADN 579; ADN 841

ADN 841 - Nursing Seminar II  
- Credits: 1.00  
This course provides a comprehensive review of the nursing knowledge and skills that an entry level registered nurse must possess. Emphasis will be placed on delegation, prioritization and complex nursing interventions. Patient scenarios and case studies will be utilized to foster critical thinking and decision making in the clinical setting.  
Corequisite(s): ADN 720; ADN 579

ADN 900 - Trauma Nurse Core Course  
- Credits: 1.00  
The standard curriculum of the Trauma Nursing Core Course (TNCC) was developed by the Emergency Nurses Association (ENA) to provide the learner with the necessary knowledge to function effectively in a written and psychomotor evaluation of trauma nursing skills for emergency resuscitation.  
Prerequisite(s): This course is intended for licensed registered nurses with a recommended six (6) months of clinical nursing experience in an emergency setting.

PNN 108 - Beginning Principles of Nursing  
- Credits: 2.00  
This course provides a comprehensive perspective of professional qualities that are required within the nursing profession. Successful learning strategies for the beginning nursing student will be discussed for improving learning outcomes. The American Nursing Association Code of Ethics and QSEN competencies will be emphasized.

PNN 725 - Clinical Experience I  
- Credits: 2.00  
The student will provide basic nursing care in a long term setting. The development of assessment techniques will be emphasized. Scientific nursing principles and basic nursing skills will be utilized to provide care to residents with identified self-care deficits. Documentation will be introduced. Students will complete required HIPPA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.  
Prerequisite(s): PNN 147  
Corequisite(s): PNN 148 PNN 501
Automation Technology & Robotics

ATR 110 - Manufacturing Fundamentals
- Credits: 2.00
An introduction to robotics, including the historical perspective, components, tooling, applications, classification, justification and operating systems.

ATR 132 - Computer Aided Manufacturing
- Credits: 2.00
This course is designed to introduce students to the basic concepts of Computer Numerical Control (CNC) programming. Practical hands-on laboratory activities on CNC lathes and mills are included.

ATR 150 - Introduction Display Animation
- Credits: 2.00
Students in this course will learn the different methods of moving display components. They will learn about the different systems of movement including: belt, turning and chain-driven.

ATR 155 - Animation Components
- Credits: 3.00
This course introduces students to the mechanical components needed to construct a basic display design. Students will gain a basic understanding of wiring and electricity, learn to read simple schematics and build frameworks for their designs.

ATR 160 - Display Design Animation
- Credits: 3.00
Students in this course will build on the knowledge gained in Animation Components and Display Animation. In this course students will have the opportunity to design and build a complete small display.

ATR 251 - Robot Programming I
- Credits: 2.00
This course covers various machine-specific robot programming languages. Positioning of coordinates in the work envelope will be stressed. Emphasis is on documenting and writing programs, understanding the robot’s coordinate system, and following written procedures.

ATR 252 - Robot Programming II
- Credits: 2.00
This course covers concepts and applications of high-level industrial robot programming languages and PLC (programmable logic controller) software. A variety of robots will be utilized with vendor specific software. Programs will be written for robots and PLCs in a practical application laboratory environment.

Prerequisite(s): ATR 251; ELT 130

ATR 261 - Robot Controllers I
- Credits: 2.00
This course covers an analysis of control circuits that are used with robots or are part of a feedback circuit that is used with robots. Emphasis will be on feedback sensors, servo theory, servo motor control and electronic control of power systems.

Prerequisite(s): ELT 580; ATR 251

ATR 262 - Robot Controllers II
- Credits: 2.00
This course focuses on the advanced analysis of motion controllers. Components and circuitry utilized in robot control are emphasized. Interpretation of electrical, hydraulic, and pneumatic schematics are included. System troubleshooting is explored.

Prerequisite(s): ATR 261

ATR 266 - Automation Programming
- Credits: 2.00
This course introduces the student to Visual Basic and LabView programming languages. The student will learn the basics of each language applying them to industrial applications.

ATR 267 - Industrial Systems
- Credits: 3.00
Students study and work with industrial robots and automated systems emphasizing interfacing, safety, troubleshooting and preventative maintenance. Allen Bradley PLC’s will also be introduced.

Prerequisite(s): ELT 580; ATR 251

ATR 274 - Automated System Applications
- Credits: 3.00
Students design and implement an automated manufacturing system in a laboratory environment. Robots, PLCs, machine vision systems, CNC machines, and lasers may be utilized. Students write programs and interface equipment into an automated manufacturing system. Project planning, teamwork, system integration, system operation and documentation are emphasized.

Prerequisite(s): ATR 252; ATR 261

ATR 275 - Industrial Networks
- Credits: 2.00
This course details the current standards and practices of the various networking schemes used in automated systems.

ATR 350 - Robot Offline Programming
- Credits: 2.00
An introductory course providing the basic framework for utilizing offline programming (simulation) for industrial robots. Laboratory work will include developing a program offline and transferring it to a physical robot for testing.

Prerequisite(s): ATR 251

Automotive Technology

AUT 114 - Shop Fund & Minor Service
- Credits: 4.00
Students will examine the organizational structure in a dealership/repair facility as it relates to the technician. Students use service manuals, electronic troubleshooting manuals and service bulletins. The course will also develop competencies in entry-level tasks required when working in a dealership or repair facility.
AUT 130 - Automotive Maintenance and Inspection Procedures
- Credits: 2.00
This course covers the basic systems of the automobile and the process required to identify the maintenance components and perform the required maintenance services. This course also reviews various types of resource materials that are used in the automotive repair industry.

AUT 131 - Auto Preventative Maintenance
- Credits: 3.00
This course covers the basic systems of the automobile and the process required to identify the maintenance components and perform the required maintenance services. This course also reviews various types of resource materials that are used in the automotive repair industry.

AUT 140 - Welding for Automotive Mechanics
- Credits: 2.00
This course covers the study of metals, metal properties, welding gases, pressures and the proper use of welding equipment. Safety procedures will be stressed. Students will be introduced to the theory and practice of basic welding, brazing and soldering techniques.

AUT 143 - Machining for Automotive Mechanics
- Credits: 2.00
This course covers the use of precision instruments. The reading of blueprints and basic machining operations. The course will also cover the basic operation of lathes, mills, grinders, and the drill press.

AUT 155 - Automotive Engine Design and Systems
- Credits: 2.00
This course covers the cooling, lubrication and engine intake and exhaust systems of modern automobiles and light trucks. Basic and advanced system diagnosis and troubleshooting will be included in this course.

AUT 172 - Advanced Automotive Engine Repair
- Credits: 2.00
This course covers the theory and operation of reciprocating engines. The student will be able to disassemble, inspect, qualify the component parts and rebuild the engine to meet manufacturer’s specifications. The student will also be able to perform operational checks on a live engine to include troubleshooting and diagnostic procedures.

AUT 204 - Automotive Automatic Transmissions/Transaxles
- Credits: 4.00
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 transaxles.

**Prerequisite(s):** AUT 222

AUT 218 - Automotive Automatic Transmissions/Transaxle Service
- Credits: 5.00
This course covers the service requirements needed when working with automatic transmissions and transaxles.

AUT 222 - Basic Automotive Drive Lines
- Credits: 2.00
This course covers the basic theory and parts identification of manual and automatic transmissions to include clutches and torque converters. The student will also disassemble, qualify the internal parts and assemble manual and automatic transmissions to include clutches.

AUT 224 - Automotive Drive Lines and Repair Procedures
- Credits: 2.00
This course will cover the theory and operation of drive trains and differential assemblies, as well as their removal and replacement. Students will also learn how to disassemble, evaluate parts, rebuild, set-up and troubleshoot these assemblies.

AUT 289 - NVH and Accessory Installation
- Credits: 3.00
This course is designed to supplement a technician's knowledge of noise, vibration and harshness symptoms within cars and light trucks. Technicians will also learn and practice the skills required to properly install after market and factory accessories.

AUT 290 - NVH and Aftermarket
- Credits: 2.00
This course is designed to supplement a technician's knowledge of noise, vibration and harshness symptoms within cars and light trucks. Technicians will also learn and practice the skills required to properly install after market and factory accessories.

AUT 303 - Automotive Manual Drive Train and Axles
- Credits: 3.00
This course will cover the operation of automotive front and rear drive manual transmissions, transaxles, and transfer cases. Students will learn how to diagnose, remove, evaluate, repair and replace manual transmissions, transaxles and transfer cases.

AUT 402 - Automotive Suspension and Steering
- Credits: 2.00
This course covers automotive steering and suspension components. This course also covers inspection, diagnostic and repair of steering and suspension systems.

AUT 404 - Automotive Suspension and Steering
- Credits: 4.00
Instruction in the theory of operation and service procedures used in the maintenance and repair of automotive steering and suspension systems.

AUT 502 - Automotive Brake Systems
- Credits: 2.00
This course covers the theory and operation of automotive braking systems including component replacement/familiarization, rebuilding of drum, disk and anti-lock braking system. Wheel bearing theory, service and adjustment will also be covered.

AUT 540 - Automotive Vehicle Alignment
- Credits: 3.00
This course covers the computerized alignment center and computerized wheel balancer. Proper wheel alignment and tires and wheel relationship will also be covered.
AUT 607 - Basic Auto Electricity/Electronics  
- Credits: 4.00  
This course covers electrical and electronic theory and systems. Electrical safety, familiarization, with electrical circuits will be covered thru the use of specialized test equipment and students will perform voltage, current and resistance movements. Also covered will be sensors, electronic components and related symbols with the student learning to read, draw, construct, troubleshoot and analyze electronic circuits using proper test equipment.

AUT 642 - Automotive Charging, Starting and Electrical Systems  
- Credits: 2.00  
This course covers the theory and operation of batteries, starting motors and alternators to include component part familiarization and identification. This course will also cover starting motor and alternator disassembly, rebuild and assembly to include complete system testing and troubleshooting.

AUT 701 - Basic Automotive Air Conditioning  
- Credits: 1.00  
This course covers the study of proper safety procedures, the fundamentals of air conditioning, refrigerant, refrigerant oil and the use of special tools and diagnostic equipment. The student will also study theory of operation, parts identification, repair, service and troubleshooting procedures.

AUT 702 - Automotive Heating and Air Conditioning  
- Credits: 2.00  
This course covers the passenger compartment heating and air conditioning systems found in automobiles and light trucks. The controls and components of manual and automatic systems will also be covered.

AUT 833 - Automotive Fuel Systems  
- Credits: 3.00  
This course covers the fuel and ignition systems typically found in modern automobiles. It will include electronic and distributorless ignitions, carburization and fuel injection systems. Techniques and practices used in the diagnosis and the troubleshooting of fuel and ignition systems will be integrated in this unit.

AUT 848 - Automotive Engine Drivability Diagnosis  
- Credits: 4.00  
This course covers advanced vehicle tuning and troubleshooting. Techniques and practices used in diagnosing and troubleshooting engines and related systems are integrated in this unit.

AUT 851 - Automotive Engine Performance Diagnosis  
- Credits: 3.00  
This course covers the different areas of vehicle diagnosis. The application of the computer diagnostic center, hand held monitors, oscilloscopes and other diagnostic tools will be covered.

AUT 862 - Automotive Engine Performance Testing  
- Credits: 2.00  
This course covers the setup and operation of the computerized diagnostic center, hand held scan tools, exhaust gas analysis, On Board Diagnostic 2nd Generation (OBDII) and the use of hand held automotive digital storage oscilloscopes. Emphasis will be placed on the correct tool selection, setup and the interpretation of vehicle data and readings.

AUT 881 - Automotive Lab I  
- Credits: 3.00  
This course provides a review and analysis of the many facets of the automotive industry. Content includes: established diagnostic procedures and routines; environmental concerns affecting the automotive industry; proper utilization of specialty tools, precision measuring tools, and shop equipment; utilization of service and shop manuals, and shop safety. This course will concentrate on reviewing the service areas in the automotive technology field to include operating in a simulated shop environment.

AUT 882 - Automotive Lab II  
- Credits: 3.00  
This course allows the student time in the automotive lab to work on curriculum requirements and lab projects.

AUT 883 - Automotive Lab III  
- Credits: 3.00  
This course allows students time in the automotive lab to work on curriculum requirements and lab projects.

AUT 884 - Automotive Lab IV  
- Credits: 2.00  
Automotive Lab IV allows students to build production skills, build confidence in their ability to diagnose and repair vehicles, and reinforce skills learned in other courses. Use of a "live lab" environment helps students achieve job entry competency levels. Students perform a wide variety of diagnostic tests, adjustments and overhaul/repairs on customer and college-owned units. (0/6-12).

AUT 885 - Automotive Lab V  
- Credits: 2.00  
Automotive Lab V allows students to build production skills, build confidence in their ability to diagnose and repair vehicles and reinforce skills learned in other courses. Use of a "live lab" environment helps students achieve job entry competency levels. Students perform a wide variety of diagnostic tests, adjustments and overhaul/repairs on customer and college-owned units.

Aviation

AVI 105 - Introduction to Aviation  
- Credits: 3.00  
The student surveys the components of the aviation industry including: flight operations and related technologies, aviation/aerospace manufacturing, aviation maintenance, aviation electronics, flight meteorology and environmental information systems, communication systems, the air traffic control system, human factors related to flight, regulatory and governmental entities, flight education and research and development.
AVI 110 - History of Aviation  
- Credits: 3.00  
This course covers the history of aviation including the early pioneers of the late 1700s, the development of the airplane, wartime and peacetime aviation in the 1900s, and the development of space age aviation. Also, the impact that aviation has on shaping the world we live in will be discussed.

AVI 123 - Maintenance Responsibilities  
- Credits: 3.00  
This course covers the maintenance practices and responsibilities of the pilot and owner/operator in determining the airworthiness status of aircraft and maintaining aircraft in a safe and legal condition. Students will learn how to access and use authoritative aircraft maintenance data and information online.

Prerequisite(s): AVI 105; AVI 135

AVI 127 - Engines Systems Theory  
- Credits: 3.00  
This course covers reciprocating and turbine engine design and operational theory and related fuel, propeller, and supercharging systems.

AVI 129 - Employment Prep for Aviation Careers  
- Credits: 1.00  
In this course students will customize resumes and cover letters and develop interviewing skills. More importantly, they will develop contacts, through networking, which will help them apply for and obtain a pilot position that accelerates them towards the aviation career position of their dreams.

AVI 133 - Primary Pilot Training I  
- Credits: 2.00  
This course covers Stage 1 of the Private Pilot flight training curriculum. Included are basic flight maneuvers, takeoff and landings, the first solo flight, and the demonstration of the aeronautical knowledge required for solo flight.

Prerequisite(s): Hold a valid FAA medical certificate or maintain BasicMed compliance

Corequisite(s): AVI 135

AVI 135 - Primary Pilot Training II  
- Credits: 2.00  
This course covers Stage 2 of the Private Pilot flight training, including day and night local flight operations, day and night cross-country flight operations, and the demonstration of the knowledge, skills, and risk assessment required for those flight operations in preparation for the Private Pilot Practical Test.

Prerequisite(s): Hold a valid FAA medical certificate or maintain BasicMed compliance.

AVI 137 - Primary Pilot Training III  
- Credits: 2.00  
This course covers Stage 3 of the Private Pilot flight training including day and night local flight operations, day and night cross-country flight operations, and the demonstration of the knowledge, skills, and risk assessment required for those flight operations in preparation for the Private Pilot Practical Test.

Prerequisite(s): Hold a valid FAA medical certificate or maintain BasicMed compliance.

Corequisite(s): AVI 105; AVI 135

AVI 138 - Advanced Pilot Training I  
- Credits: 2.00  
Stage 1 and 2 of the Instrument Rating Airplane flight curriculum are completed. Stage 1 topics include instrument maneuvers, electronic navigation, human factors, aviation physiology, airspace, flight information, and Air Traffic Control. Holding procedures, partial panel operations, and instrument approach procedures are mastered in Stage 2.

Prerequisite(s): AVI 137 Hold a valid FAA medical certificate or maintain BasicMed compliance

Corequisite(s): AVI 200

AVI 150 - Aerodynamics  
- Credits: 3.00  
This course covers basic aerodynamic theory, flight mechanics, performance, stability and structural limits of aircraft. Aircraft design considerations are examined to help the pilot select those designs of aircraft that are most suited to the flight mission.

Prerequisite(s): AVI 135

AVI 155 - Airframe Systems Theory  
- Credits: 3.00  
This course covers cabin atmosphere, electrical systems, hydraulic and pneumatic systems, structures and control systems, and instrument systems. The operation of each system is thorough-covered to enable the pilot to analyze system operation.

AVI 175 - Private Flight I  
- Credits: 1.00  
This course covers Stage 1 of the Private Pilot flight curriculum. Included are basic flight maneuvers, takeoff and landings, and the first solo flight.

Prerequisite(s): Completion of or concurrent enrollment and progress in AVI 135 - Private Basic Ground I is required. A valid first- or second-class medical/student pilot certificate is required.

Corequisite(s): AVI 135

AVI 176 - Private Flight II  
- Credits: 1.00  
This course covers Stage 2 of the Private Pilot flight curriculum. Included are local day and night flight operations as well as day and night cross-country flights.

Prerequisite(s): AVI 175; AVI 135 A valid first or second class medical/student pilot certificate is required.

Corequisite(s): AVI 136

AVI 187 - Private Pilot Certification  
- Credits: 1.00  
This course covers the completion of Stage 3 in the Private Pilot flight curriculum and includes flight instruction and solo practice in preparation for the Private Pilot Practical Test.
Prerequisite(s): AVI 176; An unexpired original Private Pilot Airplane Knowledge Test Report showing a passing score is required to complete this course. In addition, a valid first or second class medical and a properly certified Student Pilot Certificate are required.

Corequisite(s): AVI 136

AVI 188 - Currency and Refresher
- Credits: 1.00
This course provided refresher ground and flight training to a holder of a valid pilot certificate for single-engine land airplanes. Relevant procedures and maneuvers will be reviewed and practiced at the discretion of the flight instructor.

Prerequisite(s): Must hold a valid Airplane Single-Engine Land pilot certificate and a current medical certificate.

AVI 190 - VFR Communications
- Credits: 2.00
This course covers Visual Flight Rules (VFR) communications procedures to help both experienced and inexperienced pilots to communicate more effectively during all phases of normal flight and in emergency situations. Students will utilize interactive computer-based training to sharpen radio transmission and reception skills.

AVI 195 - IFR Communications
- Credits: 2.00
This course covers the IFR communications used when flying under Instrument Flight Rules (IFR). Students will locate frequencies, file IFR flight plans and conduct simulated IFR communications for all phases of IFR flight. Unusual flight situations are also covered.

Prerequisite(s): AVI 136

AVI 200 - Instrument Pilot Ground I
- Credits: 3.00
This course covers Stage 1 and 2 of the Instrument Ground Curriculum in preparation for the Instrument Pilot Knowledge Exam. Instrument flight principles and procedures are included.

AVI 201 - Instrument Pilot Ground II
- Credits: 2.00
This course covers Stage 3 of the Instrument ground curriculum in preparation for the Instrument Pilot Knowledge Exam. Included in the course are weather analysis, IFR emergencies, IFR flight planning, and IFR pilot decision making.

Corequisite(s): AVI 200

AVI 203 - Advanced Pilot Training II
- Credits: 1.00
This course covers Stage 3 of the Instrument Rating Airplane flight training curriculum. Topics include weather factors and hazards, weather information sources, departure, enroute and arrival procedures, enroute holding, emergency procedures, decision making, and Instrument Flight Rules (IFR) cross-country flights for certification as an instrument rated pilot.

Prerequisite(s): AVI 138 Hold a valid FAA medical certificate or maintain BasicMed compliance

Corequisite(s): AVI 201

AVI 205 - Advanced Pilot Training III
- Credits: 3.00
This course covers Stage 1 of the Commercial Pilot Airplane flight training curriculum. Students complete dual and solo day and night VFR cross-country flights and operations at controlled and uncontrolled airports.

Prerequisite(s): AVI 203 Hold a valid FAA medical certificate or maintain BasicMed compliance

Corequisite(s): AVI 262

AVI 207 - Advanced Pilot Training IV
- Credits: 2.00
This course covers Stage 2 of the Commercial Pilot Airplane flight training curriculum and includes complex airplane operations and commercial flight maneuvers, aerodynamics, aircraft performance, and weight and balance.

Prerequisite(s): Hold a valid FAA medical certificate or maintain BasicMed compliance

Corequisite(s): AVI 263

AVI 209 - Advanced Pilot Training V
- Credits: 2.00
This course covers Stage 3 of the Commercial curriculum and includes dual and solo flights to practice proficiency maneuvers and procedures in preparation for the Commercial Pilot Practical Test.

Prerequisite(s): Hold a valid FAA medical certificate or maintain BasicMed compliance

Corequisite(s): AVI 207

AVI 220 - Aviation Meteorology
- Credits: 3.00
This course covers meteorology theory, weather hazard avoidance, aviation weather product access, and weather data analysis to make valid flight operation decisions consistent with safety.

Prerequisite(s): AVI 136

AVI 230 - Instrument Flight Stage 1
- Credits: 1.00
This course covers Stage 1 of the Instrument Flight curriculum. Included are basic instrument flight maneuvers including precision straight and level climb, turns, descents and combinations. Unusual flight attitude recoveries and electronic navigation are also covered to prepare the student for Stage II.

Prerequisite(s): AVI 200; Must hold a valid Private Pilot Airplane or higher pilot certificate with Single-Engine Land class ratings and must hold a valid and current first or second class flight physical.

Corequisite(s): AVI 200

AVI 231 - Instrument Flight Stage 2
- Credits: 1.00
This course covers Stage 2 of the Instrument Flight curriculum. Included are holding procedures, partial panel operations, and instrument approach procedures.

Prerequisite(s): AVI 200; AVI 230; Must hold a valid and current Private Pilot Airplane or higher pilot certificate with Single-Engine Land class ratings and must hold a valid and current first- or second-class flight physical.

Corequisite(s): AVI 201
AVI 232 - Instrument Flight Stage 3
- Credits: 1.00
This course covers Stage 3 of the Instrument curriculum and includes departure, enroute and arrival procedures, enroute holding, emergency procedures and Instrument Flight Rules (IFR) cross-country flights for certification as an instrument rated pilot.
Prerequisite(s): AVI 231 An unexpired original Instrument Rating Airplane Knowledge Test Report showing a passing score is required to complete this course. In addition a valid first- or second-class medical and a valid at least Private Pilot level pilot certificate are required.
Corequisite(s): AVI 201

AVI 236 - ACT Instrument Flight I
- Credits: 2.00
This Airline Career Training (ACT) course covers Stage 1, 2 of the Instrument curriculum. Included are basic instrument flight maneuvers including precision straight and level, climbs, turns, descents and various combinations, holding procedures, partial panel operations and instrument approach procedures.
Prerequisite(s): AVI 200 AVI 201

AVI 237 - ACT Instrument Flight II
- Credits: 1.00
This Airline Career Training (ACT) course covers Stage 3 of the Instrument curriculum and includes departure, enroute and arrival procedures, enroute holding, emergency procedures and Instrument Flight Rules (IFR) cross-country flights for certification as an instrument rated pilot.
Prerequisite(s): AVI 236

AVI 249 - General Aviation Operations Management
- Credits: 3.00
This course covers operational functions, marketing and finance, management concepts, information systems, line operations, flight operations, maintenance, safety and liability issues and physical facility management related to aviation fixed based operators (FBO).
Prerequisite(s): AVI 105

AVI 262 - Commercial Pilot Ground I
- Credits: 2.00
This course covers Stage 4 of the Commercial Pilot curriculum. VFR cross-country flying, advanced human factor concepts, commercial pilot regulations, Airman's Information Manual procedures are included.
Prerequisite(s): AVI 201

AVI 263 - Commercial Pilot Ground II
- Credits: 2.00
This course covers Stage 5, the final stage of the commercial curriculum, which contains advanced airplane systems. Students will be prepared to take the Commercial Pilot Knowledge Exam at the successful completion of the course.
Prerequisite(s): AVI 262

AVI 280 - Commercial Night Flight Stage 4A
- Credits: 1.00
This course covers lessons 30 - 35 in Stage 4 of the Commercial curriculum and includes day and night VFR cross-country flights and operations at controlled and uncontrolled airports.
Prerequisite(s): AVI 232; AVI 262; In addition a valid first or second class medical and a private pilot certificate with an Instrument Rating-Airplane are required.
Corequisite(s): AVI 262

AVI 281 - Commercial X-C Stage 4B
- Credits: 2.00
This course covers lessons 36-44 of the Stage 4 Commercial curriculum and includes additional practice in cross-country flying and operations at airports and review of all Stage 4 competencies.
Prerequisite(s): AVI 232 In addition, a valid first- or second class medical and a Private Pilot certificate with an instrument Rating-Airplane are required.
Corequisite(s): AVI 280 AVI 262

AVI 282 - Commercial Flight Stage 5
- Credits: 2.00
This course covers Stage 5 of the Commercial curriculum and includes complex airplane operations and commercial flight maneuvers.
Prerequisite(s): AVI 262 AVI 263 AVI 280 AVI 281 In addition a valid first or second class medical and a private pilot certificate with an Instrument Rating-Airplane are required.

AVI 283 - Commercial Certification
- Credits: 2.00
This course covers Stage 6 of the Commercial curriculum and includes proficiency maneuvers and procedures in preparation for the Commercial Pilot Practical Test.
Prerequisite(s): AVI 282; AVI 281; AVI 280 A valid first or second class medical and a private pilot certificate with an Instrument Rating-Airplane are required. In addition, an unexpired original Commercial Pilot Airplane Knowledge Test Report showing a passing score is required to complete this course.
Corequisite(s): AVI 263

AVI 285 - Glass Cockpit Systems
- Credits: 1.00
Students are introduced to technically advanced aircraft flight deck (glass cockpit) systems. Flight instrument and engine indication systems, audio panel, and Communications, Navigation, and Surveillance (CNS) systems are explained. VHF and GPS navigation and instrument procedures, hazard avoidance, and automatic flight control systems are explored.
Prerequisite(s): AVI 232 or AVI 237

AVI 286 - Glass Cockpit Flight Checkout
- Credits: 1.00
Students plan and fly VFR and IFR flight scenarios using full motion visual simulation of a Technically Advanced Aircraft (aircraft with a glass cockpit). Flight plan management and use of an integrated control system (autopilot) during instrument flight is emphasized.
Prerequisite(s): AVI 285

AVI 289 - ACT Commercial Flight I
- Credits: 3.00
This Airline Career Training (ACT) course covers Stage 4A, 4B of the Commercial curriculum and includes day and night VFR cross-country flights and operations at controlled and uncontrolled airports, and includes proficiency maneuvers and additional practice and review of all Stage 4 competencies.
Corequisite(s): AVI 262 AVI 263
AVI 290 - Fundamentals of Ground Instruction  
- Credits: 3.00  
This course covers learning theory, the learning process, communication concepts, the teaching process, teaching methods, lesson planning, and human behavior applied to professional flight instruction. After completing the course the student should be prepared to take the Federal Aviation Administration Fundamentals of Instruction Knowledge Test.

AVI 291 - ACT Commercial Flight II  
- Credits: 2.00  
This Airline Career Training (ACT) course covers Stages 5 of the Commercial curriculum and includes complex airplane operations and commercial flight maneuvers.  
Corequisite(s): AVI 262 AVI 263 AVI 289

AVI 292 - ACT Commercial Flight III  
- Credits: 2.00  
This course covers Stage 6 of the Commercial curriculum and includes proficiency maneuvers and procedures in preparation for the Commercial Pilot Practical Test.  
Corequisite(s): AVI 291 AVI 262 AVI 263

AVI 294 - TAA Flight Deck Systems  
- Credits: 1.00  
Students are introduced to technically advanced aircraft flight deck (glass cockpit) systems. Flight instrument and engine indication systems, audio panel, and communications / Navigation /Surveillance (CNS) systems are explained. VHF and GPS navigation and instrument procedures, hazard avoidance, and automatic flight control systems are explored.  
Prerequisite(s): AVI 200

AVI 295 - Flight Deck Systems Lab  
- Credits: 1.00  
Students plan and fly VFR and IFR flight scenarios using full motion visual simulation of a Technically Advanced Aircraft (aircraft with a glass cockpit). Flight plan management and use of an integrated control system (autopilot) during instrument flight is emphasized.  
Prerequisite(s): AVI 294

AVI 300 - Flight Instructor Ground School  
- Credits: 3.00  
This course covers a review of private pilot, instrument, and commercial pilot knowledge subjects as well as basic, advanced, and instrument instruction in preparation for the Flight Instructor Airplane and Flight Instructor Instrument knowledge tests required for certification as a professional instructor.  
Prerequisite(s): AVI 263

AVI 304 - Instrument Instructor Ground  
- Credits: 1.00  
This course includes a review of techniques of instructing, aeronautical knowledge topics for IFR flight in airplanes, and the study of certification requirements for instrument pilots and instrument instructors to gain the instructional knowledge required to teach these topics including the recognition, analysis, and correction of common student errors.

AVI 320 - Professional Aviation Educator  
- Credits: 3.00  
This course covers teaching theory, pilot flight instructor teaching pedagogy, curriculum development, and assessment in a flight training course, and a review of the aeronautical knowledge topics in preparation for the FAA Fundamentals of Instruction and Certified Flight Instructor Airplane Knowledge Tests.  
Prerequisite(s): AVI 263

AVI 351 - Flight Instructor Basic  
- Credits: 1.00  
This course covers performance of private and commercial maneuvers in the right seat, practice flight instruction and spin maneuvers to be a Certified Flight Instructor of single-engine airplanes.  
Prerequisite(s): AVI 283 a valid Commercial Pilot Airplane-Single Engine Land-Instrument Rating Airplane certificate and a valid first- or second-class medical are required. In addition, unexpired original Flight Instructor Airplane and Fundamentals of Instructing Flight and Ground Knowledge Test Reports showing a passing score are required to complete this course.  
Corequisite(s): AVI 300 AVI 290

AVI 353 - Instructor Pilot Proficiency I  
- Credits: 1.00  
Provides a specialized dual/solo flight instruction course permitting the student and flight instructor to work on mutually agreed areas of proficiency to meet FAA Flight Instructor Pilot standards. Provides additional ground instruction and up to 10 hours of flight training.  
Prerequisite(s): AVI 351

AVI 355 - ACT Flight Instructor Basic  
- Credits: 1.00  
This Airline Career Training (ACT) course covers performance of private and commercial maneuvers in the right seat, practice flight instruction and spin maneuvers to be a Certified Flight Instructor of single-engine airplanes.  
Corequisite(s): AVI 283 AVI 300

AVI 356 - ACT Flight Instructor Instrument  
- Credits: 1.00  
This Airline Career Training (ACT) course covers instrument flight maneuvers from the right seat and practice instruction as an instrument instructor in preparation for the Instrument Flight Instructor rating.

AVI 399 - Multi-Engine Primer  
- Credits: 1.00  
Students master multi-engine airplane flying skills using full motion visual simulation including instrument flight in adverse weather, visual and instrument approaches at large airports, departure procedures, holding, and missed approach procedures operating on one or both engines greatly reducing actual multi-engine airplane flight time needed for the multi-engine class rating.  
Prerequisite(s): Private Pilot Certificate with Airplane Single Engine Land Class Rating and Instrument Airplane Rating.

AVI 400 - Multi-Engine Rating  
- Credits: 1.00  
Students master multi-engine airplane flying skills to meet the requirements for an additional airplane multi-engine airplane class rating per FAA Part 61 regulations. Normal
and single-engine procedures are mastered with an emphasis on safety. The demonstration of instrument airplane and commercial pilot competency in multi-engine airplanes is also required.

**AVI 410 - Multi-Engine Instructor**  
- Credits: 1.00  
The purpose of this course is to acquire the knowledge and skill to be able to add the multi-engine airplane instructor rating to a Certified Flight Instructor Airplane Single-Engine certificate. The student will be able to competently operate multi-engine airplanes from the right seat and demonstrate and evaluate all normal and emergency procedures in a multi-engine airplane as a certified flight instructor.

**Aviation Maintenance**

**AVM 101 - Cleaning/Corrosion Control**  
- Credits: 2.00  
This course covers acceptable materials used for cleaning of aircraft, methods of cleaning, inspection and corrective measures taken for corrosion control. This course includes the study of flexible and rigid fluid lines and fittings. Included is the installation and testing of these components.

**AVM 103 - Aircraft Materials and Processes**  
- Credits: 2.00  
This course includes the study of the various materials which are used in aircraft construction, the processes of fabrication, and the methods used in determining the airworthiness of aircraft. Basic principles of metals, heat treating and non-destructive testing are also included.

**AVM 105 - Regulations and Publications**  
- Credits: 3.00  
This course covers the study of the various publications required by the Federal Aviation Administration which are used in aircraft construction, the processes of fabrication, and the methods used in determining the airworthiness of aircraft. Basic principles of metals, heat treating and non-destructive testing are also included.

**AVM 107 - Weight and Balance**  
- Credits: 1.00  
This course covers the theory, necessity, practical application, and the record keeping, regarding the weight and balance requirements for fixed wing and rotary wing aircraft.

**AVM 109 - Basic Electricity**  
- Credits: 4.00  
This is a course covering the basic theory and principles of both direct (DC) and alternating (AC) currents. This course includes emphasis on Ohm’s Law and battery power.

**AVM 110 - Human Factors in Aviation Maintenance**  
- Credits: 1.00  
This course will give students a working knowledge of what human factors are and how they cause aircraft accidents. Techniques will be discussed on how to mitigate their effects in aviation maintenance. Different models will be discussed including Dupont’s Dirty Dozen, J. Reason’s P.E.A.R. and S.H.E.L. and Boeing’s M.E.D.A. Students will also discuss personal and professional standards of integrity and ethics.

**AVM 111 - Ground Operations and Servicing**  
- Credits: 1.00  
This course covers the ground operation of aircraft to include standard aviation hand signals, typical servicing of the aircraft in preparation for flight, the operation of the engine and aircraft controls, securing of the aircraft on the ground and proper selection and identification of aircraft fuels.

**AVM 113 - Airframe Electrical Systems**  
- Credits: 2.00  
This course develops skills and techniques in the theory of electricity. Major phases includes a review of fundamentals, magnetism, electromagnetism, capacitors, electric measuring instruments, AC and DC generators, electric motors, installations, electrical instruments, and FAA (Federal Aviation Administration) requirements.

**AVM 117 - Avionics/Fire Protection AF**  
- Credits: 1.00  
This course will include inspection, checking, service, and installation of aircraft navigation and communication systems. In addition, students will study the fire detection and extinguishing systems, both portable and build-in, as it relates to airframe.

**AVM 119 - Fundamentals of Physics**  
- Credits: 1.00  
This course incorporates skills in solving problems using whole numbers, fractions, decimals, percents, measurement formulas, and ratio and proportion formulas. It also encompasses a course in basic principles and use of simple machines, sound, fluid and heat dynamics.

**AVM 121 - Weather and Warning Systems**  
- Credits: 1.00  
Students will study the theory, operation, installation, inspection and servicing of aircraft positioning and warning systems. Included is the application and operation of various windshield wiper, anti-icing and deicing systems.

**AVM 122 - Rotorcraft Technology**  
- Credits: 1.00  
This course will cover the intricacies of rotorcraft/helicopter flight control, systems, maintenance, and servicing.

**AVM 123 - Aircraft Assembly and Rigging**  
- Credits: 2.00  
This course covers the inspection, assembly and rigging of aircraft components, balancing of control surfaces and the rigging of the flight controls for proper operation, for both fixed-wing and rotary-wing aircraft.

**AVM 126 - Airframe Structure/Repair**  
- Credits: 4.00  
This practicum includes materials and procedures for aircraft metal repair and maintenance and basic skills of repair coupled with maintenance and inspection of metal structures and components on airplanes.
AVM 127 - Aircraft Wood/Fabric/Finishes  
- Credits: 2.00  
This course covers the fundamentals of aircraft structure and structural components - primarily the structure of wooden aircraft. Also included is the study of basic skills in both repair and maintenance of wood aircraft. Instruction is given in the development of aircraft covering skills, identification of fabrics, and fabric application. A practical application of removal and applying various aircraft finishes, trims and letters is provided.

AVM 129 - Landing Gear and Brake Systems  
- Credits: 2.00  
This course covers the disassembly, inspection, repair, servicing, and testing of landing gear, wheels, brakes, tires, shock struts and steering systems and their related components. For both fixed wing and rotary wing aircraft.

AVM 131 - Airframe Inspections  
- Credits: 1.00  
This course will include theory and practical instructions on airframe conformity and airworthiness inspections.

AVM 134 - Aircraft Hydraulics/Pneumatics  
- Credits: 2.00  
This is a course in principles and application of hydraulics to aircraft systems. It also includes a review of hydraulic power systems in various aircraft and practice in their repair. Aircraft pneumatics is treated in the same manner relative to the comparable theory learned in hydraulics.

AVM 135 - Powerplant Inspection  
- Credits: 1.00  
This course covers FAA and manufacturer’s requirements concerning engine inspection, conformity checks and operational requirements to meet certification requirements.

AVM 137 - Aircraft Instruments  
- Credits: 1.00  
This course provides a study of flight operations theory as it relates to instruments used in aircraft. Included is the installation, inspection and servicing of these instruments by the technician.

AVM 139 - Instruments/Fire Protection-PP  
- Credits: 1.00  
This course covers engine instruments, fire detection and protection devices. Students will troubleshoot and repair the various components and systems which pertain to powerplant monitoring.

AVM 141 - Control Systems  
- Credits: 1.00  
Basic knowledge in troubleshooting, service and repair to heating, cooling, air conditioning and pressurization systems of the modern aircraft is provided.

AVM 143 - Aircraft Gas Turbines  
- Credits: 4.00  
This course is an introduction to the principles of jet propulsion, gas turbine engines, turbo prop and turbo jet powerplants, including engine system troubleshooting, trimming and performing hot end inspection, removal, installation and operation of engine on test stand.

AVM 145 - Aircraft Welding  
- Credits: 1.00  
This course includes the study of metals and their properties, welding gases, pressures and proper use of welding equipment. Safety procedures will be stressed. Students will be introduced to the theory and practice of basic welding, brazing, and soldering techniques.

AVM 147 - Airframe Fuel Systems  
- Credits: 2.00  
Students are provided with course work including the FAR requirements for fuel systems, components of the fuel system and installation and repair of pumps, valves and selectors and their operation in the aircraft fuel system.

AVM 149 - Engine Lubrication Systems  
- Credits: 2.00  
This course deals with the lubrication systems of reciprocating and turbine engines, including components, removal, installation and troubleshooting of the systems. Types of oils used and servicing of the system is also included.

AVM 151 - Engine Fuel/Metering  
- Credits: 2.00  
Introduction to various types of carburization and the development of a high degree of skill in maintenance for various engine fuel systems, including troubleshooting, is covered. Theory and carburization studied includes basic principles and a detailed discussion of float type carburetors, pressure carburetors, fuel injection, and turbine engine fuel control units.

AVM 153 - Powerplant Piston  
- Credits: 5.00  
This course covers the design of reciprocating aircraft powerplants, along with their disassembly/re-assembly, cleaning, inspection, repair and/or replacement of parts and components.

AVM 155 - Aircraft Propeller Systems  
- Credits: 3.00  
Removal, installation, inspection, repair, and servicing of various types of modern airplane propellers is covered.

AVM 157 - Induction/Cooling/Exhaust  
- Credits: 1.00  
This course covers the construction, operation, repair, maintenance, adjustment and inspection of aircraft induction, cooling and exhaust systems and their related components.

AVM 159 - Engine Electrical Systems  
- Credits: 2.00  
This course provides a basic knowledge of the elements of electricity needed to assist the student in understanding the design, operation, servicing and limitations of electrical systems utilized with engines and accessories. Detailed work on generators, control panels and starters is included.

AVM 161 - Aircraft Ignition Systems  
- Credits: 3.00  
This course covers information relating to turbine and reciprocating engine ignition and starting systems and their related components.
**AVM 200 - Avionics Systems I**  
- Credits: 3.00  
The student will be introduced to the principles and in-depth knowledge about terrestrial radio navigation, terrestrial landing aids, satellite navigation, surveillance systems, airborne communications systems and onboard communications. Lab projects are integrated throughout the course to enhance the student’s learning.

**AVM 202 - Avionics Systems II**  
- Credits: 3.00  
The student will be introduced to the principles and in-depth knowledge about aircraft indicators, air data computers, flight control systems and aircraft data bases. Lab projects are integrated throughout the course to enhance the student's learning.

**AVM 204 - Avionics Systems III**  
- Credits: 3.00  
The student will learn the proper procedure to install and troubleshoot avionics systems. The student will use test equipment to troubleshoot problems. Lab projects are integrated throughout the course to enhance the student’s learning.

**AVM 207 - FCC Review and Preparation**  
- Credits: 2.00  
The course is designed to prepare the student to take the General Radiotelephone Operator's License examination. The course will also prepare the student to take the Radar Endorsement examination. The student will be eligible to take the FCC examination elements during this course. The FCC exam elements that comprise the GROL and Radar Endorsement are: Element 1, 3, and 8.

**AVM 208 - Airframe Platform Integration**  
- Credits: 3.00  
The course will take an in-depth look at a specific aircraft make, model and type's avionics and electrical systems. Special interest will be given to how the avionic suites integrate with the aircraft's other airframe and power plant systems. Systems included but not limited to: Flight management auto pilot, engine indicating and crew alerting and flight data. The use of the central maintenance computer system will be stressed and how to interpret faults in the various systems discussed.

**AVM 209 - Aircraft Platform Integration II**  
- Credits: 3.00  
The course will continue from Avionics Platform Integration I by taking an in-depth look at various representative avionics system as installed in specific airframes. Topics will include how the avionic suites integrate with other airframe systems as well as troubleshooting, testing, and maintenance. Special attention will be given to developing avionics installation wiring skills and discussing new and future trends in the avionics industry.  
**Prerequisite(s):**  AVM 208

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**Basic Academic Skills**

**SDV 020 - Study Skills**  
- Credits: 1.00  
This course is designed to help students develop study skills appropriate for college. Students will learn time management skills as well as strategies for effective textbook reading, note taking, and test taking.

**SDV 040 - Strategies for Research**  
- Credits: 1.00  
This course is designed for students with little or no experience in writing research papers. Students will learn to locate and use library and Internet materials. They will also be introduced to other skills critical to writing a research paper, including evaluation information, writing a thesis, making an outline and documenting sources.

**SDV 050 - Basic Thinking Skills**  
- Credits: 1.00  
This course is designed to help students become aware of their thinking strategies and develop new thinking skills. Students will learn to develop broader perceptions of situations and will learn to apply a variety of thinking strategies to solve problems.

**SDV 101 - How to be Successful in College**  
- Credits: 3.00  
This course introduces students to the fundamental skills necessary for college success. Topics include: study and test-taking skills, college culture and services, financial aid and literacy, health and wellness, policies and procedures.

**SDV 126 - Library and Internet Research**  
- Credits: 2.00  
This course introduces the subject of information literacy. Students will learn how to locate, evaluate and synthesize information from library resources and the Internet in an effective and ethical manner. The course will also address common citation formats, plagiarism and copyright issues.

**SDV 130 - Career Exploration**  
- Credits: 1.00  
This course assists students with career choices, taking into account their aptitudes, interests, abilities, personal values and goals. Career assessment instruments will be used to assist students with the process.

**SDV 131 - Career Exploration**  
- Credits: 2.00  
This course begins with Career Planning Basics and proceeds to a diagnosis of skill upgrading, a study of personality styles related to career planning and career exploration via in-depth research and program exploration.

**SDV 137 - Finding and Keeping a Job**  
- Credits: 1.00  
This course covers the skills of finding and keeping jobs. Students will research prospective employers and organize a job search plan to track and follow-up on job contacts. They will learn what is expected in most new jobs and how to get along with co-workers.
SDV 142 - Career Planning
- Credits: 3.00
This course is designed to develop students' career decision knowledge and skills. Students will develop self-awareness techniques related to interests, values, aptitudes, and personality styles. Students will participate in decision making process activities including career research, college program exploration, job shadowing and investigation of non-traditional and entrepreneurial opportunities.

SDV 145 - Resumes and Applications
- Credits: 1.00
This course covers the job skills of writing resumes and completing applications for employment. Students will learn how to complete an assessment of employment history and skills. Students will develop an application resource guide, complete applications and write a resume.

SDV 147 - Letter Writing and Interviews
- Credits: 1.00
This course covers the job skills of letter writing and interviewing. Students will write cover letters, follow-up letters, letters accepting or rejecting job offers and letters of resignation. Students will learn the basics of interviewing, including preparing for the interview and responding to and asking appropriate questions.

SDV 152 - Information Access in the Digital Age
- Credits: 3.00
This course will equip the student with information literacy skills including correct citation methods, copyright and plagiarism. Students will gain conceptual and practical expertise as an information networker to locate, evaluate, and use information effectively.

SDV 181 - STEM Discovery and Leadership
- Credits: 3.00
The goal of this course is to discover views of Science, Technology, Engineering, and Mathematics (STEM) through a leadership lens. A learning cohort approach will be used to increase team building, critical thinking, and leadership styles. Leaders in the field of STEM will be explored to help develop the leaders of tomorrow. A focus on methods and forms of thought and expression, methods of interpretation, analysis, and argument as well as approaches to reading and forms of writing will be used to help students discover STEM and leadership styles.

Biology

BIO 101 - Introductory Biology
- Credits: 2.00
This course introduces: the role of science in everyday life, chemical and biological processes, structures and processes of cells, heredity and evolution. This is a "non-majors level" biology course. It can be accompanied by the 1-credit hour BIO 103 - Introductory Biology Lab or it can be taken alone.
Corequisite(s): BIO 103

BIO 103 - Introductory Biology Lab
- Credits: 1.00
This is a "non-majors level" biology course and is designed to accompany BIO 101 - Introductory Biology. Laboratory work includes the use of laboratory tools for measurements using the metric system, use of the light microscope, and study of biological processes. The process of science and components of experiments are emphasized.

BIO 120 - General Biology 1D
- Credits: 4.00
This course includes an introduction to science, the characteristics of life, ecology, cell structure and function, chemistry of life, metabolism, cell division and reproduction, genetics and heredity and evolution by natural selection. Laboratory work includes the use of laboratory tools and metric system measurements, use of the light microscope, observations of cells, and studies of the scientific method, ecology, enzyme activity, cellular respiration, molecular biology and Mendelian genetics. This is a "majors-level" biology course and is part of the majors biology series. This course has three hours of lecture and four hours of laboratory work per week.

Prerequisite(s): BIO 120

BIO 121 - General Biology IID
- Credits: 3.00
This course includes plant cells, plant anatomy, plant morphology, and plant physiology including photosynthesis, the movement of water and solutes and growth regulation. A survey of the fungi, algae and plant kingdom includes classification, ecology, reproduction and evolutionary relationships. Laboratory work includes microscopic studies of fresh material and prepared slides and investigative study of several aspects of plant physiology. This is a "majors-level" biology course and is part of the majors biology series. This course has three hours of lecture and two hours of laboratory work per week.

Prerequisite(s): BIO 120

BIO 122 - General Biology IIID
- Credits: 3.00
This course includes an introduction to science, the characteristics of life, ecology, cell structure and function, chemistry of life, metabolism, cell division and reproduction, genetics and heredity and evolution by natural selection. Laboratory work includes the use of laboratory tools and metric system measurements, use of the light microscope, observations of cells, and studies of the scientific method, ecology, enzyme activity, cellular respiration, molecular biology and Mendelian genetics. This is a "majors-level" biology course and is part of the majors biology series. This course has three hours of lecture and two hours of laboratory work per week.

Prerequisite(s): BIO 120

BIO 127 - Field Botany
- Credits: 3.00
This course focuses on plant identification with emphasis on the native grasses, forbs, and trees of Iowa. Emphasis is placed on comparative morphology, systematics, and evolution. Ecological principles which affect the distribution and abundance of plants will be discussed. Plants are studied in urban and agricultural environments as well as natural ecosystems including prairie, upland forest, and bottomland forest. This course requires walking and working in the outdoors. There are three hours of lecture and two hours of laboratory work per week.

BIO 161 - Basic Anatomy and Physiology
- Credits: 3.00
This course provides a basic study of the structure and function of the human body. Students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their
interrelationships from the chemical and cellular levels through the organ systems.

Corequisite(s): BIO 199

BIO 175 - Human Anatomy
- Credits: 3.00
This course covers basic concepts in human anatomical structure in relation to simple body functions. All body systems are covered with emphasis on structure. This course is for students interested in pursuing health or science programs. To succeed in this course, a student should have a strong background in biology.

Corequisite(s): BIO 175

BIO 176 - Human Anatomy Lab
- Credits: 1.00
Anatomy lab covers the lecture topics through the use of models, computer simulations and diagrams to confirm anatomical structure of tissues, bones and muscles.

Corequisite(s): BIO 175

BIO 178 - Human Physiology
- Credits: 3.00
This course offers a detailed look into the physiology of the nervous, respiratory, digestive, circulatory, urinary, reproductive and endocrine systems. This course is designed for the health occupations major.

Prerequisite(s): BIO 175

Corequisite(s): BIO 179

BIO 179 - Human Physiology Lab
- Credits: 1.00
Physiology Lab covers the lecture topics emphasizing the visual and simulated physiology of body systems and their accompanying organ anatomy.

Prerequisite(s): BIO 175

Corequisite(s): BIO 178

BIO 187 - Microbiology w/lab
- Credits: 4.00
This course in an investigation into the role of microorganism in nature with a particular emphasis on human/microbial interactions. The course includes a study of morphology, classification, biochemistry and growth characteristics with special emphasis on bacteria staining techniques and aseptic laboratory procedures are stressed. A strong background in biology is highly recommended. This course has three hours of lecture and four hours of laboratory work per week.

Prerequisite(s): BIO 101 or a minimum score of 75% on the Indian Hills Microbiology placement exam.

BIO 199 - Basic Anatomy and Physiology Lab I
- Credits: 1.00
Lab covers the lecture topics to confirm anatomical structure of tissues, bones and muscles and the physiological processes of the cardiovascular, respiratory, urinary, nervous and digestive systems.

Corequisite(s): BIO 161

BIO 925 - Honors Research
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences science instructor on a science research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.

Prerequisite(s): Permission of Instructor.

BIO 949 - Special Topics
- Credits: 1.00
This course explores specialized topics in the field of science. A contract between the student and an Arts and Sciences science instructor outlining the educational project is required.

Prerequisite(s): Permission of Instructor.

Bioprocess Technology

BPT 104 - Introduction to Biotechnology
- Credits: 3.00
A description of the history of biotechnology; trends relative to national, state, and local biotechnological industries; career options and skills needed; technologies used; industrial sectors affected; regulations and patents.

BPT 110 - Applied Industrial Chemistry
- Credits: 3.00
This course is an introduction to the basic principles of inorganic and biological chemistry and their application in the bioprocessing industry.

BPT 121 - Biodiesel Production
- Credits: 2.00
This course will cover the production of biodiesel from various forms of oils, including but not limited to soybeans, corn and used fryer oil. Students will manufacture small batches of biodiesel and be familiar with the American Society of Testing and Materials (ASTM) and biodiesel testing standards.

BPT 122 - Ethanol Fermentation
- Credits: 2.00
This course will introduce the student to principles and techniques used in the corn ethanol industry. Hands on applications include the production and extraction of ethanol.

BPT 127 - Industrial Chemistry
- Credits: 2.00
This course is an introduction to the basic principles of inorganic chemistry and its application in the bioprocessing industry.

BPT 132 - Bacterial/Fungal Fermentation
- Credits: 2.00
In this course students will grow, and later separate, bacterial and fungal cultures for the expressed production of agriculturally significant products.

BPT 135 - Applied Biochemistry
- Credits: 2.00
This course is an introduction to the major chemical constituents of cells including proteins, carbohydrates, lipids and nucleic acids. The structure and kinetics of enzymes, reaction mechanisms and pathways will be covered.

BPT 145 - Applied Microbiology
- Credits: 4.00
This survey course includes topics relating to the structure, function, ecology, nutrition, physiology and genetics of microorganisms. In addition, an introduction to standard
techniques and procedures used in a microbiology laboratory are practiced.

**BPT 147 - Anaerobic Digestion**  
- Credits: 2.00  
The course will focus on the biological processes involved in the production of energy through anaerobic digestion technologies.

**BPT 157 - Good Manufacturing Practices**  
- Credits: 3.00  
This course will cover the regulatory role of the food and drug administration in the approval of pharmaceuticals, the concepts of Good Manufacturing Practices as associated with biotechnology derived products and the role of validation in biopharmaceutical manufacturing.

**BPT 204 - Biomanufacturing Systems**  
- Credits: 1.00  
This course will introduce the student to the design and principles behind systems they will likely encounter in an industrial biomanufacturing plant, with an emphasis on the bioprocessing of agricultural commodities. The systems covered will include, but not be limited to evaporate systems, boilers, steam production and distribution, heat exchangers, distillation, fermentation, water/wastewater treatment, filtration and centrifugation.

**BPT 270 - Advanced Process Control**  
- Credits: 2.00  
This course will include the detailed study of process control technology theory and applications. Industrial process control transducers will be examined and analyzed. PID control loops will be introduced.

**BPT 272 - Process Control Practicum**  
- Credits: 3.00  
This course will include the laboratory application of process control technology. The transducers and a control system utilized in industrial processes will be applied in a practical laboratory environment.  
**Prerequisite(s):** ELT 736

**BPT 281 - Bioprocess Technology Practicum**  
- Credits: 2.00  
This course will be comprised of a research project that will encompass all previous coursework. The student, with direction from the instructor, will conduct a research project using any and all lab instrumentation and materials, record all data, compile a report and make a presentation to their peers.  
**Prerequisite(s):** BPT 122; BPT 132

**BPT 932 - Internship**  
- Credits: 4.00  
Students enrolled in this course will work in a bioprocessing industrial facility or in a biotechnology/microbiology laboratory. Emphasis will be on the integration of academic skills with practical work experience.  
**Prerequisite(s):** BPT 132

### Business

**BUS 102 - Introduction to Business**  
- Credits: 3.00  
Introduction to Business is designed to meet the needs of students who are taking their first course in business. It provides clear-cut descriptions and analyses of our business system as a whole and of its variations with emphasis on social as well as economic topics.

**BUS 104 - Business Essentials**  
- Credits: 3.00  
This is a basic business operations course designed to introduce the student to the main functions of a company/business. Topics include: management, marketing, manufacturing, human resources, sales, quality assurance and accounting.

**BUS 128 - Foundation to Entrepreneurship**  
- Credits: 3.00  
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.

**BUS 130 - Introduction to Entrepreneurship**  
- Credits: 3.00  
This course examines the process of preparing to open or purchase a business. Students will learn how to explore potential business opportunities and investigate how to prepare a business plan. An understanding of key aspects of a business operation will be emphasized. Successful businesses on both the national/international and local levels will be examined.

**BUS 149 - Small Business Financial Management**  
- Credits: 3.00  
Successful entrepreneurial firms require careful financial management. This course covers a broad range of financial activities necessary for new businesses, including obtaining funding, managing cash flow, tracking financial transactions, paying taxes, and keeping the firm financially healthy.  
**Prerequisite(s):** BUS 128 or BUS 130

**BUS 155 - Customer Discovery and Development**  
- Credits: 3.00  
One of the key reasons new businesses fail is because they don't make the sales they expected. This course is focused on solving this problem by finding potential customers, identifying products and services which meet the needs of those customers, and generating sales through effective selling strategies. Students will learn methods for successfully acquiring customers and generating higher revenue through increased sales.  
**Prerequisite(s):** BUS 128 or BUS 130

**BUS 185 - Business Law I**  
- Credits: 3.00  
This course is designed to provide students with fundamental knowledge concerning a series of critical legal and regulatory issues that affect business.
BUS 204 - Professionalism in the Workplace  
- Credits: 3.00  
This course prepares students to enter the workplace with the attitudes and skills required in a professional setting. Designed as a course for students enrolled in career programs and for students preparing to transfer, the course includes the following topics: workplace behaviors, customer service etiquette, business protocol, business communication skills, confidentiality, career development skills. The course assumes a working knowledge of Microsoft Word or equivalent word processing programs.

BUS 910 - Leading and Growing Entrepreneurial Companies  
- Credits: 3.00  
Starting a business is easy, but keeping it open is difficult. This course is designed to prepare entrepreneurs for the increased complexity of managing a growing company. Topics include common human resources (HR) issues, legal requirements of a firm, and risk management. A strong emphasis is placed on creating and managing firm growth. The course also focuses on general best practices for successfully leading a company into the future.  
Prerequisite(s): BUS 149 and BUS 155

BUS 924 - Honors Project  
- Credits: 1.00  
In this course, the student will work independently with a chosen Arts and Sciences business instructor on a business research project designed by the student and the instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.  
Prerequisite(s): Permission of Instructor.

BUS 932 - Internship  
- Credits: 1.00  
This course provides the opportunity to enhance academic preparation and professional growth through hands-on work experience. Students gain valuable real-world experience. Students must have a cumulative GPA of 2.5 or higher and have completed 30 semester credit hours toward an Associate Degree.  
Prerequisite(s): Permission of Instructor.

BUS 949 - Special Topics  
- Credits: 1.00  
This course explores specialized topics in the field of business. A contract between the student and an Arts and Sciences business instructor outlining the educational project is required.  
Prerequisite(s): Permission of Instructor.

Business Computer Applications

BCA 106 - Windows Operating System  
- Credits: 1.00  
This course covers the introduction to the Windows Operating System.

BCA 114 - Internet Basics  
- Credits: 1.00  
This course covers an introduction to the Internet; topics include: World Wide Web (WWW), File Transfer Protocol (FTP), Gopher and Telnet.

BCA 128 - Basic Word Processing  
- Credits: 1.00  
This course is designed to introduce the student to word processing using Microsoft Word. The student will be presented with the concepts of document creation and manipulation in a hands-on environment.

BCA 134 - Word Processing  
- Credits: 3.00  
This course is designed to introduce the student to word processing terminology/concepts with hands-on experience on automated equipment and software. The student will learn the concepts of document creation and manipulation, gaining an understanding of how word processing fits into the business world.

BCA 138 - Advanced Word Processing Applications  
- Credits: 3.00  
Provides further reinforcement of all word processing concepts. Covers mail merge, macros, styles, complex tables, desktop published documents, online forms and long reports. Includes keying specialized documents, such as agendas, news releases, itineraries and speeches. Guided drills are designed to increase speed to 60 words per minute with five or fewer errors on five-minute timed writings. Students learn to make effective document formatting decisions working independently. Course is geared toward student successfully earning the Microsoft Office Specialist Expert certification.  
Prerequisite(s): BCA 134

BCA 142 - Spreadsheets  
- Credits: 3.00  
This course covers the basic concepts of spreadsheets including creating a spreadsheet, creating queries, maintaining a database, and creating reports and forms.

BCA 150 - Basic Spreadsheets  
- Credits: 1  
This course is designed to introduce the student to the fundamentals of Microsoft Excel worksheets. The student will learn to create worksheets and workbooks in order to track financial matters.

BCA 154 - VBA for EXCEL  
- Credits: 2.00  
The fundamentals of Visual Basic for Applications (VBA) will be covered and how VBA can make your Excel spreadsheets more powerful and useful. This course starts with the basics of VB programming, and teaches you to use it beyond basic Macros. Designed for the beginner, no previous programming experience needed, but a solid understanding of Excel is required.

BCA 158 - Spreadsheet Applications  
- Credits: 2.00  
In this course, the student will learn to use a spreadsheet software package by completing business-related applications, exercises, lab projects and tests.

BCA 159 - Database Applications  
- Credits: 2.00  
The student will learn to use a database software package
by completing business-related applications, exercises, lab projects and tests.

BCA 167 - Comprehensive Databases
- Credits: 3.00
The student will learn to use a database software package by completing business-related applications, exercises, lab projects, and tests. Course focus will be on the student earning the Microsoft Office Specialist (MOS) Access certification.

BCA 175 - Basic Presentation Software
- Credits: 2.00
This course covers the detailed instructions on how to use PowerPoint 2000. Topics include: using design templates, using outline view, using embedded visuals, creating a self-running presentation and using Visual basic for Applications (VBA) with PowerPoint.

BCA 178 - Presentation Software
- Credits: 3.00
The student will create presentations from scratch; working with text, fills, colors, outlines, hyperlinks, and objects; customizing templates and toolbars; advanced text and graphics features; animation and slide show effects; and creating charts, tables, flowcharts, organization charts, and diagrams. Course focus will be on the student earning the Microsoft Office Specialist (MOS) PowerPoint certification.

BCA 185 - Beginning Webpage Development
- Credits: 3.00
This course will introduce the concepts of design and development of websites. Creating web sites will be discussed using XHTML and style sheets. These concepts will be applied in a variety of web-development exercises.

BCA 198 - Introduction to Microsoft Publisher
- Credits: 2.00
This course covers Microsoft Publisher 2000 and desktop publishing. Students will create professional quality publications suitable for course work, professional purposes and personal use.

BCA 211 - Office Essentials
- Credits: 1
This course introduces the student to Microsoft Office software, including Word, Excel, PowerPoint and Access. The student will create, save, edit, retrieve and print documents in each of the software packages.

Chemistry

CHM 121 - Introduction to General Chemistry
- Credits: 3.00
This is a survey course in general chemistry covering the topics of measurement, atomic theory, bonding, thermodynamics, stoichiometry and gases. This course is designed for students entering the allied-health science areas or any student desiring a course in liberal arts chemistry. This course has three hours of lecture and two hours of laboratory work per week.

CHM 122 - Introduction to Organic and Biochemistry
- Credits: 4.00
This course will provide a survey of the nomenclature, reactions, and structure and bonding of the important classes of organic compounds. This course will also cover the structure and chemistry of the basic biologically important macromolecules in relation to organic chemistry. This course has three hours of lecture and four hours of laboratory work per week.

Prerequisite(s): CHM 121

CHM 157 - Principles of Chemistry I
- Credits: 3.00
This course is an in-depth study of the principles, theory and methods of chemistry with an emphasis on quantitative problem solving. Topics include fundamental principles of measurement, matter and energy: thermodynamics, physical behavior of gases, kinetic molecular theory, atomic structure and periodicity. This course has three hours of lecture and two hours of laboratory work per week.

Prerequisite(s): CHM 121

CHM 158 - Principles of Chemistry II
- Credits: 3.00
This course is a continuation of College Chemistry I. Topics include ionic and covalent bonding, nomenclature, stoichiometry, thermochemistry and thermodynamics, Lewis structures; VSEPR, hybridization, molecular orbital theory, molecular shape, the structure of solutions and the solid state. This course has three hours of lecture and two hours of laboratory work per week.

Prerequisite(s): CHM 157

CHM 159 - Principles of Chemistry III
- Credits: 4.00
This course is a continuation of College Chemistry II with an increased emphasis on quantitative problem solving. Topics covered include the structure of crystals, dissolution and colligative properties of solution, thermodynamics, chemical equilibria with an emphasis on acid-base chemistry, chemical kinetics and electrochemistry. This course has three hours of lecture and two hours of laboratory work per week.

Prerequisite(s): CHM 158

CHM 166 - General Chemistry I
- Credits: 5.00
This course provides an in-depth study of the principles, theory and methods of chemistry with an emphasis on quantitative problem solving. Topics include fundamental principles of measurement, matter and energy; thermodynamics; physical behavior of gases; kinetic molecular theory; atomic structure; and periodicity. This course has four hours of lecture and three hours of laboratory work per week.

CHM 176 - General Chemistry II
- Credits: 5.00
This course provides an in-depth study of the principles, theory and methods of chemistry with an emphasis on quantitative problem solving. Topics include fundamental principles of measurement, matter and energy; thermodynamics; physical behavior of gases; kinetic molecular theory; atomic structure; and periodicity. This course has four hours of lecture and three hours of laboratory work per week.
laboratory work per week.  
**Prerequisite(s):** CHM 166; or CHM 157; CHM 158  

**CHM 251 - Organic Chemistry I**  
- Credits: 3.00  
This course covers the chemistry of carbon-containing compounds. Topics include a review of atomic structure and bonding as well as structure, nomenclature, physical properties, reactivity and synthesis of alkanes, alkyl halides and alcohols. A knowledge of reaction mechanisms is stressed. This course has three hours of lecture and two hours of laboratory work per week.  
**Prerequisite(s):** CHM 159; or CHM 176 or equivalent  

**CHM 252 - Organic Chemistry II**  
- Credits: 3.00  
This course is a continuation of Organic Chemistry I. Topics covered include the study of alkenes, stereochemistry, nucleophilic substitution, alkynes and conjugated systems. A knowledge of reaction mechanisms is stressed. This course has three hours of lecture and two hours of laboratory work per week.  
**Prerequisite(s):** CHM 251  

**CHM 253 - Organic Chemistry III**  
- Credits: 3.00  
This course covers arenes, aromaticity, electrophilic aromatic substitution, spectroscopy, organometallic compounds, ethers, epoxides, aldehydes, ketones and carboxylic acids. This course has three hours of lecture and two hours of laboratory work per week.  
**Prerequisite(s):** CHM 252  

**CHM 924 - Honors Project**  
- Credits: 1.00  
In this course, the student will work independently with a chosen Arts and Sciences science instructor on a science research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.  
**Prerequisite(s):** Permission of Instructor.  

**CHM 949 - Special Topics**  
- Credits: 1.00  
This course explores specialized topics in the field of chemistry. A contract between the student and an Arts and Sciences chemistry instructor outlining the educational project is required.  
**Prerequisite(s):** Permission of Instructor.  

**Coaching Officiating**  

**PEC 112 - Theory of Coaching**  
- Credits: 3.00  
This course will introduce the student to various responsibilities of coaching sports. Course topics will include philosophy development, practice planning, fund raising, recruiting, legal issues and liability, game management, budgeting, scheduling and hiring officials.  

**PEC 113 - Coaching Ethics**  
- Credits: 3.00  
This course examines the principles of ethics as they apply to the coaching profession. Emphasis will be placed on such topics as moral reasoning; developing moral values and principles; intimidation, competition and sportsmanship; rules and violence; eligibility; ergogenic aids for sport performance; and gender equity in sport.  

**PEC 162 - Sports Officiating: Fall Sports**  
- Credits: 2.00  
This course introduces students to the rules, regulations, and mechanics required to properly officiate the traditional fall sports of football and volleyball. Iowa certification for officiating can be obtained by paying the state fee and passing IHSAA or IGHSAU exams.  

**PEC 163 - Sports Officiating: Winter Sports**  
- Credits: 2.00  
This course introduces students to the rules, regulations and mechanics required to properly officiate the traditional winter sports of basketball, wrestling and swimming. Iowa certification for officiating can be obtained by paying the state fee and passing IHSAA or IGHSAU exams.  

**PEC 164 - Sports Officiating: Spring Sports**  
- Credits: 2.00  
This course introduces students to the rules, regulations and mechanics required to properly officiate the traditional spring sports of baseball, softball and track and field. Iowa certification for officiating can be obtained by paying the state fee and passing IHSAA and IGHSAU exams.  

**PEH 102 - Health**  
- Credits: 3.00  
This course will present an overview of a variety of health related topics. Instructional areas will include reproduction, mental health, smoking, alcohol, drugs, marriage, family, child abuse, nutrition, fitness, diseases, aging, dying, and death.  

**PEH 115 - Wellness Education**  
- Credits: 3.00  
This course will introduce students to the components of physical fitness, including muscular strength, muscular endurance, flexibility, cardiovascular endurance and body composition. Students will integrate information on nutrition, weight training and cardiovascular exercise into the development of a total exercise program. The course will consist of lecture and exercise sessions.  

**PEH 142 - First Aid**  
- Credits: 3.00  
This course focuses on providing first aid and CPR to medical emergency victims. This course emphasizes the importance of providing assistance until EMS personnel arrive. Students will demonstrate correct first aid skills and will complete the American Heart Association Heart Saver courses.  

**PEH 152 - Basic Healthcare Techniques**  
- Credits: 3.00  
This course focuses on basic techniques in healthcare. These techniques will include Heartsaver First Aid and AHA Basic Life Support(BLS), basic physical evaluations, basic measurement, heat related injuries, concussions and blood-borne pathogen training. The course will also include Dependent Adult and Child Abuse training. Students demonstrating proficiency in Heartsaver First Aid and AHA
Basic Life Support (BLS), and blood-borne pathogen training will receive their certifications in those areas.

**PEH 162 - Introduction to Physical Education**  
- Credits: 3.00  
In this course students will be introduced to all aspects of physical education. Topics will include the nature and scope of the discipline, its history, PE settings and the future of physical education.

**PEH 176 - Sport Psychology**  
- Credits: 3.00  
This course examines the principles of sport psychology as they apply to the coaching setting. Emphasis will be placed on such topics as team cohesion, building a positive team environment, identifying and encouraging team leadership, motivating athletes, attentional focus and the coach/athlete relationship.

**PEH 210 - Elementary Physical Education**  
- Credits: 3.00  
This course will introduce students to fundamentals of physical education and health programs for elementary students. Teaching methodologies and curriculum development will be explored. The student will be provided with the opportunity to experience working with children of this age group in a physical education setting.

**Collision Repair & Refinish**

**CRR 310 - Adapters, Tools and Measurements**  
- Credits: 1.00  
This course will cover safety procedures and identification of hand tools and measuring devices in the mechanical trades. The course will also include precision tools and measuring devices. Repair and maintenance of this equipment will be covered. The student will become familiar with fittings, connectors, pipe, hoses, tubing and their installation.

**Communications**

**COM 140 - Introduction to Mass Media**  
- Credits: 3.00  
This course is an introduction to the history, evolution, and relationships of the media and their effects on our society. It examines print, electronic, and social media as well as ethics, advertising, and public relations.

**COM 148 - Diversity and the Media**  
- Credits: 3.00  
Diversity and the Media presents a historical perspective and a current analysis of diverse peoples and cultures through an examination of how media depict these groups.

**COM 723 - Workplace Communications**  
- Credits: 3.00  
This course covers relevant information and practical application of methods to improve the effectiveness of on-the-job communication. Subject matter covered includes reading, writing, speaking, and listening skills.

**COM 725 - Workplace Communications**  
- Credits: 2.00  
This course covers relevant information and practical application of methods to improve the effectiveness of on-the-job communication. Subject matter covered includes reading, writing, speaking, and listening skills.

**COM 948 - Special Topics**  
- Credits: 1.00  
This course explores specialized topics in the field of English and communication. A contract between the student and an Arts and Sciences English instructor outlining the educational project is required.  
**Prerequisite(s):** Permission of Instructor.

**SPC 170 - Professional Communication**  
- Credits: 3.00  
This course provides an introduction to the principles of professional communication and the communication skills utilized in professional environments. Communication methods will be applied to organizational settings in such forms as interpersonal relationships, interviewing, collaborative group work, methods of conflict resolution, technological communication, and public speaking. The course explores communication theory, organizational culture, perception, leadership, power, diversity, listening, verbal and nonverbal communication.

**Computer Aided Drafting**

**CAD 105 - CAD I**  
- Credits: 2.00  
This course is designed to give the student an introduction to computer-aided drafting with basic principles. Students will also develop knowledge of more sophisticated tasks working with CAD.

**CAD 106 - CAD II**  
- Credits: 3.00  
This course is a continuation of CAD drafting with an emphasis on advanced drawing, construction and a 3-D environment.  
**Prerequisite(s):** CAD 105

**CAD 140 - Parametric Solid Modeling I**  
- Credits: 3.00  
This course covers the basics of creating parts, modeling
CAD 141 - Parametric Solid Modeling II
- Credits: 3.00
This course covers advanced features of Pro/ENGINEER solid modeling software. The following concepts are introduced: customizing the inter-face, advanced feature creation, utilities, advanced drawing techniques and advanced assembly techniques.
Prerequisite(s): CAD 140

CAD 142 - Parametric Solid Modeling III
- Credits: 3.00
This course covers the design and modeling of sheet metal parts, surfacing techniques for modeling parts, and use of the Pro/ENGINEER cabling module. Prerequisites: CAD 141 - Parametric Solid Modeling II.
Prerequisite(s): CAD 141

CAD 165 - Rendering and Animation
- Credits: 3.00
This course covers the basics of animation, lighting, textures, materials and modeling using commercially available animation software.

CAD 180 - Intro to Solidworks
- Credits: 2.00
This is a combined collaborative learning and lab course. The student will be introduced to computer-aided drafting using SolidWorks software. The student will develop skills in SolidWorks basic commands and specific command sequence operations. Data entry will be by keyboard and pull down menus.

CAD 210 - Pipe Drafting
- Credits: 1.00
This course is designed to provide the student with the basic knowledge to create process piping drawings. The student will be exposed to the fundamental concepts and techniques used within the process piping industry.
Prerequisite(s): CAD 105

CAD 230 - Geometric Dimensioning and Tolerancing
- Credits: 2.00
The student will learn the fundamentals of Geometric Tolerancing, according to ANSI standards. Skill will be developed in both the interpretation and application of Geometric Tolerancing to engineering drawings.
Prerequisite(s): MFG 131

Computer Networking

CIS 203 - Introduction to Web Frameworks
- Credits: 3.00
An introductory course exploring the various frameworks used to provide a robust and efficient method of developing for the web. Students will compare and contrast the various popular frameworks and develop web pages utilizing these frameworks. The Model View Controller architecture pattern will also be discussed and used.
Prerequisite(s): BCA 185

CIS 279 - Introduction to Mobile Development
- Credits: 3.00
This course provides students with an introduction to mobile applications and general knowledge of how such applications are developed, marketed, distributed and utilized. This course examines the prevalence of mobile applications and the skills necessary to become a developer of mobile applications.

CIS 286 - User Experience Design
- Credits: 3.00
An introductory course exploring techniques to create applications providing a rich user experience (UX) on mobile devices with limited screen size, multi-touch screen control and passive sensing capabilities. Identify methods used to gain a thorough understanding of user needs, translate user needs into design solutions and evaluate designs through usability testing. Discuss best practices applicable to user interface (UI) design for mobile applications.
Prerequisite(s): BCA 185

CIS 338 - SQL/Oracle
- Credits: 3.00
This course is designed to enable students to learn the fundamental aspects of Structured Query Language (SQL) in order to create and maintain Oracle database objects, as well as store, manipulate, and retrieve data from an Oracle database. Also, students will learn fundamental aspects of Oracle's Programming Language/Structure Query Language (PL/SQL) in order to create PL/SQL application code blocks that can be shared by Oracle forms, reports and data management applications.
Prerequisite(s): CIS 351

NET 122 - Computer Hardware Basics
- Credits: 3.00
This course will cover information from the Computing Technology Industry Association (CompTIA) sponsored A+ Certification Exam, which is designed to certify computer technicians in PC software and hardware repair.

NET 153 - Advanced Networking
- Credits: 4.00
This course introduces the student to various protocols and internetwork technologies used in wide area networks.
Prerequisite(s): NET 725 NET 684

NET 202 - Programming for Network Administrators
- Credits: 3.00
Basic programming techniques using the Python programming language to automate system administration tasks. Students will design, code, and test Python applications.
Prerequisite(s): NET 319 NET 786

NET 292 - Information Technology Capstone
- Credits: 5.00
This course is the capstone for all the courses that are taught for the Computer Networks and Security program. The student will design and implement a network based on provided project criteria as well as monitor and fix any issues that arise during the course. The student is responsible to ensure that the network developed is properly protected and remains functional for the duration of the term. If an issue arises, the student must
troubleshoot the problem, develop a viable solution and implement the solution to get the network back into operation. The student will use an array of operating systems from Windows Server, Windows Workstation and Linux. The student will also work together with students from each term to provide help desk functions and provide user support for new students in the lab.

Prerequisite(s): NET 626 NET 404 NET 671

NET 310 - Virtual Machines
- Credits: 3.00
This course will cover the concepts of virtual machines and virtualization software. Topics will include the ability to install and run multiple operating systems on one computer or server.

Prerequisite(s): NET 122 NET 725

NET 319 - Microsoft Server
- Credits: 3.00
This course will provide students with the knowledge and skills necessary to install and configure Microsoft Windows Server environment on individual servers and virtually in the lab.

Prerequisite(s): NET 122 NET 310

NET 343 - Windows Directory Services
- Credits: 3.00
This course provides the students with the knowledge and skills necessary to install, configure, and administer a current version of Windows Server with Active Directory Services including group policy tasks. Material taken directly from the Microsoft Official Academic Course Exam and will include administration of Windows Server on the lab network.

Prerequisite(s): NET 319 NET 310

NET 404 - Linux Network Administration
- Credits: 4.00
You will plan and implement a Unix style network utilizing Linux. In doing so you will assume the role of network administrator and apply the concepts of networking with Linux, planning the system, installing the network operating system, understand the history and structure of Linux and the role of the system administrator, utilize shells, scripts, and editors, apply administrative tasks including adding users and groups, understand hardware redundancy and fault tolerance, track system usage, utilize system logging, create scripts and automated procedures, manage printing, and back up system data.

Prerequisite(s): NET 445 NET 725 NET 310

NET 445 - Linux Operating System
- Credits: 4.00
This is an introductory, hands-on course that provides you with the skills to use the Linux operating system. Basic GUI operations and Linux commands for editing and manipulating files, managing programs, managing processes and interacting with the BASH shell are presented via lecture and lab exercises. It is intended for people with some computer experience but little or no experience with a Linux/UNIX system.

NET 478 - Information Storage and Management
- Credits: 3.00
This course introduces the student to network storage technology including Storage Area Networks (SAN) running on the NetApp & EMS platforms. The student will learn about the architectures, features and benefits of intelligent storage systems. Topics include networked storage technologies and long-term archiving solutions, their selection and implementation, security and storage virtualization.

Prerequisite(s): NET 310

NET 610 - Security Fundamentals
- Credits: 2.00
This course will provide an overview of the vulnerabilities that exist in most information systems. Students will learn how policies, user education, and software and hardware tools can help prevent those systems from being attacked.

NET 616 - VMware VCP
- Credits: 3.00
This course equips students with the knowledge, skills, and abilities to build and run a VMware vSphere environment. It focuses on the installation and configuration of VMware ESX/ESXi hosts and VMware vCenter Server and on the management of ESX/ESXi hosts and virtual machines with vCenter Server. The course prepares students to achieve the status of VMware Certified Professional. The course is based on VMware's VCP certification and as such when VMware changes their VCP certification this course will change to reflect the most current certification requirements.

Prerequisite(s): NET 310 NET 725

NET 619 - Network Attacks: Detection, Analysis and Countermeasures
- Credits: 3.00
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.

Prerequisite(s): NET 626

NET 626 - Network Security Audit
- Credits: 3.00
This course will demonstrate the tools and techniques used by network security auditors to detect and document vulnerabilities in an information system. Hands-on familiarity with these tools will allow the student to determine which areas of the system are most in need of increased security measures.

Prerequisite(s): NET 610 NET 153

NET 671 - Microsoft Exchange Server
- Credits: 2.00
This course will cover information and skills needed to update and support a reliable, secure messaging infrastructure. Topics will include creating, storing and sharing information using Microsoft Exchange Server in a medium to large-sized messaging environment.

Prerequisite(s): NET 343; NET 684

NET 684 - TCP/IP for Networking
- Credits: 4.00
This course covers the implementation and administration of TCP/IP networks. Students will learn how data packets are sent between different networks and how to assign IP addresses to subnets. Other topics covered include IP routing protocols RIP and OSPF as well as host address
resolution services using ARP, DHCP and DNS.

**Prerequisite(s):** NET 725

**NET 725 - Networking Essentials**
- Credits: 3.00
This course will cover information for the CompTIA Network+ certification exam N10-006/N10-007. In addition to a certification study guide, hands-on labs will enforce student understanding of infrastructure wiring and standards.

**NET 782 - Computer Users Support**
- Credits: 3.00
Introduces the concept of supporting personal computers as a career. Designed to help students target their customers and develop appropriate service skills. The course provides an introduction to end-user computing, computer user support, customer service skills, skills required to troubleshooting computer problems, common support problems, help desk operation user support management, product evaluation strategies and standards, user needs analysis and assessment, installing end-user computer systems, training computer users, technical writing skills, and computer facilities management.

**Prerequisite(s):** NET 786

**NET 786 - Fundamentals of Desktop Support**
- Credits: 4.00
Troubleshooting computer operating systems and working with end users in a help desk supporting role. Students will use troubleshooting tools such as the Microsoft Knowledge Base, Safe Mode, Computer Management and other operation tools.

**Prerequisite(s):** NET 122

**NET 844 - Network/Systems Capstone**
- Credits: 3.00
This course covers the analysis, configuration, and implementation of a computer network system. Students will properly configure a complete network system, including but not limited to, making the cables and properly terminating them to configuring routers, installing server software and configuring user accounts. A strong emphasis will be placed on configuring security at all levels. Microsoft Visio and other tools will be used to properly document the system and students will present and explain their design process and network layout.

**Prerequisite(s):** NET 626 NET 404 NET 671

**NET 845 - Security Field Projects**
- Credits: 2.00
This course covers the creation and demonstration of a computerized and physical security system in a group environment. Knowledge and practical experience will be gained by analyzing the current system status and redesigning the system in an effort to improve security.

**Prerequisite(s):** NET 626

**NET 932 - Internship**
- Credits: 3.00
Students enrolled in this course will work as an intern with a sponsoring organization in a position related to computer networking and security. Emphasis will be on the integration of academic skills with practical work experience.

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**Computer Software Development**

**CIS 121 - Intro to Programming Logic**
- Credits: 3.00
This course covers an introduction to programming logic. Topics will include logic, development techniques, logic development tools, documentation, report layouts and program testing.

**CIS 169 - C#**
- Credits: 3.00
This course introduces students to creating applications using the C# programming language. Students will create C# programs in the .NET environment.

**Prerequisite(s):** CIS 121

**CIS 171 - Java**
- Credits: 3.00
This course will discuss the concepts of object oriented programming. These concepts will then be applied in a variety of programming exercises.

**Prerequisite(s):** CIS 121

**CIS 175 - Java II**
- Credits: 3.00
This course is a continuation of Object-Oriented Programming. Additional concepts of object-oriented programming will be applied in a variety of programming exercises.

**Prerequisite(s):** CIS 171

**CIS 181 - Java III**
- Credits: 3.00
This course is a continuation of Java II. Advanced topics for creating Java programs will be discussed. Object oriented programming concepts will be utilized by students in completing programming exercises.

**Prerequisite(s):** CIS 175

**CIS 183 - Oracle Academy: Database Design**
- Credits: 3.00
This course covers data modeling, database design, entities and entity relationships and cardinality. Discussion topics are reinforced by the student participating in a group project designing a database and presenting the design.

**CIS 198 - JavaScript**
- Credits: 3.00
This course covers the use of Scripting Languages (JavaScript) to create dynamic web pages.

**Prerequisite(s):** BCA 185

**CIS 199 - XML**
- Credits: 2.00
This course introduces students to the XML technology. Students will create valid and well-formed XML documents and DTDs. Other concepts include style sheets to format XML documents and developing programs that use XML documents.

**Prerequisite(s):** BCA 185
CIS 206 - Web Scripting
- Credits: 3.00
This course introduces students to creating dynamic Web pages by using current web scripting languages/techniques. Students will create web pages that use client and server side scripts, as well as installing and using web servers. Web forms will also be used to display/modify database.
Prerequisite(s): BCA 185

CIS 216 - Web Design and Management
- Credits: 2.00
In this course, students will use standard industry software to create websites from start to finish while developing and enhancing HTML, CSS and visual design skills.
Prerequisite(s): BCA 185

CIS 226 - Advanced Web Design
- Credits: 2.00
This course is designed with many hands-on activities to enable students to become proficient in the advanced features of Microsoft FrontPage. Topics include: creating and using templates in a web site, integrating a database with a web site, using layout tables, and using office components.
Prerequisite(s): CIS 216

CIS 239 - Dynamic HTML
- Credits: 2.00
This course covers the most important topics of DHTML, including working with dynamic layout and content, adding special effects, controlling mouse and keyboard events and creating new windows and frames.
Prerequisite(s): CIS 209; CIS 205; or BCA 185

CIS 281 - Mobile Development
- Credits: 3.00
This course will cover design, development and deployment of mobile applications. Students will explore tools used to develop mobile applications for a variety of platforms.

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- Credits: 3.00
This course will cover design, development and deployment of mobile applications. Students will explore tools used to develop mobile applications for a variety of platforms.

CIS 284 - Advanced Mobile Development
- Credits: 3.00
This course will cover advanced topics in the theory and design of mobile applications. Students will apply responsive design concepts to create applications for the latest mobile platforms, and the deployment to the mobile marketplace.
Prerequisite(s): CIS 281

CIS 334 - PHP/APACHE/MYSQL
- Credits: 3.00
This course introduces students to creating applications using PHP, Apache Server and MySQL. Students will create HTML web pages to do form processing. Form processing will contain embedded PHP and MySQL commands to retrieve and display data from a database. Other concepts include using cookies and sessions to pass data from one web page to another.
Prerequisite(s): BCA 185

CIS 337 - SQL/Oracle
- Credits: 2.00
This course covers database concepts and utilization using an Oracle database environment. Structured Query Language (SQL) will be used to generate query statement and to define databases.
Prerequisite(s): CIS 351

CIS 344 - Database Programming With DB2
- Credits: 3.00
This course covers advanced concepts of relational database programming using a DB2 database environment. Students will write COBOL applications to maintain working data bases.
Prerequisite(s): CIS 351

CIS 351 - Introduction to Database Concepts
- Credits: 3.00
This course covers an overview of database concepts and utilization. Topics include management considerations, data structures and access methods. Discussion topics are reinforced through lab exercises.

CIS 361 - Business Intelligence
- Credits: 3.00
This course will introduce the concepts of business intelligence as used in business management to enhance decisions based on information in available data warehouses. The student will analyze case studies and utilize business intelligence tools.
Prerequisite(s): CIS 501

CIS 402 - Cobol
- Credits: 3.00
This course will introduce the student to structured Cobol programming language. The student will be presented with the language syntax and design concepts pertaining to Cobol. The student will write several application programs to reinforce discussion topics.
Prerequisite(s): CIS 121

CIS 412 - Cobol II
- Credits: 3.00
This course will introduce the student to advanced topics in structured Cobol. The student will be presented with language syntax and design concepts. The student will code several application programs to reinforce discussion topics.
Prerequisite(s): CIS 402

CIS 421 - Cobol III
- Credits: 3.00
This course will further student studies with advanced topics and commands in structured Cobol. The student will be presented with language syntax and design concepts. The student will code several application programs to reinforce discussion topics.
Prerequisite(s): CIS 412

CIS 486 - Introduction to 4GL Programming
- Credits: 3.00
This course will cover the design and implementation of software applications. Students will utilize a 4GL tool to develop these applications.
CIS 501 - Intro to Business Analysis
- Credits: 3.00
This course covers the analysis, design and documentation of electronic data processing systems. Knowledge and practical experience will be gained by analyzing, designing, documenting and presenting a computerized system students have developed.
Prerequisite(s): CIS 351 or CIS 338

CIS 503 - Intro to Systems Analysis
- Credits: 2.00
This course covers the analysis, design and documentation of electronic data processing systems. Knowledge and practical experience will be gained by analyzing, designing, documenting and presenting a computerized system students have developed.
Corequisite(s): CIS 728

CIS 590 - Mainframe Environment
- Credits: 3.00
This course introduces the student to architecture of today's mainframe including the hardware, systems software and the z/OS operating system. Students explore multiprogramming, data representation, memory management principles (including virtual), syntax and techniques of the Job Control Language. Students also learn about hardware interfaces, utilities, libraries, JCL procedures, access methods, virtual storage environments and VSAM files.

CIS 604 - Visual Basic
- Credits: 3.00
This course will focus on developing applications using a visual programming language. The student will write programs that utilize graphical user interfaces.

CIS 618 - Advanced .Net Programming
- Credits: 3.00
This course will focus on developing applications and components using advanced visual programming concepts. The student will create custom controls and write programs that utilize graphical user interfaces using the current .Net Framework.
Prerequisite(s):

CIS 728 - Programmer Communications
- Credits: 2.00
This course will develop the student programmer's ability to communicate in the following areas: business letter and memo writing, progress report writing, program documentation, written systems presentations, and oral presentations. Assignments in other classes in which the student is enrolled will be coordinated with this course.
Prerequisite(s): ENG 101; SPC 112; ENG 105 or SPC 101
Corequisite(s): CIS 503

CIS 750 - Project Management
- Credits: 3.00
This course provides the student with the conceptual framework and practical tools to effectively plan and manage the activities of small, medium and complex projects.

CIS 845 - Quality Assurance
- Credits: 2.00
This course introduces methods of software quality assurance (SQA) for accurate and thorough verification and validation of software and improved control of software development and enhancement. It includes coverage of software quality factors, the systems development life cycle and SQA factors, the methods, tools and techniques for measurement of software quality and quality control, the costs associated with quality at each phase of the systems development life cycle and various effective SQA guidelines and standards.

CIS 850 - Programming Field Project I
- Credits: 2.00
This course covers the analysis, design, documentation and presentation of a computerized business system in a group environment. Knowledge and practical experience will be gained by analyzing, designing, document and presenting the computerized system students have developed.
Corequisite(s): CIS 501

CIS 851 - Programming Field Project II
- Credits: 2.00
This course covers the creation, implementation and demonstration of a computerized business system in a group environment. Knowledge and practical experience will be gained by coding, implementing and demonstrating the computerized system students have created.
Prerequisite(s): CIS 850 CIS 169 CIS 175

CIS 932 - Internship
- Credits: 4.00
Students enrolled in this course will work in an industry computer programming and/or systems analysis department. Emphasis will be on the integration of academic skills with practical work experience.

CIS 174 - Advanced C# Programming
- Credits: 3.00
Students will learn ASP.NET development with C# and relational databases. Students will build dynamic websites using both ASP.NET and ASP.NET Core concepts. The course includes topics such as MVC, Web Services, Entity-Framework and Cloud development.
Prerequisite(s): CIS 169

CIS 453 - Computer Science (CSE) I
- Credits: 3.00
This course aims to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. This class will introduce the students to programming and the various tools used to develop software.

CIS 455 - Computer Science (CSE) II
- Credits: 3.00
This course will continue to aim to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. This class will emphasize the need for large-scale data collection and analyze and explore the emergence of intelligent behavior.
Prerequisite(s): CIS 453

CIS 480 - Agile Development
- Credits: 3.00
This course will cover the design and implementation of software applications using an agile-based development
Students will utilize a 4GL tool to develop these applications.

**CIS 598 - Python**  
- Credits: 3.00  
This course will focus on developing applications using the Python programming language. The student will write programs that demonstrate the use of variable definitions, selection and loop structures, collections, user-input, and file handling.  
**Prerequisite(s):** CIS 121

**CSC 105 - Computer Essentials**  
- Credits: 1.00  
The basics of the Windows operating system, electronic communications, and Internet research will be covered. Students will use basic features of word processing and presentation software. This course is intended for students with limited computer skills.

**CSC 110 - Introduction to Computers**  
- Credits: 3.00  
This course is an introduction to business computer software and hardware. Students will use basic and intermediate features of word processing and spreadsheet software, and basic features of database and presentation software. General computer concepts and the Internet will also be covered.

**CSC 116 - Information Computing**  
- Credits: 3.00  
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). An introductory course covering Microsoft Excel and Access is highly recommended prior to taking this course.

### Construction

**CON 111 - Basic Drafting**  
- Credits: 2.00  
This course is built around work normally required of a drafter in a work setting. The student will be introduced to the methods of home design.

**CON 124 - Construction Estimating I**  
- Credits: 3.00  
This course is designed to familiarize students with concepts and terminology necessary to read, interpret and draw basic architectural drawings.

**CON 125 - Construction Estimating II**  
- Credits: 3.00  
This course is designed to familiarize students with the concepts and terminology necessary to read, interpret and draw basic architectural drawings. The concepts of specifications, basic contract language, and unit pricing will be incorporated with computer-generated estimating processes.  
**Prerequisite(s):** CON 124

**CON 167 - Principles of Carpentry I**  
- Credits: 2.00  
This is the introductory theory course in carpentry. It includes teaching units in areas such as the trade, tools, woods, fasteners and materials. Also included is a unit on job safety.

**CON 168 - Principles of Carpentry II**  
- Credits: 2.00  
Study is the theory covering millwork selection and installation, concrete floors and interiors.

**CON 169 - Principles of Carpentry III**  
- Credits: 2.00  
This course covers areas of building codes, selection of site, excavation, footings and foundation. Also included are units in waterproofing, floor framing and back filling.

**CON 173 - Principles of Carpentry IV**  
- Credits: 2.00  
Wall framing and sheathing, ceiling and roof framing, stressing methods and applications of the various materials are covered. Teaching units include solving common problems on the installation and construction of stairs.

**CON 197 - Construction Lab I**  
- Credits: 6.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.  
**Corequisite(s):** CON 276

**CON 198 - Construction Lab II**  
- Credits: 6.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.  
**Corequisite(s):** CON 277

**CON 199 - Construction Lab III**  
- Credits: 6.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.  
**Corequisite(s):** CON 278

**CON 200 - Construction Lab IV**  
- Credits: 6.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.  
**Corequisite(s):** CON 279

**CON 245 - Residential Wiring**  
- Credits: 2.00  
This course introduces students to terminology, vocabulary and electrical symbols. The concepts will then be used to study branch circuits, wiring devices, service entrance requirement and safe installation practices in accordance with the current National Electrical Code and local authority having jurisdiction.
CON 248 - Heating, Plumbing and Air Conditioning  
- Credits: 2.00  
This course introduces students to history, terms, and safety concepts of modern sanitation systems. Emphasis will be placed on design and installation of residential drain waste and vent potable water systems in compliance with state a local codes.

CON 271 - Concrete & Masonry Technology  
- Credits: 3.00  
Students will learn basic concepts of concrete design and placement and masonry design and bricklaying. Emphasis will be placed on safety and technique.

CON 276 - Construction Technology I  
- Credits: 3.00  
This course is designed to introduce students to the fundamental vocabulary, terms, and concepts to begin a career in carpentry. Beginning with tools and plan reading, this course will then study framing fundamentals with some attention given to concrete and reinforcement, fasteners, adhesives and engineering products.

CON 277 - Construction Technology II  
- Credits: 3.00  
This course is designed to familiarize students with fundamental vocabulary terms and concepts to begin a career in carpentry. This course covers the principles of wall and ceiling framing, roof framing and basic stair construction. Installation and design factors for windows and doors will also be studied.

CON 278 - Construction Technology III  
- Credits: 3.00  
This course is designed to familiarize students with fundamental vocabulary, terms and concepts to begin a career in carpentry. Primary concentration will be exterior finishing systems, roofing materials and installation, thermal and moisture technology and metal stud systems.

CON 279 - Construction Technology IV  
- Credits: 3.00  
This course is designed to familiarize students with fundamental vocabulary, terms and concepts to begin a career in carpentry. Primary areas of study are drywall installation and finishing, installation and identification of interior doors, and cabinets and identification and installation of trim materials.

CON 295 - Construction Lab V  
- Credits: 2.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 296 - Construction Lab VI  
- Credits: 2.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 297 - Construction Lab VII  
- Credits: 2.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 298 - Construction Lab VIII  
- Credits: 2.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 299 - Advanced Construction Technology  
- Credits: 3.00  
This course is designed to provide students with experience in construction situations. Subjects include, but not limited to, irregular roof framing, stair building, alternative energy products and universal design.

CON 304 - Introduction to Building Science  
- Credits: 3.00  
This course is designed to acquaint students with design principles of insulation, ventilation, moisture control and air quality. Using the principles, students will study effective ways to accomplish energy efficiency using sustainable materials and green building practices.

CON 310 - Architectural Design Fundamentals  
- Credits: 3.00  
This course provides students with skills required of a drafter in a work setting. The student will be introduced to the methods of home design.

CON 450 - Construction Lab IA  
- Credits: 3.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 451 - Construction Lab IB  
- Credits: 3.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 452 - Construction Lab IIA  
- Credits: 3.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 453 - Construction Lab IIB  
- Credits: 3.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 454 - Construction Lab IIIA  
- Credits: 3.00  
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.
CON 455 - Construction Lab IIIB
- Credits: 3.00
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 456 - Construction Lab IVA
- Credits: 3.00
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 457 - Construction Lab IVB
- Credits: 3.00
Students will apply knowledge gained in classroom studies to practical applications on a construction project. Daily participation using hand and power tools and personal safety equipment will be required.

CON 932 - Internship
- Credits: 6.00
The Construction Internship II provides on the job training for area of student interest. This course will have a manager's or supervisor's emphasis with job shadowing and leadership skills the main focus. Students will be required to document their time and discuss with instructor during scheduled meetings.

Criminal Justice

CRJ 100 - Intro to Criminal Justice
- Credits: 3.00
This course covers the subsystems of the criminal justice system. The emphasis is on law enforcement, the courts and corrections.

CRJ 101 - Ethics in Criminal Justice
- Credits: 3.00
This course will explore the conduct of criminal justice practitioners. Development of moral and ethical behavior will be stressed. Ethics in prosecution and punishment is also considered.

CRJ 106 - Interviewing & Writing Strategies
- Credits: 3.00
A course structured to develop the fundamentals of acceptable written and oral communication and expression relevant to the student’s needs in the areas of criminal justice. Specific assignments will emphasize the practical aspects of communications in criminal justice agencies. **Prerequisite(s):** CRJ 100

CRJ 110 - Patrol Procedures
- Credits: 3.00
This course will expose the student to basic procedures of patrol. It will include patrol operations, vehicle stops, crimes in progress and unusual occurrences. Both classroom lecture and practical experience will be utilized.

CRJ 141 - Criminal Investigation
- Credits: 3.00
This course is designed to introduce criminal justice students to techniques and practices used when investigating property crimes, violent crimes, organized crime, gangs and cults.

CRJ 150 - Defensive Tactics
- Credits: 1.00
Defensive tactics is a system of defense and control techniques devised primarily for the field of law enforcement. Acting in the capacity of a police officer in protection of others, the student will participate in a combination of PR-24 baton, karate, wrestling and plain street fighting. Evaluation in this course is on a pass/fail basis.

CRJ 210 - Law Enforcement Management
- Credits: 3.00
This course will examine the various management theories and philosophies dealing with employees and organizational structure. It will explore the various management and leadership styles commonly utilized within law enforcement agencies. Areas to be examined include community policing, decision making skills, communication, the training function, motivation strategies, working with unions, performance appraisals and the hiring process.

CRJ 242 - Applied Criminalistics
- Credits: 3.00
This course is designed to give the student an overview of the "science of crime" by survey and lab exposure to basic physical evidence procedures in current use.

CRJ 248 - Firearms
- Credits: 2.00
This class includes the legal and moral implications of firearms use, safety rules, nomenclature and care of weapons, and the firing principles of semi-automatic handguns, shotguns and AR-15 rifles. Students must qualify to be admitted to this course, by having no felony record, history of mental illness or domestic abuse convictions. Students must obtain qualifying scores according to the Iowa State Law Enforcement Academy Tactical Handgun course standards.

CRJ 263 - Criminal Justice Careers Seminar
- Credits: 3.00
This course provides an introduction to field experience for students as well as classroom discussion. Students will observe the operations of an approved criminal justice agency, where they will gain basic knowledge of the agency as well as required employment criteria. Classroom discussion will include topics involving employment preparation such as resume writing, effective job interviewing skills, and locating job opportunities.

CRJ 288 - Police Physical Fitness and Conditioning
- Credits: 1.00
This course is designed to continue preparing students to meet the requirements of the State of Iowa police physical fitness entry standards (Cooper Test) and academy physical training for the police officer. Students will be evaluated at the beginning of class to determine their current level of fitness based upon the Cooper Test requirements. Each student’s fitness levels will be monitored throughout the course and student adherence to exercise will be assessed. Students will be expected to improve at a minimum of 15% above their beginning level of fitness. **Prerequisite(s):** CRJ 100
CRJ 306 - Police Physical Fitness and Conditioning II
- Credits: 1.00
This course is designed to continue preparing students to meet the requirements of the State of Iowa police physical fitness entry standards (Cooper Test) and academy physical training for the police officer. Students will be evaluated at the beginning of class to determine their current level of fitness based upon the Cooper Test requirements. Each student's fitness levels will be monitored throughout the course and student adherence to exercise will be assessed. Students will be expected to improve at a minimum of 15% above their beginning level of fitness.
Prerequisite(s): CRJ 288

CRJ 924 - Honors Project
- Credits: 1.00
In this course, the student will work independently with a Criminal Justice instructor on a criminal justice research project designed by the student and the instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.
Prerequisite(s): Permission of Instructor.

CRJ 932 - Internship
- Credits: 7.00
An orientation session will precede the internship to familiarize the student with the necessary rules, goals, ethics and documentation required to complete the experience. The internship includes a minimum 320-hour, 8-week, on-site requirement with an approved agency. At the completion of the internship the student will meet with the instructor to assess the experience. The student must have completed the criminal justice curriculum to the satisfaction of the instructor.

Cultural Sciences

CLS 106 - Popular Culture
- Credits: 1.00
This course is designed as an introduction to the concept of popular culture. Students will learn the history of popular culture, the economic influences on popular culture, and the effect that popular culture has on their lives.

CLS 150 - Latin American History and Culture
- Credits: 3.00
This course provides an overview of the geographical, historical, political, economic and cultural forces that have shaped Latin America.

CLS 155 - Brazilian History and Culture
- Credits: 3.00
This course provides an overview of the geographical, historical, political, economic and cultural forces that have shaped contemporary Brazil. The course also examines the relationship between Brazil and the United States.

CLS 175 - Native American Studies
- Credits: 3.00
This course takes a multidisciplinary approach to the study of Native American culture. Native American history, art, literature, religion and social and political organization will be investigated.

CLS 185 - Cultural History of Iowa
- Credits: 3.00
This course provides a survey of the art forms Iowa has to offer. The poems, plays, novels, short stories, essays, and art of Iowa subjects, Iowa ideas and Iowa people will be studied.

CLS 215 - Cultural Excursions I
- Credits: 1
This course is designed to increase students' awareness and knowledge of cultures different from their own. Students will travel to selected regions within the US or to selected international locations in order to study and experience the cultural and linguistic milieu of the region. Class lectures, discussion and/or projects will be related to the visit.

CLS 216 - Cultural Excursions II
- Credits: 2
This course is designed to increase students’ awareness and knowledge of cultures different from their own. Students will travel to selected regions within the US or to selected international locations in order to study and experience the cultural and linguistic milieu of the region. Class lectures, discussion, and/or projects will be related to the visit.

CLS 217 - Cultural Excursions III
- Credits: 3
This course is designed to increase students’ awareness and knowledge of cultures different from their own. Students will travel to selected regions within the US or to selected international locations in order to study and experience the cultural and linguistic milieu of the region. Class lectures, discussions, and/or projects will be related to the visit.

CLS 222 - Survey of Latino Literature U.S./Mexico
- Credits: 3.00
This course will increase understanding of cultural, political, social, historic and economic factors related to the Chicano, Mexican-American, Mexican experience.

CLS 930 - Diversity Experience
- Credits: 1.0
This course is designed to increase student’s awareness and knowledge around them. Students will attend at least six hours of approved diversity events. Class discussions and assignments will be related to the experiences of each student.

Dental Assisting

DEA 211 - Nutrition for Dental Assistants
- Credits: 1.00
This course provides information on nutrition and dental health as well as overall health, healthy eating habits, eating disorders, and functions of major nutrients.
Prerequisite(s): DEA 518

DEA 256 - Dental Anatomy
- Credits: 2.00
This course introduces the student to the anatomy of the head and neck with emphasis on the hard and soft tissues of the oral cavity, tooth development and morphology, and their purposes in masticatory function.
DEA 268 - Pharmacology and Emergency Procedures for Dental Assisting
- Credits: 2.00
This course will explain the purpose and uses of medications in the practice of dentistry and those medications' actions, effects and side effects, as well as local and general anesthesia and the rationale for antibiotic prophylaxis. Students will also be trained in their responsibilities should emergencies occur in the dental office.
Prerequisite(s): DEA 293

DEA 293 - Microbiology and Infection Control for the Dental Assistant
- Credits: 2.00
This course presents information on pathogenic organisms and the diseases they produce, disease transmission in the dental office, principles of sterilization and infection control in compliance with OSHA and CDC guidelines and the importance of an exposure control plan.

DEA 312 - Dental Radiography
- Credits: 3.00
This course introduces the history, characteristics and measurement of radiation and its effects on biological structures. The student will receive training in the use of X-ray equipment and processing techniques in the production of quality radiographs. The paralleling technique will be presented, as well as the importance of radiation protection and infection control.
Prerequisite(s): DEA 517

DEA 321 - Dental Radiography II
- Credits: 2.00
This course introduces the bisecting angle technique, intraoral and extra-oral procedures, and the use of imaging in the detection of dental caries and the diagnosis of periodontal disease. Recognition of radiographic errors and their correction is explained using digital radiography.
Prerequisite(s): DEA 312

DEA 403 - Dental Materials
- Credits: 3.00
This course examines the properties and applications of the various materials used in a dental practice. The students will learn preparation and proficient manipulation of restorative materials and impression materials. Production of models, fabrication of custom trays, and the use of temporary restorations will be covered, as well as the utilization of cast metals and ceramics in the restorative process.
Prerequisite(s): DEA 517

DEA 517 - Dental Assisting I
- Credits: 3.5
Students will learn the fundamentals of dentistry and the dental assistants responsibilities as an integral part of the team approach to dental care delivery. The importance of establishing patient rapport and maintaining confidentiality according to HIPAA guidelines. Preventative concepts are introduced.

DEA 518 - Dental Assisting II
- Credits: 1.50
The student assistant will acquire skills in preparing the patient, moisture control, retraction and the simultaneous manipulation of the air/water syringe and HVE. Practical application of infection control concepts and an introduction to basic dental procedures will be applied.
Prerequisite(s): DEA 517

DEA 519 - Dental Assisting III
- Credits: 1.50
This course presents the indications for and application of dental medications, cavity liners, retraction cords, bite registration materials and bonding agents. Expanded functions for dental assistants are also discussed.
Prerequisite(s): DEA 518

DEA 573 - Assisting Clinical I
- Credits: 4.00
Clinical assignments in general and specialty dental practices and clinics provide advanced skill development in chair side assisting procedures, laboratory procedures, office procedures and staff/patient relations. Students will be evaluated through direct observation of clinical performance by IHCC faculty and impressions of trainee performance by professionals in the participating off-campus sites.
Prerequisite(s): DEA 312 and DEA 518

DEA 574 - Assisting Clinical II
- Credits: 4.00
This course provides additional hands-on experience in a clinical setting with emphasis on operative dentistry, dental specialty assisting, reception and filing procedures and staff/patient relations.
Prerequisite(s): DEA 573 DEA 519 DEA 321

DEA 592 - Seminar for Dental Assisting
- Credits: 1.00
This course is a seminar on experiences and procedures encountered during clinical experience. Questions students may have about different practitioners approaches to diagnosis and treatment planning will be discussed. The student will become acquainted with the makeup of local, state, and national dental organizations.
Corequisite(s): DEA 574

DEA 603 - Dental Specialties
- Credits: 2.00
This course is an introduction to the specialty areas of dentistry – endodontics, orthodontics, periodontics, oral and maxillofacial surgery, pediatric dentistry, dental public health, oral and maxillofacial radiography and prosthodontics. The equipment and instruments used in the clinical practice of these specialties will be covered. Cosmetic dentistry, implant dentistry and trends in dental care will also be discussed.
Prerequisite(s): DEA 519 DEA 573

DEA 702 - Dental Office Procedures
- Credits: 2.00
This course presents information on office communications, record keeping and filing, appointment scheduling, dental insurance, billing procedures, inventory management and recall programs.
Prerequisite(s): DEA 518
Dental Hygiene

**DHY 117 - Advanced Dental Anatomy**
- Credits: 2.00
This course is a comprehensive study of oral landmarks, tooth morphology and significant structures of the periodontium as each relates to the practice of dental hygiene.
Prerequisite(s): DEA 256 BIO 175

**DHY 123 - Oral Histology and Embryology**
- Credits: 2.00
This course is designed to provide students with an embryological foundation regarding the growth and development of the oral facial structures. Topics include developmental timelines for dental structures and the factors influencing them. Emphasis on initiation, eruption and exfoliation will be covered.
Prerequisite(s): DEA 256 DHY 117

**DHY 135 - Pharmacology and Pain Control**
- Credits: 3.00
This course will introduce the student to general pharmacology including drug classification, uses, actions, interactions, side effects, contraindications, and systemic disturbances. Emphasis is placed on drugs commonly used in dentistry and those which modify dental care procedures. Laboratory sessions will include concepts and practice in the delivery of local anesthesia.
Prerequisite(s): DHY 117

**DHY 143 - Oral Pathology**
- Credits: 2.00
This course is designed to provide knowledge in general pathology and specific pathologic processes, including inflammatory and immunologic defenses, as well as neoplastic, metabolic, inherited and developmental disturbances. The student will be able to develop useful differential diagnosis.
Prerequisite(s): DEA 256 DHY 117

**DHY 154 - Dental Emergency Management**
- Credits: 1.00
This course is designed to prepare students to recognize and respond to an emergency in the dental office. The student will recognize the importance of developing a dental office emergency plan.
Prerequisite(s): DHY 176

**DHY 165 - Advanced Dental Radiography**
- Credits: 2.00
The purpose of this course is to introduce the student to the interpretation and diagnosis of hard and soft tissue pathologies. Students will be able to recognize the stages of disease and health in the existing dental structures. Knowledge of radiology exposure and processing will be expanded.
Prerequisite(s): DEA 312

**DHY 176 - Clinical Procedures**
- Credits: 3.00
The course will provide necessary instruction and supervised practice in the preparation and delivery of basic level patient care. Both theory and practice in infection control and delivery of dental hygiene care in the dental operatory will be reviewed. Topics and discussions include maintenance of equipment, instrument identification, processing of instruments, basic routines for operatory asepsis, patient charting, ergonomics and skill development. Competency is achieved on manikins and peers.
Prerequisite(s): DHY 176

**DHY 185 - Advanced Clinical Procedures**
- Credits: 3.00
The course will provide necessary instruction and supervised practice in advanced dental hygiene instrumentation. Students will acquire advanced skills in developing treatment plans for advanced cases. Clinical sessions in the laboratory setting would require students to demonstrate competency in utilizing dental hygiene instruments, detection and removal of subgingival deposits, ultrasonic scaling and air polishers.
Prerequisite(s): DHY 176

**DHY 208 - Periodontology**
- Credits: 2.00
This course is a study of the basic etiology and current classification of periodontal disease. Emphasis will be placed on clinical and histological characteristics of periodontal disease processes, including discussion of contemporary periodontal practices.
Prerequisite(s): DHY 229

**DHY 229 - Dental Preventative Health**
- Credits: 2.00
This course is designed to provide concepts of health and wellness; theories of teaching and motivation and a thorough knowledge of life stage changes. Students will identify and research contemporary treatment modalities.
Prerequisite(s): DHY 235

**DHY 235 - Nutrition for Dental Hygiene**
- Credits: 2.00
This course provides a comprehensive overview of nutritional biochemistry. Emphasis will be placed on the effects of nutrition on oral health and the application of counseling strategies to assist the patient in attaining and maintaining optimum oral health.
Prerequisite(s): DEA 256

**DHY 245 - Ethics and Jurisprudence**
- Credits: 2.00
This course will include resources and processes for board application and licensure requirements, qualifications for practice, and standards of practice. Other topics will include cultural diversity, legal and ethical responsibilities and sexual harassment.
Prerequisite(s): DHY 229

**DHY 258 - Community Health Concepts**
- Credits: 2.00
This course will emphasize the principles, theories and concepts of community oral health as well as the methods for determining community oral health status, identifying barriers to optimum health and selecting appropriate interventions. Student will work in teams to develop and implement a series of programs to present to community
organizations and public schools.

**Prerequisite(s):** DHY 245

**DHY 263 - Intro to Dental Hygiene Practicum**
- Credits: 1.00
This course will provide introduction to the necessary instructional supervised practice in the IHCC Dental Hygiene Clinic. The course will prepare the student to assume the role as preventative care provider. Emphasis will be placed on patient selection and treatment, clinical time management and office operations. Competency is achieved on clinic patients.

**Corequisite(s):** DHY 185

**DHY 290 - Dental Hygiene Practicum I**
- Credits: 6.00
The course will provide necessary instruction and supervised practice in our on-campus dental clinic. This course is designed to prepare the student to assume the role as preventative care provider. Emphasis will be placed on patient selection and treatment, clinical time management and office operations. Competency is achieved on clinic patients.

**Prerequisite(s):** DHY 185

**DHY 300 - Dental Hygiene Practicum**
- Credits: 5.50
This course will provide necessary instructional supervised practice in the IHCC Dental Hygiene Clinic. This course is designed for the student to assume the role as preventative care provider. Emphasis will be placed on patient selection and treatment, clinical time management and office operations. Competency is achieved on clinic patients.

**Prerequisite(s):** DHY 290

**DHY 310 - Dental Hygiene Practicum II**
- Credits: 6.00
The course will provide necessary instruction and supervised practice in our on-campus dental clinic. This course is designed to prepare the student to assume the role of preventative care provider. Emphasis will be placed on planning treatment for patient with special needs, complex periodontal cases, disease management and initial periodontal therapy. Competency is achieved on clinic patients.

**Prerequisite(s):** DHY 290

**DHY 315 - Seminar for Dental Hygiene**
- Credits: 1.00
This seminar course is a capstone course which will encompass the dental hygiene curriculum. Preparing for the state hygiene board examination will be discussed. Standards for proper patient selection and case studies will be shared and analyzed. Students will also prepare for a career as a dental hygienists. Students will prepare letters of application, resumes, professional portfolios and participate in a mock interview experience.

**Prerequisite(s):** DHY 245

**DHY 320 - Advanced Dental Hygiene Practicum**
- Credits: 5.50
This course will provide advanced instructional supervised practice in the IHCC Dental Hygiene Clinic. This course is designed to allow the student to assume the role as preventative care provider. Emphasis will be placed on patient selection and treatment, clinical time management and office operations. Competency is achieved on clinic patients.

**Diesel Technology**

**DSL 146 - Intro. To Locomotive Electrical**
- Credits: 2.00
This course will cover the introduction of electrical and electronic principles used on the power generation system of diesel Locomotive equipment. Basic understanding in the principle of ladder diagrams and understanding how to read and interpret all type of electrical diagrams. There will be the use of live and lab electrical test equipment in the testing of all types of electrical system use in Diesel Locomotive equipment.

**Prerequisite(s):** DSL 146

**DSL 147 - Advanced Locomotive Electrical**
- Credits: 2.00
This course will cover the advanced study of electrical and electronic components used in the power generation systems of diesel locomotive equipment. The course will use live and lab test equipment for testing all types of diesel locomotive electrical and electronic systems.

**Prerequisite(s):** DSL 146

**DSL 153 - Vehicle Engine Diagnosis**
- Credits: 3.00
This course will cover electronic terms, principles and the development of diagnostic skills. Students will study proper procedures and develop skills in using test equipment as recommended by service manuals and tech information. Introduction to Programmable Logic Controllers and their circuitry will also be taught.

**DSL 204 - Diesel Lab I**
- Credits: 2.00
This course allows the students time in the Diesel Lab to work on curriculum requirements and lab projects.

**DSL 206 - Diesel Lab II**
- Credits: 2.00
This course allows the students time in the Diesel Lab to work on curriculum requirements and lab projects.

**DSL 208 - Diesel Lab III**
- Credits: 2.00
This course allows the students time in the Diesel Lab to work on curriculum requirements and lab projects.

**DSL 319 - Intro. To Locomotive Engines**
- Credits: 2.00
This course covers the theory and operation of a locomotive style diesel engine. Included in this course is information about the operation of the fuel, air, and lubrication systems, horsepower, displacement relationships and familiarization with all locomotive diesel engine components.

**DSL 325 - Introduction to Diesel**
- Credits: 2.00
This course covers the theory and operation of a basic diesel engine. Included in this course is in formation on fuel and air systems, horsepower, displacement relationships and familiarization with all engine components.

**DSL 343 - Diesel Engine Overhaul**
- Credits: 5.00
This course covers instruction on the removal, disassembly and inspection procedures pertaining to the diesel engine.
Failure analysis, tolerance checks, part qualification and part reusability will also be taught.

**DSL 373 - Locomotive Engine Disassembly**  
- Credits: 3.00  
This course covers instruction on the removal, disassembly and inspection procedures pertaining to locomotive style diesel engines. Failure analysis of diesel locomotive engines, tolerance checks and documentation, parts qualification and parts reusability and documentation of diesel locomotive engines will also be taught.

**DSL 374 - Locomotive Engine Assembly**  
- Credits: 3.00  
This course covers the complete rebuilding and assembly of the locomotive style diesel engine to include all the sub-assemblies and peripheral equipment. Parts certification documentation as well as locomotive diesel complete engine certification will also be taught.

**DSL 375 - Assembly of Diesel Engines**  
- Credits: 5.00  
This course covers the complete rebuilding and assembly of the diesel engine to include the sub-assemblies and peripheral equipment.

**DSL 384 - Engine Application and Tune-Ups**  
- Credits: 4.00  
This course covers the tune-up and load testing of the diesel engine to include both mechanical and electronic governing systems. This course also covers governor operation, engine data calculations and troubleshooting.

**DSL 386 - Intro to Locomotive Tune-ups**  
- Credits: 2.00  
This course covers the tune-up and load testing of the locomotive diesel engines to include both mechanical and electronic governing systems. This course also covers governor operation, engine data calculations and locomotive diesel engine troubleshooting.

**DSL 412 - Diesel Engine Electronics II**  
- Credits: 2.00  
This course is an advanced study of electronic principles and electronic components used on diesel equipment. This course will use computerized OEM and generic test equipment for testing all types of electronics systems used by diesel equipment. Lab exercises will be performed on both live and lab equipment.  
**Prerequisite(s):** AUT 607

**DSL 421 - Electronic Engine Controls**  
- Credits: 4.00  
This course covers computerized engine and system management, which will include fundamentals of electricity, electronics, computer communications, electronic input circuits, electronic output circuits, electronic service tools, wiring techniques and current truck management systems.

**DSL 442 - Fuel Systems**  
- Credits: 2.00  
This course covers diesel fuel subsystem, injection nozzles, distributor type injection pumps, inline injection pumps, unit injector fuel systems and Cummins PT fuel systems.

**DSL 534 - Drive Trains**  
- Credits: 4.00  
This course covers the drive train power distribution devices that include transmissions, clutches, power divider, drivelines and axles. Disassembly, inspection, component rebuild and assembly will also be taught.

**DSL 599 - Brakes, Tires and Alignment**  
- Credits: 2.00  
This course covers the maintenance, inspection and repair of truck braking systems, tires and wheels. The course also covers the operation, set-up and procedures required for wheel alignment utilizing the laser wheel alignment machine.

**DSL 602 - Principles of Hydraulics**  
- Credits: 2.00  
This course covers the fundamentals of hydraulics, hydraulic circuitry, circuitry construction, fluids and pressure. The student will study pumps, valves, cylinders, motors and other related accessories. Hydraulic troubleshooting and circuit analysis will also be taught.

**DSL 653 - Technical Power Hydraulics**  
- Credits: 5.00  
This course covers advanced technical hydraulics, with an emphasis on PLC computerized hydraulics. Circuitry design and troubleshooting along with principles, concepts and servicing of component parts will also be taught.

**DSL 742 - Air Conditioning/Refrigeration**  
- Credits: 2.00  
This course covers the theory and application of heating and refrigerated reefer systems and their related controls. The service, repair, and troubleshooting of these systems will be extensively covered.

**DSL 831 - Preventative Maintenance**  
- Credits: 4.00  
This course covers the knowledge technicians will need to perform heavy-duty truck, state and federal DOT inspections. Course content includes the wet, dry, routine, and extended vehicle maintenance. The course will also cover information on general pre-operational checks and performing random repairs to vehicles.

**DSL 848 - Diesel Guidance Systems**  
- Credits: 3.00  
This course will cover the essentials of diesel equipment autonomous guidance systems as utilized in various industries. The student will learn the fundamentals of diesel autonomous guidance including the mechanical (steering, braking and speed control), hardware and software concepts and subsystems. The exploration of how different approaches are used in various applications in agriculture, trucking, construction, railroad and other related diesel industries are covered.

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### Drama & Theatre

**DRA 101 - Introduction to Theatre**  
- Credits: 3.00  
This non-performance course provides a survey of the elements of theatre. Units of study include dramatic genres, theatre history, theory and criticism, and elements of design, acting and play production.
DRA 108 - Drama Excursions
- Credits: 1.00
In this course, the student will attend a major production in an American metropolitan area. Class discussions and individual projects will be related to the visit.

DRA 109 - Drama Excursions II
- Credits: 1.00
In this course, the student will attend a major production in an American metropolitan area. Class discussions and individual projects will be related to the visit.

DRA 110 - Introduction to Film
- Credits: 3.00
This course explores motion pictures from functional, historical, and/or societal perspectives. Students will view motion pictures and then analyze them from these perspectives through class discussions, written assignments, and/or exams or quizzes.

DRA 125 - Introduction to Play Analysis
- Credits: 3.00
This course will focus on script analysis from a variety of perspectives, genres, and structures, provide a vocabulary for the study of scripts, provide historical background for analyzing plays, allow opportunities for the examination of dramatic structure, and allow students the opportunity to investigate script analysis for the purpose of collaboration on a theatrical production.

DRA 130 - Acting I
- Credits: 3.00
This class offers an introduction to fundamental techniques of acting including thought, emotion, specific movement and vocal technique. Emphasis is placed on improvisation and practical exercises leading to formal scene work. The ultimate goal is to develop a firm foundation in basic acting technique.

DRA 132 - Acting II
- Credits: 3.00
This course deepens understanding and proficiency in the craft of acting through designated exercises, scene work, observations and discussion; includes physical action and dialogue.

DRA 133 - Acting III
- Credits: 3.00
This course focuses on individual acting skills while building skills on more challenging texts, including period scenes.

DRA 162 - Technical Theatre
- Credits: 3.00
This course introduces the student to the backstage crafts of theatre. Instruction includes scene design, parts and uses of the theatre, basic techniques of scenic carpentry, scene painting and stage lighting.

DRA 180 - Theatre Lab I
- Credits: 1.00
This course provides the student with practical experience in theatre production onstage and/or backstage. Students will work as actors or technicians in one or more IHCC productions.

Prerequisite(s): Instructor permission.

DRA 181 - Theatre Lab II
- Credits: 1.00
This course provides the student with practical experience in theatre production onstage and/or backstage. Students will work as actors or technicians in one or more IHCC productions.

Prerequisite(s): DRA 180
Instructor Consent required.

DRA 235 - Acting Workshop
- Credits: 3.00
An intensive exploration of qualities that make up effective acting, the theatre workshop allows participants experience in essential aspects of the acting craft, including physical movement, vocal projection and variety, scene and character interpretation and development of emotional range.

DRA 280 - Theatre Lab III
- Credits: 1.00
This course provides the student with practical experience in theatre production onstage and/or backstage. Students will work as actors or technicians in one or more IHCC productions.

Prerequisite(s): Instructor permission.

DRA 281 - Theatre Lab IV
- Credits: 1.00
This course provides the student with practical experience in theatre production onstage and/or backstage. Students will work as actors or technicians in one or more IHCC productions.

Prerequisite(s): Instructor permission.

ECE 103 - Introduction to Early Childhood Education
- Credits: 3.00
This course gives students an historical and philosophical foundation of the field of early childhood education. An overview of assessment and evidence-based practices is included. The influences of family centered practice, inclusion, culture and language are addressed. Early childhood careers are explored.

ECE 108 - ECE Fieldwork Certifications
- Credits: 1.00
This course provides the Early Childhood student with essential field experience knowledge related to Mandatory Reporting of Child Abuse and Universal Precautions. Students will become certified in American Heart Association Pediatric First Aid and CPR.

ECE 133 - Child Health, Safety and Nutrition
- Credits: 3.00
This course focuses on evidence-based concepts in the fields of health, safety and nutrition and their relationship
to the growth and development of the young child ages birth to eight. It also blends current theory with problem-solving, practical applications and assessments. This course also includes collaboration with families and assesses the role of culture, language and ability on health, safety and nutrition decisions in early childhood settings.

ECE 141 - Designing Curriculum
- Credits: 3.00
Designing inclusive learning environments and developing curriculum plans will be discussed in conjunction with principles of selecting and evaluating materials to support unit topics. Scheduling and teaching strategies for typical and atypical children from infancy through 6 years of age are included.

Prerequisite(s): ECE 158; ECE 159; ECE 263; ECE 264

ECE 158 - Early Childhood Curriculum I
- Credits: 3.00
This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students will prepare to utilize evidence-based, developmentally appropriate practices in the context of children’s family, culture, language and abilities. Emphasis is on understanding children’s developmental stages and developing appropriate learning opportunities, interactions and environments to support each child in the following areas: dramatic play, art, music, fine and gross motor play.

Prerequisite(s): ECE 170

ECE 159 - Early Childhood Curriculum II
- Credits: 3.00
This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate evidence-based practices in a context of children’s culture, language and abilities. Emphasis is on understanding children’s developmental stages and developing appropriate learning opportunities, interactions and environments in the following areas: emergent literacy, math, science, technology and social studies.

Prerequisite(s): ECE 170

ECE 170 - Child Growth and Development
- Credits: 3.00
This course reviews typical and atypical development of children from conception to adolescence in all developmental domains. Interactions between child, family and society within a variety of community and cultural contexts and how each impacts the developing child are examined. Theories and evidence-based practices associated with understanding and supporting young children are studied.

ECE 221 - Infant/Toddler Care and Education
- Credits: 3.00
This course focuses on care, education, and assessment of children from birth to thirty-six months. Students are prepared to utilize developmentally appropriate evidenced-based practices including responsive caregiving, routines as curriculum, collaborative relationships with culturally, linguistically, and ability diverse children and families and a focus on the whole child in inclusive settings.

Prerequisite(s):
ECE 170

ECE 243 - Early Childhood Guidance
- Credits: 3.00
This course focuses on developmentally appropriate, evidence-based approaches and positive guidance strategies for supporting the development of each child. Supportive interactions and developmentally appropriate environments are emphasized. Assessment is used to analyze and guide behaviors. The impact of family, and each child’s culture, language and ability on child guidance is studied.

ECE 259 - Topics in Early Childhood Education
- Credits: 3.00
This course explores current curriculum trends in Early Childhood Education. Classroom and teacher practices that comprise developmentally appropriate practice as defined by the profession are addressed. The most current strategies in creating learning environments to support physical, social/emotional, cognitive and language development are highlighted.

Prerequisite(s): ECE 170; ECE 158; ECE 159; ECE 221

ECE 263 - EC Field Experience I
- Credits: 1.50
A supervised experience in selected early childhood settings serving children ages birth through eight. Includes integration of theory, and developmentally appropriate, evidence-based practice. Provides an understanding of working with culturally, linguistically and ability diverse young children and families. Emphasizes professional relationships and behavior, appropriate adult / child interactions, basic curriculum planning, and program routines.

Prerequisite(s): ECE 170
ECE 158
Corequisite(s): ECE 221

ECE 264 - EC Field Experience II
- Credits: 1.50
A supervised experience which is continued in selected early childhood settings serving children ages birth through eight. The experience includes integration of theory, and developmentally appropriate, evidence-based practice. An understanding of working with cultural, linguistic and ability-diverse young children and families is provided. Professional relationships and behavior, appropriate adult / child interactions, basic curriculum planning, and program routines is emphasized.

Prerequisite(s): ECE 170
Corequisite(s): ECE 159

ECE 276 - Classroom Teaching
- Credits: 2.00
This course is a student teaching experience. Under the supervision of the instructor, the student will assume responsibility for the daily program through lesson planning, functioning as a lead teacher and communicating with parents.

Prerequisite(s): ECE 141; ECE 263; ECE 264

ECE 287 - Exceptional Learner
- Credits: 3.00
Law requires special students to be integrated into regular classes whenever possible. This course will prepare teachers to serve the emotional, academic, and social needs of exceptional students by modifying teaching methods, classroom management, materials and curriculum.
ECE 290 - Early Childhood Program Administration
- Credits: 3.00
This course covers methods for organizing and operating child care centers. Managerial functions, legal regulations and employment procedures will be discussed. Budgeting, record keeping and parent relations will also be explored. Prerequisite(s): ECE 103; ECE 141;

Economics

ECN 110 - Introduction to Economics
- Credits: 3.00
This course examines the basic principles of both microeconomics and macroeconomics. It is designed to introduce basic concepts, institutions and key economic relationships. Focus includes the macroeconomy dealing with government stabilization as well as the microeconomy focusing on market behaviors.

ECN 120 - Principles of Macroeconomics
- Credits: 3.00
This course examines the basic principles and forces governing capitalism and the mixed economy such as supply and demand and the price system. Other topics include macroeconomics concepts, national income accounting, the business cycles, money and banking, the Federal Reserve System, Keynesianism and Monetarism. A background in algebra is highly recommended.

ECN 130 - Principles of Microeconomics
- Credits: 3.00
This course examines resource allocation, opportunity cost, elasticity of demand and supply, marginal analysis theories of production and consumption, pricing, the market system and perfect and imperfect competition.

Education

EDU 120 - Communication, Ethics and
- Credits: 2.00
This is the first course in preparation for the Paraeducator Certificate. In this course, the student will develop skills and strategies to enhance communication and examine situations where professionalism, ethical standards and confidentiality will guide correct course of action when working with colleagues, students, parents, and others. Prerequisite(s): EDU 120

EDU 121 - Behavior Improvement
- Credits: 2.00
This is the third course in the Paraeducator Certificate program. The student will gain knowledge, skills and strategies to assist, support, and maintain the positive social, emotional and behavioral development of children. Prerequisite(s): EDU 120; EDU 122

EDU 122 - Roles and Responsibilities
- Credits: 2.00
This is the second course in the Paraeducator Certificate program. The student will develop skills and strategies to assist, support and maintain safe environments, educational activities, team interventions and technology integration when working with colleagues, students, parents, and others. Prerequisite(s): EDU 120

EDU 213 - Introduction to Education
- Credits: 3.00
This course surveys the teaching profession and introduces the student to the basic concepts and principles of education, including teaching effectiveness, school models and reform, curriculum, diversity, law, administration, philosophies, and job options. Students will be required to complete ten hours of classroom observation.

EDU 235 - Children's Literature
- Credits: 3.00
This course surveys children's literature focusing on the history, multiculturalism, genres, diversity, evaluation and selection of children's literature. Students will explore the role literature plays in children's literacy development by introducing them to a variety of authors, illustrators and genres. This includes picture books, poetry, folk literature, modern fantasy, contemporary realistic fiction, biography, historical fiction, informational or nonfiction, and controversial books. In addition, this course explores teaching strategies using children's literature in the classroom.

EDU 246 - Including Diverse Learners
- Credits: 3.00
This course introduces students to the issues and practices regarding the inclusion of diverse student populations in general education settings. The focus is on understanding the uniqueness and needs of all students' i.e. general education, special education, at-risk, gifted students and students with specific disabilities and disorders. Students will examine practical considerations for adapting curriculum in the classroom. Prerequisite(s): PSY 111

EDU 255 - Technology in the Classroom
- Credits: 3.00
This course focuses on the planning and practical use of technology as a resource to enhance the learning process in all types of classrooms. Students will explore a variety of digital tools and Internet resources along with current best practices for classroom-related activities. The course focuses on theories and current issues as well as providing experiences that will enable prospective education students the ability to select, plan and assess a variety of resources for use in the classroom to maximize student learning. Prerequisite(s): CSC 110

EDU 260 - Art for the Elementary Educator
- Credits: 3.00
This course is intended for those students who desire to enhance their professional training through a pedagogical approach that promotes art instruction as a fundamental component to "basic" education in the elementary setting. Students will explore philosophic, theoretical, and practical approaches to organizing and implementing an art instruction program.

EDU 282 - Field Experience: Exploring Teaching
- Credits: 1.00
This course provides students with an opportunity to enhance their knowledge of the PK-12 teaching profession. Students will be able to gain insights and a better understanding of the roles and responsibilities of the
classroom teacher in the school environment. This 30-hour field experience takes place in a PK-12 school under the guidance of a licensed educator. Students must complete, and successfully pass a criminal background check prior to beginning their field experience. This is the Education Program capstone course. 1 credit pass/fail course.

**Prerequisite(s):** PSY 281

**EDU 925 - Honors Research**
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences education instructor on an education research project designed by the student and instructor. The course is restricted to members of the IHCC Academy or Phi Theta Kappa.

**Prerequisite(s):** Permission of Instructor.

**EDU 949 - Special Topics**
- Credits: 1.00
This course explores specialized topics in the field of education. A contract between the student and an Arts and Sciences education instructor outlining the educational project is required.

**Prerequisite(s):** Permission of Instructor.

**Electronics**

**ELE 159 - Introduction to Codes and Standards**
- Credits: 2.00
This course teaches students how to read and interpret the codes and standards required in the electrical, automation and electronic fields. Standards are based on NFPA (National Fire Protection Association), ISA (International Society of Automation), OSHA (Occupational Safety and Health Administration) and the FCC (Federal Communication Commission). Students will learn about the latest NEC (National Electrical Code) changes and their impact on workers.

**ELE 196 - Motor Control Principles**
- Credits: 4.00
This course will provide coverage of control devices and control circuitry used in industrial electrical systems. Coverage will include electrical safety, electrical symbols, line diagrams, relays, motor starters, solenoids, common motor circuits, reduced voltage starters, and control of electro-pneumatic devices. It is designed to provide hands-on training using industrial control equipment.

**Prerequisite(s):** ELT 151

**ELE 349 - Electrical Equipment Tools & Safety**
- Credits: 3.00
This course is primarily a laboratory class in which students become familiar with safety, soldering and electronic components. Arc Flash Safety and an interpretation of NFPA rules for electrical safety in the workplace will be examined. This class is required before any student can enter into the lab for work.

**ELE 352 - Principles of Electronics**
- Credits: 3.00
This course teaches basic theory and principles for discrete (digital) and modulated (analog) signal manipulation and methods for troubleshooting circuits that use semiconductors and integrated chips. This course will develop the student’s learning through practical application of knowledge as reinforced through the examination basic electronic systems.

**ELE 353 - Residential Electrical/Electronic System**
- Credits: 3.00
This course teaches students the basics of residential power, control and communication wiring for home automation in both new and existing single-family and multi-family dwellings. Students will learn how to perform work in compliance with the current edition of the National Electrical Code and all applicable state codes.

**ELE 354 - Commercial Electrical/Electronic Systems**
- Credits: 3.00
This course teaches proper methods interpreting the codes and standards required in the industrial and utility electrical market segments. This training will include NFPA, ISA, IEEE, OSHA and NESC codes & standards. 48 hours of this course meets the state of Iowa Electrical Examiner’s code update requirements.

**ELE 355 - Intermediate Codes and Standards**
- Credits: 2.00
This course teaches proper methods interpreting the advanced codes and standards required in the signaling, renewable energy and energy management sectors. This training will include NFPA, ISA, IEEE, OSHA and NESC codes & standards. Students will be trained in the state of Iowa specific inspection and electrical safety code requirements.

**ELE 356 - Advanced Codes and Standards**
- Credits: 2.00
This course teaches industrial power, control and communication system, hard-wiring in both new and existing industrial process and manufacturing facilities. Students will learn how to perform work in compliance with the current edition of the National Electrical Code and all applicable State of Iowa laws.

**ELE 357 - Industrial Electrical/Electronic Systems**
- Credits: 3.00
This course teaches electric utility power, control and communication system hard-wiring in both new and existing generation, transmission and distribution facilities. Students will learn how to perform work in compliance with the current edition of the National Electrical Code (NEC), National Electrical Safety Code (NESC) and all applicable state of Iowa laws.

**ELE 358 - Utility Electrical/Electronic Systems**
- Credits: 3.00
This course covers magnetism and electromagnetic induction and progresses through alternating current and voltage. The utilization of capacitors, inductors, and
transformers will be address as used in basic AC circuits.

**Prerequisite(s):** ELT 373

**ELT 110 - Electronics**
- Credits: 2.00
  The focus of this course is a basic understanding of electronics used in computer technology today. Topics include electronic components, lab safety, static electricity, AC/DC circuits and various test equipment. Discussion topics will be reinforced through lab exercises.

**Prerequisite(s):** ELT 373

**ELT 124 - Advanced PLCs and System Integration**
- Credits: 3.00
  This course covers basic instrumentation and process control fundamentals. The use of a Supervisory Control and Data Acquisition software package to control a process will be detailed in the laboratory projects.

**Prerequisite(s):** ATR 252; ELT 130

**ELT 126 - Industrial Electronics**
- Credits: 2.00
  The devices and circuits used in thyristor control of machines are presented. The course includes phase control of DC motors, triac control of AC motors as well as various speed control circuits.

**Prerequisite(s):** ELT 550

**ELT 130 - Control Systems**
- Credits: 3.00
  The study of automated manufacturing processes using electro-mechanical devices, ladder diagrams and wiring diagrams. Included is an introduction to programmable logic controller hardware, software and interfacing.

**Prerequisite(s):** ELT 142

**ELT 136 - Electrical Systems Analysis**
- Credits: 2.00
  This is a facilitated course covering the use of schematics and ladder diagrams to determine the proper sequence of operation in electrical/electronic control system maintenance and troubleshooting.

**Prerequisite(s):** ELT 142

**ELT 140 - Electrical Systems I**
- Credits: 2.00
  This course covers the National Electrical Code, electrical blueprints and symbols, a basic overview of commercial wiring, operation and maintenance of DC and AC equipment and controls and single-phase motors. The use of instruments in electrical measurements is also included.

**Prerequisite(s):** ELT 302

**ELT 141 - Electrical Systems II**
- Credits: 2.00
  This is a facilitated course covering the operation and maintenance of three-phase systems and motor starters.

**Prerequisite(s):** ELT 302

**ELT 142 - Electrical Systems III**
- Credits: 2.00
  This course covers the basic application of industrial electronic devices and programmable logic controllers.

**Prerequisite(s):** ELT 140

**ELT 151 - Industrial Electricity**
- Credits: 3.00
  Industrial Electricity is an introductory course that provides a basic electricity background. The course covers 3-phase power distribution and circuits related to the operations of motors, generators, and transformers in an industrial setting. Students also examine Ohm's Law and how it is applied to series, parallel and series-parallel circuits using resistors, capacitors and inductors. Throughout this course the importance of NFPA70E will be addressed and the requirements for control of electrical hazards maintaining your safety and the safety of others in the workplace.

**ELT 165 - Industrial PLC Programming**
- Credits: 1.00
  This course covers installation, setup, programming, and troubleshooting of Programmable Logic Controllers (PLC).

**Prerequisite(s):** ELT 142 or IND 122

**ELT 180 - Microcontroller Applications**
- Credits: 2.00
  This course is the theory and application of microcontrollers for physical computing. The student will program microcontrollers to interact with the physical world using the microcontroller native programming language. The student will learn the basic architecture of the microcontroller, the microcontroller instruction set, the microcontroller hardware features, and hardware interfacing.

**ELT 225 - Introduction to PLCs**
- Credits: 4.00
  This course will cover the major components of a programmable logic control system. Coverage will include electrical safety, PLC hardware, interfacing input-output devices, using discrete PLC instructions, interfacing electro-pneumatic devices, and configuring operator interface devices. The course is designed for individuals moving into the industrial control career field and who has an electrical/electronic background.

**ELT 302 - Principles of Electricity**
- Credits: 2.00
  This is a facilitated course covering the basic theory and principles of both direct (DC) and alternating (AC) currents and methods of measuring voltage, current, and resistance. This course also emphasizes the basics of operation and maintenance of three-phase systems.

**ELT 303 - Principles of Electricity**
- Credits: 3.00
  For beginners, theory, controlling electricity, voltage, amps, resistance, wattage, series and parallel circuits, DC and AC, batteries, electric lighting, generators and motors.

**ELT 373 - DC Circuit Analysis**
- Credits: 4.00
  This course covers the electrical and electron theory of direct current and proceeds through units in resistance, conductance, series circuits, parallel circuits, series-parallel circuits, voltage divider circuits and the proper use of meters.

**ELT 378 - AC Circuit Analysis**
- Credits: 4.00
  This course covers magnetism and electromagnetic induction and progresses through alternating current and voltage, capacitors, inductors and transformers. The response of sinusoidal voltages and currents to RL, RC and RLC circuits is studied, including phasor analysis and filter
applications.
**Prerequisite(s):** MAT 742

**ELT 402 - Introduction to Communication Systems**
- **Credits:** 3.00
  The student is introduced to the fundamental concepts of AM/FM transmitters and AM/FM receivers. Phase lock loop circuits are emphasized in both transmitter and receiver applications. Lab projects are integrated throughout the course.
  **Prerequisite(s):** ELT 550

**ELT 418 - Communication Systems I**
- **Credits:** 4.00
  This course is a comprehensive coverage of communication receivers. The student will analyze various types of communication circuits, troubleshoot receivers and apply test equipment to evaluate circuit operation.
  **Prerequisite(s):** ELT 402; ELT 540

**ELT 437 - Communication Networks**
- **Credits:** 4.00
  This course covers the inner workings of the telephone system, data circuits, communication interfaces and protocols, as well as Local Area Network and Wide Area Network concepts and components.

**ELT 460 - Fiber Optics**
- **Credits:** 3.00
  This course introduces the student to various optoelectronic devices, types of fiber and fiber connectors. Fiber networks are evaluated on the basis of power and rise time budgets. Laboratory projects emphasizing modulation/demodulation techniques, network analysis and troubleshooting techniques are included in the course.
  **Prerequisite(s):** ELT 418

**ELT 505 - Power Transfer Technology**
- **Credits:** 2.00
  This course covers electrical power and fluid transfer technologies. Emphasis will be placed on high voltage alternating current, direct current power supplies, and fluid power concepts and applications. Three-phase power voltage rectification and regulation are included.
  **Prerequisite(s):** ELT 375

**ELT 515 - Wireless Networks**
- **Credits:** 3.00
  This course examines radio theory and applications. Students will learn the fundamentals of transmission lines, antennas, wave propagation, regulatory issues and allocations of the frequency spectrum. Students will analyze, troubleshoot and operate transceivers from the VHF band to the SHF band.
  **Prerequisite(s):** ELT 402; ELT 418

**ELT 540 - Linear Components**
- **Credits:** 3.00
  Transistor fundamentals are expanded to include power supply and power amplifier applications. Silicon controlled rectifiers and field effect transistor circuits are introduced. A study of operational amplifier applications concludes the course. Lab projects are integrated throughout the course.
  **Prerequisite(s):** ELT 550

**ELT 550 - Analog Devices**
- **Credits:** 4.00
  This course covers the application, operation, and theory of solid state devices, such as diodes, transistors, thyristors and operational amplifiers. Semiconductor characteristics are examined and applied to voltage and power amplifiers, as well as switching circuits.
  **Prerequisite(s):** ELT 375

**ELT 579 - Micro Circuits**
- **Credits:** 3.00
  This course covers a variety of solid state circuits. Applications of integrated circuits for regulators, timing, amplification, and signal processing are analyzed. Circuits are built in the lab to study various applications.
  **Prerequisite(s):** ELT 550

**ELT 731 - Industrial Instrumentation**
- **Credits:** 1.00
  This facilitated course covers the use of instrumentation for monitoring and controlling an industrial process.
  **Corequisite(s):** ELT 736

**ELT 736 - Instrumentation and Control**
- **Credits:** 2.00
  This course will demonstrate different types and usage of industrial measurement devices. Piping and instrumentation symbols and terminology are also included.

**ELT 858 - Circuit Design and Test**
- **Credits:** 3.00
  This course emphasizes the operation of the digital storage oscilloscope, db meters, transistor curve tracer and storage oscilloscope. An audio amplifier design project including circuit construction, testing and documentation concludes the course.
  **Prerequisite(s):** ELT 550

**ELT 932 - Internship**
- **Credits:** 3.00
  A semi-structured experience in the student’s chosen field working as an intern with a sponsoring organization. Students have the opportunity to network with professionals and employees in their field. Students will write a resume suitable for employment applications.
  **Prerequisite(s):** ELT 550

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**Emergency Medical Services**

**EMS 260 - Emergency Medical Technician I**
- **Credits:** 4.00
  This course is designed to prepare the student to provide emergency medical care at an Emergency Medical Technician (EMT) level as outlined by the National Emergency Medical Services Education standards. Basic emergency care concepts are introduced in a preparatory module 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. Certification in American Heart Association Basic Life Support will be completed. Students will complete required
HIPAA, Infection Control and Mandatory Reporting for child/adult training for health care providers. Each student must demonstrate competency within his/her scope of practice and for patients of all ages.

**EMS 360 - Emergency Medical Technician 2**
- Credits: 4.00
This course is a continuation of the EMS 260 - Emergency Medical Technician 1. The basic concepts introduced are shock and resuscitation, patient assessment, care and transportation of the acutely ill trauma patient, special patient populations and EMS operations. A focus area includes, Hazmat Awareness and Incident Command. Students will be required to demonstrate proficiency for skills within the scope of practice for patients of all ages.

**Prerequisite(s):** EMS 260
**Corequisite(s):** EMS 365

**EMS 365 - Emergency Medical Technician 2 Clinical**
- Credits: 1.00
This course prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. To successfully complete the course, students must demonstrate competency in skills for patients of all ages within the scope of practice.

**Prerequisite(s):** EMS 260
**Corequisite(s):** EMS 360

**EMS 460 - Emergency Medical Technician Advanced 1**
- Credits: 4.00
This course prepares the student to become an allied health professional whose primary focus is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. Advanced Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance. Students will complete required HIPAA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers or demonstrate equivalency to if an advanced standing student.

**Prerequisite(s):** EMS 260
**Corequisite(s):** EMS 460

**EMS 470 - Emergency Medical Technician Advanced 2**
- Credits: 2.00
This course prepares the student to become an allied health professional whose primary focus is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. Advanced Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance.

**Prerequisite(s):** EMS 460
**Corequisite(s):** EMS 475

**EMS 475 - Emergency Medical Technician Advanced 2**
- Credits: 2.00
This course prepares the student to become an allied health professional whose primary focus is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. Advanced Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance. Students will comply with the required HIPAA, Infection Control and Mandatory Reporting for child/adult, confidentiality while at the clinical sites.

**Prerequisite(s):** EMS 460
**Corequisite(s):** EMS 835 EMS 470

**EMS 590 - Paramedic 1**
- Credits: 5.00
This course prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course provides the complex knowledge and skills necessary to provide patient care and transportation. Students will complete required HIPAA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers or demonstrate equivalency to if an advanced standing student.

**Prerequisite(s):** BIO 175 BIO 178 BIO 179 BIO 176

**EMS 690 - Paramedic 2**
- Credits: 5.00
This course provides the complex knowledge and skills necessary to provide advanced emergency medical care for critical and emergent patients. Focus areas include IV / medication calculations, pulmonary system with airway management. Each student must demonstrate competency within his or her scope of practice and for patients of all ages.

**Prerequisite(s):** EMS 590
**Corequisite(s):** EMS 695

**EMS 695 - Paramedic 2 Clinical**
- Credits: 2.00
This course prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. To successfully complete the course, students must demonstrate competency in skills for patients of all ages within the scope of practice.

**Prerequisite(s):** EMS 590
**Corequisite(s):** EMS 690

**EMS 700 - Introduction to Paramedicine**
- Credits: 1.00
This course is the first in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course serves as a foundation for Paramedic education and prepares the student to become an allied health
professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on roles and responsibilities of the Paramedic, communication, provider safety and well-being, legal and ethical issues in healthcare, and lifespan development. Students will also complete prescribed training on HIPAA, Bloodborne Pathogens, and Mandatory Reporter (if not current).

**Prerequisite(s):** A minimum grade of C in BIO 175 Human Anatomy.
A minimum grade of C in BIO 176 Human Anatomy Lab,
A minimum grade of C in BIO 178 Human Physiology,
A minimum grade of C in BIO 179 Human Physiology Lab,

**Corequisite(s):** EMS 703 Pharmacology and Pathophysiology for the Paramedic,
EMS 706 Treatments in Advanced Emergency Care

EMS 703 - Pharmacology and Pathophysiology for the Para
- Credits: 3.5
This course is the second in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course serves as a foundation for Paramedic education and prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on pathophysiology of illness and injury of the human body, as well as general pharmacology for paramedic care.

**Corequisite(s):** EMS 700 Introduction to Paramedicine,
EMS 706 Treatments in Advanced Emergency Care

EMS 706 - Treatments in Advanced Emergency Care
- Credits: 2.00
This course is the third in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course serves as a foundation for Paramedic education and prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on advanced skills and procedures including intravenous access, routes of medication administration, ventilation and advanced airway management, etc.

**Corequisite(s):** EMS 700 Introduction to Paramedicine,
EMS 703 Pharmacology and Pathophysiology for the Paramedic

EMS 710 - Advanced Patient Assessment
- Credits: 2.00
This course is the fourth in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on scene size, up, advanced patient assessment skills, history gathering, and implementation of a treatment plan.

**Prerequisite(s):** EMS 700 EMS 703 EMS 706
A minimum grade of C in EMS 700 Introduction to Paramedicine,
A minimum grade of C in EMS 703 Pharmacology and Pathophysiology for the Paramedic,
A minimum grade of C in EMS 706 Treatments in Advanced Emergency Care,

**Corequisite(s):** EMS 713 EMS 715

EMS 713 - Cardiology for the Paramedic
- Credits: 4.00
This course is the fifth in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on emergency cardiovascular care, electrocardiogram interpretation, and treatments for cardiac-related patients. Advanced Cardiac Life Support (ACLS) is also included in this course.

**Prerequisite(s):** A minimum grade of C in EMS 700 Introduction to Paramedicine,
A minimum grade of C in EMS 703 Pharmacology and Pathophysiology for the Paramedic,
A minimum grade of C in EMS 706 Treatments in Advanced Emergency Care

**Corequisite(s):** EMS 710 Advanced Patient Assessment,
EMS 715 Paramedic Clinical 1

EMS 715 - Paramedic Clinical I
- Credits: 2.00
This is the first in a series of clinical experience courses, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field.

This course provides the student with live clinical experience and enables them to apply assessment skills and interventions to patients in clinical settings. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. Clinical settings in this course will consist of Emergency Room and Operating Room experience.

**Prerequisite(s):** A minimum grade of C in EMS 700 Introduction to Paramedicine,
A minimum grade of C in EMS 703 Pharmacology and Pathophysiology for the Paramedic,
A minimum grade of C in EMS 706 Treatments in Advanced Emergency Care

**Corequisite(s):** EMS 710 Advanced Patient Assessment,
EMS 713 Cardiology for the Paramedic

EMS 720 - Medical Emergencies for the Paramedic
- Credits: 5.50
This course is the sixth in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field.
This course prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on emergency assessment and care for a variety of medical conditions. Body systems including: Pulmonology, Neurology, Endocrinology, Immunology, Gastroenterology, Urology, Nephrology, Toxicology, Infectious Diseases, Psychiatric and behavioral, and Musculoskeletal.

**Prerequisite(s):** A minimum grade of C in EMS 710 Advanced Patient Assessment, A minimum grade of C in EMS 713 Cardiology for the Paramedic, A minimum grade of C in EMS 715 Paramedic Clinical 1, 

**EMS 725 - Paramedic Clinical 2**
- Credits: 3.00
This is the second in a series of clinical experience courses, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course provides the student with live clinical experience and enables them to apply previously learned skills and interventions to patients in clinical settings. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. Clinical settings in this course will consist of Emergency Room, Cardiac Catheterization Lab, and field time.

**Prerequisite(s):** A minimum grade of C in EMS 710 Advanced Patient Assessment, A minimum grade of C in EMS 713 Cardiology for the Paramedic, A minimum grade of C in EMS 715 Paramedic Clinical 1, 

**Corequisite(s):** EMS 720

**EMS 730 - Trauma Emergencies for the Paramedic**
- Credits: 3.00
This course is the seventh in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course prepares the student to become an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients. This course will concentrate on emergency assessment and care for a variety of traumatic injuries.

**Prerequisite(s):** A minimum grade of C in EMS 720 Medical Emergencies for the Paramedic, A minimum grade of C in EMS 725 Paramedic Clinical 2

**Corequisite(s):** EMS 733 EMS 735

**EMS 733 - Special Populations for the Paramedic**
- Credits: 3.00
This course is the eighth in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course provides the complex knowledge and skills necessary to provide advanced emergency medical care for critical and emergent patients. Students will integrate assessment findings with principles and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. This includes a focus in pediatrics and Pediatric Advanced Life Support (PALS). Each student must demonstrate competency within his or her scope of practice and for patients of all ages.

**Prerequisite(s):** A minimum grade of C in EMS 720 Medical Emergencies for the Paramedic, A minimum grade of C in EMS 725 Paramedic Clinical 2

**Corequisite(s):** EMS 730 EMS 735

**EMS 735 - Paramedic Clinical 3**
- Credits: 3.00
This is the third in a series of clinical experience courses, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course provides the student with live clinical experience and enables them to apply assessment skills and interventions to patients in clinical settings. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. Clinical settings in this course will consist of Emergency Room, Intensive Care, field/ride time, and optional clinical time based on student needs.

**Prerequisite(s):** A minimum grade of C in EMS 720 Medical Emergencies for the Paramedic, A minimum grade of C in EMS 725 Paramedic Clinical 2

**Corequisite(s):** EMS 730 EMS 733

**EMS 740 - Advanced EMS Operations**
- Credits: 2.00
This course is the ninth in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course provides the complex knowledge and skills necessary for involvement in a variety of operational situations. Students will learn to manage and participate in a variety of dynamic settings, including: ground and air ambulance operations, multiple casualty incidents, rescue, hazardous materials, crime scenes, and terrorism. Successful completion of this course requires students to demonstrate competency and safe practice in operational situations.

**Prerequisite(s):** A minimum grade of C in EMS 730 Trauma Emergencies for the Paramedic, A minimum grade of C in EMS 733 Special Populations for the Paramedic, A minimum grade of C in EMS 735 Paramedic Clinical 3, 

**Corequisite(s):** EMS 743 EMS 745

**EMS 743 - Paramedic Seminar**
- Credits: 2.00
This course is the tenth in a series, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course reviews the complex knowledge and skills necessary to provide advanced emergency medical care for critical
and emergent patients. Students will integrate assessment findings with principles and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely ill and injured patient.

Successful completion of this course requires students to demonstrate competency in skills for patients of all ages within the scope of practice.

**Prerequisite(s):** A minimum grade of C in EMS 730 Trauma Emergencies for the Paramedic,
A minimum grade of C in EMS 733 Special Populations for the Paramedic,
A minimum grade of C in EMS 735 Special Populations for the Paramedic,
A minimum grade of C in EMS 735 Paramedic Clinical 3

**Corequisite(s):** EMS 740 EMS 745

**EMS 745 - Paramedic Clinical 4**
- Credits: 4.00
This is the last in a series of clinical experience courses, which students must complete successfully and in sequence to be eligible to apply for the National Registry Paramedic certification exams. Students will confirm competency in skills and knowledge necessary to work in the pre-hospital field. This course provides the student with live clinical experience and enables them to apply assessment skills and interventions to patients in clinical settings. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. Clinical settings in this course will consist of Obstetrics, as well as the final Field Internship.

**Prerequisite(s):** A minimum grade of C in EMS 730 Trauma Emergencies for the Paramedic,
A minimum grade of C in EMS 733 Special Populations for the Paramedic,
A minimum grade of C in EMS 735 Paramedic Clinical 3

**Corequisite(s):** EMS 740 EMS 743

**EMS 781 - Paramedic 3**
- Credits: 5.5
This course provides the complex knowledge and skills necessary to provide advanced emergency medical care for critical and emergent patients. Focus areas include cardiology, neurology and Advanced Cardiac Life Support (ACLS). Students will be required to successfully complete competencies within the scope of practice for patients across the life span.

**Prerequisite(s):** EMS 690 EMS 695

**Corequisite(s):** EMS 785

**EMS 785 - Paramedic 3 Clinical**
- Credits: 3.00
This course prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. To successfully complete the course, students must demonstrate competency in skills for patients of all ages within the scope of practice.

**Prerequisite(s):** EMS 695 EMS 690

**Corequisite(s):** EMS 781

**EMS 820 - Prehospital Trauma Life Support**
- Credits: 1.00
This course is designed to provide the student with the knowledge and skills necessary to care for patients in emergency trauma situations. The course is based on the current National Association of Emergency Medical Technician's Prehospital Trauma Life Support (PHTLS) curriculum.

**Prerequisite(s):** Certification as an EMT.

**EMS 830 - Emergency Vehicle Operations**
- Credits: 1.00
This course is designed to provide the student with the knowledge and skills necessary to safely operate an emergency vehicle. Driving skills and the moral, ethical and legal consequences of emergency vehicle operation will be presented.

Current EMS certification or member of a fire department.

**EMS 880 - Paramedic 4**
- Credits: 5.50
This course provides the complex knowledge and skills necessary to provide advanced emergency medical care for critical and emergent patients. Students will integrate assessment findings with principles and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. This includes a focus in pediatrics and Pediatric Advanced Life Support (PALS). Each student must demonstrate competency within his or her scope of practice and for patients of all ages.

**Prerequisite(s):** EMS 781; EMS 785

**Corequisite(s):** EMS 885

**EMS 885 - Paramedic 4 Clinical**
- Credits: 4.00
This course prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. To successfully complete the course, students must demonstrate competency in skills for patients of all ages within the scope of practice.

**Prerequisite(s):** EMS 781; EMS 785

**Corequisite(s):** EMS 880

**EMS 890 - Paramedic 5**
- Credits: 5.00
This course provides the complex knowledge and skills necessary to provide advanced emergency medical care for critical and emergent patients. Students will integrate assessment findings with principles and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient. Other focus areas include shock/resuscitation, special needs and EMS operations. To successfully complete the course, students must demonstrate competency in skills for patients of all ages within the scope of practice.

**Prerequisite(s):** EMS 880; EMS 885

**Corequisite(s):** EMS 895
EMS 895 - Paramedic 5 Clinical
- Credits: 4.00
This course prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings. The student will participate in and document patient contacts and field experience approved by the medical director and the EMS program director. To successfully complete the course, students must demonstrate competency in skills for patients of all ages within the scope of practice.
Prerequisite(s): EMS 880; EMS 885
Corequisite(s): EMS 890

Engineering

EGT 104 - Technical Science II
- Credits: 2.00
This course covers the concepts of work, energy, power, impulse, and momentum. Also covered are the properties of solids, liquids and gases.
Prerequisite(s): EGT 103

EGT 105 - Technical Science III
- Credits: 2.00
This course covers the concepts of heat energy. Topics include thermal expansion, specific heat, change of phase, heat transfer and insulation.
Prerequisite(s): EGT 104

EGT 111 - Power Technology
- Credits: 2.00
This introductory course deals with the analysis of motion in existing mechanisms and the application of the principles learned to new mechanisms of similar nature. The methods used are primarily graphic, but knowledge of basic math and mechanics is required.

EGT 120 - Strength of Materials
- Credits: 2.00
This course covers basic properties of materials such as stress, strain, modulus of elasticity, thermal expansion, thermal stress, and structural members composed of different materials. Strengths of bolted and welded joints are calculated. Centroids and moment of inertia are determined. Shear force and bending moment diagrams are created.
Prerequisite(s): MAT 101

EGT 130 - Kinematics
- Credits: 2.00
This introductory course deals with the analysis of motion in existing mechanisms and the application of the principles learned to new mechanisms of similar nature. The methods used are primarily graphic, but knowledge of basic math and mechanics is required.

EGT 140 - Fluid Power
- Credits: 2.00
This course introduces the underlying principles in the application and control of fluid power. Emphasis is placed on concepts of transfer of material and energy in circuits and systems.

EGT 170 - Physical Metallurgy
- Credits: 2.00
This course introduces the student to terminology related to the mechanical, physical and chemical properties of metals. The principles of materials testing, introduction to the atomic and crystal structure of metals and deformation of metals will be emphasized.

EGT 187 - Computer Aided Electrical Design
- Credits: 3.00
This course teaches students how to develop electrical and electronic drawings and symbols. Students will learn how to read electrical drawings, electronic schematics and ladder diagrams. Students will also learn how to build intelligent ladder diagrams and electrical panel layouts and how to leverage this intelligence. Students will receive an overview of electrical design and drafting software (AUTOCAD Electrical and/or Microstation-PromisE, ProEngineering or similar) utilities that enable students to build and manage electrical, control and production drawings. All exercises are based on the JIC (Joint Industrial Council) standard. An intermediate understanding of electrical wiring methods, National Electrical Code, basic schematic and blueprint symbol recognition and electrical theory is recommended, but not required.

EGT 300 - Energy Efficiency & Auditing
- Credits: 3.00
This course teaches the student basic energy efficiency and assessment. Topics covered are the basic economical and environmental impacts of sustainability, high performance green buildings, and an in-depth explanation of control system cost analysis. This course also covers in detail an effective energy management program as well as verification of energy savings.

EGT 304 - Electrical Engineering & Estimation
- Credits: 3.00
This course is designed to develop the student's ability to apply a range of mathematical and geometric concepts. Topics include basic algebra, consumer mathematics, statistical averages and graphs, fundamental geometry, basic calculus and fundamental trigonometry. This course will also provide practical and detailed analysis of labor and material market data as well as effects of variables on successful project completion.

EGT 305 - Engineering Math
- Credits: 2.00
This course teaches an overview of Descriptive Geometry, Trigonometry, Cyclic Functions, Differential Calculus, Integral Calculus, Infinite Series, Complex Quantities, Differential Equations, Laplace Transforms, Frequency Response Analysis, Transfer Functions and Block Diagrams, the Z-N Approximation, Units, Best Values, Formulas and other related mathematical equations and formulas may also be introduced.
**English**

**ENG 001 - Spelling**
- Credits: 1.00
This course is designed to help students improve their spelling ability. A diagnostic test will help identify student needs. The course provides students with basic spelling concepts and opportunities for spelling practice.

**ENG 022 - Basic Academic Writing Skills**
- Credits: 2.00
This is a developmental course designed to prepare students to make a smoother transition into college-level writing courses. The student who successfully completes this course should then be ready to take ENG 101 - Elements of Writing. The course will focus on the essential principles of academic writing, including mechanics (e.g., grammar, punctuation and spelling) and composition (e.g., organization, sentence structure and topic sentences). This course is non-transferable.

**ENG 030 - Grammar and Punctuation I**
- Credits: 1.00
This course is designed to instruct students in the fundamentals of sentence structure, including various topics in the following areas: the simple sentence; subordination and coordination; major sentence errors; pronoun usage; and comma usage.

**ENG 031 - Grammar and Punctuation II**
- Credits: 1.00
Designed to complement Grammar and Punctuation I, this course includes topics in the following areas: subject/verb agreement; apostrophe usage; consistency and parallelism; adjectives and adverbs; and mechanics.

**ENG 032 - Paragraph Writing I**
- Credits: 1.00
In this course, students are introduced to the fundamentals of paragraph writing, including strategies for prewriting, revision, focus, coherence, unity and support.

**ENG 033 - Paragraph Writing II**
- Credits: 1.00
In this course, students will learn how to write paragraphs in various expository modes including the following: exemplification, definition, comparison and contrast and classification.

**ENG 093 - College Writing**
- Credits: 3.00
This course provides advanced instruction in critical thinking, reading and writing to support success in ENG 105 Composition I. It will enable the student to write paragraphs and essays that demonstrate grammatical, organizational and analytical competence while integrating ideas and information from academic tests. The student will review and practice basic grammar and writing skills necessary for college-level writing, as well as read, analyze, synthesize, and critically respond to college-level texts. **Prerequisite(s):** Instructor Consent

**ENG 101 - Elements of Writing**
- Credits: 3.00
This course is designed to develop students’ abilities in writing and reasoning. Students will complete a variety of reading and writing assignments with the goal of enhancing written communication skills.

**ENG 105 - Composition I**
- Credits: 3.00
This course emphasizes analytical writing skills and stylistic competence developed through source- and non-source-based essays. Students will write at least four 800-1000 word essays, including 3 - 5 source-based essays and no more than one non-sourced essay. Students will respond to written and visual texts drawn from diverse sources and will use documentation correctly. Emphasis will also be placed on essay structure, grammatical correctness, and development of a professional voice through writing. **Prerequisite(s):** Overall high school GPA of 3.0 or, Minimum ACT score of 20 or, Minimum SAT score of 780 or, Minimum Compass score of 70 or, Minimum E-Write Essay Test score of 9 or, Minimum AccuPlacer Classic Reading score of 80 & Writing score of 86 or, Minimum AccuPlacer Next Generation Reading score of 250 & Writing score of 250 or, Elements of Writing (ENG 101) within the past year with a minimum grade of C or, GED with a 501 minimum score or, HiSET part 1 minimum score of 10 and part 2 minimum score of 4 or, TOEFL with a minimum score of 85 out of a possible 120.

**ENG 106 - Composition II**
- Credits: 3.00
This course introduces the student to the process of research writing using the Modern Language Association documentation style. A thesis-driven report paper and a thesis-driven argumentative essay, both documented in MLA style, will demonstrate the student's proficiency with the research process. Students will produce approximately 20 pages of academic research writing. **Prerequisite(s):** ENG 105

**ENG 111 - Technical Writing**
- Credits: 3.00
This course prepares the student in the areas of written and oral communication for professional situations. Instruction includes approaching writing rhetorically, employing techniques in document design and style of career-related communication. This course will emphasize effective professional communication in real-world applications.

**ENG 225 - Creative Writing: Poetry**
- Credits: 3.00
Students will study the various techniques and forms of writing poetry. Students will be required to complete all assigned readings and weekly writing assignments. A writing journal is recommended. **Prerequisite(s):** ENG 105

**ENG 230 - Creative Writing: Fiction**
- Credits: 3.00
Students will study the various techniques and forms of writing fiction. Students will also produce a variety of original fiction and participate in the critique of selected professional and student work. **Prerequisite(s):** ENG 105
ENG 241 - Creative Writing Seminar I
- Credits: 1.00
Under the supervision of an English instructor, this course is designed for advance study in creative writing beyond the formal classroom.
Prerequisite(s): Instructor Consent required.

ENG 242 - Creative Writing Seminar II
- Credits: 2.00
Under the supervision of an English instructor, this course is designed for advance study in creative writing beyond the formal classroom.
Prerequisite(s): Instructor Consent required.

ENG 243 - Creative Writing Seminar III
- Credits: 3.00
Under the supervision of an English instructor, this course is designed for advance study in creative writing beyond the formal classroom.
Prerequisite(s): Instructor Consent required.

ENG 925 - Honors Research
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences English instructor on an English research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.
Prerequisite(s): Permission of Instructor.

ENG 092 - College Writing Skills
- Credits: 2.00
This course provides advanced instruction in critical thinking, reading and writing to support success in ENG 105 Composition I. It will enable the student to write paragraphs and essays that demonstrate grammatical, organizational and analytical competence while integrating ideas and information from academic tests. The student will review and practice basic grammar and writing skills necessary for college-level writing, as well as read, analyze, synthesize, and critically respond to college-level texts.
Prerequisite(s): ENG 105

ESL 017 - ESL Skill Building I
- Credits: 1.00
This course is specifically designed for non-native English-speaking students who are just beginning their program of study at Indian Hills Community College.

ESL 020 - English as a Second Language Lab
- Credits: 2.00
This course will provide the non-native speaker of English with a variety of realistic laboratory tasks that will improve and expand their English fluency. The primary focus is to expand vocabulary, improve pronunciation, and to provide the students with experiences that will enhance their confidence in their English ability.

ESL 021 - ESL Listening II
- Credits: 2.00
This course is designed for the English language learner who has progressed beyond basic listening proficiency but who needs continually guided practice to achieve the proficiency needed to perform successfully at an academic level.

ESL 024 - ESL Reading II
- Credits: 2.00
This course is designed for the English language learner who is at an intermediate level of reading proficiency. The course focuses on vocabulary expansion and application of critical reading skills.

ESL 027 - ESL Speaking II
- Credits: 2.00
This course is designed for the English language learner at intermediate oral English proficiency who needs to develop the speaking skills necessary to participate effectively in classroom discussions, with an emphasis on clarification through rewording and asking questions. Students participating in this class can be consistently understood by sympathetic listeners.

ESL 030 - ESL Writing II
- Credits: 2.00
This course is designed for the English language learner who has progressed beyond basic writing, but who needs practice in developing the skills necessary for academic writing tasks. This course will introduce the student to a variety of writing topics and purposes.

ESL 037 - ESL Skill Building II
- Credits: 1.00
This course is specifically designed for non-native English-speaking students who have either completed ESL Skill Building I or who evidence communicative competencies beyond those of a student who is just beginning a program of coursework at Indian Hills Community College.

ESL 041 - ESL Listening III
- Credits: 2.00
This course is designed for the English language learner who has progressed beyond intermediate proficiency in listening but who needs guided practice and feedback to achieve a proficient consistency with successful comprehension in all academic coursework.

English Language Learning

ESL 002 - Cultural Orientation
- Credits: 1.00
This course is designed for the new international student to better acclimate to American life, campus life, the educational system, and the community.

ESL 010 - ESL Writing I
- Credits: 2.00
This course is designed for students with novice writing skills who need practice in basic writing and sentence structure. It is best suited for those who have studied some English but whose writing skills must be developed through consistent, regular practice before they enroll in course work requiring college-level writing ability.
ESL 044 - ESL Reading III
- Credits: 2.00
This course is designed for the English language learner at an advanced intermediate to advanced reading level, who still needs development to be able to read extensively and critically in English. Students will learn to apply reading strategies in order to comprehend lengthier texts on diverse academic topics.

ESL 047 - ESL Speaking III
- Credits: 2.00
This course is designed to hone the oral communication, organization and pronunciation skills necessary for effective academic presentation and participation, leading to full participation in mainstream college classrooms. Most mainstream listeners in social and academic situations will understand the student.

ESL 050 - ESL Writing III
- Credits: 2.00
This class is designed for the English language learner whose written proficiency is advanced intermediate or advanced, but who needs guided practice in order to participate successfully in academic classes requiring essays and papers. Students will learn to write structured, academic essays with emphasis on grammatical accuracy and cohesiveness.

ESL 057 - ESL Skill Building III
- Credits: 1.00
This course is specifically designed for non-native English-speaking students who have completed ESL Skill Building I and II or who demonstrate a proficiency level above a basic level, but who still need to enhance communicative skills before beginning or continuing regular academic coursework at Indian Hills Community College.

ESL 077 - ESL Skill Building IV
- Credits: 1.00
This course is specifically designed for the non-native English-speaking student who has completed ESL Skill Building I, II, and III (or their equivalents) but who wishes to spend the summer term polishing those competencies developed in previous coursework.

ESL 090 - Beginning ESL Communication
- Credits: 3.00
This is a course for non-native speakers to improve language skills in academic reading, listening and speaking. This course is designed so a student could concurrently enroll in selected non-ESL courses.

ESL 091 - Intermediate ESL Communication
- Credits: 3.00
This is a course for non-native speakers to refine language skills in academic reading, listening and speaking. This course is designed so a student could concurrently enroll in selected non-ESL courses.

ESL 092 - Advanced ESL Communication Skills
- Credits: 3.00
This course is designed for non-native speakers to refine language skills in academic reading, listening and speaking. This course is designed so a student could concurrently enroll in selected non-ESL courses.

Environmental Science

ENV 105 - Introductory Environmental Science
- Credits: 2.00
This course introduces students to fundamental principles of physics, chemistry and biology. These principles are applied to present-day technology and environmental issues.

ENV 106 - Introductory Environmental Science Lab
- Credits: 1.00
This course is designed to accompany ENV 105 - Introductory Environmental Science. Laboratory work includes hands on experience with physics, chemistry and biology as they apply to environmental issues.

Corequisite(s): ENV 105

ENV 142 - Natural Resources
- Credits: 3.00
This introductory course surveys natural resources with a global perspective. Topics include basic concepts and terminology, ecology and natural resource management agencies. The course will provide an understanding of the impact of natural resources on human life and the impact of humans on natural resources.

Finance

FIN 121 - Personal Finance
- Credits: 3.00
Personal Finance is a course that emphasizes budgeting, borrowing, taxation, consumer credit, savings, investments, insurance, and consumer protection.

Foreign Language - Spanish

FLS 010 - Basic Spanish Conversation
- Credits: 1.00
Conversational Spanish is designed for English-speakers who wish to learn to carry out basic communication in Spanish, using basic vocabulary, phrases, and questions. The course also addresses cross-cultural issues pertinent to relationships between Hispanics and non-Hispanics.

FLS 021 - Occupational Spanish: Law Enforcement I
- Credits: 1.00
This course is designed for English-speakers who wish to learn to carry out specific law enforcement protocols in making stops, searches, and arrests in Spanish, using basic phrases, questions and commands. Discussions will include cross-cultural issues pertinent to relationships between non-Hispanic officers and Hispanic community members.
FLS 022 - Occupational Spanish: Law Enforcement II
- Credits: 1.00
This course is designed for English-speakers who use enforcement protocols in vehicle stops, searches, traffic and parking citations in Spanish, using basic phrases, questions and commands. Discussions will include cross-cultural issues pertinent to relationships between non-Hispanic officers and Hispanic community members.

FLS 024 - Occupational Spanish: Health Care
- Credits: 1.00
Medical Spanish is designed for English-speakers who wish to learn to carry out specific, healthcare-related communication in Spanish, using basic phrases, questions and commands. The course also addresses cross-cultural issues pertinent to relationships between Hispanics and non-Hispanics.

FLS 026 - Occupational Spanish: Office/Work
- Credits: 1.00
This course is specifically designed for English-speakers who wish to learn to carry out specific communications in Spanish, using basic phrases, questions and commands. Discussions will include cross-cultural issues pertinent to relationships between non-Hispanic and Hispanic community members.

FLS 027 - Occupational Spanish: Industry
- Credits: 1.00
This course is designed for English-speakers who wish to learn to carry out specific, job-related communication in Spanish, using basic phrases, questions and commands. The course also addresses cross-cultural issues pertinent to relationships between Hispanics and non-Hispanics.

FLS 028 - Occupational Spanish: Education
- Credits: 1.00
This course is designed for English-speakers who wish to learn to carry out specific, job-related communication in Spanish, using basic phrases, questions and commands. The course also addresses cross-cultural issues pertinent to relationships between Hispanics and non-Hispanics.

FLS 125 - Spanish for Health Professionals
- Credits: 3.00
Medical Spanish is designed for English-speakers who wish to learn to carry out healthcare related communication using Spanish. Students will learn to communicate orally in Spanish using basic phrases, questions, and commands necessary to carry out medical procedures. Discussions will cover cross-cultural issues pertinent to relationships between Hispanics and non-Hispanics.

FLS 131 - Elementary Spanish I
- Credits: 3.00
A four-skills approach will be used—listening, reading, speaking and writing in Spanish. Activities and cultural materials will emphasize communicative and cultural competency, as well as begin a solid grammar foundation.

FLS 132 - Elementary Spanish II
- Credits: 3.00
A four-skills approach will be used—listening, reading, speaking, and writing in Spanish. Activities and cultural materials will emphasize communicative and cultural competency, as well as begin a solid grammar foundation.

FLS 133 - Elementary Spanish III
- Credits: 3.00
A four-skills approach will be used—listening, reading, speaking and writing in Spanish. Activities and cultural materials will emphasize communicative and cultural competency, as well as begin a solid grammar foundation.

FLS 134 - Spanish for Health Professionals
- Credits: 3.00
Medical Spanish is designed for English-speakers who wish to learn to carry out healthcare related communication using Spanish. Students will learn to communicate orally in Spanish using basic phrases, questions, and commands necessary to carry out medical procedures. Discussions will cover cross-cultural issues pertinent to relationships between Hispanics and non-Hispanics.

FLS 153 - Accelerated Elementary Spanish I
- Credits: 5.00
This is a first-year Spanish course for students who have never taken Spanish. This course develops students speaking, listening, and writing skills so that they will be able to express their own ideas and communicate meaningfully in Spanish with others. Cultural knowledge of Spanish-speaking countries will also be addressed.

FLS 154 - Accelerated Elementary Spanish II
- Credits: 5.00
This is the second part of a first-year Spanish course for students who have never taken Spanish. This course develops student's speaking, listening, reading and writing skills so that they will be able to express their own ideas and communicate meaningfully in Spanish with others. Cultural knowledge of Spanish speaking countries will also be addressed.

FLS 231 - Intermediate Spanish I
- Credits: 3.00
Intermediate Spanish will be comprised of a review of the skills acquired in the Elementary Spanish sequence. It will also continue instruction in the communicative competencies of reading, writing, listening and speaking. There will also be a bigger emphasis put on grammar for accuracy and usage. Vocabulary development will continue to be increased. Students will be required to produce more spoken Spanish.

FLS 232 - Intermediate Spanish II
- Credits: 3.00
Intermediate Spanish II will continue the review of the skills acquired in the Elementary Spanish sequence. It will also continue instruction in the communicative competencies of reading, writing, listening and speaking. There will also be a bigger emphasis put on grammar for accuracy and usage. Vocabulary development will continue to be increased. Students will be required to produce more spoken Spanish with even more emphasis put on pronunciation. Students will be required to communicate more readily in Spanish.

FLS 233 - Intermediate Spanish III
- Credits: 3.00
Intermediate Spanish III will continue the review of the skills acquired in the Elementary Spanish sequence. It will also continue instruction in the communicative competencies of reading, writing, listening, and speaking. There will also be a bigger emphasis put on grammar for accuracy and usage. Vocabulary development will continue to be increased. Students will be required to produce more
spoken Spanish with even more emphasis put on pronunciation. Students will be required to communicate more readily in Spanish.

Prerequisite(s): FLS 232 or Spanish Placement Exam.

Geography

GEO 121 - World Regional Geography
- Credits: 3.00
This course covers World Geography using a regional geography perspective. The geopolitical, economic, cultural, and physical geography of various world regions will be studied. Comprehension of geographic terms and concepts will be emphasized.

GEO 924 - Honors Project
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences geography instructor on a social science research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.

GEO 949 - Special Topics
- Credits: 1.00
This course explores specialized topics in the field of geography. A contract between the student and an Arts and Sciences geography instructor outlining the educational project is required.

Geospatial Technology

GIS 100 - Introduction to Geospatial Technologies
- Credits: 3.00
This course will introduce the student to terminology, concepts, applications, data acquisition, trends and careers using geospatial technology. This course includes an overview of hardware, software, online mapping machines, and related technologies, such as Geographic Information Systems (GIS), Remote Sensing (RS), and Global Positioning Systems (GPS). The applications of GIS across various disciplines, such as business, government and the private sector, will also be introduced.

GIS 111 - Introduction to Geographic Information Systems
- Credits: 3.00
This course will allow the students to learn the basics of working with existing GIS data and maps and the creation of new maps. The student will use the ARCView software when working with their projects. Topics will include map design, GIS outputs, geodatabases, geocoding, importing and analyzing spatial data.

Prerequisite(s): GIS 100

GIS 121 - Introduction to Data Bases
- Credits: 3.00
Students will acquire the skills necessary to define, create, manage and integrate databases into their GIS applications using Microsoft Office software. Additional databases, including Census information, available data sets and geodatabases from government, private and educational sources and other data resources will also be explored.

GIS 130 - Remote Sensing
- Credits: 3.00
In this class students will create different projects from an approved list using GIS applications. Topics will include project planning, workflow, management, and data acquisition. GIS applications will be used to create, edit and analyze maps and presentation of completed map project.

Prerequisite(s): GIS 230

GIS 140 - Global Positioning Systems
- Credits: 2.00
This course will introduce the student to Global Positioning Systems (GPS), and their use in Geospatial Technologies. Students will work with mobile GPS units to become familiar with their functions and learn to record GPS coordinates for use in projects.

GIS 170 - Introduction to Raster Based GIS
- Credits: 3.00
This course will introduce raster-based GIS sets, raster-based information such as images or photographs, how to acquire raster-based data, processing and merging raster data with vector data and storing GIS information in raster-based structures.

Prerequisite(s): GIS 230

GIS 180 - GIS Tools and Methods
- Credits: 3.00
This course will introduce the student to work objects that help streamline a GIS project. Topics include building menus, tools, workflows and applications. Methods would include adding layers to maps, defining layer symbology, querying data and creating dynamic layouts.

GIS 190 - GIS Programming
- Credits: 3.00
This course will introduce the student to the most current programming languages and applications relevant to the needs of the GIS industry, which may include those pertinent to desktop, online, and mobile GIS applications. Students will be able to write, test and debug computer programs for use in their GIS projects.

GIS 200 - Introduction to Cartography
- Credits: 3.00
This course introduces the student to the field of cartographic principles and the core components for good map design. Topics cover map layout and design, effective fonts, white space, color basics and customized symbols. Map scale, projection, coordinate systems and types of maps (topographic, thematic, etc.) will be explored. GIS software will be used in this class.

GIS 205 - GIS Data Acquisition and Analysis
- Credits: 3.00
This course will cover the different means of data acquisition for GIS projects. Topics include creation or mining of GIS data resources; transferring data GPS data to GIS applications; processing GPS data for GIS applications; understanding metadata; recognizing different spatial data structures (raster, vector, 3D models, tabular, topographic); data providers; data management; standards for spatial data; data storage and access; and using GIS for geospatial modeling and analysis.
GIS 230 - GIS Applications
- Credits: 3.00
In this class students will create different projects from an approved list using GIS applications. Topics will include project planning, workflow, management and data acquisition. GIS applications will be used to create, edit and analyze maps and presentation of completed map project.
**Prerequisite(s):** GIS 111

GIS 800 - GIS Field Project I
- Credits: 2.00
This course covers the analysis, design, documentation and presentation of a GIS project in a group environment. Knowledge and practical experience will be gained by this project chosen from real-world projects.
**Prerequisite(s):** GIS 230; GIS 205

GIS 801 - GIS Field Project II
- Credits: 2.00
This course covers the development, documentation and presentation of a GIS project in a group environment. Knowledge will be gained by creating the project using GIS software and tools, creating the user documentation, and presenting the final project.
**Prerequisite(s):** GIS 800

GIS 900 - Internship
- Credits: 4.00
Students enrolled in this course will work in an industry GIS department or under the supervision of an approved GIS professional. Emphasis will be on the integration of academic skills with the practical experience.
**Prerequisite(s):** GIS 230

GIS 949 - Special Topics in GIS
- Credits: 3.00
This course covers the analysis and experimentation of new GIS tools or methods. Instructor approval for project selection is required. Knowledge will be gained by experimenting and documenting the methods and tools with a final presentation of results.
**Prerequisite(s):** GIS 180

## Graphic Communications

GRA 127 - Illustrator I
- Credits: 3.00
This course teaches many skills, including how to draw illustrations, transform objects, work with layers, patterns, brushes and filters, use effects, create graphics for the web, create graphs and prepare files for print production.

GRA 135 - InDesign
- Credits: 2.00
This course offers creative projects, concise instructions, and complete coverage of basic InDesign skills, such as: creating comprehensive layouts, including formatting text and body copy, designing display headlines, setting up a document, working with process and non-process colors and placing graphics from Adobe Illustrator and Adobe Photoshop.

GRA 143 - Photoshop I
- Credits: 2.00
This course offers creative projects, concise instructions, and complete coverage of basic Photoshop skills, which include: working with layers, making selections, adjusting color techniques, using paint tools, working with filters and transforming type.

GRA 145 - Photoshop III
- Credits: 3.00
This course offers creative projects, concise instructions, and extensive coverage of advanced design and Photoshop skills, helping to create polished, professional-looking graphics.
**Prerequisite(s):** GRA 127 and GRA 143 or GRD 210

GRA 222 - Illustrator II
- Credits: 2.00
This course is designed with many hands-on activities to enable students to be proficient in the advanced features of Illustrator. Topic include: creating graphics, drawing with symbols, creating 3-D objects and preparing a document for prepress and printing.
**Prerequisite(s):** GRA 127

GRA 224 - InDesign II
- Credits: 2.00
This course is designed with many hands-on activities to enable students to be proficient in the advanced features of InDesign. Topics include: working with tabs and tables, making books, exploring advanced techniques, and preparing, packaging and exporting documents.
**Prerequisite(s):** GRA 135

GRA 226 - Photoshop II
- Credits: 2.00
This course is designed with many hands-on activities to enable students to be proficient in the advanced features of Photoshop. Topic include: enhancing specific selections, adjusting color, using clipping masks, liquefying an image, performing image surgery, annotating and automating an image and creating images for the web.
**Prerequisite(s):** GRA 143

GRA 250 - Dreamweaver
- Credits: 2.00
This course is designed with many hands-on activities to enable students to learn to create web pages with Dreamweaver. Topics include: exploring the Dreamweaver workspace, developing a web page, working with text and graphics, working with links, working with tables, collecting data with forms, using styles and style sheets and positioning objects with layers.
**Prerequisite(s):** CIS 205 ; or BCA 185

GRA 251 - Dreamweaver II
- Credits: 2.00
This course is designed with many hands-on activities in the advanced features of Dreamweaver. Topics include: adding multimedia elements, creating and using templates, working with library items and snippets and managing a web server and files.
**Prerequisite(s):** GRA 250
GRA 280 - Audio/Video Production Basics
- Credits: 3.00
This course offers creative projects, concise instructions and complete coverage of basic Premier Pro, After Effects and Audition Skills, which include: capturing, editing, and publishing video, adding animated text, digital motion graphics, and visual effects to video, and editing, mixing and exporting audio.
Prerequisite(s): ENG 101 ENG 105

GRA 281 - Audio/Video Production Basics II
- Credits: 3.00
This course offers more advanced creative projects utilizing Adobe Premiere Pro, After Effects, and Audition. Students will enhance skills including capturing, editing, and publishing video, adding animated text, digital motion graphics, and visual effects to video, and editing, mixing, and exporting audio.
Prerequisite(s): GRA 280

GRA 399 - Technical Document Components
- Credits: 2.00
This course will cover the different sections included in technical documents including bill of materials, safety features and warnings, regulatory agency requirements, copyrights, technical glossaries, indexes, etc. Students will investigate and create documents utilizing components discovered through internet research.

Health Information Technology

HIT 125 - Essentials of Health Records
- Credits: 2.00
This course introduces the student to the components of the health record. An overview of the departments in the health care facility and the role of the health care team members will be discussed. The importance of confidentiality, child and dependent adult abuse reporting, HIPAA and infection control principles will be addressed.

HIT 126 - Health Records Laboratory
- Credits: 1.00
This laboratory course involves preparing various types of records in accordance with Standards for Certification and Accreditation. The course will provide extensive practice exercises to help students become proficient in basic health record functions.

HIT 130 - Health Record Systems
- Credits: 3.00
This course emphasizes the Standards for Certification and Accreditation of records in alternate facilities. Trends in health care delivery will be presented.
Prerequisite(s): HIT 125; HIT 126

HIT 141 - Health Law and Ethics
- Credits: 3.00
Federal, state, and local law governing the preparation and use of health information is the focus of this course. Particular attention is paid to HIPAA and other regulations regarding privacy and confidentiality. Ethical issues, as they relate to the use of health information, are covered.

HIT 161 - Health Information E-Systems
- Credits: 3.00
Emphasis in this course is on emerging technologies, including software, that are changing the management of health information.
Prerequisite(s): HIT 130; HIT 325

HIT 221 - Compliance/Risk Management
- Credits: 3.00
Fundamentals of loss exposure, negligence, liability, litigation management and loss prevention are examined. The role and responsibilities of the Compliance Officer are emphasized throughout the course.
Prerequisite(s): HIT 141

Health Information Technology
management through problem-solving activities.

**Prerequisite(s):** HIT 141; HIT 531

**HIT 227 - Health Statistics**
- Credits: 3.00
Basic descriptive statistics used in preparing monthly and yearly reports are presented in this course. Students will use statistics to analyze data and generate reports.

**Prerequisite(s):** HIT 530

**HIT 260 - ICD-10 Diagnostic Coding**
- Credits: 2.00
This course is designed to develop skills in the use of the International Classification of Disease, Tenth Revision, Clinical Modification (ICD-10-CM). Students will review medical diagnostic statements and assign appropriate alpha-numeric code(s). Laboratory session include diagnostic coding applications.

**Prerequisite(s):** HIT 125 HIT 126

**HIT 270 - ICD-10 Procedural Coding**
- Credits: 2.00
This course is designed to develop skills in the use of International Classification of Disease, Tenth Revision, Procedural Coding System (ICD-10-PCS). Students will review procedural information and assign appropriate alpha-numeric code(s). Laboratory session include procedural coding applications.

**Prerequisite(s):** HIT 125 HIT 126

**HIT 290 - Reimbursement Methods**
- Credits: 3.00
This course provides students with the opportunity to study the uses of coded data and health information reimbursement systems appropriate to all health care settings. Emphasis will include prospective payment systems, charge master maintenance and identification of fraudulent billing practices.

**Prerequisite(s):** HIT 270 and HIT 260 - ICD-10 Diagnostic Coding HIT 130

**HIT 325 - CPT Coding**
- Credits: 3.00
This course is designed to develop skills in the use of Current Procedural Terminology (CPT). Students will review procedures and services performed by physicians and other healthcare providers and assign appropriate code(s). Laboratory sessions include procedural coding applications.

**Prerequisite(s):** HIT 260 HIT 270

**HIT 410 - Practical Coding Application**
- Credits: 3.00
This course provides students with the opportunity to become proficient coders. Student will apply coding guidelines, rules and regulations. Course activities consists of case scenarios and chart coding using the International Classification of Disease, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Disease, Tenth Revision, Procedural Coding System (ICD-10-PCS) and Current Procedural Terminology (CPT) Coding systems. Alternative coding applications will be explored.

**Prerequisite(s):** HIT 325

**HIT 440 - Quality Management**
- Credits: 3.00
This course will expose the student to the basics of a quality improvement program. Emphasis will be placed on medical care evaluation procedures. Criteria development, variation, deficiency analysis and data display techniques will be introduced. Medical record peer review, ancillary audit techniques and utilization review will be discussed.

**Prerequisite(s):** HIT 225

**HIT 530 - Professional Experience I**
- Credits: 1.00
This professional practice experience is designed to provide the student with an opportunity to experience and perform functions relevant to Health Information Management.

**Prerequisite(s):** HIT 125; HIT 126

**HIT 531 - Professional Experience II**
- Credits: 5.00
This professional practice experience is designed to provide the student with an opportunity to obtain foundation building Health Information Management skills applicable to various healthcare settings.

**Prerequisite(s):** HIT 530 HIT 141 HIT 325 HIT 701

**HIT 532 - Professional Experience III**
- Credits: 5.00
This professional practice experience is designed to provide the student with an opportunity to build on their knowledge of foundation skills. The student will perform numerous management functions within the Health Information Management Department and other associated departments.

**Prerequisite(s):** HIT 227; HIT 440; HIT 410; HIT 531

**HIT 700 - Virtual Lab Exploration I**
- Credits: 1.00
In this course the student will be introduced to the virtual laboratory. The student will establish the foundation of the electronic patient record at a beginner level with exercises/applications.

**Prerequisite(s):** HIT 125 HIT 126

**HIT 701 - Virtual Lab Exploration II**
- Credits: 1.00
In the course the student will explore the Quadramed Quantim and the 3M Coding and Reimbursement applications. The student will be accessing electronic health records in the V-Lab and assigning appropriate diagnoses and procedure codes while analyzing their impact on reimbursement.

**Prerequisite(s):** HIT 270 HIT 260 HIT 700

**HIT 702 - Virtual Lab Exploration III**
- Credits: 1.00
In this course the student will employ advanced techniques in electronic health records management. The student will provide analysis and display of dataset searches using multiple graphic techniques.

**Prerequisite(s):** HIT 161 HIT 701

**HIT 950 - HIT Seminar**
- Credits: 1.00
This course reviews curriculum content pertinent to the Registered Health Information Technician accreditation examination. The application of critical thinking skills is
Health Sciences

**HSC 204 - Nutrition for Health Professionals**
- Credits: 3.00
This course examines the basic concepts and science of nutrition for foodservice professionals. Students will be introduced to proper nutrition, digestion, weight management, nutrition related disease states and nutritional guides and resources.

**HSC 220 - Legal Principles in Health Care**
- Credits: 3.00
This course will encompass foundational concepts regarding medical law, ethics and appropriate health care documentation practices. Examination and application of standards of practice, federal, state and local laws, and accreditation standards will reinforce concepts explored in this course.

**HSC 100 - Health Career Exploration & Leadership**
- Credits: 3.00
This course allows participants the opportunity to narrow their interest and focus in a health occupations career. Educational and career planning is discussed. Skills vital to the success of college students and prospective health occupations professionals will be addressed.

**HSC 113 - Medical Terminology**
- Credits: 2.00
This course offers a study of the basic medical language essential to health occupations careers. Emphasis will be placed on word analysis and construction, definitions, pronunciation, spelling, and standard abbreviations.

**HSC 141 - Pharmaceutical Applications**
- Credits: 1.00
This course provides information on the classification of drugs, their generic names and normal route of administration. Accurate spelling is emphasized.

**HSC 201 - Health Care Exploration**
- Credits: 2.00
This course provides an exploration of various health professions, through classroom and career shadowing. This course presents historical and current trends within the healthcare system. The skills, roles and functions of various professions and their differences in education and licensure or certification will be covered. Self-reflection as it relates to career choices, professionalism, ethical issues, confidentiality, and legal concerns will also be discussed.

**HSC 212 - Pathophysiology**
- Credits: 3.00
The nature, cause, and treatment of disease are the focus of pathophysiology. The characteristics and etiology of diseases are presented using appropriate medical terminology to help students understand the relationship between clinical signs and disease processes.

**HSC 226 - Health Society and Aging**
- Credits: 3.00
This course provides a multidisciplinary perspective of aging. Biological, psychological, and sociological aspects of aging are explored. The impact of an aging population on societal issues such as politics, education, public policy, religions and health care will be considered.

**HSC 227 - CLA Administrative Procedures**
- Credits: 2.00
This course presents basic concepts related to the health record, CPT and ICD coding, ethical issues, and communication. Students will use information systems to input data. Procedures for assessing vital signs and performing electrocardiograms will be introduced.

**HSC 230 - Employment Preparation**
- Credits: 1.00
This course is designed for students preparing to seek employment. Written documents including letters and resumes will be discussed and created. Job seeking techniques including interviewing skills and human relations skills will also be addressed.

Health Unit Coordinator

**HUC 121 - Health Unit Coordinator**
- Credits: 5.00
This course introduces the basic concepts required to function as a Health Unit Coordinator in a health care facility. Students will gain knowledge in requisitioning basic diagnostic tests, ordering unit supplies, using customer service skills, transcribing physician orders and maintaining the health record.

**HUC 122 - HUC Practicum**
- Credits: 2.00
This practicum experience is completed in a health care setting. Knowledge and skills acquired in the classroom and laboratory environment will be utilized in performing Health Unit Coordinator responsibilities.

**HUC 150 - HUC Seminar**
- Credits: 1.00
This course reviews curriculum content pertinent to Health Unit Coordinator certification examination. The application of critical thinking skills is included. Mock examinations will be given.

**MTR 156 - HDS Fundamentals**
- Credits: 2.00
Students will acquire transcription/editing skills using standard reference sources. Practical experience includes transcription/editing of reports, which may include letters, history and physical reports, consultation reports, operative reports, discharge summaries and office notes.

**Prerequisite(s):** HIT 125 HIT 126 HSC 113
MTR 200 - HDS Technology
- Credits: 3.00
This course enables the students to study, synthesize, and apply technologies specific to appropriate and relevant healthcare documentation. It will also orient the student to emerging technologies.
Prerequisite(s): MTR 156

MTR 300 - HDS Seminar
- Credits: 3.00
This course reviews curriculum content pertinent to the professional certification examination. The application of critical thinking skills is included. Mock examinations and cognitive assessment will be given.
Prerequisite(s): HSC 113

Heating & Air Conditioning

HCR 105 - Heating/Cooling Fundamentals
- Credits: 2.00
This facilitated course covers the basic principles of heating/cooling systems, components and design. The basic concepts of heat exchangers, refrigerant flow control and types of fuels are also included.

HCR 108 - Heating and Air Conditioning Trade Codes
- Credits: 2.00
An initial portion of this course teaches how to use the Mechanical Code Manual properly. A general study of the codes necessary for installation of heating equipment, ventilating equipment, and fuel-gas piping is emphasized.
Prerequisite(s): HCR 105

HCR 130 - Heating System Controls
- Credits: 2.00
This facilitated course covers heating systems and controls including proper safety procedures, operational theory, parts identification, component parts rebuilding, replacement, unit repair and operational procedures. Basic application of controls and related devices in heating systems, troubleshooting and failure analysis will also be covered.

HCR 230 - Cooling System Controls
- Credits: 2.00
This facilitated course covers cooling systems and controls including proper safety procedures, operational theory, parts identification, replacement, unit repair and operational procedures. Basic application of controls and related devices in cooling systems, troubleshooting and failure analysis will also be covered.
Prerequisite(s): HCR 304

HCR 304 - Fundamentals of Refrigeration
- Credits: 2.00
This facilitated course covers the basic principles of heating/cooling systems, components and design. The basic concepts of heat exchangers, refrigerant flow control and types of fuels are also included.

HCR 390 - Refrigeration Certification
- Credits: 1.00
This facilitated course will cover the history, basic theory, and principles of refrigerant handling; (recovery, recycling, and reclaiming) and will prepare the student for the Environmental Protection Agency (EPA) certification exam.

HCR 505 - Air Distribution
- Credits: 3.00
A study of the construction and design of duct work and related duct fittings. Includes correct layout and sizing of ducts, return and supply grills, and use of airflow measuring instruments. (30-60)
Prerequisite(s): HCR 304

HCR 830 - Systems Analysis
- Credits: 1.00
This is a facilitated course covering commercial refrigeration, including proper safety procedures, operational theory, part identification, component parts rebuilding, replacement, unit repair, operational procedures and troubleshooting.
Prerequisite(s): HCR 230

History

HIS 110 - Western Civilization: Ancient to Early Modern
- Credits: 3.00
This course examines the development of the earliest civilizations in Mesopotamia and the Mediterranean region, the medieval world of Manorialism and Feudalism, the Investiture Conflict, the Crusades, the Renaissance and Reformation, the Thirty Years War, the English Civil War and the Age of Louis XIV.

HIS 111 - Western Civilization: Early Modern to Present
- Credits: 3.00
This course examines the background to the French Revolution, the French Revolution, the Napoleonic era, industrialization and nationalism, German and Italian unification, neo-colonialism, WWI, the Russian Revolution, the interwar period, the rise of Fascism and Nazism, WWII, the Cold War, the collapse of communism and the emergence of the European Union.

HIS 121 - Ancient Mediterranean World
- Credits: 3.00
This course examines the cultural, political, and historical heritages of ancient Egypt, Mesopotamia, the Levant, Greece and Rome.

HIS 125 - Modern Europe
- Credits: 3.00
This course will examine the development of European civilization in the 20th century and the early 21st century. Topics for study will include: imperialism and decolonization, WWI and WWII, the growth of the European Union and the development of modern political ideologies. Liberalism, conservatism and fascism, the rise and fall of communism, as well as the cultural and scientific accomplishments of this period will also be discussed.
HIS 141 - History of Asia  
- Credits: 3.00  
This course examines the origin and impact of Asiatic religions; the formation of empires in China, India, and Southeast Asia; the development of Japanese culture and civilization and the modern era in Eastern and Southeastern Asia.

HIS 151 - U.S. History to 1877  
- Credits: 3.00  
This course covers European discovery and settlement of the Americas. Topics include: European colonial expansion, colonial wars, colonial governments, the Revolutionary War, the adoption of the Constitution and the growth and development of the United States through the Civil War and Reconstruction.

HIS 152 - U.S. History since 1877  
- Credits: 3.00  
This course examines Westward expansion, industrialization, immigration, and urbanization. Topics include populism and the Progressive Era, WWI, the Roaring Twenties, the Great Depression, WWII, the Cold War and the post-Cold War period.

HIS 201 - Iowa History  
- Credits: 3.00  
This course surveys the history of Iowa from its frontier days through the end of the twentieth century. Through exploration of social, political, and economic trends in the state, it examines the relationships Iowans have had with Native Americans, with each other, and with the nation.

HIS 214 - Russian History and Culture  
- Credits: 3.00  
This course covers the history of Russia from 800 to the present. Topics include the rise of Kievan Russia, the Mongol invasions, the expansion of Moscow, the Romanov dynasty, the creation of the Russian Empire, the Russian Revolution and the Soviet period and its collapse.

HIS 257 - African American History  
- Credits: 3.00  
The scope of this course includes a study of slavery and its effects and an examination of African Americans’ struggle for political, economic and social equality from emancipation through recent times. Students will also explore various African-American cultural contributions to the larger American society.

HIS 927 - Honors Study  
- Credits: 1.00  
In this course, the student will work independently with a chosen Arts and Sciences social science instructor on a social science research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.  
Prerequisite(s): Permission of Instructor.

HIS 949 - Special Topics  
- Credits: 1.00  
This course explores specialized topics in the field of social science. A contract between the student and an Arts and Sciences social science instructor outlining the educational project is required.  
Prerequisite(s): Permission of Instructor.

Hospitality, Culinary Management

HCM 101 - Safety/Sanitation  
- Credits: 1.00  
This course introduces the basic principles of safety and sanitation and their relationship to the foodservice industry. Topics include the sanitation challenge, the flow of food through the operation, clean and sanitary facilities and equipment, accident prevention and crisis management and sanitation management.

HCM 102 - Food Service Technology  
- Credits: 1.00  
This course offers a broad overview of the food service industry with emphasis placed upon sanitation and safety, terminology, equipment, structure of the recipe, mise en place and basic principles of cooking. The student should become aware of what a foodservice career offers and what a successful foodservice career involves.

HCM 114 - Basic Baking (lec)  
- Credits: 2.00  
This course will allow the student the use of weights and measurements as it relates to a retail bakery. The student will learn various ingredients and will learn to mix, blend and combine ingredients into bakery products. The use of scales, utensils and bakery equipment will be included.  
Prerequisite(s): HCM 261; HCM 101; HCM 102; HCM 163

HCM 115 - Basic Baking (lab)  
- Credits: 4.00  
This course is a basic introduction to the study of methods in producing various sweet goods and breads. The student will learn manipulative skills and use equipment in baking a variety of sweet goods and breads.  
Prerequisite(s): HCM 261; HCM 101; HCM 102; HCM 163

HCM 118 - Advanced Baking (lec)  
- Credits: 2.00  
This course focuses on the study of baking with ingredients to develop a more profound understanding of baking methods. Information will be presented to the student in the making of unique and elegant creations.  
Prerequisite(s): HCM 114; HCM 115

HCM 119 - Advanced Baking (lab)  
- Credits: 4.00  
This course will introduce pastry and bread techniques for the more advanced baking professional. The student prepares advanced pastry and bread items under real life production conditions for demand and volume.  
Prerequisite(s): HCM 114; HCM 115

HCM 145 - Garde Manger(lab)  
- Credits: 3.00  
This course allows the student to apply knowledge of fruits, vegetables and starches to prepare, garnish and merchandise a variety of main course, accompaniment and dessert salads, sandwiches and hors d’oeuvres.  
Prerequisite(s): HCM 101; HCM 102; HCM 163
HCM 146 - Cold Food Principles (lec)
- Credits: 1.00
This course content ranges from the simple identification of fruits, vegetables and starches to the presentation of an elegant salad buffet. The student will learn how the color, texture and other characteristics of these products can be blended to prepare salads, sandwiches and hors d'oeuvres. 
Prerequisite(s): HCM 101; HCM 102

HCM 149 - Principles of Cooking (lab)
- Credits: 4.00
This course will allow students to prepare meats, poultry, fish and shellfish entrees with accompaniment dishes using all methods of cooking. 
Prerequisite(s): HCM 101; HCM 102; HCM 163

HCM 150 - Shellfish, Poultry, Meats (lec)
- Credits: 1.00
This course will introduce the composition and structure of meats, poultry, fish and shellfish so the student can understand the relationship between structure and cooking technique. Quality assurance and grading will be covered along with proper handling, cooking and storage. 
Prerequisite(s): HCM 101; HCM 102; HCM 163

HCM 151 - Stocks, Soups, Sauces
- Credits: 1.00
This course will provide the foundation for the sauces and soups of fine cuisines. The student will develop knowledge of and skill in the relationship between the preparation of quality stocks, soups and sauces. 
Prerequisite(s): HCM 101; HCM 102; HCM 163

HCM 163 - Culinary Skills (lab)
- Credits: 3.00
This course will instruct students in basic culinary skills. Students will become familiar with the safe operation of food processing equipment, develop hand skills and practice proper sanitation techniques. Development of good work habits and effective use of time and work space will be emphasized.

HCM 174 - International Cuisine (lab)
- Credits: 4.00
This course will allow the student to explore a variety of cultures and cuisine by planning, preparing and serving theme dinners. 
Prerequisite(s): HCM 150; HCM 149; HCM 151

HCM 184 - International Cuisine Excursion I
- Credits: 6.00
This course will allow the student to explore a variety of cultures and cuisine by traveling abroad, learning international culinary techniques, experiencing cultural exchanges and networking globally in preparation for a career in foodservice. 
Prerequisite(s): HCM 150; HCM 149; HCM 151. Permission of Instructor.

HCM 185 - International Cuisine Excursion II
- Credits: 6.00
This course will allow the student to explore a variety of cultures and cuisine by traveling abroad, learning international culinary techniques, experiencing cultural exchanges and networking globally in preparation for a career in foodservice. 
Prerequisite(s): Permission of Instructor.
applied to a computer using Microsoft Excel and Microsoft Word software.

**HCM 311 - Convention & Meeting Management**
- Credits: 3.00
This course covers the organizational and logistical requirements for setting up meetings and conventions from concept through completion. Students will learn about planning, marketing, financing, and SWOT analysis.

**HCM 312 - Facilities Management**
- Credits: 3.00
This course explores property management with a focus on the lodging and tourism industry, including their food service operations. Facility engineering, housekeeping, laundry, and customer service are outlined as well.

**HCM 327 - Convention & Meeting Management**
- Credits: 3.00
This course covers the organizational and logistical requirements for setting up meetings and conventions from concept through completion. Students will learn about planning, marketing, financing, and SWOT analysis.

**HCM 332 - Management of Guest Services**
- Credits: 3.00
This course explores property management with a focus on the lodging and tourism industry, including facility organization, food service operations, and guest services.

**HCM 334 - Managing Hospitality Human Resources**
- Credits: 3.00
In this course, the student will learn about U.S. Employment and workplace law as well as strategies for hiring and training employees in the hospitality industry.

**HCM 341 - Catering and Banqueting (lec/lab)**
- Credits: 2.00
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.
**Prerequisite(s):** HCM 146; HCM 145; HCM 149

**HCM 346 - Culinary Seminar**
- Credits: 1.00
In this entry level course students will explore the field of hospitality and the career opportunities within the industry. Real-life work requirements including soft skills, ethics, stamina, and professionalism will be discussed. The course will offer opportunities to interact with local chefs.

**HCM 348 - Managing Food Service Operations**
- Credits: 3.00
Students will learn the basic principles of commercial food service operations and about the organization, logistics, and streamlining of large production events.

**HCM 400 - Food Service Entrepreneurship (lec)**
- Credits: 3.00
In this course, the student will design a restaurant or bakery business from beginning to opening day. The student will follow a detailed outline which covers all areas of each planning stage. Students should be aware that several research hours are outside of the regular academic day.
**Prerequisite(s):** MGT 101; HCM 211

**HCM 401 - Culinary Industry**
- Credits: 3.00
This course will be a review of the culinary profession and a synthesis of the knowledge and experience gained throughout this Culinary Arts program of study. The student will focus on major subject areas that pertain to success in the culinary industry.
**Prerequisite(s):** MGT 101; HCM 211

**HCM 512 - Culinary Internship**
- Credits: 2.00
This course will provide the student with valuable work experience directly related to his/her vocational course. Additional culinary skills will be provided by actual experience in the industry. The student will be required to establish acceptable and measurable objectives to be met during the internship.
**Prerequisite(s):** HCM 341, HCM 174 or HCM 184 and HCM 211

**HCM 608 - Introduction to Hospitality**
- Credits: 3.00
This course introduces the student to the hospitality industry which includes hotels, resorts, restaurants, and catering and banqueting facilities.

**Humanities**

**HUM 135 - Humanities of the Early World**
- Credits: 3.00
This course surveys the humanities in early world history, from Classical China and India, the Fertile Crescent and Mediterranean seaboard, and the Greco-Roman empires, through Medieval Europe. It examines the religion, philosophy, literature and drama, painting and sculpture, music, and architecture of these areas and times.

**HUM 136 - Humanities of the Renaissance**
- Credits: 3.00
This course surveys the humanities in world history, from the Western Renaissance and Reformation periods through the Enlightenment, along with the Western encounters with Africa and the Americas. It examines the religion, philosophy, literature and drama, painting and sculpture, music and architecture of these areas and times.

**HUM 137 - Humanities of the Modern World**
- Credits: 3.00
This course surveys the humanities in modern history, from the Western Romantic, Realist, and Modernist movements, to the postmodernist turn toward globalization in the Information Age. It examines the religion, philosophy, literature and drama, painting and sculpture, music and architecture of these areas and times.

**HUM 138 - Humanities of the Contemporary World**
- Credits: 3.00
This course surveys the humanities in contemporary world history, from the Western Romantic, Realist, and Modernist movements, to the postmodernist turn toward globalization in the Information Age. It examines the religion, philosophy, literature and drama, painting and sculpture, music and architecture of these areas and times.

**HUM 150 - Introduction to Humanities**
- Credits: 3.00
This course surveys the humanities in world history, from the Western Renaissance and Reformation periods through the Enlightenment, along with the Western encounters with Africa and the Americas. It examines the religion, philosophy, literature and drama, painting and sculpture, music and architecture of these areas and times.

**HUM 151 - Introduction to Humanities**
- Credits: 3.00
This course surveys the humanities in world history, from the Western Renaissance and Reformation periods through the Enlightenment, along with the Western encounters with Africa and the Americas. It examines the religion, philosophy, literature and drama, painting and sculpture, music and architecture of these areas and times.

**HUM 152 - Introduction to Humanities**
- Credits: 3.00
This course surveys the humanities in world history, from the Western Renaissance and Reformation periods through the Enlightenment, along with the Western encounters with Africa and the Americas. It examines the religion, philosophy, literature and drama, painting and sculpture, music and architecture of these areas and times.

**HUM 205 - Humanities: The Hero**
- Credits: 3.00
This course examines the idea of the hero from a variety of perspectives, including literary, historical and cultural. The students will read selected texts focusing on varying interpretations of the hero.
HUM 210 - Humanities: Nature of Conflict
- Credits: 3.00
This course examines the dynamics of human conflict from selected historical, cultural and literary sources. The specific content may vary from year to year to accommodate a variety of topics focusing on human conflict.

HUM 927 - Honors Study
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences humanities instructor on a humanities project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.
Prerequisite(s): Permission of Instructor.

HUM 952 - Topics
- Credits: 1.00
This course explores specialized topics in the field of humanities. A contract between the student and an Arts and Sciences humanities instructor outlining the educational project is required.
Prerequisite(s): Permission of Instructor.

Industrial Maintenance

IND 109 - Equipment Safety and Operation
- Credits: 3.00
This course will provide an overview of the safety precautions and operation of equipment commonly used in industry. Each student will complete the necessary materials to complete their OSHA 10 Hour Construction certificate.

IND 110 - CPR, First Aid and Safety
- Credits: 1.00
This course covers OSHA 10 Hour Construction Outreach. This certification addresses safety and health hazards in the workplace, employer responsibilities, and worker rights. The student will train in Cardiopulmonary resuscitation (CPR)AED basics and basic first-aid procedures.

IND 120 - Fluid Systems I
- Credits: 2.00
This course covers the basic operation of pumps and valves, drive components, basic hydraulic and pneumatic systems. The selection and proper use of lubricants in drive components are also covered.

IND 121 - Fluid Systems II
- Credits: 2.00
This course covers constructing hydraulic circuits utilizing check valves, accumulators, cylinders, motors, flow control valves, directional control valves and the various types of pumps. Operation of pneumatic systems devices is also covered.

IND 122 - Fluid Systems III
- Credits: 2.00
This course covers in detail the maintenance and troubleshooting of hydraulic and pneumatic systems.
Prerequisite(s): IND 120 and IND 121

IND 123 - Fluid Systems Analysis
- Credits: 2.00
This course covers troubleshooting and routine maintenance of systems covered in Fluid Systems I, II, III. The basic concepts of Total Productive Maintenance (TPM) are also included.
Prerequisite(s): IND 122

IND 134 - Print Reading
- Credits: 2.00
This course presents an overview of methods used in presenting and interpreting a variety of industrial blueprints and schematics. Topics will include engineering drawings in the machine and electrical fields, construction blueprints including structural, fabrication, erection drawings and piping drawings.

IND 142 - Industrial Maintenance Pumps
- Credits: 1.00
This is a facilitated course covering the basic troubleshooting and maintenance of pumps.

IND 161 - Lubrication Certification
- Credits: 2.00
This facilitated course will cover the basic theory, and principles of machinery lubrication and will prepare the student for the MLA and MLTA certification exam.

IND 162 - Equipment Maintenance
- Credits: 2.00
This course includes the study of boiler systems, equipment lubrication, vibration analysis, thermal analysis of equipment, corrective and preventative maintenance and fundamental equipment troubleshooting techniques.

IND 169 - Basic Plumbing and Pipework
- Credits: 2.00
Study of typical in-plant applications of piping and fittings in an industrial plant. Emphasis will be placed on basic skills of installing metal and plastic pipe. Course includes cutting, bonding and joining pipe.

IND 170 - Rigging Systems
- Credits: 2.00
This program will teach students the fundamentals of rigging systems and components. Hoists, slings and lifting, wire and fiber rope, chain slings and crane operations are included.

IND 193 - Introduction to Pumps
- Credits: 4.00
This course introduces the student to the different types of pumps, their construction and operation. It gives the students the ability to troubleshoot and the hands-on experience in disassembling, replacing parts and reassembling various types of pumps found in industry.

IND 200 - Mechanical Drives I
- Credits: 2.00
This course will teach students the fundamentals of mechanical drives by introducing the student to key fasteners, v-belts, chain drives, spur gear drives and multiple shaft drives in a mechanical drives systems used throughout industry.
IND 201 - Mechanical Drives II  
- Credits: 2.00  
This course will teach students the fundamentals of mechanical belt drives, mechanical lubrication concepts, precision shaft alignment and heavy duty chain drives.  
**Prerequisite(s):** IND 200

IND 202 - Mechanical Drives III  
- Credits: 3.00  
This course will teach students the fundamentals of mechanical drives by introducing the student to bearings, gear drives, brakes and clutches, linear ball bushings, ball screw drives, dovetail slides and tapered gibbs a mechanical drives system and conveyor used throughout industry.  
**Prerequisite(s):** IND 201

IND 204 - Fluid Power I  
- Credits: 4.00  
This course covers the theory and basic operation of fluid power systems. Emphasis on pumps, compressors and valves will be covered. Constructing hydraulic/pneumatic circuits utilizing valves, cylinders, motors, and check valves will be performed during laboratory projects.

IND 205 - Fluid Power II  
- Credits: 4.00  
This course will address fluid quality and fire resistant fluids as utilized in the industry. Laboratory projects will utilize electrically controlled valves and construction of advanced fluid control circuits. The student will develop basic troubleshooting techniques in correcting systems faults and determine when fluid leakage and system heat are a problem in a fluid system. The concepts of Total Productive Maintenance will also be introduced.  
**Prerequisite(s):** IND 204

**Lasers/Electro-Optics**

LEO 101 - Photonics Concepts  
- Credits: 4.00  
This course introduces the student to the way light is generated and manipulated. Students will have the chance to perform basic labs to enhance their understanding of optics and laser beams. Laser industry experts will discuss real world applications and the future of the photonics industry.

LEO 102 - Photonics Fundamentals  
- Credits: 3.00  
This course introduces the student to how light is generated and manipulated. The use basic optics and how different laser systems utilize them will be addressed. Real world uses in numerous industrial fields will be analyzed providing the student a board scope view of lasers.

LEO 103 - Photonics Fundamentals I  
- Credits: 1.00  
This course introduces the student to how light is generated and manipulated. The use of basic optics and how different laser systems utilize them will be addressed. Real world uses in numerous industrial fields will be analyzed providing the student a board scope view of lasers. This course, in addition to LEO 104 Photonics Fundamentals II, meets the requirements of LEO 102 Photonics Fundamentals.

LEO 104 - Photonics Fundamentals II  
- Credits: 2.00  
This course introduces the student to how light is generated and manipulated. The use basic optics and how different laser systems utilize them will be addressed. Real world uses in numerous industrial fields will be analyzed providing the student a board scope view of lasers. This course, in addition to LEO 103 Photonics Fundamentals I, meets the requirements of LEO 102 Photonics Fundamentals.  
**Prerequisite(s):** LEO 103

LEO 242 - Introduction to Photonics  
- Credits: 4.00  
This course covers the history, safety, and theory of laser light and laser systems. Different laser system configurations and operations will be examined.

LEO 250 - Automated Laser Processing  
- Credits: 3.00  
This course covers the basics of laser material processing. The student will perform laser welding, drilling, cutting, and marking of various materials. The properties of materials and the interaction of the laser light with the materials is the focus. Statistical process control, blueprint reading, and CNC (Computer Numerical Control) of laser systems are strongly emphasized.  
**Prerequisite(s):** LEO 259; LEO 262;

LEO 251 - Laser Material Processing  
- Credits: 4.00  
This is an introductory course in laser material processing. This course includes information needed to understand lasers, optics, safety and programming prior to specific applications. A variety of laser material processes will be studied.

LEO 251 - Laser Material Processing  
- Credits: 4.00  
This is an introductory course in laser material processing. This course includes information needed to understand lasers, optics, safety and programming prior to specific applications. A variety of laser material processes will be studied.

LEO 253 - Physical Optics  
- Credits: 2.00  
This course is designed to teach students wave theory of light. Reflection and refraction of waves are demonstrated analytically and graphically. Interference, wave propagation, diffraction, holography, polarization and other effects are studied.  
**Prerequisite(s):** LEO 242

LEO 255 - Geometric Optics  
- Credits: 4.00  
This course is designed to provide the student with knowledge of geometric ray and particle theory of light. The laws of reflection and refraction from mathematical, geometrical and experimental aspects are studied.  
**Prerequisite(s):** LEO 242
LEO 257 - Laser Components
- Credits: 2.00
This course covers the equipment and hardware used with lasers and laser systems. Different types of laser systems and equipment are discussed.
Prerequisite(s): MAT 761

LEO 259 - Optical Devices
- Credits: 3.00
This course will teach the students the operational theory behind equipment used for laser beam measurement and manipulation. Students will work with detectors, beam expanders/collimators, holography and acoustic and electro-optic devices.
Prerequisite(s): LEO 242

LEO 262 - Laser System Fundamentals
- Credits: 3.00
This course is an in-depth study of solid-state, ion, gas, molecular, and semiconductor lasers and laser systems. Diode pumped solid-state lasers, Q-switching and other laser output measurements will be covered.
Prerequisite(s): LEO 242; LEO 257

LEO 266 - Photonics Applications
- Credits: 4.00
This course offers students exposure to various industrial, medical, communication, quality control, construction, and military laser applications. Students will work in a team environment and receive hands-on experience in several of the applications.
Prerequisite(s): LEO 259; LEO 242

LEO 268 - Photonics Troubleshooting
- Credits: 3.00
This course covers the identification and operation of a number of hand tools and measuring devices. Measurement techniques will be applied to various electronic circuits and optical equipment. The importance of equipment manual usage will be emphasized. This course also includes analyzing problems and performing maintenance and repair of photonics equipment.
Prerequisite(s): LEO 259; LEO 262

LEO 273 - Photonic Systems
- Credits: 4.00
This course provides an in-depth study of imaging, detection, and measurement systems. The student will use optics and computer programs to test optical systems and beam quality.
Prerequisite(s): LEO 262

LEO 275 - Optical Systems Analysis
- Credits: 3.00
This course provides an in-depth study of imaging, detection and measurement systems. The student will use optics and computer programs to test optical systems and beam quality.
Prerequisite(s): LEO 259; LEO 262

LEO 277 - Photonic Systems Lab
- Credits: 3.00
This course combines lasers with other related equipment such as computers and microprocessors for specific applications. Applications are determined jointly by the student and instructor.
Prerequisite(s): LEO 262

LEO 300 - Laser Career Exploration
- Credits: 1.00
The course provides opportunities for students to seek career information related to the laser program and the individual student's career interest. The course will provide the opportunity to visit companies in the California area via a trip to SPIE Photonics West Conference.

LEO 932 - Internship
- Credits: 4.00
Students enrolled in this course will work in the photonics industry. Emphasis will be on the integration of academic skills with practical work experience.

Literature

LIT 101 - Introduction to Literature
- Credits: 3.00
This course surveys the basic literary genres. Emphasis is on analysis of fiction, poetry and drama. The student will be expected to read and think critically about literature and to be familiar with basic literary terminology.

LIT 110 - American Literature to Mid-1800's
- Credits: 3.00
This course examines the development of American literature from pre-Colonial times to the end of the Civil War, focusing on the Puritan, Neoclassical, and Romantic eras. Emphasis is on major writers, literary movements and historical influences.

LIT 111 - American Literature: 1945 to Present
- Credits: 3.00
This course examines the growth of American literature from the end of WWII to the present, with attention given to the voices of women and ethnic minorities. Emphasis is on major writers, literary movements and historical influences.

LIT 113 - American Literature: 1865 to 1945
- Credits: 3.00
This course examines the emergence of Realism and Modernism in American literature from the end of the Civil War to the end of WWII. Emphasis is on major writers, literary movements and historical influences.

LIT 140 - British Literature I
- Credits: 3.00
The course examines the development of English Literature from Beowulf to the Romantic Age. Emphasis is on major writers, literary movements and historical influences.

LIT 141 - British Literature II
- Credits: 3.00
This course examines the growth of English literature from 1785 to the present. Emphasis is on major writers, literary movements and historical influences.

LIT 150 - World Literature I
- Credits: 3.00
A broad study of Classical, Medieval and Renaissance literature in translation, this course covers works such as the Bible, Homeric and Mesopotamian epics, the Greek and Roman playwrights, Dante, Chaucer, Shakespeare and
others, concentrating on the relevance of this literature to modern life.

LIT 152 - Early Modern World Literature
- Credits: 3.00
A survey of literature in translation from the 1700s and 1800s, this course covers Enlightenment-era neo-classical, Romantic and Realist works. The Romantic and Realist movements are the focus. Authors may include Swift, Rousseau, Racine, Moliere, Goethe, the British Romantics, Flaubert, Melville, Tolstoy, Dostoyevsky and others.

LIT 153 - Modern World Literature
- Credits: 3.00
This course is a survey of twentieth-century literature with special focus on Modernist and Post-Modernist works. Authors examined may include Yeats, Pirandello, Mann, Joyce, Stein, Woolf, Eliot, Mishima, Achebe, Soyinka, Beckett, Faulkner, Camus and others.

LIT 157 - Bible as Literature
- Credits: 3.00
This course surveys both Old and New Testaments of the Bible. Events, places and people of the Bible are introduced with the view that language, literature, art and culture have been influenced by biblical content.

LIT 161 - The Short Story
- Credits: 3.00
Students will read and discuss 20-25 short stories by a range of authors. The course will cover the development, growth and properties of the short story as a genre, as well as provide background information on authors and their historical and literary context.

LIT 165 - The Novel
- Credits: 3.00
Students will read, analyze and discuss 4-5 novels by a variety of authors. The course will cover the origin, development, growth and properties of the novel as a genre. Novels will be taught within an historical and literary framework.

LIT 167 - Popular Genres I
- Credits: 3.00
This course examines popular genres, including science fiction, horror and mystery. Emphasis is on major works within these genres and the historical, cultural, political and aesthetic influences that have shaped popular genres and that have been shaped by popular genres.

LIT 168 - Popular Genres II
- Credits: 3.00
This course examines popular genres, including action/adventure, western, romance and/or sports. Emphasis is on major works within these genres and the historical, cultural, political and aesthetic influences that have shaped popular genres and that have been shaped by popular genres.

LIT 171 - Survey of Poetry
- Credits: 3.00
Students will read and discuss poetry by a range of poets. The course will cover the development, growth and properties of poetry as a genre. Students will be introduced to background information on poets and their historical and literary contexts.

LIT 175 - Survey of Drama
- Credits: 3.00
This course offers a survey of dramatic literature from various periods and cultures, including Classical Greek, Medieval European, Renaissance European, African American and Modern Drama. Emphasis is on major playwrights, movements and historical and philosophical influences on plays. The course will also seek to discover cross-cultural connections between works by diverse authors from a variety of cultures at a variety of times.

LIT 181 - Mythology and Literature
- Credits: 3.00
A study of the nature, general meaning, characteristics and chief kinds of mythology, this course emphasizes the use of mythic patterns and motifs in literature. Both classical and contemporary works are analyzed.

LIT 184 - Young Adult Literature
- Credits: 3.00
This literature course is a study in the genre known as young adult literature. Students will learn critical analysis and evaluation of individual texts, write analytical essays, explain the genre's history and connection to current trends, analyze how literature assists young adults in forming identities, define and analyze various sub-genres of young adult literature from diverse cultures, and interpret literature using a variety of strategies and correct terminology.

LIT 190 - Women Writers
- Credits: 3.00
This course examines the contribution of women writers to the literature of diverse eras, cultures, and nations. Along with exploring issues such as the literary canon and the roles of race, ethnicity, class, sexual orientation, and cultural context, this course introduces students to feminist literary theory and feminist literary criticism.

LIT 802 - Readings in Literature I
- Credits: 1.00
This course provides an opportunity to study special literary selections. It is designed to enhance overall knowledge of and appreciation for literature as an art.

LIT 804 - Readings in Literature II
- Credits: 2.00
This course provides an opportunity to study special literary selections. It is designed to enhance overall knowledge of and appreciation for literature as an art.

LIT 806 - Readings in Literature III
- Credits: 3.00
This course provides an opportunity to study special literary selections. It is designed to enhance overall knowledge of and appreciation for literature as an art.

Management

MGT 101 - Principles of Management
- Credits: 3.00
Principles of Management is a course that presents the theory and major functions of management and describes the role of the manager. Management concepts, theories, techniques and skills are applicable to all business
functional areas and are essential components for successful organizations.

**MGT 170 - Human Resource Management**  
- Credits: 3.00  
Human Resource Management introduces the theory and practice of personnel administration and management. A view toward harmonizing the individual worker's goals with goals of the organization is stressed through the techniques and principles of management and organization.

**MGT 220 - Intro to Sport Management**  
- Credits: 3.00  
This course is designed for students entering the sport and physical education profession where it is critical to understand the theory and practice of ethical management principles in sport/fitness organizations. These principles are applied to interscholastic, intercollegiate, international and professional organizations along with the health/fitness and community recreation industries.

**Manufacturing**

**MFG 121 - Machine Trade Printreading I**  
- Credits: 2.00  
This course covers the reading and/or creation of engineering drawings through mechanical sketching techniques as a means of communication. Emphasis is placed on developing the perceptual skills that require the student to think in three-dimensional space.

**MFG 131 - Machine Trade Printreading II**  
- Credits: 2.00  
This course provides the necessary range of topics to ensure that the student will know how to interpret engineering drawings.

**MFG 171 - Manufacturing Welding I**  
- Credits: 2.00  
Basic skills will be developed in welding beads and buildup surfacing in the flat position, welding with oxy-acetylene equipment, and an introduction to GMAC and GTAW welding.

**MFG 203 - Manufacturing Processes**  
- Credits: 3.00  
This course covers the fundamental processes to manufacture parts and assemblies. The following concepts are introduced: safety, sheet metal fabrication, machining processes, casting processes, heat treating, methods of joining materials, forging processes, surface treatment and automation.

**MFG 209 - Machine Shop Practices**  
- Credits: 3.00  
This course covers safety in machine shops, environmental safety, measurement, layout, inspection, setup, basic bench work practices and non-traditional machining processes.

**MFG 222 - Machine Operations I**  
- Credits: 4.00  
This project-oriented lab is the first class in the machining series. The operations involve machining parts utilizing the lathe, vertical milling machine, drill press, surface grinder, shaper, pedestal grinder, and band saw.

**MFG 228 - Machine Operations II**  
- Credits: 4.00  
This project-oriented lab is the second in the machining series. The operations involve machining parts utilizing the lathe, vertical milling machine, drill press, surface grinder, horizontal milling machine, shaper, pedestal grinder and band saw.  
**Prerequisite(s):** MFG 222

**MFG 233 - Machine Operations III**  
- Credits: 6.00  
This project-oriented lab is the third class in the machining series. The operations involve machining parts utilizing the lathe, vertical milling machine, surface grinder, drill press, rotary table and direct indexing head.  
**Prerequisite(s):** MFG 228

**MFG 234 - Machine Operations IV**  
- Credits: 6.00  
This project-oriented lab is the fourth class in the machining series. The operations involve machining parts utilizing the lathe, mill, drill press, surface grinder, indexing head, radial arm drill and heat treatment process.  
**Prerequisite(s):** MFG 233

**MFG 235 - Machine Operations V**  
- Credits: 6.00  
This project-oriented lab is the fifth class in the machining series. The operations involve machining parts utilizing the lathe, vertical milling machine, drill press and surface grinder.  
**Prerequisite(s):** MFG 234

**MFG 236 - Machine Operations VI**  
- Credits: 4.00  
This project-oriented lab is the final class in the machining series. The operations involve machining parts utilizing lathes, vertical milling machines, surface grinders, drill presses, CNC milling machine and CNC lathe.  
**Prerequisite(s):** MFG 235

**MFG 254 - Engine Lathe Theory**  
- Credits: 3.00  
This course will develop a student's skills in metal cutting technology as it relates to manual and CNC lathes.  
**Prerequisite(s):** MFG 209 or may be taken concurrently.

**MFG 262 - Mill Operations Theory**  
- Credits: 3.00  
This course includes an introduction to basic milling machine operations, gear cutting, drills and drilling machines.  
**Prerequisite(s):** MFG 209

**MFG 294 - Manufacturing Processes II**  
- Credits: 2.00  
This course covers the fundamental processes to manufacture parts and assemblies. The following concepts are introduced: safety, fabrication, machining processes, casting processes, heat treating, methods of joining materials, forging processes, surface treatment and automation.  
**Prerequisite(s):** MFG 203; CAD 105

**MFG 333 - CNC Mill Fundamentals**  
- Credits: 4.00  
This course covers the advanced methods involved in the setup and programming of CNC (Computer Numerical
Control) vertical milling machines. Emphasis will be placed on programming, work offsets, tool offsets and production of precision parts from technical drawing specifications.

**Prerequisite(s):** MFG 352

**MFG 349 - Introduction to CAM**
- Credits: 2.00
An introduction to Computer Aided Manufacturing (CAM) designing parts and toolpaths for a modern CNC machining systems utilizing industrial software. Laboratory work will include exercises progressing from designing a two-dimensional part and a contour toolpath to more advanced CNC Mill applications. Safety and efficient machining will be stressed throughout the course.

**Corequisite(s):** CAD 180

**MFG 352 - CNC Lathe Fundamentals**
- Credits: 2.00
This course covers the introductory theory of two axis programming, plotting tool paths and the operation of the CNC (Computer Numerical Control) lathe. The course also covers understanding and using the cartesian coordinate system and selecting cutting tools for turning, grooving and threading.

**Prerequisite(s):** MFG 254; MFG 262

**MFG 421 - Jig and Fixtures**
- Credits: 2.00
This course includes an introduction to the different types, functions, designs, and construction of jigs, dies and fixtures. The laboratory construction of fixtures will be included.

**Prerequisite(s):** MFG 209; MFG 254; MFG 262

**MFG 507 - Lean Quality Manufacturing**
- Credits: 2.00
This course introduces the student to the basic principles of lean manufacturing and quality control inspection tools.

**Prerequisite(s):** AUT 143 MFG 209

**MFG 777 - Business Fundamentals**
- Credits: 3.00
This is a basic business operations course designed to introduce the student to the main functions of company/business. Topics include: management, marketing, manufacturing, human resources, sales, quality assurance, and statistical process control.

**MFG 932 - Internship**
- Credits: 4.00
Students enrolled in this course will work in a manufacturing facility. Emphasis will be on the integration of academic skills with practical work experience.

**Marketing**

**MKT 110 - Principles of Marketing**
- Credits: 3.00
Marketing is a course that examines the movement of goods and services from the producer to the consumer. The areas of retailing, wholesaling, channels of distribution, marketing research and pricing are approached from the total marketing concept.

**MKT 140 - Principles of Selling**
- Credits: 3.00
This course examines sales skills from finding prospects to closing the sale. The student will also examine the relationship between sales and the marketing efforts of an organization. Emphasis is on the need to develop relationships in order to achieve sales.

**MKT 198 - Sports Marketing**
- Credits: 3.00
Principles of Sport Marketing is designed to meet the needs of students who are interested in a career in Sport Marketing. This course focuses on the sports marketing mix (product, price, promotion and place).

**MMS 241 - Public Relations and Marketing**
- Credits: 3.00
This course is an introduction to theories, processes and techniques involved in researching, planning, and implementing programs designed to influence public opinion and human behavior.

**Mathematics**

**MAT 040 - Basic Mathematics**
- Credits: 2.00
This course gives students the opportunity to review their mathematical skills in the areas of whole numbers, fractions, decimals, ratios, proportions and percents.

**MAT 042 - Foundations of Algebra**
- Credits: 3.00
This course serves as a co-requisite to MAT 120 College Algebra. Topics are introductory in nature offering remediation integrated right before it is needed in the credit bearing course. Topics include, but are not limited to, the introduction of the following: linear equations and inequalities, quadratic equations and inequalities, factoring, graphing, radical and rational expressions, and systems of linear equations.

**Corequisite(s):** MAT 120

**MAT 056 - Basic Algebra I**
- Credits: 2.00
This course begins an introductory sequence for students with no prior background in algebra. Topics include real numbers, algebraic expressions, order of operations, linear equations and inequalities and graphing.

**MAT 087 - Survey of Mathematics**
- Credits: 2.00
This course gives students an overview of topics from Math for Liberal Arts. Topics include percentages, calculator usage, and a basic introduction to set theory, logic, probability, statistics and algebra.

**MAT 110 - Math for Liberal Arts**
- Credits: 3.00
This is a liberal arts course intended for students with a wide variety of mathematical backgrounds. Emphasis is on problem-solving and applications. Among the topics included are logic, probability, statistics, and consumer mathematics. At least one additional topic will be chosen from among set theory, algebra basics, and voting theory.
This content is similar to MAT118. Credit cannot be earned in both.

**MAT 117 - Math for Elementary Teachers**
- Credits: 3.00
This course investigates number systems including systems of numeration, set theory, the whole numbers, integers and rational numbers, number theory, abstract systems, and informal geometry and measurement.

**Prerequisite(s):** MAT 777 Any one of the following to have been completed within the last two years: ACT Math score of 21 or above OR ACCUPLACER – Next Generation Quantitative Reasoning, Algebra, Statistics 260 or above OR ACCUPLACER – Next Generation Advanced Algebra and Functions 200 or above OR ALEKS score of 38 or above OR Two years of high school algebra with a C or better OR MAT 777 Applied Algebra/Trig with a C or better.

**MAT 120 - College Algebra**
- Credits: 3.00
This course extends study of algebraic principles. Topics include linear and quadratic equations and inequalities, graphs of relations and functions, exponential and logarithmic functions, systems of equations and inequalities and matrices and determinants.

**Prerequisite(s):** MAT 777 Any one of the following to have been completed within the last two years: ACT Math score of 21 or above OR ACCUPLACER – Next Generation Quantitative Reasoning, Algebra, Statistics 260 or above OR ACCUPLACER – Next Generation Advanced Algebra and Functions 200 or above OR ALEKS score of 38 or above OR Two years of high school algebra with a C or better OR MAT 777 Applied Algebra/Trig with a C or better.

**MAT 125 - Precalculus**
- Credits: 3.00
This course is designed to prepare students for calculus and other math-related courses needed in business or science. Topics include polynomial and rational functions and graphs, trigonometric functions and identities, and conic sections. Prerequisite: Before enrolling in this course, a student should have a mastery of advanced algebra concepts.

**Prerequisite(s):** Any one of the following to have been completed within the last two years: ACT Math score of 21 or above OR ACCUPLACER – Classic College Level Math 60 or above OR ACCUPLACER – Next Generation Advanced Algebra and Functions 230 or above OR ALEKS score of 53 or above OR Two years of high school algebra with a C or better OR MAT 120 College Algebra with a C or better

**MAT 140 - Finite Math**
- Credits: 3.00
This course covers mathematical theory necessary for business decision-making. Topics include set theory and counting techniques, finite probability, matrix algebra, linear programming and the mathematics of finance.

**Prerequisite(s):** Any one of the following to have been completed within the last two years: ACT Math score of 21 or above OR ACCUPLACER – Classic College Level Math 60 or above OR ACCUPLACER – Next Generation Advanced Algebra and Functions 230 or above OR ALEKS score of 53 or above OR Two years of high school algebra with a C or better OR MAT 120 College Algebra with a C or better

**MAT 149 - Linear Algebra**
- Credits: 3.00
Includes matrix and vector arithmetic, using matrices to solve systems of linear equations, eigenvalues and eigenvectors, diagonalization of matrices, and an introduction to subspaces of Euclidean space.

**Prerequisite(s):** MAT 216

**MAT 156 - Statistics**
- Credits: 3.00
This course provides a foundation of statistical concepts and procedures that can aid the student as both a consumer and producer of statistical information. The course emphasizes descriptive and inferential statistical methods, probability, estimation, hypothesis testing and linear regression. Students are introduced to technology as it applies to introductory statistical methods.

**Prerequisite(s):** Some background in algebra is recommended.

**MAT 161 - Business Statistics**
- Credits: 3.00
The course focuses on the need and use of statistics in examining business situations. Statistical principles and computer software will be used to solve problems and make policy decisions.

**Prerequisite(s):** CSC 110; MAT 156

**MAT 210 - Calculus I**
- Credits: 4.00
This is the first course of a full year of calculus. Topics include limits and continuity, differentiation, applications of differentiation and integration.

**Prerequisite(s):** A minimum ALEKS assessment score of 75%, completed within 12 months prior to course registration.

**MAT 216 - Calculus II**
- Credits: 4.00
This course is a continuation of Calculus I. Topics include applications of the definite integral; the calculus of exponential, logarithmic and other transcendental functions; and techniques of integration.

**Prerequisite(s):** MAT 210

**MAT 219 - Calculus III**
- Credits: 4.00
This course is a continuation of Calculus II. Topics include parametric equations, polar coordinates, vectors, planes and lines in space, surfaces and vector-valued functions, functions of several variables, and partial differentiation.

**Prerequisite(s):** MAT 216

**MAT 226 - Differential Equations with Laplace**
- Credits: 3.00
This course examines differential equations and their applications. Topics will include: first-order equations, higher-order linear equations, systems of linear differential equations, Laplace methods and non-linear differential equations.

**Prerequisite(s):** MAT 216

**MAT 742 - Technical Math**
- Credits: 2.00
This course covers basic algebra, units and dimensions, graphing lines and inequalities, manipulating radicals and solving a variety of equations.

**MAT 761 - Technical Math for Electronics**
- Credits: 2.00
This course covers number systems, introductory trigonometry, basic Boolean algebra, complex numbers, phasor algebra and periodic functions as they relate to electricity.

**Prerequisite(s):** MAT 742

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MAT 762 - Technical Math for Industry
- Credits: 2.00
This course covers mathematical operations using fractions, decimals and percentages. Customary and metric measurement problems are discussed. Practical applications of mathematical concepts are provided.

MAT 772 - Applied Math
- Credits: 3.00
This course is designed to develop the student's abilities in a range of applied mathematical concepts. Topics include computational math, consumer math, elementary algebra, functional geometry, statistics and logic.

MAT 777 - Applied Algebra/Trigonometry
- Credits: 3.00
This course is designed to provide students with basic algebraic and trigonometric concepts. Topics include geometric solids, factoring, linear and quadratic equations, logarithms, phasor algebra, and right angle trigonometry. Career applications of these concepts are included.

MAT 925 - Honors Research
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences mathematics instructor on a mathematics project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa. 
Prerequisite(s): Permission of Instructor.

MAT 952 - Topics
- Credits: 1.00
This course explores specialized topics in the field of mathematics. A contract between the student and an Arts and Sciences mathematics instructor outlining the educational project is required.
Prerequisite(s): Permission of Instructor.

HSC 114 - Medical Terminology
- Credits: 3.00

HSC 115 - Medical Terminology
- Credits: 4.00
A comprehensive study of medical terminology as the language of medicine. Analyzes words by dividing them into component parts. Relates the medical terms to the structure and functional pathology of diseases and current medical procedures. Emphasizes word usage, abbreviations, pronunciation and spelling.

Medical Laboratory Technology

MLT 104 - Laboratory Math
- Credits: 1.00
This course incorporates concepts from chemistry, algebra, and the clinical laboratory into a distinctive application called Laboratory Math. Calculations within the metric system are emphasized, along with dilutions, preparation of reagents, and other applications unique to the clinical laboratory disciplines.

MLT 112 - Principles of Phlebotomy
- Credits: 2.00
This introductory course is designed to give students a thorough background in blood collection, including demonstration of venipuncture and skin puncture techniques. Students will complete required HIPAA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.

MLT 113 - CLA Basics Bridge
- Credits: 1.00
This course introduces the concepts and basic skills that are unique to the Clinical Laboratory Assistant. Basic laboratory tasks and standard laboratory protocols are identified. 
Prerequisite(s): MLT 112

MLT 114 - MLT Fundamentals Bridge
- Credits: 1.00
This course introduces the concepts and basic skills that are unique to the medical laboratory technician. Normal hematological procedures are discussed. Students will identify microscope components and demonstrate proper use of the microscope. 
Prerequisite(s): MLT 112 or MLT 135

MLT 115 - Clinical Lab Fundamentals
- Credits: 3.00
This course acquaints the student with the field of laboratory medicine. Basic laboratory mathematics, testing methods, and quality control are presented. An introduction to blood collection and the study of common blood cells and blood cell disorders is presented. Students will complete required HIPAA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.

MLT 120 - Urinalysis
- Credits: 3.00
This course includes the study of urine formation and the methodology of determining the physical, chemical, and microscopic properties of urine in normal and abnormal states. Properties of body fluids are discussed. Basic lab skills, safety and quality control in urinalysis are presented. 
Prerequisite(s): MLT 165

MLT 135 - Clinical Laboratory Basics I
- Credits: 3.00
This course defines the role of the clinical assistant in the healthcare delivery system. Infection control principles, safety practices, procedures to collect specimens, methods for preparing blood and body fluid specimens for analysis, and the performance of basic tests at the clinical assistant level will be discussed. An overview of quality control protocols and potential pre-analytical errors will be provided. Students will complete required HIPAA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.

MLT 136 - Clinical Laboratory Basics II
- Credits: 3.00
This course provides an introduction to the basics of immunology and clinical chemistry. Specimen collection and processing are discussed. Lab included. 
Prerequisite(s): MLT 135
MLT 137 - Clinical Laboratory Basics III  
- Credits: 3.00  
This course introduces the basics of laboratory tests related to hematology, urinalysis and microbiology. Safety procedures, suitability of specimens, standards and controls, slide preparation, test performance, technical errors and inventory supplies will be discussed. Lab included.  
Prerequisite(s): MLT 136

MLT 165 - Medical Lab. Principles and Techniques  
- Credits: 3.5  
This course is an introduction to laboratory techniques and analytical principles of methods, including macro- and micro-techniques, utilized in analyses in all laboratory departments. Aspects of quality control, laboratory math, automated methods and the required skills utilized will be presented. Lab included.  
Prerequisite(s): MLT 115

MLT 166 - MLT Critical Analysis  
- Credits: 1.00  
Concepts and knowledge of pathology and physiology will be utilized to develop critical analysis skills in reviewing class case studies, in writing research papers on various diseases and in writing case studies with actual cases/data. Competency levels for professional presentations of these diseases and case studies are established and will be critically analyzed by peers and instructor.  
Prerequisite(s): MLT 115

MLT 175 - CLA Practicum I  
- Credits: 1.00  
This clinical course provides the student with the opportunity to gain competency in the collection of blood specimens in a medical laboratory setting. Waived testing and basic procedures in clinical chemistry and immunology will be performed. Prerequisites: MLT 135 - Clinical Laboratory Basics I; Concurrent with MLT 136 - Clinical Laboratory Basics II.  
Prerequisite(s): MLT 135  
Corequisite(s): MLT 136

MLT 176 - CLA Practicum II  
- Credits: 1.00  
This clinical course provides the student with the opportunity to acquire skills in phlebotomy, vital sign measurements and electrocardiography. Basic laboratory tests in hematology, urinalysis, chemistry, immunology and microbiology will be performed at the clinical laboratory assistant level. Students will gain experience in documentation and the use of information systems necessary to accomplish job functions.  
Prerequisite(s): MLT 136; MLT 175  
Corequisite(s): MLT 137

MLT 180 - Clinical Lab Practicum I  
- Credits: 1.00  
In this course, students join the phlebotomy team in an area hospital to practice patient approach and draw blood specimens.  
Prerequisite(s): MLT 114 or MLT 115

MLT 181 - Clinical Lab Practicum II  
- Credits: 6.00  
In this practicum experience students apply laboratory techniques in the laboratory setting. Students will gain experience in performing laboratory tests in multiple areas of the lab. Procedures are performed under the direct supervision of a certified technologist.  
Prerequisite(s): MLT 245; MLT 255

MLT 182 - Clinical Lab Practicum III  
- Credits: 6.00  
This practicum involves the clinical application of laboratory techniques in the laboratory setting. Students will gain experience in performing laboratory tests in multiple areas of the lab.  
Prerequisite(s): MLT 181

MLT 232 - Advanced Hematology and Coagulation  
- Credits: 5.00  
This course reviews basic laboratory procedures. Normal and abnormal blood and bone marrow smears as they relate to anemias and leukemia's are studied. Hematology instrumentation, quality control, and coagulation are examined. An in-depth study of anemias, leukemia's and other hematological disorders is presented.  
Prerequisite(s): MLT 165

MLT 245 - Clinical Chemistry  
- Credits: 5.00  
Various aspects of clinical chemistry are introduced, including primary blood and body fluid constituents, their significance in health and disease, and methods utilized in their determinations. Emphasis is on competence in general procedures for clinical analysis and the development of pertinent skills of troubleshooting, evaluating data and interpreting for presence/absence of disease. Lab included.  
Prerequisite(s): MLT 120; MLT 165; MLT 270

MLT 253 - Parasitology and Mycology  
- Credits: 2.00  
Common human parasites, their morphology, life cycles, symptomology and techniques of identification are covered. Competencies in mycology include studying the changing etiologic role of fungi, proper specimen collection, processing, culture methods, and identification.  
Prerequisite(s): MLT 165

MLT 255 - Clinical Microbiology  
- Credits: 5.00  
This course examines the essential principles of bacteriology relative to human disease with emphasis on knowledge regarding the pathogenicity of the microorganisms presented. Emphasis is on competence in general procedures, such as cultivation, isolation and identification of organisms. Evaluation/interpretation of laboratory data is discussed. Lab included.  
Prerequisite(s): MLT 253

MLT 261 - Immunohematology  
- Credits: 5.00  
This course presents the principles of immunohematology with the practices of blood banking. ABO grouping and Rh typing for transfusion testing procedures are discussed. Blood group antigens and antibodies are studied.  
Prerequisite(s): MLT 232; MLT 270; or MLT 232; MLT 270; CHM 132; or MLT 232; MLT 270; BIO 187
MLT 270 - Immunology and Serology  
- Credits: 2.00  
This course introduces immune reactions of the body. Reactions between antigen and antibodies as a means to detect diseases such as hepatitis, infectious mononucleosis and rheumatoid arthritis will be discussed.  
Prerequisite(s): MLT 165

MLT 290 - Clinical Seminar and Review  
- Credits: 2.00  
Students review medical laboratory subjects, share experiences in the clinical area and present case studies. Job seeking skills, continuing education opportunities, legal responsibilities and professional organizations are discussed. A mock certification examination is given.  
Corequisite(s): MLT 182

MLT 295 - Topics in Clinical Laboratory Science I  
- Credits: 1.00  
This course explores specialized topics in the field of laboratory science. Students will be expected to integrate physiology, pathology, analytical test results, diagnosis, and treatment in the development of a learning project.  
Prerequisite(s): MLT 175

MLT 296 - Topics in Clinical Laboratory  
- Credits: 1.00  
This course explores specialized topics in the field of laboratory science. Students will write a laboratory procedure according to CLSI standards.  
Corequisite(s): MLT 182

Music

MUA 101 - Applied Voice  
- Credits: 1.00  
This course covers the foundations of vocal technique and performance practice. Through the study of varied vocal literature, the student will improve his or her vocal performance.  
Prerequisite(s): Permission of Instructor.

MUA 102 - Applied Voice II  
- Credits: 1.00  
This course continues the development of vocal technique and performance through the study of varied vocal literature and performance techniques.  
Prerequisite(s): MUA 101

MUA 103 - Applied Voice III  
- Credits: 1.00  
This course continues the development of vocal technique and performance through the study of varied vocal literature and performance techniques.  
Prerequisite(s): MUA 102. Permission of Instructor.

MUA 119 - Class Piano  
- Credits: 1.00  
This course is designed for the student with no background in piano. It is especially recommended for the music student without piano experience, as well as the student who wishes to learn something of the piano for enjoyment. The student will begin to learn to read musical notation, develop the rudiments of technique, and become familiar with the keyboard. A minimum of three (3) hours of practice per week is essential.

MUA 120 - Applied Piano  
- Credits: 1.00  
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student’s prior piano training. A minimum of six (6) hours of practice per week is essential.  
Prerequisite(s): Permission of Instructor

MUA 124 - Applied Guitar  
- Credits: 1.00  
This course entails private guitar instruction with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.  
Prerequisite(s): Permission of Instructor

MUA 126 - Applied Strings  
- Credits: 1.00  
This course entails private instruction on violin, viola, or cello with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.  
Prerequisite(s): Instructor Permission

MUA 140 - Applied Music: Jazz Improv I  
- Credits: 1.00  
This course focuses on private instruction in jazz improvisation. Level of difficulty will be determined by the student’s background and ability.  
Prerequisite(s): Permission of Instructor

MUA 141 - Applied Music: Jazz Improv II  
- Credits: 1.00  
This course focuses on private instruction in jazz improvisation. Level of difficulty will be determined by the student’s background and ability.  
Prerequisite(s): MUA 140

MUA 142 - Applied Music: Jazz Improv III  
- Credits: 1.00  
This course focuses on private instruction in jazz improvisation. Level of difficulty will be determined by the student’s background and ability.  
Prerequisite(s): MUA 141

MUA 143 - Applied Brass  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.  
Prerequisite(s): Permission of instructor.

MUA 144 - Applied Brass II  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.  
Prerequisite(s): MUA 143

MUA 145 - Applied Brass III  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty
will be determined by the student’s background and ability.

**Prerequisite(s):** MUA 144

**MUA 170 - Applied Woodwinds**
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.

**Prerequisite(s):** Permission of Instructor

**MUA 171 - Applied Woodwinds II**
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.

**Prerequisite(s):** MUA 170

**MUA 172 - Applied Woodwinds III**
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.

**Prerequisite(s):** MUA 171

**MUA 180 - Applied Percussion**
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.

**Prerequisite(s):** Permission of Instructor

**MUA 181 - Applied Percussion II**
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.

**Prerequisite(s):** MUA 180

**MUA 182 - Applied Percussion III**
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability.

**Prerequisite(s):** MUA 181

**MUA 201 - Applied Voice IV**
- Credits: 1.00
This course continues the development of vocal technique and performance through the study of varied vocal literature and performance techniques.

**Prerequisite(s):** MUA 103

**MUA 202 - Applied Voice V**
- Credits: 1.00
This course covers the foundations of vocal technique and breath support as well as proper diction. Through the study of classical art songs and other vocal literature, the student will improve his or her vocal performance.

**MUA 203 - Applied Voice VI**
- Credits: 1.00
This course continues the development of vocal technique and performance through the study of varied vocal literature and performance techniques.

**Prerequisite(s):** MUA 202

**MUA 204 - Applied Guitars II**
- Credits: 1.00
This course entails private guitar instruction with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 124 and Permission of Instructor

**MUA 205 - Applied Guitar III**
- Credits: 1.00
This course entails private guitar instruction with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 204 and Instructor Permission

**MUA 206 - Applied Guitar IV**
- Credits: 1.00
This course entails private guitar instruction with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 205 and Instructor Permission

**MUA 207 - Applied Guitar V**
- Credits: 1.00
This course entails private guitar instruction with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 206 and Instructor Permission

**MUA 208 - Applied Strings II**
- Credits: 1.00
This course entails private instruction on violin, viola, or cello with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 126 and Instructor Permission

**MUA 209 - Applied Strings III**
- Credits: 1.00
This course entails private instruction on violin, viola, or cello with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 208 and Instructor Permission

**MUA 210 - Applied Strings IV**
- Credits: 1.00
This course entails private instruction on violin, viola, or cello with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 209 and Instructor Permission

**MUA 211 - Applied Strings V**
- Credits: 1.00
This course entails private instruction on violin, viola, or cello with an emphasis on improving technical skills. The level of difficulty is determined by the student’s prior training and experience.

**Prerequisite(s):** MUA 210 and Instructor Permission
MUA 283 - Applied Percussion VII
- Credits: 1.00
This course focuses on private instruction. A variety of techniques may be covered. Level of difficulty will be determined by the student's background and ability.

MUA 219 - Class Piano II
- Credits: 1.00
This course is designed for the student who has completed Class Piano I or the student with a very limited piano background. Emphasis is placed on chords, rhythmic accuracy, and continued technical development. This course will provide a foundation for the Applied Music: Piano series of courses. A minimum of three (3) hours of practice per week is essential.
Prerequisite(s): MUA 119

MUA 220 - Applied Piano II
- Credits: 1.00
This course covers private piano instruction with an emphasis on building technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training.
Prerequisite(s): MUA 120

MUA 221 - Applied Piano III
- Credits: 1.00
This course covers private piano instruction with an emphasis on building technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training.
Prerequisite(s): MUA 220

MUA 222 - Applied Piano IV
- Credits: 1.00
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training. A minimum of six (6) hours of practice per week is essential.
Prerequisite(s): MUA 221

MUA 223 - Applied Piano V
- Credits: 1.00
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training. A minimum of six (6) hours of practice per week is essential.
Prerequisite(s): MUA 222

MUA 224 - Applied Piano VI
- Credits: 1.00
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training. A minimum of six (6) hours of practice per week is essential.
Prerequisite(s): MUA 223

MUA 230 - Applied Piano VII
- Credits: 1.00
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training. A minimum of six (6) hours of practice per week is essential.
Prerequisite(s): MUA 224

MUA 231 - Applied Piano VIII
- Credits: 1.00
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training. A minimum of six (6) hours of practice per week is essential.
Prerequisite(s): MUA 230

MUA 232 - Applied Piano IX
- Credits: 1.00
This course entails private piano instruction with an emphasis on improving technical skills and musical interpretation of piano literature. The level of difficulty is determined by the student's prior piano training. A minimum of six (6) hours of practice per week is essential.
Prerequisite(s): MUA 231

MUA 240 - Applied Music: Jazz Improv IV
- Credits: 1.00
This course focuses on private instruction in jazz improvisation. Level of difficulty will be determined by the student's background and ability.
Prerequisite(s): MUA 142

MUA 241 - Applied Music: Jazz Improv V
- Credits: 1.00
This course focuses on private instruction in jazz improvisation. Level of difficulty will be determined by the student's background and ability.
Prerequisite(s): MUA 240

MUA 242 - Applied Music: Jazz Improv VI
- Credits: 1.00
This course focuses on private instruction in jazz improvisation. Level of difficulty will be determined by the student's background and ability.
Prerequisite(s): MUA 241

MUA 243 - Applied Brass IV
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student's background and ability.
Prerequisite(s): MUA 145

MUA 244 - Applied Brass V
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student's background and ability.
Prerequisite(s): MUA 243

MUA 245 - Applied Brass VI
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student's background and ability.
Prerequisite(s): MUA 244

MUA 270 - Applied Woodwinds IV
- Credits: 1.00
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty
will be determined by the student's background and ability.

**Prerequisite(s):** MUA 172

**MUA 271 - Applied Woodwinds V**  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability. 

**Prerequisite(s):** MUA 270

**MUA 272 - Applied Woodwinds VI**  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability. 

**Prerequisite(s):** MUA 271

**MUA 280 - Applied Percussion IV**  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability. 

**Prerequisite(s):** MUA 182

**MUA 281 - Applied Percussion V**  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability. 

**Prerequisite(s):** MUA 280

**MUA 282 - Applied Percussion VI**  
- Credits: 1.00  
This course focuses on private instruction. Beginning and intermediate techniques may be covered. Level of difficulty will be determined by the student’s background and ability. 

**Prerequisite(s):** MUA 281

**MUA 320 - Applied Voice VII**  
- Credits: 1.00  
The principal objectives of applied instruction are the development of performing competencies through regular practice, performance, research, and application of music knowledge, especially in the fields of music history, music theory, and standard performance practice expected of various genres. In particular, this course pertains to the development of the singing voice, and should include consideration of acting and poetry interpretation as well as the above. 

**Prerequisite(s):** MUA 203

**MUA 321 - Applied Voice VIII**  
- Credits: 1.00  
The principal objectives of applied instruction are the development of performing competencies through regular practice, performance, research, and application of music knowledge, especially in the fields of music history, music theory, and standard performance practice expected of various genres. In particular, this course pertains to the development of the singing voice, and should include consideration of acting and poetry interpretation as well as the above. 

**Prerequisite(s):** MUA 320

**MUA 322 - Applied Voice IX**  
- Credits: 1.00  
The principal objectives of applied instruction are the development of performing competencies through regular practice, performance, research, and application of music knowledge, especially in the fields of music history, music theory, and standard performance practice expected of various genres. In particular, this course pertains to the development of the singing voice, and should include consideration of acting and poetry interpretation as well as the above. 

**Prerequisite(s):** MUA 321

**MUS 100 - Music Appreciation**  
- Credits: 3.00  
This is a course designed to develop musical perception in guided listening through the study of specific musical compositions. Also included is a general survey of musical terminology, stylistic periods and composers.

**MUS 102 - Music Fundamentals**  
- Credits: 3.00  
Open to all interested students, this class is an introduction to the concepts of reading music. It is intended for the student with limited musical knowledge or background in music who wishes to study music theory, or for the student who wishes to learn to read music. Primary concepts of note reading, rhythm, scales, key signatures and intervals will be studied along with fundamental keyboard skills.

**MUS 115 - Music Theory I**  
- Credits: 2.00  
This course is designed for music majors and others interested in music. This course is the beginning of the study of elementary harmony and its application in tonal music.

**MUS 116 - Music Theory II**  
- Credits: 2.00  
A continuation of the study of elementary harmony, this course will investigate the application of the principles of voice leading, the use of triads and second inversion, and phrase structure and cadences. 

**Prerequisite(s):** MUS 115 Instructor Approval

**MUS 117 - Music Theory III**  
- Credits: 2.00  
The completion of the study of elementary harmony, this course will investigate the nature of harmonic progression, the technique of harmonization, and the introduction of non-harmonic tones and seventh chords. 

**Prerequisite(s):** MUS 116 Instructor Approval

**MUS 135 - Music Theory Lab I**  
- Credits: 1.00  
This is an introductory course to assist the student to develop accurate aural skills. A variety of activities will be used, including cognitive and aural recognition of intervals and chords, rhythmic dictation, sight singing and scale recognition.
MUS 136 - Music Theory Lab II  
- Credits: 1.00  
This course continues in the development of accurate aural skills. A variety of activities will be emphasized including sight singing, interval recognition, chord recognition, rhythmic dictation and melodic dictation.  
Prerequisite(s): MUS 135

MUS 140 - Concert Choir  
- Credits: 1.00  
Chorus is a vocal ensemble open to all students interested in performance of choral music. The chorus will rehearse, prepare and perform at least one concert per term. An initial audition is required.

MUS 141 - Concert Choir II  
- Credits: 1.00  
Chorus is a vocal ensemble open to all students interested in performance of choral music. The chorus will rehearse, prepare and perform at least one concert per term. An initial audition is required.  
Prerequisite(s): MUS 140

MUS 142 - Concert Choir III  
- Credits: 1.00  
Chorus is a vocal ensemble open to all students interested in performance of choral music. The chorus will rehearse, prepare and perform at least one concert per term. An initial audition is required.  
Prerequisite(s): MUS 141

MUS 152 - Vocal Ensemble  
- Credits: 1.00  
Vocal Ensemble provides an opportunity to perform contemporary literature and utilize choreography in performances. The group will rehearse, prepare and perform at least one concert on campus per term, as well as community performances. An initial audition is required.

MUS 170 - Jazz Band  
- Credits: 1.00  
This course features an instrumental ensemble designed for all interested students. An opportunity to rehearse and perform jazz and other musical styles will be provided.  
Prerequisite(s): Permission of Instructor.

MUS 171 - Jazz Band II  
- Credits: 1.00  
This course features an instrumental ensemble designed for all interested students. An opportunity to rehearse and perform jazz and other musical styles will be provided.  
Prerequisite(s): MUS 170

MUS 172 - Jazz Band III  
- Credits: 1.00  
This course features an instrumental ensemble designed for all interested students. An opportunity to rehearse and perform jazz and other musical styles will be provided.  
Prerequisite(s): MUS 171

MUS 205 - Jazz History and Appreciation  
- Credits: 3.00  
This course investigates the history, stylistic development and major figures of American jazz, with an emphasis on appreciation. All major jazz style periods will be examined from the roots in African music, the blues, early jazz, swing, bebop to contemporary developments.

MUS 215 - Music Theory IV  
- Credits: 2.00  
This course entails advanced study of tonal harmony for the music student. Content will include analysis and study of chromaticism.  
Prerequisite(s): MUS 117

MUS 216 - Music Theory V  
- Credits: 2.00  
This course entails advanced study of tonal harmony for the music student. Content will include analysis and study of chromaticism.  
Prerequisite(s): MUS 215

MUS 217 - Music Theory VI  
- Credits: 2.00  
This course entails advanced study of tonal harmony for the music student. Late nineteenth century and twentieth century musical techniques will be presented.  
Prerequisite(s): MUS 216

MUS 235 - Music Theory Lab III  
- Credits: 1.00  
This is a course to continue in the development of accurate aural skills. A variety of activities will be used including sight singing, chord recognition, rhythmic dictation and melodic dictation.  
Prerequisite(s): MUS 136

MUS 236 - Music Theory Lab IV  
- Credits: 1.00  
This is a course to continue the development of accurate aural skills. A variety of activities will be emphasized including sight singing, chord recognition, melodic dictation and harmonic dictation.  
Prerequisite(s): MUS 235

MUS 240 - Concert Choir IV  
- Credits: 1.00  
Chorus is a vocal ensemble open to all students interested in performance of choral music. The chorus will rehearse, prepare and perform at least one concert per term. An initial audition is required.  
Prerequisite(s): MUS 142

MUS 241 - Concert Choir V  
- Credits: 1.00  
Chorus is a vocal ensemble open to all students interested in performance of choral music. The chorus will rehearse, prepare and perform at least one concert per term. An initial audition is required.  
Prerequisite(s): MUS 240

MUS 242 - Concert Choir VI  
- Credits: 1.00  
Chorus is a vocal ensemble open to all students interested in performance of choral music. The chorus will rehearse, prepare and perform at least one concert per term. An initial audition is required.  
Prerequisite(s): MUS 241

MUS 249 - Music Theory Lab V  
- Credits: 1.00  
A continuation of Theory Lab IV, this course trains the future music student in increasingly challenging melodic, harmonic, and rhythmic dictation, music transcription, and
sight-singing. 

Prerequisite(s): MUS 236

MUS 252 - Vocal Ensemble II
- Credits: 1.00
Vocal Ensemble II provides an opportunity to perform contemporary literature and utilize choreography in performances. The group will rehearse, prepare and perform at least one concert on campus per term, as well as community performances. An initial audition is required. 

Prerequisite(s): MUS 152

MUS 253 - Vocal Ensemble III
- Credits: 1.00
Vocal Ensemble III provides an opportunity to perform contemporary literature and utilize choreography in performances. The group will rehearse, prepare and perform at least one concert on campus per term, as well as community performances. An initial audition is required. 

Prerequisite(s): MUS 252

MUS 254 - Vocal Ensemble IV
- Credits: 1.00
Vocal Ensemble IV provides an opportunity to perform contemporary literature and utilize choreography in performances. The group will rehearse, prepare and perform at least one concert on campus per term, as well as community performances. An initial audition is required. 

Prerequisite(s): MUS 253

MUS 255 - Vocal Ensemble V
- Credits: 1.00
Vocal Ensemble V provides an opportunity to perform contemporary literature and utilize choreography in performances. The group will rehearse, prepare and perform at least one concert on campus per term, as well as community performances. An initial audition is required. 

Prerequisite(s): MUS 254

MUS 256 - Vocal Ensemble VI
- Credits: 1.00
Vocal Ensemble VI provides an opportunity to perform contemporary literature and utilize choreography in performances. The group will rehearse, prepare and perform at least one concert on campus per term, as well as community performances. An initial audition is required. 

Prerequisite(s): MUS 255

MUS 270 - Jazz Band IV
- Credits: 1.00
This course features an instrumental ensemble designed for all interested students. An opportunity to rehearse and perform jazz and other musical styles will be provided. 

Prerequisite(s): MUS 172

MUS 271 - Jazz Band V
- Credits: 1.00
This course features an instrumental ensemble designed for all interested students. An opportunity to rehearse and perform jazz and other musical styles will be provided. 

Prerequisite(s): MUS 270

MUS 272 - Jazz Band VI
- Credits: 1.00
This course features an instrumental ensemble designed for all interested students. An opportunity to rehearse and perform jazz and other musical styles will be provided. 

Prerequisite(s): MUS 271

MUS 293 - Music Excursions
- Credits: 1.00
Students will visit and study important musical events or institutions in a major American city. Class discussions and individual projects will be designed to supplement the visit.

MUS 309 - Concert Choir VII
- Credits: 1.00
Students will participate in a large, non-auditioned choir.

MUS 318 - Concert Choir VIII
- Credits: 1.00
The student will participate in a large, non-auditioned choir.

MUS 319 - Concert Choir IX
- Credits: 1.00
The student will participate in a large, non-auditioned choir.

MUS 339 - Music Theory Lab VI
- Credits: 1.00
This is an advanced aural skills course designed to further the skills acquired in Theory Labs I-V. It is intended for those students who are planning to continue further music study, but is open to any student who meets the basic skills requirements for the course, as determined by the instructor. Aural skills will include melodic, harmonic, and rhythmic dictation, and sight-singing. 

Prerequisite(s): MUS 249

MUS 950 - Special Topic
- Credits: 1.00
This course provides students the opportunity to study special topics in music as determined by the student and the instructor. 

Prerequisite(s): Instructor Consent

Occupational Therapy Assistant

OTA 106 - Trends in OTA
- Credits: 3.00
This course is an introduction to and investigation of a career choice in Occupational Therapy. A foundational overview of the history, philosophy, ethics, and role of occupational therapy in the health care environment is provided. The roles and functions of the occupational therapist and occupational therapy assistant in traditional and emerging practice areas, as well as the role of the AOTA will be explored. Models of care and the essentials of success in the OTA program will be discussed. Students will complete required HIPPA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.
OTA 121 - Principles of OT  
- Credits: 4.00
This course provides an introduction to skilled observation of identified performance areas in occupational therapy, activity analysis, goal setting, oral and written reporting skills, professional documentation, formats and the use of the OT Practice Framework. Basic patient handling techniques and functional transfers will be practiced. Specific theory and philosophy with regard to physical, psychological and developmental diagnosis will be addressed. Current issues relating to the field, the framework of occupational therapy practice and process and intervention approaches will be examined.  
Prerequisite(s): OTA 106

OTA 131 - Pediatric Practice for the OTA  
- Credits: 4.00
This course introduces students to entry-level pediatric occupational therapy skills by examining theoretical practice frameworks for individuals ages birth through twenty-one. Focuses of this course include: typical and atypical development, physical disabilities, neurological impairments, developmental dysfunction and their effects on childhood occupation. The role of the OTA in a variety of pediatric settings will be explored. Childhood conditions, evaluation, program planning and program implementation will be discussed. Family, sociocultural and socioeconomic conditions will be emphasized. Resources for life-long learning and professional support will be provided.  
Prerequisite(s): OTA 121

OTA 141 - Therapeutic Media in OT  
- Credits: 3.00
This course addresses the knowledge and skills required to recognize the value of and link between life roles occupations as applied to therapeutic interventions. Topics include the use of crafts and games, splinting, therapeutic exercises and application to various diagnoses. Activity analysis and methods of determining and selecting age appropriate and culturally meaningful activities for OT consumers will be examined. Approaches to teaching, learning, and professional communication will be explored through individual and group treatment role plays.  
Prerequisite(s): OTA 121

OTA 151 - Adult Physical Disability Practice for the OTA  
- Credits: 4.00
This course examines occupational therapy theoretical practice frameworks in adult physical and neurological dysfunction. Common problems seen in medical and orthopedic diseases and disabilities that affect occupational performance in the adult will be addressed, and the method of treatment will be investigated. Treatment methods and activities such as splinting, exercises and physical agent modalities will be explored. Models of service delivery, motor control theories, daily living skills, work, leisure, education and social participation will be presented. Client-centered, meaningful occupation for the purposes of rehabilitation, skill maintenance and wellness and prevention of decline in occupational performance will be emphasized.  
Prerequisite(s): OTA 131; OTA 141

OTA 161 - Traditional and Emerging Practice in OT  
- Credits: 2.00
This course explores traditional, specialized and emerging practice areas in occupational therapy. Topics to be addressed may include: hand injuries, assistive technology, lymphedema, vocational rehabilitation, work hardening and workplace assessments.  
Corequisite(s): OTA 151

OTA 171 - Psychosocial Practice for the OTA  
- Credits: 3.00
This course focuses on the role of the occupational therapy assistant in providing services in both medical and community-based settings. The relevance of occupation and goal-directed activity will be explained. A survey of conditions which may cause emotional, mental, and social disability will be explored. Normal and pathological conditions associated with aging will be discussed. An overview of group process, group leadership and facilitation, types of therapeutic groups and development of communication and observation skills will be included.  
Prerequisite(s): OTA 151

OTA 210 - Professional Issues in OT  
- Credits: 2.00
This course reinforces the concepts and principles of professionalism for the occupational therapy assistant in the delivery of services. Basic tenets of professional behavior, values and ethics will be discussed. Topics addressed include: ethical and legal aspects, cultural competence, structure and function of institutions, reimbursement issues and the roles of key professional organizations. Job seeking techniques including interview skills and resume and letter writing will be addressed. Resources for life-long learning and professional support will be provided.  
Corequisite(s): OTA 831

OTA 212 - Functional Kinesiology  
- Credits: 3.00
This course introduces human movement within the context of occupational performance. Principles from the biological sciences will be applied to the biomechanical principles of human movement. Topics include survey of the skeletal system, articular system and muscular system. Exercise principles are explored from the perspective of the occupational therapy practitioner. Movement within the context of activities will be analyzed. Laboratory practice addresses basic biomechanics, manual muscle testing, goniometric measurement, range of motion techniques, and activities of daily living motion analysis.  
Prerequisite(s): BIO 178; BIO 179

OTA 220 - Clinical Reasoning for OTA  
- Credits: 2.00
This course introduces the clinical reasoning process with a focus on analyzing functional status and occupational performance of a client, identifying problems and goals and determining an appropriate plan of action. Aspects of clinical reasoning and evidence-based practice are explored.  
Corequisite(s): OTA 841
OTA 801 - OTA Level IA Fieldwork
- Credits: 1.00
This course introduces students to clinical practice for individuals with pediatric or developmental conditions that limit or affect engagement in occupations. As participant observers, students will integrate academic experiences with occupational therapy process in settings serving clients with a variety of developmental challenges and disability. Through interactions with clients and staff, students will develop skills in observation of occupational performance, clinical safety, therapeutic communication, clinical relationships, professional behavior and boundary setting.
Corequisite(s): OTA 131

OTA 811 - OTA Level IB Fieldwork
- Credits: 1.00
This course introduces students to clinical practice for individuals with primary physical disabilities that limit or affect engagement in occupations. As participant observers, students will integrate academic experiences with occupational therapy process in settings serving clients with a variety of physical challenges and degrees of disability. Through interactions with clients and staff, students will develop skills in observation of occupational performance, clinical safety, therapeutic communication, clinical relationships, professional behavior and boundary setting.
Prerequisite(s): OTA 801
Corequisite(s): OTA 151

OTA 821 - OTA Level IC Fieldwork
- Credits: 1.00
This course introduces students to clinical practice for individuals with mental health conditions and disregulated behaviors that limit or affect engagement in occupation. As participant observers, students will integrate academic experiences with occupational therapy process in settings serving clients with a variety of psychosocial challenges and degrees of disability. Through interactions with clients and staff, students will develop skills in observation of occupational performance, clinical safety, therapeutic communication, clinical relationships, professional behavior and boundary setting.
Prerequisite(s): OTA 811
Corequisite(s): OTA 171

OTA 831 - OTA Level IIA Fieldwork
- Credits: 6.00
This is the first of two capstone experiences which provide an opportunity for students to integrate and apply specialized occupational therapy theory, skills, and concepts to practice. Students will engage in this learning experience in a supervised clinical or community setting serving individuals with developmental, physical, or emotional challenges.
Prerequisite(s): OTA 171; OTA 821

OTA 841 - OTA Level IIB Fieldwork
- Credits: 6.00
This is the second of two capstone experiences which provide an opportunity for students to integrate and apply specialized occupational therapy theory, skills, and concepts to practice. Students will engage in this learning experience in a supervised clinical or community setting serving individuals with developmental, physical or emotional challenges.
Prerequisite(s): OTA 171; OTA 831

Philosophy

PHI 101 - Introduction to Philosophy
- Credits: 3.00
This course is an overview of various topics in the field of philosophy, including metaphysics, epistemology, theology, ethics, philosophy of mind, philosophy of religion, political theory, freedom of the will, logic and meaning in life. It presents different views on these topics and introduces philosophical methods of analysis and thinking.

PHI 105 - Introduction to Ethics
- Credits: 3.00
This course provides an introduction to ethical reasoning and a survey of ethical theories. Both community and personal ethics will be studied.

PHI 114 - Critical Reasoning
- Credits: 3.00
This course introduces the critical reasoning skills necessary for academic and personal success. Students examine and analyze arguments, explore fallacies and apply logic thinking. Additionally, students will apply their analytical abilities to pertinent social and educational issues, enhancing their abilities to succeed in their college and professional careers.

PHI 120 - Modern Philosophy
- Credits: 3.00
This course surveys the major philosophical movements and thinkers from Descartes and the Rationalists through today. Emphasis will be placed upon how these thinkers both reflected and influenced their cultures and how their ideas still influence our lives today.

PHI 121 - Classical/Medieval Philosophy
- Credits: 3.00
This course covers the history of Western philosophy from the Greek Pre-Socratics (c. 600 B.C.) to the early Enlightenment period (c. A.D. 1550).

PHI 145 - Introduction to Ethical Conflicts
- Credits: 3.00
This course examines contemporary ethical conflicts and provides an understanding of ethical doctrine and theory, including the language, concepts and traditions of ethics. Students will examine contemporary ethical issues in light of selected ethical theories.

Phlebotomy

PHB 270 - Phlebotomy Clinical
- Credits: 1.00
This clinical course provides students with the opportunity to gain competency in the collection of blood specimens in a hospital or clinic setting. Theory learned in MLT112 Principles of Phlebotomy will be applied.
Prerequisite(s): MLT 112
Physical Education Activities

PEA 122 - Cardiovascular Training I
- Credits: 2.00
This course will introduce students to the benefits of a cardiovascular training program through various methods of exercise. Methods of exercise will include distance running, stairmaster, exercise biking, Elliptical training, treadmills and other methods of cross training.

PEA 135 - Golf I
- Credits: 2.00
This course will teach the beginning golfer the basic techniques of grip, stance and swing. Other topics will include equipment, rules and golfing etiquette.

PEA 152 - Racquet Sports I
- Credits: 2.00
This course will introduce students to the basic rules, skills, strategies, court safety and etiquette necessary for participating in racquetball and tennis. Students will have the opportunity to practice their skills through drills and game play.

PEA 155 - Recreational Activities I
- Credits: 2.00
Students will be introduced to and participate in several recreational activities. These activities will include volleyball, tennis, bowling, and disc golf.

PEA 188 - Weight Training I
- Credits: 2.00
The focus of this class will be on the use of free weights as the major component of the lifting program.

PEA 222 - Cardiovascular Training II
- Credits: 2.00
This course will build on the cardiovascular exercising techniques explored in Cardiovascular Training I. An emphasis will be placed on increasing the student’s level of performance and endurance. Methods of exercise will include running, power walking, stairmaster, exercise biking, Elliptical training and other methods of cross training.

PEA 235 - Golf II
- Credits: 2.00
This course is a continuation of Beginning Golf. The course will explore more advanced techniques of the game of golf.
Prerequisite(s): PEA 135

PEA 288 - Weight Training II
- Credits: 2.00
This course will build upon the techniques explored in Beginning Weight Training I. The focus of this class will be on the use of free weights as the major component of the lifting program.

Physical Education Training

PET 105 - Basic Athletic Training
- Credits: 3.00
This course serves as an introduction to the profession of athletic training. Students will be instructed in basic skills and theories of the profession, including: measurement of vital signs, taping, wrapping and immobilization. Students will become familiar with the roles, functions and professional preparation of an athletic trainer as well as the history of the profession and its governing structures.

PET 140 - Athletic Training Practicum I
- Credits: 1.00
This course is designed to provide the student with the opportunity to apply skills learned in PET105 in a clinical setting. This experience will take place before, during, and after practices and games of Indian Hills Community College Athletics. Students will demonstrate their skills relating to taping, emergency procedures, equipment and administration. Students will be required to log a minimum of 32 clinical hours with a certified athletic trainer or team physician to pass this course.
Prerequisite(s): PET 105 or may be taken concurrently.

PET 146 - Athletic Training Administration
- Credits: 3.00
This course has been designed to develop policy and procedure to guide the intended operation of athletic training services within a health care facility. Legal concepts, various types of health insurance models, and proper protocol for referral are discussed. An introduction to basic budgeting and facility design and planning are discussed.

PET 150 - Athletic Training Practicum II
- Credits: 1.00
This course is designed to provide the student with the opportunity to apply skills learned in PET140 in a clinical setting. This experience will take place before, during, and after practices and games of Indian Hills Community College Athletics. Students will be required to log a minimum of 32 clinical hours with a certified athletic trainer or team physician to pass this course.
Prerequisite(s): PET 140

PET 171 - Athletic Training Practicum III
- Credits: 1.00
This course will provide students with the opportunity to obtain direct experience involving emergency procedures and care, taping and wrapping, rehabilitation programs for various injuries and specialty taping. This experience will take place before, and after practices and games of the IHCC athletic teams. Students will be required to log a minimum of 32 clinical hours with a certified athletic trainer or team physician to pass this course.
Prerequisite(s): PET 150

PET 181 - Athletic Training Practicum IV
- Credits: 1.00
The course is designed to provide an opportunity for the student to obtain direct experience involving injury evaluation, application of appropriate special tests, and
interpretation of evaluation results. The experience will take place before, during, and after practices and games of the IHCC athletic teams. Students will be required to log a minimum of 32 clinical hours with a certified athletic trainer or team physician to pass this course.

**Prerequisite(s):** PET 171

**PET 185 - Athletic Training Practicum V**
- **Credits:** 1.00
The course will provide an opportunity for students to experience how to effectively supervise practices and competitions, utilize a variety of techniques and measurement skills and explain assessments of an athlete's return to play. The experience will take place before; during and after practices and games of the IHCC athletic teams as well as material taught will correlate with the practical exam. Some travel for competition off campus is a required part of the program.

**Prerequisite(s):** PET 181

**PET 230 - Care and Prevention of Athletic Injuries**
- **Credits:** 3.00
The purpose of this course is to provide the student with an understanding of the prevention, recognition, evaluation, treatment, and rehabilitation of athletic injuries. Students will learn of the various types of injuries that can occur at each joint and how those injuries can be evaluated, treated, and rehabilitated. Biomechanics and anatomy will be emphasized throughout the course. The student will build upon the knowledge obtained in PET 105: Basic Athletic Training.

**Prerequisite(s):** A minimum grade of C in PET 105 Basic Athletic Training

**PET 231 - Biomechanics for Sports Medicine**
- **Credits:** 3.00
This course introduces the study of movement as related to the human body. Topics presented include: gravity, friction, momentum, center of gravity, and base of support. Movement of arms and levers as components of torque, and joint shapes as they affect movement are discussed. Students will also learn surface anatomy, muscle origin, insertion, action and innervation with consideration of functional activity for human structures.

**Prerequisite(s):** BIO 175 BIO 176 PET 230

**PET 232 - Rehabilitation Techniques**
- **Credits:** 3.00
This course introduces the theory and practical application of rehabilitation techniques used in the sports medicine environment. This includes therapeutic exercise in relation to muscle performance and resistance training, aerobic capacity/endurance, range of motion, balance, posture and pain. Students will also learn basic taping techniques as they coincide with the rehabilitation and return to play process.

**Prerequisite(s):** PET 105 PET 230

**PET 250 - Introduction to Modalities**
- **Credits:** 3.00
The purpose of this course is to provide an overview of the various and current therapeutic modalities and their usage within the field of athletic training. Emphasis will center on the effects, usages, and application of therapeutic modalities. Students will also gain a better understanding of the application of therapeutic modalities as it pertains to

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**Physical Science**

**PHS 184 - Introduction to Earth Science**
- **Credits:** 2.00
Topics in astronomy, geology, meteorology, and oceanography are studied. Emphasis is placed on the laws of physics and chemistry, which govern the observed phenomena in the above areas. Historical and modern viewpoints are contrasted. This course may be accompanied by PHS 186 Earth Science Lab.

**Corequisite(s):** PHS 186

**PHS 186 - Introduction to Earth Science Lab**
- **Credits:** 1.00
This course is designed to accompany PHS 184 Introduction to Earth Science. Topics in astronomy, geology, meteorology and oceanography are studied.

**Prerequisite(s):** PHS 184
Physical Therapist Assistant

PTA 109 - PTA Trends
- Credits: 2.50
This course provides an introduction to the physical therapy profession, discusses basic concepts related to health care management, introduces trends in wellness and presents an overview of the clinical component of the Physical Therapist Assistant Program. Students will complete required HIPPA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.

PTA 111 - PTA Fundamentals
- Credits: 4.00
This course presents activities that will introduce posture, body mechanics and gait analysis, along with positioning and transfer techniques. Concepts of documentation and range of motion assessment are taught.

PTA 118 - Functional Human Anatomy
- Credits: 4.00
This course teaches the student manual muscle testing skills through application. It also includes surface anatomy, muscle origin, insertion, action and innervation with consideration of functional activity for human structures. Prerequisite(s): PTA 109 PTA 111; BIO 175; BIO 176

PTA 121 - PTA Kinesiology
- Credits: 3.00
This course introduces the study of movement as related to the human body. Topics presented include: gravity, friction, momentum, center of gravity, and base of support. Movement arms and levers as components of torque, and joint shapes as they affect movement are discussed. Prerequisite(s): PTA 118; BIO 178; BIO 179

PTA 191 - PTA Modalities
- Credits: 4.00
This course presents the use of heat, cold, water, electricity, light and mechanical devices as interventions for physical dysfunctions. Assessment of physiological responses will be studied as well as indications and contraindications for specific interventions. Lab and lecture components are involved. Prerequisite(s): PTA 118; BIO 178; BIO 179

PTA 202 - Cardiopulmonary and Integumentary Rehab
- Credits: 2.00
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. Prerequisite(s): PTA 191 PTA 121

PTA 203 - PTA Therapeutic Exercise
- Credits: 2.00
This course introduces physiologic impairments and therapeutic exercise in relation to muscle performance and resistance training, aerobic capacity/endurance, range of motion, balance, posture and pain. The course will include exercise for specialized populations such as chronic pain, osteoporosis and pelvic floor dysfunction. Special considerations for the geriatric patient will also be discussed. Prerequisite(s): PTA 191 PTA 121

PTA 216 - PTA Orthopedics
- Credits: 4.00
This course is an introduction to the management of orthopedic conditions frequently encountered by the physical therapist assistant in the clinical setting. It includes the study of tissue healing as well as the study of the assessment and interventions employed in the management of presented orthopedic conditions. Prerequisite(s): PTA 202 PTA 203

PTA 248 - PTA Neurology
- Credits: 4.00
This course presents analysis and intervention techniques for adults and children with neurologic deficits. Lecture and laboratory topics include child development, neuroanatomy review, motor development and control theories, sensory, balance/coodination, tone and reflex analysis and intervention. Pediatric disorders, cerebrovascular accidents, spinal cord injuries, traumatic brain injuries and degenerative diseases are discussed. Prerequisite(s): PTA 216

PTA 252 - Professional Issues
- Credits: 3.00
This course presents issues in health care pertinent to the profession of Physical Therapy. Topics addressed include ethical and legal aspects, cultural competence, wellness and prevention and the role of the American Physical Therapy Association. The student will present research pertaining to cultural competence and health care related topics. Job seeking techniques including interview skills, resume and letter writing will also be addressed. Prerequisite(s): PTA 216 PTA 410

PTA 290 - PTA Capstone
- Credits: 3.00
Components of the Physical Therapist Assistant curriculum will be reviewed in preparation for the National Physical Therapist Assistant board examination. Students will be required to take several mock board examinations, write a case study on a patient from their clinical experience, and give a presentation on their case study. Classroom activities will include instructions on how to write a case study and analyze healthcare literature as well as presentations and discussions of contemporary topics in physical therapy. Prerequisite(s): PTA 248 PTA 252

PTA 310 - PTA Clinical I
- Credits: 1.00
This course introduces the student to clinical practice. Skills learned in PTA Fundamentals and Functional Human Anatomy will be applied to direct patient care in selected clinical settings. Prerequisite(s): PTA 111
PTA 311 - PTA Clinical II  
- Credits: 1.00  
This course allows the application of new concepts and skills learned in previous coursework.  
Prerequisite(s): PTA 121 PTA 191 PTA 310

PTA 410 - PTA Clinical III  
- Credits: 2.00  
This course allows application of new concepts and skills learned in PTA Orthopedics. The student will develop proficiency in previously learned skills when providing direct patient care in selected clinical settings.  
Prerequisite(s): PTA 311  
Corequisite(s): PTA 216

PTA 416 - Clinical Experience IV  
- Credits: 5.00  
This is a full-time clinical experience that provides an opportunity for students to integrate all of the concepts and skills learned in previous academic and clinical coursework. Experience will be offered in a variety of clinical settings.  
Prerequisite(s): PTA 248 PTA 252

Physics

PHY 101 - Physics  
- Credits: 2.00  
This is an introductory course in physics for non-science majors. Topics include the atomic model of matter; Newton's laws of mechanics; the concepts of energy, power, heat and entropy; wave phenomena, including light; electro-magnetic phenomena; quantum physics; nuclear physics; quantum field theory; high energy physics; and the unification of fundamental forces. This course may be accompanied by PHY 102 Physics Lab.  
Corequisite(s): PHY 102

PHY 102 - Physics Lab  
- Credits: 1.00  
This is an introductory laboratory course in physics for non-science majors. Topics include the atomic model of matter; Newton's laws of mechanics; the concepts of energy, power, heat and entropy; wave phenomena, including light; electro-magnetic phenomena; quantum physics; nuclear physics; quantum field theory; high energy physics; and the unification of fundamental forces.  
Corequisite(s): PHY 101

PHY 200 - Classical Physics I  
- Credits: 3.00  
This course includes studies of the foundations of classical physics through Newtonian contributions and the concepts of momentum, force, work, energy, conservation of energy and momentum, rotational mechanics and the universal law of gravity. This is a calculus-based physics course and is part of the majors physics series. This course has three hours of lecture and two hours of laboratory work per week. This is the recommended course for students pursuing studies in engineering, physics and mathematics.  
Corequisite(s): MAT 210

PHY 201 - Classical Physics II  
- Credits: 3.00  
This course is a continuation of PHY200. This course includes studies of gravity, oscillation about equilibrium, waves and sound, fluids, temperature and heat, phases and phase changes, the laws of thermodynamics, and electric charges, forces and fields. This is a calculus-based physics course and is part of the majors physics series. This course has three hours of lecture and two hours of laboratory work per week. It is recommended for students who plan to study engineering, physics and mathematics.  
Prerequisite(s): PHY 200 MAT 210

PHY 202 - Classical Physics III  
- Credits: 3.00  
This course is a continuation of PHY201. This course includes studies of electricity, magnetism, optics and modern physics. This is a calculus-based physics course and is part of the majors physics series. This course has three hours of lecture and two hours of laboratory work per week. It is recommended for students who plan to study engineering, physics and mathematics.  
Prerequisite(s): PHY 201 MAT 210

PHY 705 - Introduction to Physics  
- Credits: 2.00  
This course covers the basic principles and concepts of solids, liquids and gases as they relate to work, force and pressure. Mechanical systems such as levers, wedges, screws and gears will be covered.

Political Science

POL 111 - American National Government  
- Credits: 3.00  
This course examines the formation, structure and practice of the American federal government, citizenship, political parties, the electoral process and the legislative, executive and judicial branches.

POL 121 - International Relations  
- Credits: 3.00  
This course examines the historical development of international relations, the basic concepts and principles of international diplomacy, the establishment of the United Nations and other non-state organizations, international relations in the Cold War era, changes in the post-Soviet period and current international conflicts.

POL 125 - Comparative Government and Politics  
- Credits: 3.00  
This course compares and contrasts the politics, governmental institutions, nongovernmental institutions, and the overall political cultures of various types of political systems around the modern world. Democratic political systems and nondemocratic political systems will be studied.
POL 949 - Special Topics
- Credits: 1.00
This course explores specialized topics in the field of American Government. A contract between the student and an Arts and Sciences instructor outlining the educational project is required.
Prerequisite(s): Permission of Instructor.

Practical Nursing

PNN 147 - Nursing Essentials I
- Credits: 3.00
This course introduces the essential scientific knowledge, technical skills and communication techniques, as specified by OBRA, to function as an accountable member of the health care team. Theory, laboratory practice and clinical experience will be incorporated to prepare the student to address the bio psychosocial and spiritual needs of patients.

PNN 148 - Nursing Essentials II
- Credits: 2.00
This course introduces basic assessment principles and techniques and explains documentation procedures. The concept of surgical asepsis and the procedures requiring sterile technique are discussed. Protocol for medication administration is examined. The student will have the opportunity to gain skill in advanced nursing procedures requiring sterile technique.

PNN 231 - Pharmacology
- Credits: 3.00
This course is designed to provide the student with information essential to planning care for patients receiving medication therapy. Common medications affecting the body systems will be introduced. Principles of basic mathematics used in the calculation of drug dosages will be integrated.

PNN 232 - Pharmacology IA
- Credits: 1.50
This course is designed to provide the student with information essential to planning care for patients receiving medication therapy. Common medications affecting the nervous and cardiopulmonary systems will be introduced. Principles of basic mathematics used in the calculation of drug dosages will be integrated.

PNN 233 - Pharmacology IB
- Credits: 1.50
This course is designed to provide information essential to planning care for patients receiving medication therapy. Common medications affecting the endocrine, gastrointestinal, renal and musculoskeletal systems will be introduced. Antimicrobial agents will be discussed. Mathematical calculations of drug dosages will be integrated.
Prerequisite(s): PNN 232

PNN 265 - Nutrition
- Credits: 3.00
This course surveys normal nutritional needs of individuals throughout the lifespan. Emphasis is placed on identifying the various nutrients and their functions for the maintenance or restoration of health. The protection and preservation of food and community nutritional needs are discussed. Dietary modifications related to specific diseases are introduced.

PNN 311 - PN Issues and Trends
- Credits: 1.00
This course is designed to provide the practical nursing student with knowledge concerning nursing history, standard application and resignation procedures, legal/ethical considerations and the licensure process. Information about health care systems, financing, trends in health care, management and leadership will be presented.
Prerequisite(s): PNN 148

PNN 331 - Nursing Seminar I
- Credits: 1.00
This course provides a comprehensive review of nursing care interventions for specific nursing diagnoses. The concepts of critical thinking and prioritization will be addressed using case studies and patient scenarios. Emphasis will be placed on essential knowledge and skills for the practical nurse.
Corequisite(s): PNN 504; or PNN 717 and PNN 506; PNN 719

PNN 401 - Mental Health Nursing I
- Credits: 1.00
This course introduces basic nursing theory related to the psychological aspects of illness. The concepts of mental health and emotional illness are examined. The role of the nurse in caring for clients with alterations in mental health is discussed.
Prerequisite(s): PNN 501 or PNN 503 and PSY 111

PNN 431 - Maternal Child Nursing I
- Credits: 2.00
This course is designed to provide the student with an understanding of basic nursing care during pregnancy, labor, delivery and postpartum periods. Health promotion of infants, children and adolescents is addressed. Basic nursing care essential in caring for the child hospitalized with a common illness or surgical procedure is presented.
Prerequisite(s): PNN 501 PNN 503; PNN 725
Corequisite(s): PNN 714

PNN 451 - Issues in Aging
- Credits: 1.00
This course introduces basic issues related to aging. The physiology, psychology and sociology of aging will be addressed. Discussion will focus on the impact of aging on society. Community resources available to support an aging population will be examined.

PNN 501 - Nursing of Adults I
- Credits: 3.00
This course is a study of common diseases as they affect the body systems including the cardiovascular, respiratory, endocrine and urinary systems. The student investigates disease processes, signs/symptoms, labs and treatments with emphasis placed on describing basic nursing care for the adult patient.
Prerequisite(s): BIO 175; BIO 176; PNN 265
Corequisite(s): PNN 725
PNN 502 - Nursing of Adults IA  
- Credits: 1.50  
This course introduces basic principles of adult nursing and common diseases affecting the endocrine and cardiovascular systems. Related signs and symptoms, laboratory findings and treatment of specified diseases will be presented. Basic nursing care of the surgical and adult patient will be discussed.  
Prerequisite(s): PNN 265; PNN 148; BIO 175; BIO 176  
Corequisite(s): PNN 232; PNN 726

PNN 503 - Nursing of Adults IB  
- Credits: 2.00  
Common diseases affecting the hematopoietic, respiratory and renal systems are introduced. Related signs and symptoms, laboratory findings and treatment of specified diseases will be presented. Basic nursing care of the adult patient will be discussed.  
Prerequisite(s): PNN 502  
Corequisite(s): PNN 713

PNN 504 - Nursing of Adults II  
- Credits: 3.00  
This course introduces common diseases of the reproductive, gastrointestinal, musculoskeletal, integumentary, neurological and sensory systems. The student investigates disease processes, signs, symptoms and treatments, with emphasis placed on describing basic nursing care for adult patients.  
Prerequisite(s): PNN 231; PNN 501; PNN 714 PNN 431 PNN 401  
Corequisite(s): PNN 717

PNN 505 - Nursing of Adults IIA  
- Credits: 2.00  
Common diseases of the sensory, reproductive, gastrointestinal and musculoskeletal system are discussed. Oncology is introduced. Related signs and symptoms, laboratory findings and treatment of specified diseases are presented. Basic nursing care of the adult patient will be discussed.  
Prerequisite(s): PNN 503  
Corequisite(s): PNN 718

PNN 506 - Nursing of Adults IIB  
- Credits: 1.50  
Common diseases of the integumentary and neurological system and special senses are introduced. Related signs and symptoms, laboratory findings and treatment of specified diseases will be presented. Basic nursing care of adult patient will be discussed.  
Prerequisite(s): PNN 505  
Corequisite(s): PNN 719 ; PNN 331

PNN 709 - Nursing Clinical Experience I  
- Credits: 2.50  
The student will provide basic nursing care in a long term setting. The development of assessment techniques will be emphasized. Scientific nursing principles and basic nursing skills will be utilized to provide care to residents with identified self-care deficits. Documentation will be introduced. Certification in American Heart Association Basic Life Support will be completed. Students will complete required HIPPA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.  
Prerequisite(s): PNN 147
Corequisite(s): PNN 148; PNN 501

PNN 710 - Nursing Clinical Experience IA  
- Credits: 1.50  
This clinical course affords students the opportunity to provide basic nursing care to residents in the long term care setting using scientific nursing principles. Emphasis is placed on assessment and documentation skills. Certification in American Heart Association Basic Life Support will be completed. Students will complete required HIPPA, Infection Control and Mandatory Reporting for child/adult training for Health Care Providers.  
Prerequisite(s): PNN 148
Corequisite(s): PNN 502

PNN 714 - Nursing Clinical II  
- Credits: 2.00  
The student will plan and provide nursing care to patients in the acute care setting. Scientific nursing knowledge and nursing skills requiring surgical aseptic techniques will be applied in the practice setting. Medication administration under the direct supervision of the clinical instructor will be included.  
Prerequisite(s): PNN 725 PNN 148; PNN 501; PNN 231  
Corequisite(s): PNN 431

PNN 717 - Nursing Clinical III  
- Credits: 2.00  
The student will be assigned patients in various medical, surgical, pediatric and obstetric areas in the acute care setting. Each student will have the opportunity to gain leadership and management skills in the long term care setting by caring for and managing groups of patients through a preceptorship experience.  
Prerequisite(s): PNN 714  
Corequisite(s): PNN 504

Psychology

PSY 111 - Introduction to Psychology  
- Credits: 3.00  
This course is a broad introduction to the principles of contemporary psychology. The course is based on providing the student with an understanding of the theoretical foundations of psychology, as well as a survey of empirical research dealing with behavior and mental processes.

PSY 112 - Psychology of Human Relations  
- Credits: 3.00  
This course is designed to assist students in developing self-awareness and establishing meaningful relationships with others. Dealing with stress, conflict management, developing intimacy and diversity issues will be addressed.

PSY 121 - Developmental Psychology  
- Credits: 3.00  
The course is designed to provide a survey of the patterns of behavior and current attitudes on human development from birth to death. Emphasis is given to the theories of cognitive, social, physical and emotional development.  
Prerequisite(s): PSY 111
PSY 211 - Psychology of Adjustment
- Credits: 3.00
This course will examine psychological theories and current research on positive mental health. Emphasis will be given to models of adjustment as they apply to the student's life.

PSY 223 - Child and Adolescent Psychology
- Credits: 3.00
Human development is explored from conception through adolescence. Emphasis is placed on physical, cognitive, personality and social development. Various theoretical perspectives and research will be discussed. There will also be an introduction to childhood disorders, child abuse and parenting.
Prerequisite(s): PSY 111

PSY 226 - Psychology of Aging
- Credits: 3.00
This course provides a multidisciplinary perspective of aging. Biological, psychological and sociological aspects of aging are explored. The impact of an aging population on societal issues such as politics, education, public policy, religion and health care will be considered.

PSY 241 - Abnormal Psychology
- Credits: 3.00
This course is an introduction to the study of abnormal behavior. The course focuses on the causes, assessment and treatment of maladaptive behavior, with emphasis on contemporary views regarding the nature of mental disorders.
Prerequisite(s): PSY 111

PSY 251 - Social Psychology
- Credits: 3.00
This course is designed to give a broad overview of how people think about, influence and relate to one another. Time will be spent on both behavior and attitudes. Related research will be examined.
Prerequisite(s): PSY 111

PSY 263 - Multicultural Psychology
- Credits: 3.00
Multicultural Psychology is a course designed to explore multiculturalism from a psychological perspective. Emphasis is on the multicultural issues that affect our understanding of and differences in worldviews, research and theory using a wide range of psychological domains: the systemic study of all aspects of human behavior, developmental, social, and health. Topics include the history of multiculturalism, race, ethnicity and culture as well as the issues and controversies related to those terms, communication styles, cultural identity development, immigration and acculturation, and mental and physical health among diverse cultural groups.
Prerequisite(s): PSY 111

PSY 281 - Educational Psychology
- Credits: 3.00
This course examines the principles of psychology as they apply to educational settings with special emphasis on such topics as development, learning, motivation, measurement and evaluation, variations in learning styles, and socio-cultural factors that influence student learners. Students will be required to complete three (3) hours of classroom observation.
Prerequisite(s): PSY 111

PSY 296 - Investigating the Effects of Recreational Drugs
- Credits: 1.00
Students will explore the physiological and psychological effects of common recreational drugs.

PSY 924 - Honors Project
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences social science instructor on a social science research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.
Prerequisite(s): Permission of Instructor.

PSY 949 - Special Topics
- Credits: 1.00
This course explores specialized topics in the field of social science. A contract between the student and an Arts and Sciences social science instructor outlining the educational project is required.
Prerequisite(s): Permission of Instructor.

Radiologic Technology

RAD 108 - Radiology and Medical Imaging
- Credits: 2.50
This course introduces radiology and its role in healthcare delivery. Academic and administrative structures of the profession are discussed. Basic principles of radiation protection are introduced. Ethical and legal responsibilities of the profession are emphasized. The basics of patient care and imaging are examined. A brief introduction to special modalities and mobile imaging is presented. Students will complete required HIPPA, Blood Borne Pathogens (OSHA), and Mandatory Reporting: Child and Dependent Adult Abuse.

RAD 125 - RT Position I
- Credits: 2.00
This course acquaints students with radiographic terminology. An introduction to arthrology and a study of basic routine positions and anatomy of the chest, abdomen and upper extremities is provided. The basic pathophysiology related to the chest, abdomen and upper extremities is identified.

RAD 126 - Position and Film Critique Lab I
- Credits: 1.50
Basic radiographic equipment and skills will be introduced. Chest, abdomen and upper extremity examinations will be simulated. The standards used to critique radiographs for correct positioning and quality will be described. Radiation protection will be introduced and simulated during this lab experience. Transporting and safety will be emphasized.
Corequisite(s): RAD 125

RAD 127 - RT Positioning II
- Credits: 2.00
Basic radiographic procedures of the lower extremities, upper and lower gastrointestinal tract and biliary system are discussed. The anatomy and pathophysiology related to these systems are described.
Prerequisite(s): RAD 125; BIO 175; BIO 176; RAD 126
RAD 128 - Positioning and Film Critique Lab II
- Credits: 1.00
Radiographic techniques related to upper and lower extremities and the gastrointestinal tract are introduced and simulated. The standards used to critique radiographs for correct positioning and image quality will be described.
Prerequisite(s): RAD 125; BIO 175; BIO 176; RAD 126

RAD 129 - RT Positioning III
- Credits: 2.00
Basic radiographic procedures for the urinary system, pelvis, hip, vertebral column and bony thorax are discussed. The anatomy and pathophysiology related to radiographs of the urinary system, pelvis, hip, vertebral column and bony thorax are identified. Complex examinations and technical considerations related to radiographs of the urinary system, pelvis, hip, vertebral column and bony thorax will be explained.
Prerequisite(s): RAD 127; RAD 128;

RAD 130 - Positioning and Film Critique Lab III
- Credits: 1.00
Radiographic techniques related to the pelvis, hip, vertebral column and bony thorax are introduced. The use of standards to critique radiographs for correct positioning and quality will be described.
Prerequisite(s): RAD 127; RAD 128; BIO 178; BIO 179

RAD 131 - RT Positioning IV
- Credits: 2.00
Basic radiographic procedures for facial and skull bones will be discussed. Special procedures including sectional imaging will be explored. The anatomy and pathophysiology of the urinary system are discussed. Complex examinations and technical considerations for radiographic imaging of the facial and skull bones will be explained.
Prerequisite(s): RAD 129; RAD 130

RAD 132 - Positioning and Film Critique Lab IV
- Credits: 1.50
Manual techniques related to portable and c-arm imaging will be introduced. Situations involving the square law and inverse square law as related to the intensity of the beam will be reinforced. Radiographic techniques related to the urinary system, head and facial bones are introduced. The use of standards to critique radiographs for correct positioning and quality will be described.
Prerequisite(s): RAD 130; RAD 129

RAD 133 - Advanced Radiographic Procedures
- Credits: 2.00
This course introduces radiographic imaging involving portable and surgical procedures, basic pharmacology, venipuncture, trauma, forensics and imaging of the pediatric and geriatric patient.
Prerequisite(s): RAD 545

RAD 205 - RT Clinical I
- Credits: 2.00
Basic imaging and positioning theories are applied in this course. Patient care and communication techniques are implemented. Radiation protection theories are emphasized. Radiographic skills of chest, abdomen and upper extremities are performed.
Prerequisite(s): RAD 108; RAD 125; RAD 126

RAD 225 - RT Clinical II
- Credits: 2.00
Basic imaging and positioning theories are applied in this course. Fluoroscopy exams including gallbladder and upper and lower gastrointestinal studies will be introduced. Radiation theories relating to fluoroscopy will be emphasized. Radiographic skills of the upper and lower extremities are performed. Basic skills for critiquing radiographs for correct positioning and quality will be demonstrated. The use of contrast for gastrointestinal studies will be introduced.
Prerequisite(s): RAD 205; RAD 127; RAD 128

RAD 265 - RT Clinical III
- Credits: 3.50
Imaging and positioning theories are applied in this course. Radiation protection theories are emphasized. Radiographic intravenous contrast procedure for imaging of the urinary system will be introduced. This course will include administration of intravenous contrast, contraindications, adverse reactions and pharmaceuticals related to contrast. Radiographs of the pelvis, hip, spine and bony thorax are performed. The student will be introduced to mobile radiography.
Prerequisite(s): RAD 129; RAD 130; RAD 225

RAD 325 - RT Imaging I
- Credits: 3.00
Equipment routinely used in producing radiographic images will be discussed. Factors that directly relate to the production of radiation will be explained. Emphasis is placed on image quality such as technical, geometric and visibility factors. Prime Factors and Multi-Factor problems will be introduced.
Prerequisite(s): RAD 108

RAD 335 - RT Imaging II
- Credits: 1.50
This course introduces the student to image formation, beam-restricting devices, grids, radiographic exposures and techniques. Special emphasis is placed on factors that reduce patient radiation dose. The theories discussed in RT Imaging I and problems related to intensity, technique and multi-factor problems will be reviewed.
Prerequisite(s): RAD 325

RAD 525 - RT Clinical IV
- Credits: 3.50
Imaging and positioning theories are applied in this course. Radiation protection theories are emphasized. Radiographic skills of the sinuses, cranial and facial bones are performed. The student is introduced to sectional imaging and special procedures.
Prerequisite(s): RAD 131; RAD 132; RAD 225

RAD 545 - RT Clinical V
- Credits: 3.50
The student will perform specified radiographic competencies required prior to graduation. The focus will be on the completion of exams in an efficient manner. Critical thinking skills regarding emergency procedures will be demonstrated. Radiographic dictation will be observed. Pathophysiology will be emphasized.
Prerequisite(s): RAD 525
RAD 595 - RT Clinical VI
- Credits: 3.50
The student will participate in advanced radiographic procedures. Competencies will be completed or simulated in preparation for completion of graduation requirements. The focus will be on proficiency and critical thinking in film critique. The student will perform surgical and portable procedures with direct supervision. Radiographic skills will include digital imaging and picture archival communication imaging skills. Completion of a career portfolio is required.
Prerequisite(s): RAD 545

RAD 635 - RT Clinical VII
- Credits: 3.50
This course emphasizes attainment of all required radiographic competencies required prior to graduation. Proficiency in radiographic and critical thinking skills is stressed. Radiographic dictation, venipuncture rechecks and blood pressure assessments are verified. Film critique of surgical and trauma films with emphasis on pathophysiology will be performed. The student will observe Computed Tomography and additional modalities will be explored.
Prerequisite(s): RAD 595

RAD 685 - RT Seminar
- Credits: 5.00
All elements of the radiologic technology curriculum are reviewed in preparation for the ARRT national exam. Topics include: patient care, positioning techniques, digital imaging, pathophysiology, legal and ethical issues, radiographic procedures, radiographic protection, biology, and physics.
Prerequisite(s): RAD 595  RAD 715

RAD 715 - Digital Imaging
- Credits: 3.00
Basic computer science will be discussed. The course introduces the student to digital radiographic and fluoroscopic imaging, computed radiography and PACS. Computed tomography and sectional imaging will be examined.
Prerequisite(s): RAD 826

RAD 738 - Radiologic Pathology
- Credits: 2.00
Basic principles of radiographic pathology and disease processes will be discussed. Recognition of the radiographic appearance of specific diseases and how they affect the imaging technique will be addressed. Selecting the proper modalities and determining the need for repeat radiographs in different situations will be explained.
Prerequisite(s): RAD 131

RAD 785 - Radiographic Legal and Ethical Aspects
- Credits: 1.50
Moral, legal and ethical issues related to radiography and health care are discussed. Topics of study include caring, communication, patient autonomy, informed consent, death and dying and diversity. Career issues will be discussed.
Prerequisite(s): RAD 875

RAD 815 - RT Physics I
- Credits: 1.00
Basic physics relevant to radiologic technology will be discussed. Topics of study include electromagnetic radiation, the atom, electricity, magnetism and electromagnetism. The construction and operation of radiographic equipment including automatic exposure controls will be reviewed.
Prerequisite(s): RAD 335

RAD 816 - Physics in Medical Imaging I
- Credits: 1.00
Physics relevant to Radiologic Technology will be examined. Topics of study will include an in-depth look into the discovery and use of x-rays, how they are created, along with how x-rays are quantified. The various components of the x-ray tube and circuit will be explored in detail, as well as investigating the nature of electromagnetic radiation.
Prerequisite(s): RAD 335

RAD 825 - RT Physics II
- Credits: 1.50
Physics relevant to radiologic technology will be discussed. Topics of study include quality assurance, quality control, sensitometry and special imaging methods. Fluoroscopy, image intensification and interventional radiology will be examined. Radiographic image artifacts will be explained. Advanced multi-factor problems will be solved.
Prerequisite(s): RAD 815

RAD 826 - Physics in Medical Imaging II
- Credits: 1.50
Further investigation into physics associated with medical imaging will include a study of x-ray interactions with matter, and identification of the various emission spectrums and the factors which influence them. The function and purpose of automatic exposure control will be identified, as well as an overview of the quality control tasks routinely performed on radiographic equipment.
Prerequisite(s): RAD 816

RAD 875 - Diagnostic Imaging Protection
- Credits: 1.50
Physics relevant to radiation protection will be introduced. Regulatory and advisory limits for human exposure to radiation will be discussed. The implementation of patient and personal radiation protection practices for diagnostic radiographic procedures will be emphasized. Radiation monitoring devices will be discussed. The historical evolution of radiation quantities and units will be described. Topics emphasized include differentiation of somatic and genetic effects, effective dose and international and traditional units.
Prerequisite(s): RAD 335

RAD 885 - RT Biology
- Credits: 1.00
The biological effects of radiation will be introduced. Molecular and cellular radiation biology will be discussed. The effects of radiation on the organ systems will be described. Cell structure, composition and function for radiation biology will be discussed. Radiation therapy and the use of radioisotopes in radiology will be explained.
Prerequisite(s): RAD 875
RAD 886 - Introduction to Mammography  
- Credits: 2.00  
Radiographic imaging of the breast will be discussed. Topics of study include anatomy of the breast, recommended guidelines for mammography, the mammographic equipment utilized and quality control measures conducted to ensure quality examinations.  
**Prerequisite(s):** Instructor Approval.

RAD 887 - Introduction to CT  
- Credits: 2.00  
Basic cross-sectional anatomy and physics of computed tomography will be discussed. Topics of study will include the history of CT, equipment and data acquisition, patient dose and safety, image quality, basic protocols, anatomy and pathology.  
**Prerequisite(s):** Instructor Approval.

RAD 888 - Introduction to MRI  
- Credits: 2.00  
This course is designed to provide the student with an introduction to the field of magnetic resonance imaging. This introductory course will include an overview of the history and development of MRI. Topics of study will include patient care, imaging procedures, sequence parameters and options, data acquisition and processing, and physical principles of image formation. Basic cross-sectional anatomy will be discussed.

RAD 900 - RT Sectional  
- Credits: 3.00  
This course is designed so that the student can identify anatomy divided into sections. The course will discuss the sectional anatomy divided into axial, coronal, and sagittal planes. The musculoskeletal system will be correlated using CT and MRI images. Pathologies that occur in the above stated anatomy will also be discussed in depth.

RAD 905 - CT Procedures for RTs  
- Credits: 3.00  
This course will provide basic protocol information on imaging the head, neck, thorax, abdomen and pelvis, and the musculoskeletal system. Procedures such as 3D reconstruction, CTA scanning, cardiac, biopsies, CT arthrography, virtual colonoscopy and PET scanning will be introduced. Pediatric procedures will be discussed. This course will discuss patient room preparation, positioning techniques, scanning parameters in CT scanning. Also procedures indicated and contraindicated will be included in this course.

RAD 910 - CT Clinical I-A  
- Credits: 7.00  
This three-day clinical course is designed to provide students with CT clinical experience. It will permit the student to develop the necessary skills to produce quality CT images. Focus on equipment manipulation, CT procedures, patient care and CT protocols will be emphasized. All eligible students must demonstrate clinical experience requirements with documentation to establish eligibility for the ARRT Computed Tomography Examination.

RAD 915 - CT Clinical I-B  
- Credits: 12.00  
This five-day clinical course is designed to provide students with CT clinical experience. It will permit the student to develop the necessary skills to produce quality CT images. Focus on equipment manipulation, CT procedures, patient care and CT protocols will be emphasized. All eligible students must demonstrate clinical experience requirements with documentation to establish eligibility for the ARRT Computed Tomography Examination.

RAD 920 - CT Patient Care and Safety  
- Credits: 1.00  
This course will provide information on patient safety in CT and include contrast administration usage and safety. Radiation protection including factors that play a role in dose reduction will be explored.

RAD 925 - CT Principles and Instrumentation  
- Credits: 3.00  
This course was designed to provide the student with knowledge of the physics and instruments involved in CT. Topics will include the history and development of CT, x-ray characteristics, beam attenuation, Hounsfield numbers, linear attenuation coefficient, and tissue characteristics associated with the CT x-ray beam. Understanding systems operation, gantry components, detector array, and how the x-ray is produced will be discussed. Data collection and image processing and artifact production will be covered in this course as well. Quality Control in CT will also be explored.

Reading

RDG 010 - Reading I  
- Credits: 1.00  
This course is designed to develop reading comprehension, vocabulary and rate.

RDG 014 - Reading II  
- Credits: 1.00  
This course is designed for students who have successfully completed Reading I. The emphasis is on increasing reading comprehension using specific reading skills, as well as increasing vocabulary and rate.

RDG 060 - Speed Reading Strategies  
- Credits: 1.00  
This course is designed to increase flexibility in reading rate and improve comprehension.

Religious Studies

REL 101 - Survey of World Religions  
- Credits: 3.00  
A study of the role and history of religion in society, this course deals with religious behavior in general and also with specific religious systems such as Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, Islam and indigenous religions.
Science

SCI 130 - Limits of Science
- Credits: 2.00
This course introduces students to the philosophy and principles of science and critical thinking. Development of contemporary scientific methodology as a means of addressing questions in the natural world is examined; its advantages, limitations and misconceptions will be explored. The course will also focus on controversial issues at the interface between science and religion. Specific themes vary with the instructor but may include development of the heliocentric theory or the development of the theory of evolution by natural selection.

Sign Communication Skills

SCS 011 - Beginning Sign Language
- Credits: 1.00
Beginning Sign Language is designed for English-speakers who wish to learn to carry out basic communication in sign language, using basic vocabulary, phrases and questions. The course also addresses cross-cultural issues pertinent to relationships between the hearing and the hearing-impaired community.

SCS 012 - Intermediate Sign Language
- Credits: 1.00
Intermediate Sign Language is a continuation of Basic Sign Language. This course is designed to provide practice in additional conceptual signing and teaches classifiers, facial expressions and directional signing.
Prerequisite(s): SCS 011

SCS 013 - Advanced Sign Language
- Credits: 1.00
Advanced Sign Language is an intensive course that deals primarily with the usage of signed languages. Coursework will include glossing written English into sign.
Prerequisite(s): SCS 012

Social Media & Marketing

SMM 100 - Introduction to Social Media
- Credits: 3.00
This course provides students with an introduction to several popular social media sites. Emphasis is on how to use social media platforms to successfully market your business and/or products. Special attention will be paid to when this type of marketing is most effective, how to select the most effective social media outlet for your particular target demographic and tracking results.

SMM 110 - Writing for the Web
- Credits: 2.00
Students in this course will learn techniques for writing successful copy for the web including but not limited to conciseness, effective hypertext links, and targeting keywords. Current trends in Search Engine Optimization (SEO) will also be introduced.

SMM 115 - Introduction to Internet Marketing
- Credits: 3.00
This course will introduce the student to the foundations of Internet Marketing. Students will learn the essential tools, strategies, performance and opportunities available.

SMM 130 - Electronic Advertising
- Credits: 3.00
Students in this course will learn how to effectively design web banner advertisements and HTML email campaigns. Emphasis will be on aesthetic design as well as how to evaluate the impact of electronic advertising in an Internet marketing campaign.
Prerequisite(s): GRD 220

SMM 170 - Social Media Campaigns
- Credits: 3.00
This course will expand upon the introductory concepts introduced in the Introduction to Social Media course. Students will plan and implement a social media marketing campaign as well as evaluate and measure its success based on targeted audiences and market research. Emphasis will also be placed on presenting and defending their choices in a business environment.
Prerequisite(s): SMM 100

SMM 180 - Mobile Marketing
- Credits: 3.00
This course will examine how mobile marketing fits into a business's overall digital and social media strategy. Students will investigate geo-marketing, localized marketing, designing for mobile media, mobile websites, mobile advertising, m-commerce and mobile spending, SMS and mobile apps. Students will develop a creative mobile marketing campaign that integrates with a traditional marketing plan.
Prerequisite(s): SMM 115

SMM 200 - Emerging Media Technologies
- Credits: 3.00
This course will explore, discuss and research emerging technologies in the web arena. Emphasis is placed on exposure to up-and-coming technologies relating to the web, providing hands-on experience.

SMM 210 - Web Analytics
- Credits: 3.00
This course provides students with the skills to make good web design and social marketing decisions by researching and understanding website architecture, usability, search engine optimization, keywords, link building, website indexing and website analysis. Students will analyze websites and develop search engine optimization proposals.
Prerequisite(s): CIS 216

SMM 910 - Internship
- Credits: 3.00
Students selecting the internship option will work with a local business or non-profit agency in an area directly tied to one of the four emphasis options in the Social and Digital Media Communications major.
SMM 920 - Service Learning Project
- Credits: 3.00
Students selecting the service learning project option will work with a non-profit agency, Indian Hills club/department or outside non-profit entity to enhance the organization’s marketing efforts.

Sociology

SOC 110 - Introduction to Sociology
- Credits: 3.00
This course examines the core of the field of sociology. This core includes the history of the field, classic theoretical concepts, and examination of the effects of culture and social institutions on human behavior. Other topics covered as part of the core of the field include, gender, family, deviance and stratification.

SOC 115 - Social Problems
- Credits: 3.00
The sociological aspects of modern problems in the United States, including consideration of their extent, causes, effects and proposed solutions, will be surveyed.

SOC 120 - Marriage and Family
- Credits: 3.00
This course examines courtship and marriage relationships in our society and in other societies. Topics include: mate selection, alternative and single lifestyles, marriage, parenting, divorce, remarriage and the impact of cultural forces on the maintenance of relationships. Emphasis is on the changing family in a changing society.

SOC 135 - Death and Dying
- Credits: 3.00
This course provides a basic background on historical and contemporary perspectives on death, dying and bereavement. Course covers current American and cross-cultural practices. Additional topics include factors influencing attitudes toward death and dying, treatment of the terminally ill and suicide.

SOC 147 - Foreign and Domestic Terrorism
- Credits: 3.00
This course will examine the origins and history of terrorism providing the student with an understanding of terrorism and its modern-day implications.

SOC 170 - Sociology and Technology
- Credits: 3.00
This course focuses on the social change created by the introduction of technology. General principles of sociological inquiry are applied to the development of technology and its impact on society. Historical and current issues are discussed.

SOC 230 - Juvenile Delinquency
- Credits: 3.00
This course traces the historical, philosophical, and legal development of the juvenile justice system in the United States and examines the various stages of the juvenile justice process and critical issues currently facing the system.

SOC 240 - Criminology
- Credits: 3.00
This course will examine the various aspects of crime from a different perspective. It will explore the various myths that surround both criminology and the criminal justice system. Areas to be examined will include drugs, serial killers, juvenile crime, the death penalty, policing, the courts, punishment and corrections.

SOC 242 - Introduction to Corrections
- Credits: 3.00
This course is an overview of federal, state, and local practices regarding the incarceration and rehabilitation of adult and juvenile offenders. Major emphasis is placed on local and state programs and innovative and progressive practices in various correctional systems.

SOC 244 - Criminal Procedures
- Credits: 3.00
This course explores the constitutional development of the law of criminal procedure which will include the 4th, 5th, 6th, 8th and 14th Amendments. Areas of case study will be search and seizure, self-incrimination, court proceedings, due process and cruel and unusual punishment.

SOC 245 - Criminal Law
- Credits: 3.00
Students enrolled in this course study specific criminal law with case presentations showing the logic used to reach decisions that are currently in practice.

SOC 261 - Human Sexuality
- Credits: 3.00
This course examines the historical and cross-cultural analysis of sexuality, sexual identities and gender roles, sexual orientation, birth control, sexual abuse, prostitution, pornography, sexual dysfunctions and therapy.

SOC 280 - Social Issues
- Credits: 3.00
This is a service learning course which introduces students to a variety of social issues, such as poverty and homelessness, through hands-on experiences. Students are required to spend time working directly with various social agencies which address the social issues under discussion. Student must consult instructor prior to enrolling.

Prerequisite(s): Instructor permission required.

SOC 924 - Honors Project
- Credits: 1.00
In this course, the student will work independently with a chosen Arts and Sciences social science instructor on a social science research project designed by the student and instructor. This course is restricted to members of the IHCC Academy or Phi Theta Kappa.

Prerequisite(s): Permission of Instructor.

SOC 949 - Special Topics
- Credits: 1.00
This course explores specialized topics in the field of social science. A contract between the student and an Arts and Sciences social science instructor outlining the educational project is required.

Prerequisite(s): Permission of Instructor.
Public Speaking

SPC 101 - Fundamentals of Oral Communication
- Credits: 3.00
This course focuses on basic communication, including the communication process, self-concept, self-disclosure, perception, language, listening, non-verbal messages, interpersonal relationships, public speaking, small group communication and inter-cultural relations.

SPC 112 - Public Speaking
- Credits: 3.00
This course prepares students for a variety of speaking situations, both formal and informal. The student will prepare and deliver 5-7 speeches using a variety of preparation and delivery strategies. The student will learn how to incorporate research and professional presentational aids into a speech.

SPC 122 - Interpersonal Communication
- Credits: 3.00
The course examines how the concepts of self and human behavior influence both interpersonal and intrapersonal communication. Activities and techniques are introduced to improve the student’s one-on-one and small-group communication skills, especially listening, nonverbal communication and conflict reduction.

Sustainable Energy Resources

SER 100 - Introduction to Renewable Energy Applications
- Credits: 2.00
This course will provide an introduction to the generation, application, and transfer of energy from a variety of sources including solar, wind and geothermal.

SER 122 - Photovoltaics I
- Credits: 3.00
This course is designed to provide an overview on photovoltaic technology. Topics such as photovoltaic phenomenon, theory of photovoltaics, charge transport and collection, inorganic photovoltaic materials, organic photovoltaic materials, photovoltaic device designs and fabrication, characterization of photovoltaic devices and future trends will be covered.

SER 123 - Photovoltaics II
- Credits: 3.00
This course is designed to provide an overview on the installation, maintenance and design practices used in photovoltaic engineering technology. Topics such as site surveys and pre-planning system components and configurations, storage and charging systems, system sizing, mechanical and electrical integration, utility interconnection, building permitting and inspection, commissioning, maintenance, troubleshooting and economic analysis will be covered.

SER 300 - Advanced Renewable Energy Systems
- Credits: 3.00
This course will provide an introduction to the generation, application and transfer of energy from a variety of advanced renewable resources, including but not limited to, biofuel, algae oil and hydrogen. Students will learn to understand the technical aspects of building an advanced renewable energy system.

SER 301 - Smart Grid Technology
- Credits: 2.00
This course introduces the student(s) to the smart grid components, systems and technology that is being used to upgrade the North American Power Grid, primarily in the USA. An overview of codes and standards required to fully implement an energy standard will be explored in detail.

SER 302 - Automated Energy Components
- Credits: 3.00
This teaches the student the fundamentals of pressure, temperature, level flow, primary measuring devices and transmitters/transducer used in automated energy management systems. The National Electrical Code will be stressed throughout the course.

SER 303 - Automated Energy Systems
- Credits: 3.00
This course teaches the fundamentals of automated energy generation, distribution, transmission and control system design. Students will learn to measure and use automated equipment for data logging, control and measurement of electrical energy. The National Electrical Code will be stressed throughout the course.

SER 304 - Solar Thermo-Electric Components
- Credits: 3.00
This course teaches thermal/electric power generation component design/selection as it applies to the electrical-sustainable industry. Students will learn how to perform work in compliance with the current edition of the National Electrical Code (NEC), National Electrical Safety Code (NESC) and all applicable state of Iowa laws.

SER 305 - Solar Thermo-Electric Systems
- Credits: 3.00
This course teaches electric power generation system design as it applies to thermal/electric power generation. Students will learn how to perform work in compliance with the current edition of the National Electrical Code (NEC), National Electrical Safety Code (NESC) and all applicable state of Iowa laws.

SER 306 - Sustainable Engineering Capstone
- Credits: 3.00
This course provides students with a mechanism for producing and integrating technical achievement meritorious of program culmination. The project will demonstrate subject matter mastery within project development guidelines and reflect both a breadth and depth of technically focused problem-solving skills. Instructor approval of project is required.
Prerequisite(s): ELE 349
SER 805 - Sustainable Energy Internship
- Credits: 2.00
The Sustainable Energy Internship provides an opportunity for students to gain work experience in a field related to renewable energy.
Prerequisite(s): ELE 349

**Truck Driving & Transportation**

TDT 135 - Class B Commercial Driver Training
- Credits: 1.00
This course covers the basic knowledge and skills used in driving large vehicles. The student will learn, practice and perform the techniques necessary to enter the industry as a safe, competent introductory driver.

TDT 136 - Class B Driver Training
- Credits: 3.00
This course covers the basic knowledge and skills used in driving large vehicles including air brakes. The student will learn, practice and perform the techniques necessary to enter the industry as a safe, competent introductory driver.

TDT 140 - Driver Training CDL
- Credits: 10.00
This course covers the basic knowledge and skills used in over-the-road driving. The student will learn, practice and perform the techniques necessary to enter the industry as a safe, competent introductory driver.

**Virtual Reality**

VRT 110 - Fundamentals of Algebra
- Credits: 2.00
This course covers basic mathematical concepts utilized in drafting. Topics include operations with signed numbers and exponents, basic algebra, plane geometry, solid geometry, triangle trigonometry, systems of equations and quadratic equations.

VRT 111 - Engineering Design I
- Credits: 4.00
This course is an introduction to the concepts of basic mechanical design. The student will learn entry-level design skills such as tolerance and material selection.
Prerequisite(s): CAD 105

VRT 112 - Engineering Design II
- Credits: 4.00
In this course the student will be introduced to creative problem-solving techniques and basic hardware used in mechanical design. The course includes fundamental concepts of Finite Element Analysis (FEA), project management and fixture design. A design project requires the student to apply comprehensive skills.
Prerequisite(s): VRT 111

VRT 135 - Blueprint Reading
- Credits: 2.00
Emphasis will be on interpretation of prints, placement of dimensions and surface contour, different methods of object presentations and placement of notes and specifications for design purposes.

VRT 140 - Blueprint Reading II
- Credits: 2.00
This course provides the necessary range of topics to ensure that the student will know how to interpret engineering drawings. Emphasis will be on interpretation of prints, placement of dimensions and surface contour, different methods of object presentations, and placement of notes and specifications for design purposes. Technical Graphics emphasizes the specialized areas of print reading.
Prerequisite(s): VRT 135; CAD 105

VRT 150 - Virtual Reality I
- Credits: 2.00
This course is an introduction to virtual reality technology. Application areas, virtual environments, sensing devices, interaction devices and tracking devices are introduced.

VRT 156 - Virtual Reality II
- Credits: 3.00
This course covers the basics of creating and working in a virtual environment. The following concepts are introduced: creating a virtual world, placing objects in the virtual environment, navigating, manipulating, lighting, texture mapping and rendering.

VRT 157 - Virtual Reality III
- Credits: 3.00
This course covers advanced topics in virtual prototyping. This is a project-oriented class in which the student will learn how to interact with and modify the virtual prototype in a professional design environment.
Prerequisite(s): VRT 156

VRT 158 - Mechanical Design Simulation
- Credits: 2.00
This course covers the application of simulation software to mechanical design problems. The application of joints, motors, constraints, CAM connections, slot connections and gear pairs are included. Importing and creating models and setting up the simulation environment are also discussed. These concepts will be applied to engineering models.
Prerequisite(s): CAD 142

VRT 159 - Industrial Prototyping
- Credits: 2.00
This course covers concepts of Industrial Design. The application of color, space, form, shape and ergonomic considerations to a design are emphasized. A virtual environment is used to create, analyze and modify an industrial design.
Prerequisite(s): VRT 156; CAD 142

VRT 169 - Virtual Environments
- Credits: 3.00
This course introduces the concepts of human perception and interaction in a virtual environment. Hardware requirements for supporting the different virtual environments, and representing graphics and sound are also covered.
Welding

WEL 110 - Welding Blueprint Reading
- Credits: 2.00
This is a facilitated course which covers how different types of welds are designated on blueprints and the manner in which the weld locations are specified.

WEL 120 - Oxy Fuel Welding and Cutting
- Credits: 2.00
This is a facilitated course which covers oxy-acetylene and shielded metal arc welding procedures in flat position.

WEL 150 - Arc Welding I (SMAW)
- Credits: 2.00
This course covers safety, electrode selection, power sources and welding distortion control utilizing arc welding process in all positions.

WEL 151 - Common Arc Welding Processes
- Credits: 2.00
This is a facilitated course, which covers different arc welding processes used in industry.

WEL 173 - Advanced Welding Procedures I
- Credits: 3.00
This is a facilitated course that covers in-depth study of welding procedures and the proper use of electrodes and techniques of advanced Shielded Metal Arc Welding (SMAW).
Prerequisite(s): WEL 120; WEL 150; WEL 181; WEL 190

WEL 174 - Advanced Welding Procedures II
- Credits: 3.00
This is a facilitated course that covers Advanced Shielded Metal Arc Welding (SMAW) preparing the student for structural steel and pipe welding.
Prerequisite(s): WEL 262 WEL 274 WEL 244 WEL 251 WEL 253

WEL 181 - Gas Metal Arc Welding
- Credits: 2.00
This course covers safety and Gas Metal Arc Welding (GMAW) techniques in horizontal, vertical and overhead positions.

WEL 182 - FCAW
- Credits: 2.00
This is a facilitated course that covers Flux Core Arc Welding (FCAW) techniques and procedures.
Prerequisite(s): WEL 262 WEL 274 WEL 244 WEL 251

WEL 190 - Gas Tungsten Arc Welding
- Credits: 2.00
This is a facilitated course which covers safety and gas tungsten arc welding in the flat position.

WEL 200 - Metallurgy Fundamentals
- Credits: 2.00
This is a facilitated course that covers basic metallurgy, destructive, and non-destructive testing methods which the students will see or possibly use in industry.

WEL 201 - Procedures and Qualifications
- Credits: 1.00
This is a facilitated course designed to make students aware of proper welding procedures, qualification records, and procedure specifications found in industry. This course helps prepare students who may become a welding supervisor or inspector.

WEL 202 - Discontinuities and Defects
- Credits: 1.00
This is a facilitated course that covers different discontinuities and defects related to the arc welding processes found in industry.

WEL 211 - Production Welding Procedures
- Credits: 4.00
This is a facilitated course which covers Gas Metal Arc Welding Pulse (GMAW-P) in a production environment. This course will prepare students to take an AWS welder certification test, which is recommended.
Prerequisite(s): WEL 233 WEL 244 WEL 251 WEL 253 WEL 262 WEL 274

WEL 219 - Layout and Fabrication
- Credits: 3.00
This course includes the computation and development of sketch outs of various geometries and special fabrication techniques in cutting, fitting, clamping and tacking. The lab project requires the use of fabrication equipment.
Prerequisite(s): WEL 244 WEL 251 WEL 253 WEL 262 WEL 274

WEL 228 - Introduction to Welding, Safety & Health of Welders: SENSE 1
- Credits: 1.00
This course will provide students with orientation to the welding profession and will cover the basics of safety & health within the welding profession. This course aligns to SENSE Level 1, Module 1 and Module 2 – Key Indicators 1-6.

WEL 230 - Welding Quality Assurance
- Credits: 3.00
This course focuses on understanding weld discontinuities and defects, their causes and prevention, and testing and maintaining weld quality.

WEL 233 - Print Reading and Welding Symbol Interpretation: SENSE 1
- Credits: 3.00
Provides instruction in interpreting elements of welding prints (drawings or sketches), focusing on measurement, American Welding Society welding symbols, and fabrication requirements. Students will understand how to prepare, assemble and tack welding 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.

WEL 244 - Gas Metal Arc Welding Short Circuit Transfer: SENSE 1
- Credits: 2.00
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
WEL 245 - Gas Metal Arc Welding Spray Transfer: SENSE 1
- Credits: 2.00
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 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.
Corequisite(s): WEL 228

WEL 251 - Gas Tungsten Arc Welding (GTAW) for Carbon Steel: SENSE 1
- Credits: 2.00
Focuses on proper weld safety, machine setup and welding techniques for Gas Tungsten Arc Welding. 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 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 - Key Indicator 3, and Module 9 - Key Indicator 2.
Corequisite(s): WEL 228

WEL 253 - Gas Tungsten Arc Welding (GTAW) for Austenitic Stainless Steel: SENSE 1
- Credits: 1.00
Focuses on proper weld safety, machine setup and welding techniques for Gas Tungsten Arc Welding. Students perform American Welding Society 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 1, 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.
Corequisite(s): WEL 228 WEL 251

WEL 254 - Welding Inspection and Testing Principles: SENSE 1
- Credits: 1.00
Students will visually examine test weldments and thermally cut surfaces per multiple welding codes, standards, and specifications. This course aligns to SENSE Level 1, Module 9: Welding Inspection and Testing Principles.

WEL 262 - Thermal Cutting Process I-Manual and Mechanized OxyFuel Cutting: SENSE 1
- Credits: 2.00
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.
Corequisite(s): WEL 228

WEL 274 - Shielded Metal Arc Welding I: SENSE 1
- Credits: 3.00
Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the Shielded Metal Arc (SMAW) process. Students perform American Welding Society compliant 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.
Corequisite(s): WEL 228 WEL 274 WEL 244 WEL 251 WEL 253

WEL 275 - Shielded Metal Arc Welding II: SENSE 1
- Credits: 4.00
This is a facilitated course that covers in-depth study of pipe welding uphill with the Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) processes.
Prerequisite(s): WEL 174 WEL 244 WEL 251 WEL 253 WEL 262 WEL 274 WEL 275

WEL 308 - Pipe Welding/Uphill SMAW
- Credits: 4.00
This is a facilitated course that covers in-depth study of pipe welding uphill with the Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) processes.
Prerequisite(s): WEL 174 WEL 244 WEL 251 WEL 253 WEL 262 WEL 274 WEL 275

WEL 309 - Pipe Welding/Downhill SMAW
- Credits: 4.00
This is a facilitated course that covers in-depth study of pipe welding downhill with the Shielded Metal Arc Welding (SMAW) process.
Prerequisite(s): WEL 174 WEL 244 WEL 262 WEL 251 WEL 253 WEL 274 WEL 275

WEL 333 - Auto Collision Welding
- Credits: 2.00
This course covers the principles and techniques of steel GMA (MIG) welding. Students learn how to properly set up and tune a welding machine, perform proper welding techniques, prepare metal surfaces and identify and correct weld defects. Several types of welds are covered, including GMA plug, fillet and butt joint with backing welds on automotive grade coated steel. Both vertical and overhead positions are covered.
Prerequisite(s): AUT 140
WEL 710 - Robotic Welding
- Credits: 3.00
This course focuses on the fundamental principles, weld process controls, applications and parameters for Robotic Gas Metal Arc Welding.
Prerequisite(s): WEL 211 or WEL 932

WEL 932 - Internship
- Credits: 4.00
Students enrolled in this course will work in a manufacturing/welding facility. Emphasis will be on the integration of technical skills with practical work experience.
Prerequisite(s): WEL 233 WEL 244 WEL 262 WEL 274 WEL 251 WEL 253

WTT 103 - Introduction to Wind Energy
- Credits: 3.00
In this course students will be exposed to many facets of the wind power electric industry. This course will cover the history and development of the wind industry, terminology used in the industry, types and applications of various wind turbines, environmental and economic issues of the wind industry, the future of the wind industry and other appropriate topics. A basic understanding of mathematics and electrical theory is required.

WTT 202 - Advanced Wind Energy
- Credits: 4.00
Advanced Wind Energy seeks to broaden the scope and depth of student understanding of wind turbine operation and the wind energy industry. Students will study site preparation and construction, turbine component specifications and manufacturing, operation and maintenance programs, and data acquisition and assessment.

Women's Studies

WST 101 - Women's Studies
- Credits: 3.00
This course is an introduction to the interdisciplinary field of Women's Studies focusing on the contemporary status of women mainly in the United States from social, economic, historical, political, philosophical and literary perspectives. Topics may include work, health, sexuality, violence and sports.

Work-Based Learning

WBL 140 - Workplace Project Based Learning
- Credits: 2.00
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.
Prerequisite(s): WBL 110

WBL 154 - Job Shadowing-Health Sciences
- Credits: 1.00
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.

WBL 100 - Exploring Careers
- Credits: 3.00
This course will provide guidance in choosing a career goal and preparing for employment. Emphasis will be placed on identifying interests, abilities, 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.

WBL 110 - Employability Skills
- Credits: 2.00
This course is designed to assist students in illustrating the skills necessary to obtain employment by aligning career goals with education plans and practice the skills and attitudes required for job success. Students will complete an inventory, practice resume writing, interviewing techniques, and work-place problem solving strategies. Networking with local employers and learning about local employment opportunities will be a key course component.

WBL 150 - Job Shadowing
- Credits: 2.00
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.
Faculty/Professional Staff

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