

## CLOUD COUNTY

## AGADEMIC CATALOG 2024-2025



## CLOUD COUNTY Community College

# Cloud County Community College 

Concordia Campus<br>2221 Campus Drive<br>Concordia, Kansas 66901<br>785-243-1435<br>1-800-729-5101

Geary County Campus<br>631 Caroline<br>Junction City, Kansas 66441<br>785-238-8010

## WWW.CLOUD.EDU

## CATAlOG 2024-2025



Cloud County Community College is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL, 60604, 800-621-7440.

Cloud County Community College operates under the authority of the Kansas Board of Regents, 1000 SW Jackson St., Suite 520, Topeka, KS, 66612-1368, 785-296-3421.

Although every reasonable effort has been made to ensure the information contained in this publication is accurate, Cloud County Community College reserves the right to make changes without notice.

Per veterans requirements: The College certifies that content and policies outlined in the 2024-2025 catalog are true and correct to the best of our knowledge.

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## Board of Trustees

Dave Garnas<br>Richard Hubert<br>Jesse Pounds

Amber Hanson

## Executive Leadership

Amber Knoettgen
Dr. Brandon Galm Vice-President for Academic Affairs
Caesar Wood.......................................................Vice-President for Administrative Services
Brandt Hutchinson
.Vice-President for Student Services

## Academic Divisions

Stefanie Perret. Dean for Health Professions Brenton Phillips Dean for Humanities, Social Sciences \& Business Paul Brown .......................................Dean for Mathematics, Science \& Technical Programs

Aug 2
Aug 6
Aug 7
Aug 9

Aug 10
Aug 11
Aug 12-13
Aug 13

Aug 14
Sep 2
Oct 7-8
Oct 7-9
Oct 10-11
Oct 10
Oct 11
Oct 14
Nov 11
Nov 27-29
Dec 9-10
Dec 9-12
Dec 13
Dec 23-31

Dec 13
Jan 10

Jan 1-3
Jan 8
Jan 13-14
Jan 13
Jan 14

Jan 15
Jan 20
Feb 17
Mar 10-11
Mar 10-13
Mar 17-21
Mar 24
Apr 17
Apr 18
May 12-13
May 12-15

FAll Semester, 2024
Outreach Faculty In-Service - Concordia
Student Services Day - GCC
Adjunct Faculty In-Service - GCC
Faculty Contract Day
In-Service - Faculty \& Staff
Move-In Day - Concordia
Move-In Day (am) - Concordia
Faculty Contract Days
New Student Orientation (am)- Concordia
Student Services (pm) - Concordia
New Student Orientation - GCC
Classes begin - All campuses (Full Session \& 1st Session)
Labor Day - COLLEGE CLOSED - No classes
Final Exams - 1st Session
Mid-Term Exams - Full Session Classes
Fall Break for Students - No classes
In-Service
Faculty Contract Day
2nd Session Begins
Veterans Day - COLLEGE CLOSED -No classes
Thanksgiving Break - COLLEGE CLOSED - No classes
Final Exams - 2nd Session Classes
Final Exams - Full Session
Faculty Contract Day
Winter Break - COLLEGE CLOSED - No Classes
Winter Term, 2024-2025
Winter Term Begins
Winter Term Ends

## Spring Semester, 2025

Winter Break - COLLEGE CLOSED - No classes
Student Services Day - GCC
Faculty Contract Days
In-Service (am)
New Student Orientation (am)- Concordia
Student Services Day (pm)- Concordia
New Student Orientation - GCC
Classes begin - All Locations (Full Session \& First Session)
MLK Day - College COLLEGE CLOSED - No classes
President's Day - COLLEGE CLOSED - No classes
Final Exams - 1st Session
Mid-Term Exams - Full Session
Spring Break - COLLEGE CLOSED - No classes
2nd Session Begins
In-Service - No classes
Good Friday - COLLEGE CLOSED - No classes
Final Exams - 2nd Session
Final Exams (Full Session)

## Academic Calendar • 2024-2025

May 16
May 16
May 27

Jun 2
Jul 3
Jul 31

Faculty Contract Day
Commencement - Concordia Campus for all graduates
Memorial Day - COLLEGE CLOSED -
Summer Session, 2025
(Classes held Monday-Thursday)
(College Closed on Fridays during June and July)
Summer Term Begins
Independence Day Observed- COLLEGE CLOSED - No classes
Summer Term Ends

# Cloud County Community College prepares students to lead successful lives and enhances the vitality of our communities. 



## LOCATIONS

The Concordia campus of Cloud County Community College is located in Concordia, a town with a population in excess of 5,000 in north central Kansas. Served by U.S. Highway 81, it is within easy driving distance of Salina, Manhattan, Junction City, Hays, Topeka, and Wichita. Highway 36, 24, 9 and Interstate 70 provide easy access to Concordia.

Concordia is a vibrant community with a rich history, featuring multiple historical attractions, and a thriving downtown, complete with a four-screen movie theatre, multiple restaurants, and the Broadway Plaza.

The Broadway Plaza is Concordia's premier outdoor public event space. Home to 100-150 events each year, the Plaza is the gateway to Concordia's downtown shopping, dining and entertainment district. With a giant LED screen to watch games and movies, a splash pad for kids, and a stage for concerts, the space entertains residents, neighbors and guests.

The famous Brown Grand Theatre, restored to its original 1907 splendor, features live entertainment, including plays and concerts. The Brown Grand Players welcome student membership and participation. The stage is also home to at least one of the college's plays or musicals each year.

The Geary County Campus is located on a multi-building site in Junction City. The campus is easily accessed from Highways 77 and 18, or Interstate 70. It is a short drive from Manhattan, Abilene, Salina, and Herington. Located in the heart of the state, Junction City offers a small-town atmosphere with big-city amenities. It is also just minutes from Fort Riley, an active-duty Army post. The Geary County campus is presently non-residential, but there is ample housing conveniently located nearby.

## History of the College

The college was established as the Concordia Junior College in 1965 as part of the Concordia Public Schools. Classes first met on February 8, 1965, using the Concordia school's facilities.

On July 1, 1965, the Concordia Junior College became a member of the state system of community colleges under the name Cloud County Community Junior College. Classes began in the current location in the fall of 1968. The college is now known as Cloud County Community College.

The Concordia campus is made up of five buildings. The main building is grouped together on four levels, and connected by a central library. Additionally, Tech West houses the Early Childhood Education program and the Children's Learning Center. There are 14 campus apartment buildings, as well as Thunder Heights, a 78-person, three-story building that offers private and semi-private rooms.

In March of 2018, the Dunning-Hamel Baseball Training Facility, a state of the art 5,250-foot heated indoor training facility, opened. The facility allows baseball and softball players day or night access for team or individual workouts.

In 2021, the college added an 8,000 square foot Agriculture facility on the south edge of the campus. This facility is used to offer hands-on learning opportunities for students and houses the

Equestrian Team practice and all horse riding classes. Throughout the year, events such as livestock judging contests, the annual pig production sale, horse judging clinics, and demonstrations for animal science management and reproduction procedures are hosted in the facility.

In August 2024, The Technical Education and Innovation Center was opened. The 35,000 square foot center was built in direct response to the educational and workforce needs in Kansas. Academic programs offered in the Center include Health Professions (RN, EMT, CNA, CMA, and Pharmacy Technician), Agriculture and Industrial Technology (includes welding and CDL), and Renewable Energy (wind energy, solar energy, and drones).

Situated on the hill south of campus, the Renewable Energy Park consists of two Northwind 100 wind turbines and a 208-kilowatt single-axis tracking solar farm. Combined, and at peak performance, the Renewable Energy Park can produce 408 kilowatts of electricity. The CloudPower Wind Farm was finished and commissioned in April 2010. Shortly thereafter, the college began a major overhaul of the HVAC system in the main building, which included a switch from gas-fired boilers to a geothermal system. The geothermal well field consists of 99 wells, drilled to 400 feet deep, and arranged in three separate fields for redundancy. The SunPower Solar Farm was started in the summer of 2018 and commissioned in November. In combination, these features provide substantial energy savings for the college and make Cloud a unique example of combining wind, solar and geothermal energy sources.

The Renewable Energy Park provides the college with a significant reduction in carbon footprint. The geothermal HVAC system is completely powered by the Renewable Energy Park on an average day in Kansas, offsetting the college's costs in electricity and natural gas. When combined with the wind turbines and solar farm, the college will save 2,656 barrels of oil per year, or enough electricity to power 158 homes. In addition to the environmental benefits, the Renewable Energy Park also provides an on-site laboratory for students enrolled in the Renewable Energy programs. Students get the benefit of on-site equipment for lab training, as well as climb testing, rope rescue training, and routine maintenance work.

In Junction City, the Grandview Plaza attendance center was opened in 1994 to better meet the needs of the population of the southeastern portion of Cloud's service area. In January 1998, the college opened the present Geary County site. The campus is composed of four buildings and offers a full range of academic programs and student support services. The Geary County campus is an integral part of Cloud County Community College, and its campus is distinguished by its own architecture and campus plan.

## General Information

## Mission Statement

Cloud County Community College prepares students to lead successful lives and enhances the vitality of our communities.

## Guiding Values

Success
Students are our central focus, and we strive to see every student succeed.
"We champion individual success"

## Excellence

We deliver forward thinking programs of study as well as industry-best practices that reflect the highest academic standards.
"We are committed to excellence"

## Service

We make a positive difference in the lives of our students, community members, and each other through meaningful relationships.
"We make a difference"

## Integrity

We uphold the highest standards of ethics and public stewardship.
"We do what is right"
Diversity
We encourage active citizenship and embrace the diversity of people and ideas.
"We are better together"

## Accessibility

We provide the best value for a high quality, holistic education.
"We ensure every student has opportunities"

## Sustainability

We promote renewable energy as well as sustainable lifestyles in our changing world.
"We are Black, Gold, and Green"

## Institutional Learning Outcomes:

## Critical Thinking:

1. Comprehend the implication of a topic or problem.
2. Locate and synthesize appropriate evidence.
3. Construct well-reasoned conclusion.

## Diversity:

1. Examine diversity, both local and global, to develop an understanding of and appreciation for people and ideas.
2. Demonstrate understanding of personal responsibility as a member of diverse communities.

## Ethics:

1. Practice professional standards within legal, ethical, and regulatory frameworks.

## Employment:

1. Demonstrate knowledge of norms and expectations of professional environments.
2. Demonstrate skills in working with others in a professional and constructive manner.

## Sustainability:

1. Students will understand the importance and implementation of sustainable practices that meet the needs of today without compromising the needs of the future.


## General Information

## Notice of Nondiscrimination

Cloud County Community College does not discriminate in admission to, access to, treatment of, or employment in its services, programs, or activities on the basis of race, color, national origin, sex (including pregnancy, sexual orientation, or gender identity), religion, age, disability, or veteran status. If you have questions, please contact the Section 504 coordinator at 2221 Campus Drive, Concordia, KS 66901 or at (785) 243-1435, ext 251 or 800-729-5101, ext 251.

## Accreditation

Cloud County Community College is accredited by the Higher Learning Commission, a commission of the North Central Association of Colleges and Schools, 230 South LaSalle Street, Suite 7-500 Chicago, Illinois, 60604, or (800) 621-7440.

## Student Educational Records - Rights of Privacy (FERPa)

Cloud County Community College complies with the Family Education Rights and Privacy Act of 1974 (FERPA). FERPA is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. For more information see Policy E5 at https://www.cloud.edu/about/ board-of-trustees/policies/

## Bookstore

The T-Bird Bookstore caters to all of your classroom and apparel needs. T-books, which is an inclusive access program, helps keep the cost of textbooks down while also offering the convenience that comes with digital textbooks. For more information about inclusive access, go to https://www.tbirdbookstore. com/ They also offer classroom supplies, supplemental reading materials, and other spirit items. For additional information go to https://www.tbirdbookstore.com/

## Tuition and Fees

## Tuition

Tuition and comprehensive fees are subject to change each academic year. Current tuition and comprehensive fees can be found at http://www.cloud.edu/admissions/cost/.

## Tuition and Fee Waiver for Dependents of Veterans and Safety Officers:

Tuition and Fees will be provided free of charge to the following (subject to provisions of K.S.A. 73-1216 and K.S.A. 75-4364)

- Any dependent of a prisoner of war
- Any dependent of a person missing in action
- Any dependent of a person who has died as a result of service-connected disability suffered during the Vietnam Conflict
- Any dependent or spouse of certain military personnel who died on or after September 11, 2001, while, and as a result of, serving in active military service.
- Any dependent of a public safety officer who died as a result of injury sustained while performing the duties as a public safety officer.
- Tuition and Fees waiver will be applicable as long as the dependent is eligible, but not to exceed twelve (12) semesters of instruction.


## Fees

Below is a listing of additional fees that may be charged that are not included in the comprehensive fees:
Accuplacer Testing Fee (on-site or remote) ..... \$10
Examity (virtual) ..... \$20
Ag Program Fee \$25 per credit hour
**Ag Judging Lab Fee ..... $\$ 200$
Audit Fee ..... Same as Tuition
Calculator Rental. ..... \$140
CDL Fees (total for program) ..... \$997
Graduation Application Fee ..... \$30
*Internet Course Processing Fee

$\qquad$
. $\$ 25$ per credit hour Lab Fee $\qquad$ Fees vary per course
**Nursing Fees - Traditional Track (total for program) ..... \$3000
LPN to ADN Track (total for program) ..... \$1500
Nursing Program Fees $\$ 25$ per credit hour
Lab Fees
. $\$ 60$ per nursing course
Parking Permit. \$10 Concordia Campus
Private Music Lesson ..... \$80
Transcript Fee ..... \$10
Renewable Energy Program Fee.

$\qquad$
\$25 per credit hour
*This fee is included in tuition amount
** fees may vary
Note: Fees are reviewed annually, and are subject to change.

## Refund Payment Policy

Refunds may be issued to students dropping from courses. See Policy F6 at https://www.cloud.edu/about/board-of-trustees/policies/ for the refund schedule.

For more information about services provided by Cloud County Community College, visit www.cloud.edu to access our website, or use the links provided below.

Admissions: http://www.cloud.edu/admissions
International Student Information: http://www.cloud.edu/admissions/international-students
Financial Aid: https://www.cloud.edu/students/financialaid/
Scholarships: https://www.cloud.edu/admissions/cost/
Campus Housing: http://www.cloud.edu/Students/residence-life
Advising: https://www.cloud.edu/academics/advising/
Enrollment Guide: http://www.cloud.edu/academics/online
Online: http://www.cloud.edu/academics/online
T-Bird Bookstore: https://www.tbirdbookstore.com/default.asp?
TRiO: http://www.cloud.edu/academics/trio
Student Activities: http://www.cloud.edu/students/student-engagement
Career Center: http://www.cloud.edu/about/career-center
Children's Center: http://www.cloud.edu/about/children-center
Campus Security: http://www.cloud.edu/students/safety
Veteran Services: https://www.cloud.edu/students/veteranservices/
Adult Education: http://www.cloud.edu/academics/adult-education-program
Accessibility \& Health Services: https://www.cloud.edu/students/accessibility-health-services/
Student Success Center: https://www.cloud.edu/academics/student\ success\ center/

## Academic Services

## Student Success Center

The mission of the Student Success Center is to provide assistance and services to support students at Cloud County Comunity College in achieving their academic goals.

## Concordia Campus

The SSC offers a variety of services to support the success of all students at Cloud County Community College. We encourage you to stop by Room GR210 to meet our friendly staff and to see how we can help you succeed in your academic career at CCCC. Services provided by the center are:

$$
\begin{aligned}
& \text { Tutoring } \\
& \text { Test Proctoring } \\
& \text { Academic Coaching } \\
& \text { Editing and Proofreading } \\
& \text { Academic Support } \\
& \text { Reference Materials } \\
& \text { Computers } \\
& \text { Study Management Resources } \\
& \text { Relaxed and Quiet Study Environment } \\
& \text { Professional and Caring Staff }
\end{aligned}
$$

## Distance Tutoring

Online tutoring is provided through a Zoom link. Students may make an appointment by calling 800-729-5101, ext. 231 or by emailing ssc@cloud.edu.

Connect to Zoom through Canvas by clicking on the Online Tutoring side tab on any class menu and then clicking on the link provided. Students can also use the following link: https://zoom. us/j/7606607215

## Geary County Campus

The Student Success Center on the Geary County Campus is located in Building A. The center offers a full-service computer lab available for all students to use and provides support with homework on all subjects. Test proctoring is also available by appointment by calling 800-729-5101, ext 730 or emailing gccproctor@cloud.edu

For more information regarding the Student Success Center, see https://www.cloud.edu/academics/student\ success\ center/

## LIBRARY

The Cloud County Community College Library supports and enhances the instructional programs of the College by providing resources and services to meet the higher education needs of students, faculty, staff and the communities we serve. They focus on promoting information literacy, i.e., the ability to locate, evaluate, and effectively and ethically use information.

For more information and to see what resources are available, go to: https://www.cloud.edu/academics/library/

## Accessibility Services

Academic Accommodations: If academic accommodation is needed for any type of disability, students should contact the Director of Student Accessibility and Mental Health Services, located in UG 308 on the Concordia campus. Students requiring auxiliary aids and services need to request accommodation six to eight weeks in advance of the start of the semester.

Accessibility: If special arrangements are needed for accessibility, contact the Director of Student Accessibility and Mental Health Services to request accommodation six to eight weeks in advance of the start of the semester.

Emergency Evacuation: Students desiring assistance during emergency evacuations will need to complete a registration form each semester. Please contact the Director of Student Accessibility and Mental Health Services.

For more information go to https://www.cloud.edu/students/ accessibility-health-services/.

## Academic Regulations

## Academic Regulations <br> Certificates Offered

A Technical Certificate may be granted for programs of instruction that are less than 60 semester hours in length but more than 15 semester hours. Certificates place an emphasis on occupational experience and are designed to prepare students for specific occupations.

## Degrees Offered

Associate of Applied Science Degree (A.A.S.) means a degree granted to those who successfully complete programs which emphasize preparation for employment typically at the technical or semi-professional level; and consisting of a minimum of 62 semester credit hours and a maximum of 68 semester credit hours, in which not less than 15 semester credit hours in general education and not less than 30 semester credit hours in the area of specialized preparation are required. An exception/waiver to the 68 semester credit hour limit may be granted to meet specific criteria such as external program accreditations or other special requirements. Selected courses may transfer to a college or university upon validation of applicable coursework.

Associate of General Studies (A.G.S) means a degree granted to those who successfully complete programs with an emphasis on a broad range of knowledge; and in which not less than 25 semester credit hours in general education and not less than 37 semester credit hours in a program of college-level work are required. Students can earn a General Studies Degree to be generally prepared for employment in the field.

Associate of Arts Degree (A.A.) means a transfer-oriented degree granted to those who successfully complete programs equivalent to the freshman and sophomore level requirements for a Bachelor of Arts degree; and in which not less than 34-35 semester credit hours in general education are required.

Associate of Science Degree (A.S.) means a transfer-oriented degree granted to those who successfully complete programs equivalent to the freshman and sophomore level requirements for a Bachelor of Science degree: and in which not less than 34-35 semester credit hours in general education are required.

Following are the general education requirements for each of the degrees. General education substitutions must be approved by the Vice-President for Academic Affairs. Program substitutions must be approved by the department chair. Electives should be selected in consultation with an academic advisor.

## General Education Requirements for

## CLOUD COUNTY Community College

## Certificates and Degrees

## Certificates:

## 16-Hour Certificates

3 credit hours General Education Courses (To be specified by the department)

## 30-Hour Certificates

6 credit hours General Education Courses (To be specified by the department)

## 45-Hour Certificates

9 credit hours General Education Courses (To be specified by department)

## Degrees:

## Associate of Applied Science Degree

(This degree is considered a work-ready program and is not designed for transfer, however, courses may transfer to specific degree programs at select colleges or universities.)

62-68 credit hours including the following General Education minimum requirements:

3 credit hours English Composition for AAS 3 credit hours Communications Discipline Area 3 credit hours Mathematics General Education Courses for AAS 3 credit hours Arts \& Humanities Discipline Area 3 credit hours Social \& Behavioral Sciences Discipline Area
3 credit hours Natural \& Physical Sciences Discipline Area
MINUMUM TOTAL $\qquad$ 18 credit hours

Specialized and Related Competencies - Minimum of 44 credit hours from those listed below, to be determined by the department using the requirements of the occupation(s):

- Technical Knowledge
- Technical Skills
- Communication
- Science
- Mathematics
- Interpersonal Skills (employability skills)
- Courses from other technical disciplines


## Academic Regulations

## Associate of General Studies Degree

62 credit hours, including the following General Education minimum requirements:

3 credit hours English Composition for AGS
3 credit hours in Communication Discipline Area
3 credit hours Mathematics General Education Courses for AGS
3 credit hours Humanities Discipline Area
3 credit hours Social \& Behavioral Sciences Discipline Area
3 credit hours Humanities or Social Sciences Discipline Area (Must be from second area)
4 credit hours Natural \& Physical Sciences Discipline Area
3 credit hours from one of the above Discipline Areas

MINUMUM TOTAL
25 credit hours

The awarding of an Associate of General Studies requires a student to complete a minimum of 37 elective credit hours in addition to the 25 hours of General Education listed above.

The Associate of General Studies degree is not intended for transfer to a college or university. The student may elect to use occupational/technical coursework in part or in whole to fulfill the block of elective credit hours. Students should be aware that occupational coursework may not be accepted in transfer to another college or university, however, general education courses and others may transfer to specific degree programs at selected colleges or universities.

## Associate of Arts/Associate of Science

62 credit hours including the following General Education minimum requirements:

6 credit hours English Discipline Area (010)
3 credit hours Communications Discipline Area (020)
3 credit hours Mathematics Discipline Area (030)
$4-5$ credit hours Natural \& Physical Sciences Discipline Area (040)
6 credit hours Social \& Behavioral Science Discipline Area* (050)
6 credit hours Arts \& Humanities Discipline Area* (060)
6 credit hours Institutionally Designated Area (070)
*must be from two subject areas

MINIMUM TOTAL $\qquad$ $34-35$ credit hours

Students earning an Associate of Arts or Science degree will complete 34-35 credits of general education courses to satisfy the requirements set forth by the Kansas Board of Regents Systemwide General Education to ensure seamless transfer to any Kansas Regent Institution. Student transcripts will note "KS Systemwide General Education Completed".

Systemwide General Education (SGE) Key for AA \& AS Degrees
010 English 020 Communications 030 Math \& Science 040 Natural \& Physical Sciences

050 Social \& Behavioral Sciences 060 Arts \& Humanities 070 Institutionally Designated

## Academic Regulations

## General Education

## General Education Philosophy

General Education broadens students' understanding of the world and prepares them for civic, social, and employment responsibilities. General education advances students' abilities to function in diverse and dynamic environments by enhancing communication, stimulating critical thinking, exploring modes of inquiry, developing creative work, fostering constructive attitudes regarding learning, and promoting academic literacy.

## General Education Course List

The following courses are the approved courses that will fulfill the general education requirements for Cloud County Community College. These courses will fulfill the general education requirements for all degrees unless otherwise stated.

## English Discipline Area (010) <br> CM101 English Composition I. <br> $\qquad$ .3 credit hours <br> CM102 English Composition II <br> $\qquad$ .3 credit hours <br> CM120 Survey of Technical Writing (Certs, AAS, \&AGS Degrees only) <br> 3 credit hours <br> Communications Discipline Area (020) <br> CM115 Public Speaking............................................. 3 credit hours <br> CM240 Interpersonal Communications. <br> $\qquad$ .3 credit hours

Math and Statistics Discipline Area (030)
MA104 Technical Math (Certs \&
AAS Degrees only)................................... 3 credit hours
MA110 Intermediate Algebra (Certs, AAS, \&
AGS Degrees Only)....................................... 3 credit hours
MA108 Contemporary Math...................................... 3 credit hours
MA111 College Algebra .............................................. 3 credit hours
MA112 Trigonometry................................................. 3 credit hours
MA114 Elementary Statistics...................................... 3 credit hours
MA115 General Calculus ............................................ 3 credit hours
MA120 Analytical Geometry/Calculus I ................... 5 credit hours
MA121 Analytical Geometry/Calculus II.................. 5 credit hours

## Natural and Physical Sciences Discipline Area (040)

SC101 General Biology.
.4 credit hours
SC103 Physical Science............................................... 5 credit hours
SC104 Geology
.4 credit hours
SC105 General Astronomy ......................................... 4 credit hours
SC107 Meteorology..................................................... 4 credit hours
SC110 Principles of Biology I ...................................... 5 credit hours
SC120 Human Anatomy \& Physiology I.................... 4 credit hours
SC126 Anatomy and Physiology ................................ 5 credit hours
SC130 General, Organic, and Biochemistry.............. 5 credit hours
SC131 Chemistry I
.5 credit hours
SC137 Natural Hazards and Disasters $\qquad$ 3 credit hours
SC138 Natural Hazards and Disasters Lab................. 1 credit hour
SC140 College Physics I.............................................. 5 credit hours
SC142 University Physics I.......................................... 5 credit hours
SC146 Environmental Science \& Conservation........ 3 credit hours
SC147 Environmental Science \& Conservation Lab .. 1 credit hour
SC151 Principles of Biology II $\qquad$ .5 credit hours

## Social \& Behavioral Sciences Discipline Area (050) Anthropology

SS125 Introduction to Cultural Anthropology ......... 3 credit hours

## Economics

EC101 Principles of Macroeconomics...................... 3 credit hours
EC102 Principles of Microeconomics ...................... 3 credit hours

Geography

GE101 World Geography

.3 credit hours

## Political Science

SS140 U.S. Government: National............................... 3 credit hours
SS141 U.S. Government: State and Local ................... 3 credit hours
SS142 Current Political Issues..................................... 3 credit hours
SS150 Introduction to International Relations.......... 3 credit hours

## Psychology

SS101 General Psychology ...................................... 3 credit hours
SS105 Human Growth \& Development .................... 3 credit hours

## Sociology

SS106 Marriage and Family ..................................... 3 credit hours
SS130 Introduction to Sociology.............................. 3 credit hours
SS131 Cultural Diversity and Ethnicity.................... 3 credit hours
SS201 Social Problems............................................ 3 credit hours

## Arts and Humanities Discipline Area (060) Arts <br> AR100 Art Appreciation......................................... 3 credit hours <br> Foreign Language <br> FL105 French I...................................................... 5 credit hours <br> FL111 Spanish I ...................................................... 4 credit hours

## History

HI108 Women in American Society.......................... 3 credit hours
HI120 World History I................................................. 3 credit hours
HI121 World History II .............................................. 3 credit hours
HI122 U.S. History I.................................................... 3 credit hours
HI123 U.S. History II ................................................... 3 credit hours
HI124 Introduction to History................................... 3 credit hours

## Humanities

CM106 Creative Writing ............................................. 3 credit hours
HU201 Humanities I.................................................... 3 credit hours
JN100 Mass Media in Society .................................... 3 credit hours

## Literature

CM121 Introduction to Literature ............................. 3 credit hours
CM122 American Literature I .................................... 3 credit hours
CM123 American Literature II................................... 3 credit hours
CM124 World Literature \& the Human Experience 3 credit hours
CM125 Literature for Children .................................. 3 credit hours
CM127 The Short Story............................................... 3 credit hours
Music
MU100 Music Appreciation ....................................... 3 credit hours
MU102 World Music ................................................... 3 credit hours
MU103 History of Rock Music................................... 3 credit hours

## Academic Regulations

Philosophy
PH100 Introduction to Philosophy 3 credit hours
PH105 Ethics 3 credit hours
RE104 World Religions. 3 credit hours
Theatre
CM140 Theatre Appreciation 3 credit hours
CM148 American Cinema Appreciation 3 credit hours
Institutionally Designated Area (070)In addition to any Systemwide General Education (SGE) coursefrom designated areas 020-060 not being used to satisfy anothergeneral education area, the following courses can also be used tofulfill 070 requirements.
AH114 Medical Office Vocabulary 3 credit hours
AR110 Ceramics I ..... 3 credit hours
AR120 Design I. ..... 3 credit hours
AR129 Introduction to Digital Photography ..... 3 credit hours
AR130 Drawing I 3 credit hours
AR140 Painting I 3 credit hours
AR145 Watercolor 3 credit hours
BE210 Leadership Development 3 credit hours
CM139 Sports Broadcasting ..... 3 credit hours
CM141 Introduction to Acting 3 credit hours
CM143 Play Producion ..... 3 credit hours
CM157 Mass Media Production I ..... 3 credit hours
CS108 Computer Applications 3 credit hours
CS140 Introduction to Robotics 3 credit hours

CS141 Introduction to Additive Manufacturing (3D Printing) .3 credit hour
CS145 Introduction to CAD ..... 3 credit hours
JN101 Basic Media Writing ..... 3 credit hours
MU110 Harmony and Ear Training I ..... 4 credit hours
MU117 College Band ..... 1 credit hour
MU126 Concert Band ..... 1 credit hour
MU127 Jazz Ensemble ..... 1 credit hour
MU146 Chamber Singers ..... 1 credit hour
NR110 Health Assessment for Nurses 3 credit hours
NR114 Pharmacology II 2 credit hours
NR115 Pharmacology III ..... 2 credit hours
NR116 Pharmacology for Nurses ..... 4 credit hours
NR128 Pathophysiology ..... 4 credit hours
PE108 Archery. ..... 1 credit hour
PE110 Total Fitness .....  .1 credit hour
PE131 First Aid and Safety ..... 3 credit hours
SC111 Microbiology Lecture ..... 3 credit hours
SC112 Microbiology Lab 2 credit hours
SC121 Human Anatomy and Physioilogy II ..... 4 credit hours
SC125 Human Body Dissection .....  .1 credit hour
SC132 Chemistry II ..... 5 credit hours
SC141 College Physics II 5 credit hours
SC142 University Physics II 5 credit hours
SE100 Introduction to Solar Energy 3 credit hours
SD100 College Skills and Resources ..... 1 credit hour
UA100 Introduction to sUAS ..... 3 credit hours
UA110 sUAS Ground School ..... 3 credit hours
WE100 Introduction to Wind Energy 3 credit hours

## Academic Regulations

## Attendance

Cloud County Community College regards punctual and consistent classroom attendance as integral to academic success and expects it of all students in all classes. Students are expected to attend all classes as scheduled regardless of delivery format. For online learners, regular, systematic weekly participation is expected according to the tenets established on the course syllabus. A copy of the Attendance policy and procedures may be obtained from the student's instructor, the Office of the VicePresident for Academic Affairs, or found in Policy D4 at http:// www.cloud.edu/About/Board-of-Trustees/policies/index. Each instructor's penalties for excessive absences, up to and including the reduction of the final grade, will be included in the course syllabus. The instructor or the Coordinator of Student Engagement and Retention may notify students whose class performance has been jeopardized by excessive absences.

## Academic Integrity and Honesty

A standard of honor, fair play, trust, and honesty - fairly applied - is essential to a good learning environment. Students are expected to adhere to such standards in all areas of academic pursuit. Students who compromise the integrity of the classroom are subject to disciplinary action on the part of the College.

A copy of the Academic Integrity and Honesty policy and procedures may be obtained from the Office of the Vice-President for Academic Affairs, or Policy D17 at https://www.cloud.edu/about/ board-of-trustees/policies/.

## Course Transfer and Program Articulation

Cloud County Community College accepts prior college coursework in transfer from regionally accredited institutions of higher education. These courses are accepted either as direct equivalencies to CCCC courses, as substitutions for CCCC courses, or as general electives. The College participates in the Kansas Core Outcomes Group state-wide initiative, which aligns learning outcomes of college courses typically taught by Kansas colleges and universities. The courses reviewed through this process are accepted in transfer to and from any Kansas institution of higher education. See http://www.cloud.edu/academics/transferability for additional information.

CCCC also develops program articulation agreements with various colleges and universities around the state, region, and nation. These articulations are designed for CCCC graduates to transfer their associate degree as completion of the first two years of a related baccalaureate degree program. The College has articulation agreements with other community colleges in the state designating specific CCCC courses that satisfy program requirements at the receiving community college. These articulation agreements can be found at http://www.cloud.edu/academics/ transferability.

Additional transfer and program articulation can be found in Policy D23 at http://www.cloud.edu/about/board-of-trustees/ policies.

## Credit by Examination

1. The student should enroll in the course they intend to "quizout" of. Approval for credit by examination must be obtained from both the Vice-President for Academic Affairs and the instructor prior to taking the exam. Forms are available in the Student Records Office. The exam must be taken within the first five business days of the semester.
2. If the examination is passed the student will be dropped from the course with no refund and a notation, "Credit by Exam", will appear on the transcript for this course with the grade earned on the exam. The student may then enroll in a sequential course with approval of the Vice-President for Academic Affairs and the instructor. Enrollment in the quiz-out and sequential course may not be done concurrently.
3. If the examination is not passed the student will remain enrolled in the course.
4. An examination fee of $\$ 15.00$ will be charged for all attempted quiz-outs. Students will receive a grade for all courses successfully completed via the quiz-out method.

## Credit For Prior Learning: AP, CLEP, Military Credit, Military and Industry Training and Experience

Credit for Prior Learning (CPL) is the evaluation and assessment of an individual's learning obtained outside a formal academic setting. For more information, see Policy D6 at https:// www.cloud.edu/about/board-of-trustees/policies/ .

## Student Classification

1. Freshman: Any student having fewer than 30 semester credit hours.
2. Sophomore: Any student having 30 or more credit hours
3. Special students, include the following: (1) high school students taking college courses; (2) gifted students, as defined by K.S.A. 72-962(g); (3) students who earned more than 64 hours; and (4) those students not meeting specific requirements for admission.

## EnROLLMENT AND Withdrawal <br> Enrollment

New students will meet with advisors during a New Student Enrollment Day to discuss academic goals and to enroll in courses. Returning students will schedule appointments to meet with their advisor to enroll in courses during designated enrollment periods. These dates are scheduled and published throughout the year. Early enrollment is encouraged due to a greater course selection and to provide time to complete the enrollment process. For assistance at the Concordia Campus, contact the Advisement Center 800.729.5101, ext 275 or advisement@cloud.edu. For the Geary County Campus, contact Student Services at 800.729.5101, ext 714 or gcadvisement@cloud.edu.

After students complete the personal information update within their iCloud account, if required, students will be ready to enroll in courses. At the time of enrollment, official transcripts or

## Academic Regulations

placement scores must be on file. Refer to the Placement Test section for more details.

All students are required to have an established method of payment by the scheduled due dates assigned for each term enrolled to ensure FULL access to classes and to prevent being dropped from classes.

Students taking off-campus or online courses should enroll through iCloud or contact an advisor.

Before the first day of class, students are required to identify the prescribed textbook and all materials needed for each course. Books or courseware are often required for on-line courses. For many courses, the bookstore has an inclusive access program called T-books, which provides electronic textbooks or access to courseware in Canvas. Course materials must be purchased during an established timeframe. For more information or to view and purchase course materials, visit the T-Bird Bookstore at https://www.tbirdbookstore.com/. Books and materials can also be obtained from the T-Bird Bookstore on the Concordia Campus.

Additional information can be found in Policy D5 at https:// www.cloud.edu/about/board-of-trustees/policies/.

## Placement Test

CCCC incorporates multiple measures for placement into English, mathematics, and some science courses. Placement options include cumulative high school GPA, ACT, SAT, or Accuplacer test scores; this information must be received prior to enrollment in applicable courses. Placement scores that are no more than three years old for Math and five years old for English are acceptable. Students without scores on file are given an Accuplacer test and will incur a test fee that will be due at the time of testing. There is a 1 -month waiting period for retake tests. The same fee applies to retake tests.

Scores from the test will be used to determine the appropriate courses for the student. Depending on the scores, students may be required to take developmental courses. These courses will prepare the student for college courses, appear on the official transcript, and be included in the career GPA. Developmental courses do not count toward the graduation requirements.

High school students in the CCCC services area, who are enrolling in concurrent courses through CCCC, are offered the Accuplacer placement test during designated periods at the high schools. The test fee will be due prior to or at the time of testing. See the coordinator at your high school for more information.

Students enrolling in courses at CCCC may take the Accuplacer placement test at the Concordia or Geary County campuses throughout the year. Students may also take the Accuplacer placement test remotely through Examity. Students wishing to schedule an Accuplacer test can call 800-729-5101, ext. 275 for the Concordia campus or 800.729-5101 ext. 714 for the Geary County Campus.

The Concordia and Geary County campuses are remote Accuplacer test sites. Students can also make arrangements to test at a site closer to the student by requesting a voucher. Students studying at other institutions can call the Advisement Center on
the Concordia campus or the Student Services Office at the Geary County Campus for information regarding testing details and fees.

## Add Procedure

Students may add courses either through iCloud (student web portal) or by contacting their academic advisor at the GCC Student Services Office or the Advisement Center on the Concordia Campus. Guidelines for adding a class can be found in Policy D5 at https://www.cloud.edu/about/board-of-trustees/ policies/

## Drop/Withdrawal

Students may drop or withdraw from classes according to guidelines in Policy D5 at https://www.cloud.edu/about/ board-of-trustees/policies/.

Requests for withdrawals, including total withdrawals, outside these established timelines will be considered for extraordinary or unusual circumstances as determined by the Vice President for Academic Affairs.

## Grading System

For each semester hour of graded work, students earn points, as follows:


Additional information can be found in Policy D3 at https:// www.cloud.edu/about/board-of-trustees/policies/.

Grade Point Average (GPA):
Grade point average is a measure of scholastic performance calculated by dividing the number of grade points by the hours of work attempted, using the grade point scale above. Grades A, B, C, D, F and XF are computed in the Grade Point Average. The numerical value of each letter grade is multiplied by the credit hour value of the course. The resulting total of grade points is divided by the total number of these hours. Grades of W, P, NP, I, $A U$ and WA are not computed in the GPA.

## Academic Regulations

## Honor Roll

The President's Honor Roll recognizes students who have earned a semester grade point average of 3.9-4.0. The Honor Roll includes students who have earned a semester grade point average of 3.6 to 3.899 . In order to be eligible for these honor rolls, a student must complete a minimum of 12 hours in any given semester. These lists are published after the fall and spring semesters.

## Honor Graduate

A student meeting all graduation requirements for Cloud County Community College and who has a 3.6 GPA or higher for all college credit hours completed (Cloud County Community College credits and all transfer hours) may be designated an Honor Graduate.

For commencement ceremony purposes in the spring, tentative Honor Graduates will be recognized based upon the cumulative GPA at the end of the fall semester. However, the official designation will take place after the final GPA is determined based upon the criteria stated above and the degree has been conferred. At that point, the designation of "Honor Graduate" will be noted on the student's transcript.

## Academic Probation \& Suspension SANCTIONS

For students at Cloud County Community College, academic probation and academic suspension are not punitive measures or disciplinary actions. The purpose of this policy is to provide opportunities for students to succeed.

The clear intent of these sanctions is:

- To identify students whose academic efforts have not been successful;
- To provide these students the opportunity for guidance in developing strategic plans to succeed at college level learning; and
- To link these students with staff and faculty who can offer support and encouragement to follow their plans through to success.


## Satisfactory Academic Progress

To graduate, students must earn a minimum cumulative GPA of 2.0. To reach this required minimum, students must maintain certain GPA minimums as compared to completed credit hours (see chart below).

Earned credit hour minimum for satisfactory academic progress: Students will pass $50 \%$ (grades A, B, C, D, or P) of stated credit hours in any given semester.

## Academic Probation

Students who have attempted eleven or more cumulative credit hours at Cloud County Community College shall be placed on academic probation when the cumulative grade point average or semester grade point average is less than that needed to achieve satisfactory academic progress, or a student passes less than $50 \%$ of courses for which they are enrolled.

Total Attempted
Credit Hours
1-10 credit hours
11-20 credit hours
21-30 credit hours
31-40 credit hours 41-50 credit hours
51-94 credit hours

| Minimum | Minimum |
| :---: | :---: |
| Career GPA | Semester GPA |
| N/A | N/A |
| 1.60 | 1.70 |
| 1.70 | 1.70 |
| 1.80 | 1.70 |
| 1.90 | 1.70 |
| 2.00 | 1.70 |

When a student transfers in from another college or university, after the transfer transcript is evaluated, satisfactory academic progress will be reviewed according to CCCC requirements and, if applicable, academic probation will be noted on the CCCC transcript by the Registrar or their designee.

At the close of each semester, the academic performance of students on academic probation will be re-evaluated in terms of satisfactory academic progress.

If the student's semester and cumulative GPA meet the requirements for satisfactory academic progress and the student has completed at least $50 \%$ of the courses for which they are enrolled, the student no longer will be considered on academic probation.

## Academic Suspension

If the student does not meet satisfactory academic progress requirements, the student will be placed on academic suspension after review by the Academic Probation and Suspension Committee.

The terms of academic suspension shall be as follows:

1. A student on academic suspension will not be eligible to register for the fall or spring semester in which they are serving suspension.
2. After one semester of academic suspension, the student may enroll on continuing academic probation status.

## Reinstatement

A student who has been suspended for academic reasons may file a petition for reinstatement with the Academic Probation and Suspension Committee. The Academic Probation and Suspension Committee will consider each petition individually and may request the student to appear before the committee. If reinstated, the probationary status will continue.

For more information regarding Probation/Suspension see Policy D14 at https://www.cloud.edu/about/board-of-trustees/policies/

## Final Examinations

Final Examinations shall be given during the time allotted on the academic calendar for such examinations. Instructors will determine the activities conducted during the exam period.

Face to Face courses must meet during the scheduled exam period and students must be present in order to participate in final

## Academic Regulations

activities with limited exceptions.
When a student has three or more final examinations scheduled for one day, that student may petition the instructor(s) prior to the week of finals for an exception to reschedule the middle examination(s), leaving two examinations for a testing day. Any difficulties arising from this process should be referred to the Vice President for Academic Affairs.

Other exceptions may be considered only in the event of a true emergency. Instructors will have discretion in approval of extenuating circumstance and emergency exam rescheduling. Instructors may require a time limit deadline for exam change requests.

Instructors may opt to excuse students from the final exams based on class standing.

Any deviation from these policies shall be cleared with the Vice President for Academic Affairs.

## Graduation

In order to graduate, students are expected to complete the graduation requirements listed in the catalog that was in effect at the time they first enrolled. However, if graduation requirements change while the student is pursuing a degree, the student will have the choice of continuing with the old requirements, where those courses are available, or accepting the new requirements in order to graduate. If a student sits out two consecutive semesters, the student will be readmitted under the graduation requirement in the current catalog.

## Graduation requirements are as follows:

- Completion of the general education requirements.
- Completion of a minimum of 62 credit hours and an overall grade point average of at least 2.0. Courses must be 100 level or above.
- Technical courses typically will not count toward AA or AS degree requirements. Technical courses are those created to satisfy specific program outcomes for the Associate of Applied Science and certificate programs and Allied Health courses. Exceptions are those courses taken as part of the general education from the Institutionally Designated Area.
- For the Associate of Applied Science Degree, completion of the departmentally approved program.
- Students completing requirements during the fall semester will be part of the May ceremony. Those students must submit a graduation application by December 1. Students completing requirements during the spring or summer semester must submit a graducation application by March 1 to participate in the commencement ceremony.
- No more than 12 hours of PE activity course credits can be used toward any of Cloud's associate degrees.
- A student must earn 15 hours of credit as a Cloud County Community College student for completion of the Associate's Degree being sought. For a Technical Certificate, students must earn 8 of 30 hours of credit or 4 of 16 hours of credit as a CCCC student. These courses must be 100 level or above.
- A high school student who petitions to graduate with an AA/AS/AGS/AAS must present a high school transcript demonstrating completion of high school graduation requirements.

Cloud County Community College holds one commencement ceremony, which takes place in May. It is the responsibility of the student to check with the Student Records Office well in advance to assure they meet all the requirements for graduation.

## Academic Due Process

In order to provide the highest level of service to the student, CCCC has a policy and procedures in place for addressing any complaint or dispute related to academic matters. The complete Academic Due Process policy and procedures may be obtained in Policy D19 at https://www.cloud.edu/about/board-of-trustees/ policies/. Students who wish to appeal any academic dispute arising from an academic endeavor must follow the procedures of this policy. Failure to comply with these procedures shall be grounds for dismissal of any complaint or dispute and dismissal of the complaint shall be final.

## Assessment of Student Learning

Assessment of student learning is a critical part of the education process at CCCC. Ongoing assessment of student learning is a means for the College to measure its success in meeting the mission and for continuous improvement in academic and cocurrricular programs and student services. Throughout their educational career at CCCC, all students are expected to contribute to the assessment program by completing surveys, standardized tests, submitting academic work products, working with academic advisors, and completing exit interviews as required by specific programs. CCCC uses assessment of student learning to make decisions which affect the entire college thus CCCC faculty, staff and administration are committed to an ongoing assessment program to continually improve teaching and learning.

## Leave of Absence

Cloud County Community College is committed to student success and provides services to help students who need an extended leave of absence due to personal tragedy, family illness, death in the family, or other sudden personal issue.

If a student needs an extended leave of absence due to one of the above circumstances, please notify the Director of Advisement and Retention Services located in the Advisement Center. In emergency situations when the student is not able to contact the Advisement Center, a family member or friend should notify the Advisement Center for the student. The Director of Advisement and Retention Services will then notify the student's instructors and the Vice President for Academic Affairs.

## Academic Regulations

## COURSE $\Rightarrow$ TRANSFER

## Course Transfer

The Kansas Board of Regents has now approved a list of courses for guaranteed transfer among all Kansas public postsecondary institutions. A student who completes these courses at any Kansas public community college, technical college, or university can be certain that he or she can transfer that course to any other public institution in Kansas in pursuit of a degree or credential.

A list of the courses approved for the statewide guaranteed transfer may be found at https://www.kansasregents.org/academic affairs/transfer-articulation. Additional courses are added annually.

## REVERSE $<$ TRANSFER

## Reverse Transfer

Students who transfer to a Kansas public university from a Kansas public community college or technical college (or vice versa) are eligible for Reverse Transfer, which allows for the attainment of any associate degree for which one is eligible along the way to additional certificates and degrees. Within a student's first semester, those who transfer coursework from a public university, community college or technical college will be notified if they are eligible to be considered for reverse transfer degree status and which courses are needed to finish the related degree. Students who then complete the coursework for a given associate degree will be eligible to receive that degree, administered automatically by correspondence between the new institution and the university, community college or technical college the student last attended.

Visit https://www.kansasregents.org/students/reverse-trans-fer-2 for more information.

## KSDegreeStats.org

There are many factors to consider when picking the college and the degree that are the best match for you. Explore: ksdegreestats.org to learn more about the specific costs of each undergraduate degree program offered in Kansas, and the earnings those graduates are making today.


## Career Programs <br> Associate of Applied Science Degrees

The career program is for students who want to enter the workforce in a specific career after obtaining an associate degree. An Associate of Applied Science degree is awarded after completion of a minimum of 62 hours in a departmentally approved program, and 124 grade points. Of the hours required, a minimum of 15 hours must be General Education courses. Certificates are also available in many of the career programs. For information about courses in the career programs offered online visit http://www.cloud.edu/academics/online/.

Agricultural Production \& Services
Applied Technologies
Certified Medical Aide
Certified Nurse Aide
Commercial Drivers License (Certificate)

Early Childhood Education Solar Energy
Emergency Medical Technician (Certificate) Unmanned Aircraft Systems
Nursing
Pharmacy Technician (Certificate) Wind Energy Technology

## Generalized Professional

## Associate of General Studies Degrees

The general studies program is designed for students who want to enter the workforce after obtaining an associate degree. This degree allows student flexibility in selected courses applicable to their desired field of study. Both transfer courses and technical courses accumulate toward the 62 hours needed for completion. Of the hours required, a minimum of 24 hours must be General Education courses. After degree completion, students could seek employment or decide to apply coursework toward a transfer program. For information about courses in the program offered online visit http://www.cloud.edu/academics/online .

Business
Interdisciplinary Studies
Renewable Energy

## Transfer Program

## Associate of Arts and Associate of Science Degrees

The transfer program is designed for students planning to enter professions requiring a bachelor's degree. During their time at Cloud, students work toward completing the Associate of Arts or the Associate of Science degree. These 62 credit hour degrees contain required General Education courses as well as electives which, with the aid of an Academic Advisor, may be selected to fulfill freshman and sophomore level course needs in the student's desired major at a four-year college or university. Transfer materials for regional colleges and universities are available in the Advisement Center to assist students and advisors with course selection. Additional transfer information is available on the website http://www.cloud.edu/academics/transferability. For information about courses in the transfer program offered online visit http://www.cloud.edu/academics/online.

Agriculture
Ag Communications
Ag Economics
Agronomy
Animal Science
Equine
Pre-Veterinary Medicine
Business
General Business
Communications
English
Journalism/
Mass Communications
Speech/Theatre
Digital Entrepreneurship
Education
Elementary
Physical Education
K-12 Secondary

Health Professions
Pre-Dental Hygiene
Pre-Nursing BSN
Pre-Radiological Tech
Pre-Respiratory Therapy
Health \& Human Performance
Athletic Training
Coaching
Kinesiology/Exercise Science
Sport Management
Dietetics
Humanities \& Fine Arts
Art
Music
History
Interdisciplinary Studies

Mathematics \& Engineering
Architecture
Engineering
Engineering Technology
Mathematics
Science
Biology
Chemistry
Earth Science
Physics
Pre-Chiropractic
Pre-Dentistry
Pre-Medicine
Pre-Occupational Therapy
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant

Social \& Behavioral Science
Anthropology
Criminal Justice
Political Science/Pre-Law
Family Studies \& Human Services
Family \& Consumer Science
Sociology/Social Work/ Counseling
Technology

## Focus Areas:

Agribusiness, Agronomy,
Livestock Production, Communications, Equine Science, Ag Engineering, Pre-Veterinarian, Horticulture

## AGRICULTURE \& INDUSTRIAL TECHNOLOGY

Department Chair: Jamieson Gross jgross@cloud.edu••785.243.1435, ext. 273

## Potential Careers:

- Agronomist
- Ag \& Food Science Technician
- Ranch Manager
- Agriculture Teacher/Professor
- Communications Specialist
- Professional Truck Driver
- Welder


## Degrees \& Certificates

Commercial Drivers License .. 16 -hour certificate Welding $\qquad$ .18-hour certificate
.16-hour certificate

Production \& Services $\qquad$ .45-hour certificate

Production \& Services ................... A.A.S. - 62 hours
Associate of Science $\qquad$ A.S. - 62 hours

Production \& Services
30-hour certificate

## Agriculture \& Industrial Technology

## Program Learning Outcomes

## Agriculture:

## 16-hour Certificate

1. Perform agricultural calculations.
2. Describe multiple career opportunities in agriculture.

## 30-hour Certificate:

1. Perform agricultural calculations.
2. Describe multiple career opportunities in agriculture.
3. Explain technology uses in agriculture.

## 45-hour Certificate:

1. Perform agricultural calculations.
2. Describe multiple career opportunities in agriculture.
3. Explain technology uses in agriculture.
4. Identify agricultural production inputs and outputs.

## Associate of Applied Science:

1. Perform agricultural calculations.
2. Describe multiple career opportunities in agriculture.
3. Explain technology uses in agriculture.
4. Identify agricultural production inputs and outputs.
5. Indentify and describe effective agricultural advertising and their effects on the market.

## Associate of Science:

1. Perform agricultural calculations.
2. Describe multiple career opportunities in agriculture.
3. Explain technology uses in agriculture.
4. Identify agricultural production inputs and outputs.
5. Discuss global market issues.

## Commercial Drivers License:

1. Demonstrate the safe operations of a commercial vehicle.
2. Demonstrate the skills to pass the State Commercial Driving License test.

## Welding:

1. Develop the cognitive and physical skills necessary to pass American Welding Society certifications.
2. Identify safe welding practices and procedures conforming to American Welding Society standards.


## Agriculture \& Industrial Technology

COMMERCIAL DRIVERS LICENSE

## 16-Hour Certificate

| Required CDL Courses |  | $\mathbf{1 6}$ cr |  |
| :--- | :--- | :--- | :--- |
| TD250 | CDL Class A Truck Driving Training I | 8 |  |
| TD251 | CDL Class A Truck Driving Training II | 7 |  |
| TD252 | Defensive Driving For the Professional <br> Truck Driver | 1 |  |

## WELDING

## 18-Hour Certificate

## Required General Education Courses

Mathematics and Statistics Discipline Area
MA104 Technical Math ( 3 cr ) or Mathematics General Education Course

Required Welding Courses
15 cr
IE117 OSHA 10-Hour General Industry Training 1
IE125 Blueprint Reading and Cutting Processes 2
IE126 Shielded Metal Arc Welding 3
IE127 Gas Metal Arc Welding 3
IE128 Flux Core Arc Welding 3
IE129 Gas Tungsten Arc Welding 3


## Agriculture \& Industrial Technology

## AGRICULTURE PRODUCTION \& SERVICES

## 16-Hour Certificate


AG150 Introduction to Horticulture ..... 4
AG166 Fundamentals of Livestock Nutrition ..... 3
AG210 Agriculture Advertising \& Design ..... 3
AG220 Cooperative Ed Internship ..... 1-4
AG225 Basic Equitation ..... 3
AG226 Advanced Equitation ..... 3
AG228 Focused Equitation ..... 3

## CLOUD AGRICULTURE

cloud county communitycollege


## Agriculture \& Industrial Technology

## AGRICULTURE PRODUCTION \& SERVICES

## 30-Hour Certificate

| Required General Education Courses |  | 6 cr |
| :---: | :---: | :---: |
| Mathematics and Statisics Discipline Area | 3 |  |
| MA110 Intermediate Algebra (3 cr) or |  |  |
| MA104 Technical Math (3 cr) or |  |  |
| Mathematics General Education Course |  |  |
| Natural and Physical Science Discipline Area | 3 |  |
| Required Agriculture Courses |  | 10 cr |
| AG101 Crop Science (4 cr) or | 4 |  |
| AG150 Introduction to Horticulture (4 cr) |  |  |
| AG115 Animal Science (3cr) | 3 |  |
| AG130 Principles of Agricultural Economics (3 cr) | 3 |  |

## Elective Courses <br> Economics

AG132 Agriculture Management 3

AG134 Agricultural Marketing 3
AG210 Agriculture Advertising and Design 3
AG220 Cooperative Ed Internship 1-6

## Agronomy

AG101 Crop Science
AG102 Intro to Plant Pest Control
3
3
AG103 Plants \& Soils for Crop Production 3
AG104 Soils 4
AG105 Range Management
AG106
AG107 Agron ID \& Experiment
AG150
AG220 Cooperative Ed Internship 1-6

## Animal Science

| AG111 | Animal Management | 3 |
| :--- | :--- | ---: |
| AG118 | Principles of Livestock Selection | 2 |
| AG119 | Principles of Livestock Selection II | 1 |
| AG128 | Animal Health \& Nutrition | 3 |
| AG139 | Farm Animal Reproduction | 3 |
| AG159 | Equine Evaluation | 1 |
| AG166 | Fundamentals of Livestock Nutrition | 3 |
| AG220 | Cooperative Ed Internship | $1-6$ |

## Equine Science

AG111
AG122
AG128
AG139
AG159
AG165

## AG166

AG220
AG225
AG226
AG228
Animal Management ..... 3
Introduction to Horsemanship ..... 2
Animal Health \& Nutrition ..... 3
Farm Animal Reproduction ..... 3
Equine Evaluation ..... 1
Equine Evaluation II ..... 1
Fundamentals of Livestock Nutrition1-6
Cooperative Ed Internship
Basic Equitation ..... 3
Advanced Equitation ..... 3
Focused Equitation ..... 3


## Agriculture \& Industrial Technology

## AGRICULTURE PRODUCTION \& SERVICES <br> 45-Hour Certificate



## Agronomy

AG101 Crop Science 4
AG102 Intro to Plant Pest Control3
AG103 Plants \& Soils for Crop Production ..... 3
AG104 Soils ..... 4
AG105 Range Management ..... 3
AG106 Soil Classification and Evaluation ..... 1
AG107 Agronomy ID \& Experimentation ..... 1
AG150 Introduction to Horticulture ..... 4
AG220 Cooperative Ed Internship ..... 1-6
Animal Science
AG118 Principles of Livestock Selection 2
AG119 Principles of Livestock Selection II ..... 1
AG128 Animal Health \& Nutrition ..... 3
AG159 Equine Evaluation ..... 1
AG220 Cooperative Ed Internship ..... 1-6
Equine Science
AG111 ..... 3
AG122 Intro to Horsemanship ..... 2
AG128 Animal Health \& Nutrition ..... 3
AG139 Farm Animal Reproduction ..... 3
AG159 Equine Evaluation ..... 1
AG165 Equine Evaluation II ..... 1
AG225 Basic Equitation ..... 3
AG226 Advanced Equitation ..... 3
AG228 Focused Equitation


## Agriculture \& Industrial Technology

## AGRICULTURE PRODUCTION \& SERVICES <br> Associate of Applied Science - 62 Hours



| AG150 | Introduction to Horticulture | 4 |
| :--- | :--- | ---: |
| AG164 | Advanced Soil Classification \& Evaluation | 1 |
| AG220 | Cooperative Ed Internship | $1-6$ |
| BE152 | Salesmanship | 3 |
| WE240 | GIS/GPS | 3 |

## Animal Science

AG111 Animal Management ..... 3
AG118 Principles of Livestock Selection I ..... 2
AG119 Principles of Livestock Selection II ..... 1
AG128 Animal Health and Nutrition ..... 3
AG139 Farm Animal Reproduction ..... 4
AG159 Equine Evaluation ..... 1
AG166 Fundamentals of Livestock Nutrition ..... 3
AG220 Cooperative Ed Internship ..... 1-6
Equine Science
AG111 Animal Management ..... 3
AG122 Introduction to Horsemanship ..... 2
AG128 Animal Health \& Nutrition ..... 3
AG139 Farm Animal Reproduction ..... 4
AG159 Equine Evaluation ..... 1
AG165 Equine Evaluation II ..... 1
AG166 Fundamentals of Livestock Nutrition ..... 3
AG220 Cooperative Ed Internship ..... 1-6
AG225 Basic Equitation ..... 3
AG226 Advanced Equitation ..... 3
AG228 Focused Equitation ..... 3
Substitutions must be approved by the department chair.
CLOUDAGRICULTURE

## Agriculture \& Industrial Technology

## Associate of Science - 62 Hours


AG123 Beef Science3
AG128 Animal Health and Nutrition ..... 3
AG139 Farm Animal Reproduction ..... 4
Business
AG132 Agriculture Management ..... 3
AG134 Agricultural Marketing ..... 3
AG217 Farm Computer Application I ..... 3
BE100 Introduction to Business ..... 3
BE152 Salesmanship ..... 3
BE153 Personal Finance ..... 3
BE160 Business Accounting ..... 3
BE161 Accounting I ..... 3
BE162 Accounting II ..... 3
BE188 Principles of Advertising ..... 3
MG102 Introduction to Entrepreneurship ..... 3
Communications
JN100 Mass Media in Society ..... 3
Equine
AG122 Introduction to Horsemanship ..... 2
AG125 Horse Science ..... 3
AG159 Equine Evaluation ..... 1
AG165 Equine Evaluation II ..... 1
AG166 Fundamentals of Livestock Nutrition ..... 3
AG188 Varsity Sports: Equestrian/Rodeo I ..... 1
AG189 Varsity Sports: Equestrian/Rodeo II ..... 1
AG225 Basic Equitation ..... 3
AG226 Advanced Equitation ..... 3
AG228 Focused Equitation ..... 3
Pre-Veterinarian
EC101 Principles of Macroeconomics ..... 3
MA112 Trigonometry ..... 3
MA114 Elementary Statistics ..... 3
SC110 Principles of Biology I ..... 5
SC111 Microbiology Lecture ..... 3
SC112 Microbiology Lab ..... 2
SC131 Chemistry I ..... 5
SC132 Chemistry II ..... 5
SC140 College Physics I ..... 5
SC141 College Physics II ..... 5
SC151 Principles of Biology II ..... 5Additional Electives
AG220 ..... 1-6
WE240 ..... GIS/GPS

## Open Electives

3 cr
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Science degree.

Focus Areas:
General Business, Accounting, Marketing, Office Management, Business Administration, Economics

## BUSINESS

Department Chair: Shelly Farha sfarha@cloud.edu •• 785.243.1435, ext. 260

Potential Careers:

- Accountant
- Payroll Manager
- Management
- Human Resource Manager
- Entrepreneur
- Sale Representative
- Marketing Analyst


## Program Learning Outcomes:

## Associate of General Studies:

1. Demonstrate business literacy
2. Identify business topics through critical thinking.

## Associate of Arts Degree:

1. Demonstrate business literacy.
2. Demonstrate the ability to think critically about business topics.
3. Demonstrate the ability to perform a business function.

## Degrees \& Certificates

Associate of General Studies $\qquad$ A.G.S. - 62 hours

Associate of Arts.
A.A. - 62 hours

## Business

## Associate of General Studies 62 Hours

| Required General Education Courses English Discipline Area | 25 cr | Elective Courses |  | 21 cr |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 | BE115 | Business Math | 3 |  |
| CM101 English Composition I (3 cr) |  | BE121 | Business Communications | 3 |  |
|  |  | BE139 | Basic Personal Finance | 1 |  |
| Communication Discipline Area |  | BE152 | Salesmanship | 3 |  |
| CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communications (3 cr) |  | BE153 | Personal Finance | 3 |  |
|  |  | BE154 | Business Law | 3 |  |
| Arts and Humanities Discipline Area |  | BE155 | Marketing | 3 |  |
| Art Humanities |  | BE160 | Business Accounting | 3 |  |
| Music Literature |  | BE161 | Accounting I | 3 |  |
| Theatre Philosophy |  | BE162 | Accounting II | 3 |  |
| Foreign Language History |  | BE165 | Computerized Accounting | 3 |  |
| Mathematics and Statistics Disciipline Area Mathematics General Education Course or MA110 Intermediate Algebra (3 cr) |  | BE166 | Payroll Accounting | 3 |  |
|  |  | BE170 | Business Statistics | 3 |  |
|  |  | BE185 | Human Resource Management | 3 |  |
|  |  | BE188 | Principles of Advertising | 3 |  |
| Natural and Physical Science Discipline Area Physical Science w/Lab or Biological Science w/Lab |  | BE210 | Leadership Development | 3 |  |
|  |  | BE220 | Cooperative Ed Internship | 3 |  |
|  |  | CA221 | Job Search | 1 |  |
|  |  | CS108 | Computer Applications | 3 |  |
| Social and Behavioral Science Disciipline Area EC101 Principles of Macroeconomics ( 3 cr ) (1 additional area required) (3 cr) |  | EC102 | Principles of Microeconomics | 3 |  |
|  |  | MA115 | General Calculus | 3 |  |
|  |  | MG101 | Management Principles | 3 |  |
| Psychology Political Science |  | MG102 | Introduction to Entrepreneurship | 3 |  |
| Sociology |  | PE141 | Personal Wellness Stress Management | 3 |  |

General Education Open Elective Course

## Required Business Courses

6 cr
BE100 Introduction to Business 3
BE160 Business Accounting or
BE161 Accounting I

3

Open Electives
10 cr


## Business

## Associate of Arts <br> 62 Hours

| Required General Education Courses | 34-35 cr |
| :---: | :---: |
| English Discipline Area (010) | 6 |
| CM101 English Composition I (3 cr) |  |
| CM102 English Composition II (3 cr) |  |
| Communication Discipline Area (020) | 3 |
| CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communications ( 3 cr ) |  |
| Mathematics and Statistics Discipline Area (030) | 3 |
| Natural and Physical Science Discipline Area (040) | 4-5 |
| Social and Behavioral Discipline Area (050) ( 2 areas required) | 6 |
| Anthropology Economics |  |
| Geography Political Science |  |
| Psychology Sociology |  |
| Arts and Humanities Discipline Area (060) | 6 |
| (2 areas required) |  |
| Art Literature |  |
| Foreign Language Music |  |
| History Philosophy |  |
| Humanities Theatre |  |
| Institutionally Designated Area Elective (070) | 6 |


| Required Business Courses |  | $\mathbf{1 5} \mathbf{~ c r}$ |  |
| :--- | :--- | :--- | :--- |
| BE100 | Introduction to Business | 3 |  |
| BE161 | Accounting I | 3 |  |
| BE162 | Accounting II | 3 |  |
| EC101 | Principles of Macroeconomics | 3 |  |
| EC102 | Principles of Microeconomics | 3 |  |


| Elective Courses |  |  | 8-9 cr |
| :---: | :---: | :---: | :---: |
| BE115 | Business Math | 3 |  |
| BE121 | Business Communications | 3 |  |
| BE152 | Salesmanship | 3 |  |
| BE153 | Personal Finance | 3 |  |
| BE154 | Business Law | 3 |  |
| BE155 | Marketing | 3 |  |
| BE160 | Business Accounting | 3 |  |
| BE165 | Computerized Accounting | 3 |  |
| BE166 | Payroll Accounting | 3 |  |
| BE170 | Business Statistics | 3 |  |
| BE185 | Human Resource Management | 3 |  |
| BE188 | Principles of Advertising | 3 |  |
| BE210 | Leadership Development | 3 |  |
| BE220 | Cooperative Ed Internship | 2 |  |
| CS108 | Computer Applications | 3 |  |
| MA115 | General Calculus | 3 |  |
| MG101 | Management Principles | 3 |  |
| MG102 | Introduction to Entrepreneurship | 3 |  |

Open Electives
4 cr
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Arts degree.



## Potential Careers:

- Radio Station News Director
- Journalist
- Web Designer
- Graphic Designer
- TV Reporter


# Degrees \& Certificates 

A.A. - 62 hours

## Communications

Associate of Arts<br>62 Hours


CM122 American Literature I ..... 3
CM123 American Literature II ..... 3
CM124 World Literature \& the Human Experience ..... 3
CM125 Literature for Children ..... 3
CM127 The Short Story ..... 3
CM157 Mass Media Production I ..... 3
FL111 Spanish I ..... 4
HI108 Women in American Society ..... 3
PH100 Introduction to Philosophy ..... 3
Communications
AR120 Design I ..... 3
AR121 Graphic Design I ..... 3
AR129 Introduction to Digital Photography ..... 3
BE152 Salesmanship ..... 3
BE155 Marketing ..... 3
CM139 Sports Broadcasting ..... 3
CM157 Mass Media Production I ..... 3
CM158 Mass Media Production II ..... 3
CS104 Introduction to Website Design ..... 3
CS107 Graphic Software Applications ..... 3
JN100 Mass Media in Society ..... 3
JN101 Basic Media Writing ..... 3
JN140 Beyond Web 2.0: Social Media as Identity ..... 3
Music
MU100 Music Appreciation ..... 3
MU102 World Music ..... 3
MU103 History of Rock Music ..... 3
MU110 Harmony and Ear Training I ..... 4
MU111 Harmony and Ear Training II ..... 4
MU130 Applied Music: Voice ..... 1
MU132 Applied Music: Piano ..... 1
MU146 Chamber Singers ..... 1
MU160 Concert Choir ..... 1
Theatre
CM140 Theatre Appreciation ..... 3
CM141 Introduction to Acting ..... 3
CM142 Acting I ..... 3
CM143 Play Production ..... 3
CM146 Play Production II ..... 3
CM148 American Cinema Appreciation13 cr13 cr
Any non-technical, non-developmental course can be used to fulfill therequirements of the Associate of Arts degree.

Focus Areas:
Business, Design,
Communications, Marketing

Department Chair: Dr. Julia Galm julia.galm@cloud.edu••785.243.1435, ext. 241


Potential Careers:

- Social Media Manager
- YouTube, Twitch, Instagram Streamer/Influencer
- Digital Marketing and Advertising
- Small Business Owner


## Program Learning Outcomes:

1. Demonstrate the ability to perform a business function.
2. Recognize and apply communication conventions and strategies appropriate to a written or spoken discourse.
3. Explain the interrelated nature of humanities: how humanities shapes cultures and how the cultures shape humanities.

# Degrees \& Certificates 

Associate of Arts
A.A. - 62 hours

## Digital Entrepreneurship

## DIGITAL ENTREPRENEURSHIP

Associate of Arts
62 Hours

BE165 Computerized Accounting ..... 3
BE170 Business Statistics ..... 3
BE188 Principles of Advertising ..... 3
EC101 Principles of Macroeconomics ..... 3
EC102 Principles of Microeconomics ..... 3
MG102 Introduction to Entrepreneurship ..... 3
Art/Design
AR121 Graphic Design I ..... 3
AR122 Graphic Design II ..... 3
AR129 Introduction to Digital Photography ..... 3
AR130 Drawing I ..... 3
AR131 Drawing II ..... 3
AR140 Painting I ..... 3
AR141 Painting II ..... 3
Additional Electives
MU110 Harmony and Ear Training I ..... 3
MU130 Applied Music: Voice ..... 1
MU131 Applied Music: Instrument ..... 1
MU132 Applied Music: Piano ..... 1
MU134 Applied Music: Voice II ..... 1
MU135 Applied Music: Instrument II ..... 1
MU136 Applied Music: Piano II ..... 1
MU137 Applied Music: Voice III ..... 1
MU138 Applied Music: Instrument III ..... 1
MU139 Applied Music: Piano III ..... 1
Open Electives
1 crAny non-technical, non-developmental course can be used to fulfill therequirements of the Associate of Arts degree.

Focus Areas:
Elementary Education, Secondary Education, Agriculture Education, Early Childhood Education

# EDUCATION 

Department Chair: Spencer Farha safarha@cloud.edu•• 785.243.1435, ext. 269

## Potential Careers:

- Elementary School Teacher
- High School Teacher
- College Professor
- Principal/Superintendent
- Classroom Paraprofessional


## Program Learning Outcomes:

## Education:

1. Prepare effective institution plans, appropriate for content and grade level.
2. Analyze sample instructional scenarios using modern pedagogical research.
3. Formulate an educational philosophy that incorporates responsible behaviors, relationships, and environments.

# Degrees \& Certificates 

Education Ed Pre-K-6 Transfer $\qquad$ A.A. - 62 hours

Education $\qquad$ A.A. - 62 hours

Early Childhood Education $\qquad$ 16-hour certificate

Early Childhood Education $\qquad$ .30-hour certificate

Early Childhood Education $\qquad$ A.A.S. - 65 hours

## EdUCATION

## Elementary Education Pre-K-6 Transfer Associate of Arts 62 Hours

This curriculum follows the KBOR Systemwide Elementary Education (Pre-K-6) Degree Pathway. Students who complete this degree can transfer 60 hours to any KBOR 4-year institution.

| Required General Education Courses | 34-35 cr |
| :---: | :---: |
| English Discipline Area (010) | 6 |
| CM101 English Composition I (3 cr) |  |
| CM102 English Composition II (3 cr) |  |
| Communication Discipline Area (020) | 3 |
| CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communications ( 3 cr ) |  |
| Mathematics and Statistics Discipline Area (030) | 3 |
| MA108 Contemporary Math ( 3 cr ) (suggested) or MA111 College Algebra (3 cr) or MA114 Elementary Statistics (3 cr |  |
| Natural and Physical Science Discipline Area (040) Must be a biological science | 4-5 |
| Social and Behavioral Discipline Area (050) <br> (2 areas required) | 6 |
| Anthropology Economics |  |
| Geography Political Science |  |
| Psychology Sociology |  |
| Arts and Humanities Discipline Area (060) | 6 |
| HI122 U.S. History I (3 cr) or |  |
| HI123 U.S. History II (3 cr) |  |
| (Choose 3 credits from one of the following areas) |  |
| Art Literature |  |
| Music Theatre |  |
| Institutionally Designated Area Elective (070) | 6 |
| Choose two of the three following: |  |
| SS131 Cultural Diversity and Ethnicity (3 cr) |  |
| SS140 U.S. Government: National (3 cr) |  |
| Any gen ed elective from Designated Areas 020-060 not previously used. See pages 12-13. |  |
| Required Education Courses | 23-24 cr |
| ED100 Introduction to Education | 3 |
| ED101 Introduction to Education Practicum | 1 |
| ED130 Technology for Teachers | 3 |
| CM125 Literature for Children | 3 |
| HE144 Educating Exceptional Students | 3 |
| SS105 Human Growth and Development | 3 |
| Any Physical Science course from Natural \& Physical |  |
| Science Designated Area 040 | 4-5 |
| Choose one of the following: |  |
| ED114 Art in the Elementary Classroom (3 cr) or |  |
| ED123 Music in the Elementary Classroom (3 cr) or |  |
| ED124 Elementary School Physical Educaion (3 cr) | 3 |


| Education Elective Courses |  |  |  |
| :--- | :--- | :--- | :--- |
| HE147 | Principles of the CDA | 3 |  |
| HE150 | Early Childhood Development | 3 |  |
| HE152 | Interation Techniques with Young Children | 3 |  |
| HE153 | Creative Activities for Young Children | 3 | 1 |
| HE154 | Creative Activities for Young Chidren Lab | 1 | HE155 |
| Parent, Providers and Community Relationships | 3 |  |  |
| HE156 | Developmental Program Planning for Young |  |  |
|  | Children over 2.5 | 3 |  |
| HE157 | Developmental Program Planning for Young <br> Children over 2.5 Lab | 1 |  |
| HE161 | Health and Nutrition for Young Children | 3 |  |

Open Electives

## Education

## Associate of Arts <br> 62 Hours



| CM123 | American Literature II | 3 |
| :---: | :---: | :---: |
| CM124 | World Literature \& the Human Experience | 3 |
| CM125 | Literature for Children | 3 |
| CM127 | The Short Story | 3 |
| CM139 | Sports Broadcasting | 3 |
| CM140 | Theatre Appreciation | 3 |
| CM143 | Play Production | 3 |
| CM157 | Mass Media Production I | 3 |
| CM158 | Mass Media Production II | 3 |
| CS107 | Graphic Software Applications | 3 |
| CS108 | Computer Applications | 3 |
| JN100 | Mass Media in Society | 3 |
| JN101 | Basic Media Writing | 3 |
| JN140 | Beyond Web 2.0: Social Media as Identity | 3 |
|  | Early Childhood Education |  |
| HE150 | Early Childhood Education | 3 |
| HE151 | Early Childhood Education Lab | 1 |
| HE152 | Interactive Techniques with Young Children | 3 |
| HE153 | Creative Activities for Young Children | 3 |
| HE154 | Creative Activities for Young Children Lab | 1 |
| HE155 | Parents, Providers \& Community Relationships | 3 |
| HE156 | Developmental Program Planning for Young Children Over 2.5 | 3 |
| HE157 | Developmental Program Planning for Young Children Over 2.5 Lab | 1 |
| HE160 | Child Care Administration and Organization | 3 |
| HE161 | Health and Nutrition for Young Children | 3 |
| HE162 | Childcare Management | 1 |
| HE164 | Developmental Program Planning for Young Children Under 2.5 | 3 |
| HE165 | Developmental Program Planning for Young Children Under 2.5 Lab | 1 |
|  | Education |  |
| ED114 | Art in the Elementary Classroom | 3 |
| ED123 | Music in the Elementary Classroom | 3 |
| ED124 | Elementary School Physical Education | 3 |
| ED130 | Technology for Teachers | 3 |
| SS131 | Cultural Diversity and Ethnicity | 3 |
|  | Health and Physical Education |  |
| HE124 | Nutrition | 3 |
| PE131 | First Aid \& Safety | 3 |
| PE136 | Theory of Coaching | 3 |
| PE141 | Personal Wellness | 3 |
| PE146 | Concepts of Team Sports | 3 |
|  | History |  |
| HI120 | World History I | 3 |
| HI121 | World History II | 3 |
| HI122 | U. S. History I | 3 |
| HI123 | U. S. History II | 3 |
| HI124 | Introduction to History | 3 |
| SS140 | U. S. Government: National | 3 |

## EdUCATION

## Associate of Arts (Con't)

| SS141 | U. S. Government: State \& Local | 3 |
| :---: | :---: | :---: |
| SS142 | Current Political Issues | 3 |
|  | Math |  |
| MA112 | Trigonometry | 3 |
| MA114 | Elementary Statistics | 3 |
| MA120 | Analytic Geometry \& Calculus I | 5 |
| MA121 | Analytic Geometry \& Calculus II | 5 |
|  | Music |  |
| MU100 | Music Appreciation | 3 |
| MU102 | World Music | 3 |
| MU103 | History of Rock Music | 3 |
| MU104 | Cloud County Community Chorale | 1 |
| MU110 | Harmony and Ear Training I | 4 |
| MU111 | Harmony and Ear Training II | 4 |
| MU117 | College Band I | 1 |
| MU118 | College Band II | 1 |
| MU119 | College Band III | 1 |
| MU126 | Concert Band | 1 |
| MU127 | Jazz Ensemble | 1 |
| MU130 | Applied Music: Voice I | 1 |
| MU134 | Applied Music: Voice II | 1 |
| MU137 | Applied Music: Voice III | 1 |
| MU131 | Applied Music: Instrument I | 1 |
| MU135 | Applied Music: Instrument II | 1 |
| MU138 | Applied Music: Instrument III | 1 |
| MU132 | Applied Music: Piano I | 1 |
| MU136 | Applied Music: Piano II | 1 |
| MU139 | Applied Music: Piano III | 1 |
| MU146 | Chamber Singers I | 1 |
| MU147 | Chamber Singers II | 1 |
| MU148 | Chamber Singers III | 1 |
|  | Science |  |
| SC111 | Microbiology Lecture | 3 |
| SC112 | Microbiology Lab | 2 |
| SC120 | Human Anatomy \& Physiology I | 4 |
| SC121 | Human Anatomy \& Physiology II | 4 |
| SC132 | Chemistry II | 5 |
| SC140 | College Physics I | 5 |
|  | Social Science |  |
| EC101 | Principles of Macroeconomics | 3 |
| EC102 | Principles of Microeconomics | 3 |
| GE101 | World Geography | 3 |
| HI120 | World History I | 3 |
| HI121 | World History II | 3 |
| HI122 | U. S. History I | 3 |
| HI123 | U. S. History II | 3 |
| SS125 | Intro to Cultural Anthropology | 3 |

Open Electives
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Arts degree.

## EdUCATION

## EARLY CHILDHOOD EDUCATION

## Program Learning Outcomes:

## 16-hour Certificate

1. Use the knowledge of young children's characteristics and needs to analyze all developmental domains regarding multiple influ ences on children's development and learning.
2. Create respectful, reciprocal relationships that support and empower families to be involved in their children's development and learning.

## 30-hour Certificate

1. Use the knowledge of young children's characteristics and needs to analyze all developmental domains regarding multiple influ ences on children's development and learning.
2. Create respectful, reciprocal relationships that support and empower families to be involved in their children's development and learning.
3. Apply systematic observations, documentation, and other effective assessment strategies in a responsible way to positively influence children's development and learning.

## Associate of Applied Science Degree

1. Use the knowledge of young children's characteristics and needs to analyze all developmental domains regarding multiple influ ences on children's development and learning.
2. Create respectful, reciprocal relationships that support and empower families to be involved in their children's development and learning.
3. Apply systematic observations, documentation, and other effective assessment strategies in a responsible way to positively influence children's development and learning.
4. Prepare effective institution plans, appropriate for the physical, mental, and emotional development of the child from conception to age eight.
5. Analyze sample instructional scenarios using modern pedagogical research that recognizes the child as a feeling person with a body, as well as a mind, growing in the context of family, community, nation, and world.
6. Formulate an educational philosophy supporting NAEYC's Developmentally Appropriate Practices that incorporates responsible behaviors, relationships, and environments.

## 16-Hour Certificate

Required General Education Courses 3 cr<br>Choose 1 of the following:<br>SS101 General Psychology (3 cr)<br>SSO15 Human Growth \& Development (3 cr)

| Required Early Childhood Education Courses $6 \mathbf{c r}$ |
| :--- |
| Choose 2 of the following: |
| HE150 |
| Early Childhood Development $(3 \mathrm{cr})$ |
| HE153 |
| Creative Activities for Young Children (3cr) |
| HE164 |
| Development Program Planning for <br> Young Children $<2.5(3 \mathrm{cr})$ |


| Elective Courses |  | 7 cr |
| :---: | :---: | :---: |
| HE144 | Educating Exceptional Students | 3 |
| HE150 | Early Childhood Development | 3 |
| HE151 | Early Childhood Development Lab | 1 |
| HE152 | Interaction Techniques w/ Young Children | 3 |
| HE153 | Creative Activities for Young Children | 3 |
| HE154 | Creative Activities for Young Children Lab | 1 |
| HE155 | Parent, Providers \& Community Relationships |  |
| HE156 | Development Program Planning for Young Children > 2.5 | 3 |
| HE157 | Development Program Planning for Young Children > 2.5 Lab | 1 |
| HE161 | Health \& Nutrition for Young Children | 3 |
| HE164 | Developmental Program Planning for Young Children < 2.5 | 3 |
| HE165 | Developmental Program Planning for Young Children < 2.5 Lab | 1 |
| HE220 | Cooperative Ed Internship | 1 |
| PE131 | First Aid \& Safety | 3 |
| HE147 | Principles of the CDA Credential or | 3 |
|  | 1 Spanish I or | 4 |
| SS10 | 6 Marriage and Family | 3 |

Due to the nature of the work with young children and their families, all students enrolled in the courses must have a physical on file with a negative TB test, and be cleared by the Child Abuse Registry through the Kansas Bureau of Investigation.

## Education

## EARLY CHILDHOOD EDUCATION

## 30-Hour Certificate

Required General Education Courses
Choose 3 of the following:
CM101 English Composition I $(3 \mathrm{cr})$
CM115 Public Speaking $(3 \mathrm{cr})$
MA110 Intermediate Algebra $(3 \mathrm{cr})$ or
Mathematics General Education Course $(3 \mathrm{cr})$
Science General Education Course w/lab $(4 \mathrm{cr})$
Social Science General Education Course $(3 \mathrm{cr})$

## Required Early Childhood Education Courses 6 cr

Choose 2 of the following:

| HE150 | Early Childhood Development (3 cr) |
| :--- | :--- |
| HE153 | Creative Activities for Young Children (3cr) |
| HE164 | Development Program Planning for |
|  | Young Children < $2.5(3 \mathrm{cr})$ |


| Elective Courses |  | $\mathbf{1 5}$ cr |  |
| :--- | :--- | :--- | :--- |
| HE144 | Educating Exceptional Students | 3 |  |
| HE147 | Principles of the CDA Credential | 3 |  |
| HE150 | Early Childhood Development | 3 |  |
| HE151 | Early Childhood Development Lab | 1 |  |
| HE152 | Interaction Techniques w/ Young Children | 3 |  |
| HE153 | Creative Activities for Young Children | 3 |  |
| HE154 | Creative Activities for Young Children Lab | 1 |  |
| HE155 | Parent, Providers \& Community Relationships 3 |  |  |
| HE156 | Development Program Planning for |  |  |
| Young Children > 2.5 |  |  |  |

Due to the nature of the work with young children and their families, all students enrolled in the courses must have a physical on file with a negative TB test, and be cleared by the Child Abuse Registry through the Kansas Bureau of Investigation.


## EDUCATION

## EARLY CHILDHOOD EDUCATION <br> Associate of Applied Science

| Required General Education Courses | $19-20 \mathrm{cr}$ |
| :---: | :---: |
| English Discipline Area <br> CM101 English Composition I (3 cr) | 3 |
| Communication Discipline Area CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communications ( 3 cr ) | 3 |
| Mathematics and Statistics Discipline Area MA104 Technical Math (3 cr) or MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course | 3 |
| Natural and Physical Science Discipline (040) | 4-5 |
| Social and Behavioral Discipline Area <br> (1 area required) | 3 |
| Anthropology Economics <br> Geography Psychology <br> Political Science Sociology |  |
| Arts and Humanities Discipline Area <br> (1 area required) | 3 |
| Art Literature |  |
| Foreign Language Music |  |
| History Philosophy |  |
| Humanities Theatre |  |

Required Early Childhood Education Courses 41 cr
CM125 Literature for Children 3
HE144 Educating Exceptional Students 3
HE150 Early Childhood Development 3
HE151 Early Childhood Development Lab 1
HE152 Interaction Techniques w/ Young Children 3
HE153 Creative Activities for Young Children 3
HE154* Creative Activities for Young Children Lab 1
HE155 Parent, Providers \& Community Relationships 3
HE156 Development Program Planning for Young Children > 2.5
HE157* $\left.\begin{array}{c}\text { Development Program Planning for } \\ \text { Young Children }>2.5 \text { Lab }\end{array}\right]$
HE160 Child Care Administration \& Organization 3
HE161 Health \& Nutrition for Young Children 3
HE162 Child Care Management 1
HE164 Developmental Program Planning for
Young Children $<2.5$
HE165 Developmental Program Planning for
Young Children < 2.5 Lab
HE168 Family \& Cultural Perspectives 3
PE131 First Aid \& Safety 3

Elective Courses
5 cr

| ED114 | Art in the Elementary Classroom | 3 |
| :--- | :--- | ---: |
| ED123 | Music in the Elementary Classroom | 3 |
| HE147 | Principles of the CDA Credential | 3 |
| HE163 | Parenting | 3 |
| HE177 | Starting Your Family Day Care Home | 1 |
| HE220 | Cooperative Education Internship | $1-3$ |
| FL111 | Spanish I | 4 |
| SD100 | College Skills and Resources | 1 |
| SS106 | Marriage and Family | 3 |

Due to the nature of the work with young children and their families, all students enrolled in the courses must have a physical on file with a negative TB test, and be cleared by the Child Abuse Registry through the Kansas Bureau of Investigation.


Focus Areas:

## HEALTH \& HUMAN PERFORMANCE

Department Chair: Spencer Farha safarha@cloud.edu•• 785.243.1435, ext. 269

Potential Careers:

- Coach
- Physical Education Instructor
- Athletic Trainer
- Nutritionist

Program Learning Outcomes:

1. Design performance strategies related to skillful movement and physical activities.
2. Analyze capabilities and needs of clients/athletes to produce plans for exercise and health using appropriate investigation.
3. Formulate a philosophy or guiding vision that incorporate responsible behaviors, relationships, and environment towards health and human performance.

# Degrees \& Certificates 

Associate of Science $\qquad$ A.S. - 62 hours

## Health and Human Performance

## Associate of Science <br> 62 Hours



| PE148 | Introduction to Sports Management | 3 |
| :--- | :--- | :--- |
| PE150 | Basic Care and Prevention of Athletic Injuries I | 3 |
| PE151 | Basic Care and Prevention of Athletic Injuries II | 3 |
| PE156 | Principles of Strength \& Conditioning | 2 |
| PE160 | Varsity Sports: Baseball | 1 |
| PE161 | Varsity Sports: Basketball | 1 |
| PE162 | Varsity Sports: Track | 1 |
| PE165 | Varsity Sports: Softball | 1 |
| PE167 | Varsity Sports: Cross Country | 1 |
| PE168 | Varsity Sports: Volleyball | 1 |
| PE169 | Varsity Sports: Wrestling | 1 |
| PE185 | Varsity Sports: Basketball II | 1 |
| PE250 | Stress Management | 3 |
|  |  |  |
|  | Social Science | 3 |
| SS101 | General Psychology | 3 |
| SS102 | Abnormal Psychology | 3 |
| SS103 | Social Psychology | 3 |
| SS105 | Human Growth and Development | 3 |
| SS106 | Marriage and Family | 3 |
| SS107 | Human Sexuality | 3 |
| SS113 | Human Relations | 3 |
| SS125 | Introduction to Cultural Anthropology | 3 |
| SS127 | Child Psychology | 3 |
| SS130 | Introduction to Sociology | 3 |
| SS131 | Cultural Diversity and Ethnicity | 5 |
| SS140 | U.S. Government: National | 5 |
| SS141 | U.S. Government: State and Local | 3 |
| SS201 | Social Problems | 3 |
|  |  | 3 |
| AE154 | Additional Electives | 3 |
| Besiness Law | 3 |  |
| BE165 | Marketing | Business Accounting |
| BE161 | Accounting I | 3 |
| BE162 | Accounting II | 3 |
| BE210 | Leadership Development | 3 |
| HE124 | Nutrition | 3 |
| MG101 | Management Principles | 3 |
| MA112 | Trigonometry | 3 |
| PE220 | Cooperative Ed Internship | 3 |
| SC120 | Human Anatomy and Physiology I | 3 |
| SC121 | Human Anatomy and Physiology II | 3 |
| SC125 | Human Body Dissection |  |
| SC130 | General, Organic, and Biochemistry | 3 |
| SC131 | Chemistry I | College Physics I |
| SC140 | Cole | 3 |
|  |  | 3 |

Open Electives
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Science degree.


Potential Careers:

- Registered Nurse
- CNA
- CMA
- EMT
- Pharmacy Technician


## Program Learning Outcomes - Nursing:

1. Integrate caring behaviors in practicing the art and science of nursing within a diverse population.
2. Implement professional standards and scope of practice within legal, ethical, and regularity framework.
3. Collaborate with clients and members of the inter-professional health care team to optimize client outcomes.
4. Formulate safe and effective clinical judgments, guided by the nursing process, clinical reasoning, and evidence-based practices.
5. Provide leadership in the management of care to meet client needs using available resources and current technology.
6. Generate teaching and learning processes to promote and maintain health and to reduce risks for global populations.
7. Demonstrate effective communication methods to manage client needs and to interact with other health care team members.

## Degrees \& Certificates

Certified Nurse Aide5 hoursCertified Medication Aide 5 hours
Emergency Medical Technician 16-hour Certificate
Pharmacy Technician

$\qquad$
16-hour Certificate

Nursing - Generic Track............. A.A.S. - 67 hours
Nursing - LPN to ADN...............A.A.S. - 67 hours
Associate of Science $\qquad$ A.S. - 62 hours

Nursing A.A.S./B.S.N. Partnership Available

## Health Professions

## Allied Health

## Program Learning Outcomes:

## CNA, CMA, and HHA:

1. Follow safety and infection control procedures for protection of client, self, and others.
2. Recognize and report changes and abnormalities to nurse or primary care provider.
3. Provide considerate and respectful care of the client by complying with patient rights.
4. Follow HIPAA guidelines for the protection of confidentiality.

## EMT:

1. Demonstrate the appropriate skills and knowledge to assist in a variety of medical emergencies.
2. Implement professional standards and scope of practice within legal, ethical, and regulatory frameworks.

## Pharmacy Technician:

1. Apply the federal, state, and local laws, regulations and professional standards to pharmacy practice.
2. Follow safety and infection control procedures for protection of client, self, and others.
3. Perform math function, dosage calculation, and compounding techniques.
4. Utilize effective communication techniques with clients and members of the interdisciplinary healthcare team.

## Certified Nurse Aide (CNA)

This course prepares the student with the basic knowledge and skills necessary to provide care to residents in adult care homes as well as a variety of healthcare settings. The student will learn how to provide basic care including activities of daily living as well as psycho-social needs. The CNA works under the supervision of a licensed nurse. Once the student successfully completes the 90 -contact hour course, which includes 45 hours of didactic and 45 hours of clinical, they become eligible to take the Kansas State Certified Nurse Aide (CNA) Exam. After they successfully pass the state KDADS exam, they are added to the Kansas nurse aide registry as a certified nurse aide. The candidate must be 16 years of age by the end of the class. Criminal conviction may jeopardize eligibility for certification and/or employment.

## Certified Medication Aide (CMA)

This course prepares the student with the basic knowledge and skills to administer medications and treatments to select age groups in an adult care home. The medication aide works under the supervision of a licensed nurse.

Once enrolled the student must successfully complete the 75 -hour course. The course consists of 50 hours didactic and 25 hours clinical. Once they have successfully completed the course, they become eligible to take the Kansas State Medication Aide Certification Test (CMA). Successful completion of the state exam will result in the candidate being listed on the Kansas Nurse Aide Registry as a certified mediation aide.

Per KDADS requirements, to take the class and become a Certified Medication Aide (CMA) in Kansas, an individual must hold a Kansas Certified Nurse Aide certification (without pending or current legal prohibitions), be 18 years old by the date of state testing and be screened for reading ability. The college requirement for screening is for the student to pass a reading test or have had a college level English class with a passing grade of "C". Also, eligible are qualified intellectual disability professional (QIDP) who can provide verification of employment as a QIDP.

## Home Health Aide (HHA)

This course will provide fundamental knowledge of the aging process with emphasis on providing services essential to the physical, mental, and psycho-social well-being of clients in the home setting; incorporating basic care of clients with the instrumental activities of daily living in the home setting. The student will complete 30 hours of instruction following the Kansas Department for Aging and Disability Services curriculum.

## Health Professions

## Allied Health

## Emergency Medical Technician

This course of study will provide the participant with the preparation necessary to test for certification as an Emergency Medical Technician in the State of Kansas. This is the initial course of instruction required for persons involved in providing emergency care. Areas covered include: the control of an accident scene, care of the patient prior to transport, preparation for transport, transport and care of the patient while en-route to the hospital, transfer of a patient to a hospital emergency department, communications, reporting, record keeping, and vehicle care. This Emergency Medical Technician course meets the course requirements of the Kansas Board of Emergency Medical Services as set forth in Kansas Administrative Regulations.

When taken with courses listed below, the student will be awarded a college-level certificate.

## EMT Level I

16-Hour Certificate


Open Electives
3 cr

## Pharmacy Technology

The Pharmacy Technology program prepares individuals, under the supervision of pharmacists, to prepare medications, provide medications and related assistance to patients, and manage pharmacy clinical and business operations. Includes instruction in medical and pharmaceutical terminology, principles of pharmacology and pharmaceutis, drug identification, pharmacy laboratory procedures, prescription interpretation, patient communication and education, safety procedures, recordkeeping, measurement and testing techniques, pharmacy business operations, prescription preparation, logistics and dispensing operations, and applicable standards and regulations.

The 16-credit hour certificate is offered in the online course delivery format.
*To work as a Pharmacy Technician in Kansas, technicians must be at least 18-years old to register with the Kansas Board of Pharmacy.

Pharmacy Technician
16-Hour Certificate

| General Education Required Courses |  |
| :--- | :--- | :--- |
| Communications Discipline Area |  |
| CM101 English Composition I (3 cr) or | $\mathbf{3 c r}$ |
| CM115 Public Speaking (3 cr) |  |



The ADN program at Cloud County Community College (CCCC) prepares the graduates to practice as registered nurses upon successful completion of the National Council Licensure Examination (NCLEX-RN®). They are qualified to enter a professional position as a generalist in a variety of care settings with clients of all ages from diverse populations. CCCC nursing graduates are also prepared to continue studies at colleges or universities that offer bachelor's degrees in nursing. The Associate Degree in Nursing program does not prepare persons for teaching positions. The generic program option is for students with no prior nursing license, with the ability and resources, whose career goal is registered nursing. The advanced standing program option is for LPNs, whose career goal is to become a registered nurse.
Upon completion, graduates are awarded an Associate of Applied Science degree and are eligible to take the licensure examination for registered nurses, NCLEX-RN®.

## Contact:

Stefanie N. Perret, MSN, RN
Director of Nursing \& Allied Health
785-243-1435 x 332 • nursing@cloud.edu

## Degree Information

The Associate of Applied Science Degree in Nursing prepares graduates to take the RN licensure exam (NCLEX-RN) and to practice as Registered Nurses.

## Recommended Course Sequence:

Generic Traditional Option
Certified Nursing Assistant (CNA) - current certification or equivalent.
Prerequisites: SC126, SS101, SS105, MA110
First Semester: NR110, NR111, SC128
Second Semester: NR112, NR116, CM101
Third Semester: NR211, CM115 or CM240 Fourth Semester: NR 212, Humanities course

## Advanced Standing Option

Prerequisite Courses: CM101, MA110, SS101, SS105, SC126, SC128
LPN Program Portfolio - Transfer 19 cr
First Semester: NR210, NR211, NR116, CM115 or CM240
Second Semester: NR212, Humanities course
Licensed as an LPN - May be a practical nursing student at the time of application but must be licensed prior to NR211 Lifespan Nursing III. Acceptance is provisional until Practical Nurse Licensure is confirmed.

## Additional Enrollment Requirements:

Physical Examination: The applicant must have satisfactory physical and mental health. A physical examination and health history are required after admission. All immunizations must be up-to-date.

CPR certification: Applicants shall provide evidence of current CPR certification at the professional level through the American Heart Association or American Red Cross.

Security Screening: A security screening will be completed prior to any clinical experience. Criminal conviction may jeopardize the ability to continue in the course and/or to obtain licensure.

Health Insurance: Students enrolled in the nursing program are required to carry health insurance as a clinical facility requirement. Proof of coverage must be on file in the nursing office. It is the student's responsibility to continue health insurance coverage throughout the nursing program.

Any health care cost incurred by the student is the responsibility of the student and is not the responsibility of CCCC or any of its clinical agencies. Students are responsible for their own health care.
Convictions or Disciplinary Action - Felony Crimes Against Persons are an automatic bar to Kansas nursing licensure as set by the Kansas legislature. It would require a law (statute) change by the Kansas legislature to allow licensure. Those actions are "as specified in article 34 of chapter 21 of the Kansas Statutes Annotated, prior to their repeal, or article 54 of chapter 21 of the Kansas Statues annotated or K.S.A. 2019 Supp. 21-6104, 21-6325, 21-6326 or 21-6418, and amendments thereto." --Kansas Nurse Practice Act. Obtaining the Associate Degree in Nursing from Cloud County Community College does not guarantee licensure in any state, including Kansas. Information regarding grounds for disciplinary action pertaining to a Kansaas license is addressed in regulation KSA 65-1120.
Literacy Screening: Applicants must have completed English Composition I, Human Growth and Development, Intermediate Algebra and Anatomy and Physiology prior to enrollment in the NR courses. Students with English as a second language are required to complete English Composition I with a grade of " C " or higher prior to admissions.

Approved by:
Kansas State Board of Nursing
Landon State Office Building
900 SW Jackson, Suite 1051
Topeka, KS 66612-1230
785-296-4929 ksbn.org

## Accredited by:

Accrediting Commission for Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326
404-975-5000, fax 404-975-5020
Student Organizations: Student Nurse Organization
Nursing AAS/BSN Partnership: The Community College Nursing Partnership offers the comfort and convenience of staying at CCCC while pursuing both the Asssociate Degree in Nursing (ADN) and Bachelor of Science in Nursing (BSN). The program bypasses the traditional prelicensure associate degree nursing step. Instead, this curriculum makes it possible for students to complete theADN (AAS) and BSN through on-campus courses at CCCC and online courses through the University of Kansas (KU) or Ottawa University. After completing the program, eligible students are awarded both an AAS and a BSN, and are eligible to take the National Council Licensing Exam (NCLEX-RN).

Gainful Employment: The salary for new graduates of ADN programs entering the work field in acute care in Kansas is approximately $\$ 40,500-\$ 65,000$. Salary will vary by specialty and location. The Kansas Dept of Health and Welfare states that a serious nursing shortage exists in Kansas for registered nurses. Graduates from the nursing program are consistently employed at a nearly $100 \%$ rate. Http://www.kdheks.gov/ches/.
Transfer Institution Guide: A student who is interested in pursuing a baccalaureate degree should consult a CCCC advisor and the transfer guide and catalog of the four-year institution.

## Health Professions

## Generic Track

| General Education Required Courses | 23 cr |
| :---: | :---: |
| English Discipline Area CM101 English Composition I (3 cr) | 3 |
| Communication Discipline Area CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communications (3 cr) | 3 |
| Arts and Humanities Discipline Area  <br> (Choose from 1 of the following areas)  <br> Art Humanities <br> Music Literature <br> Theatre Philosophy <br> Foreign Language History | 3 |
| Mathematics and Statistics Discipline Area MA110 Intermediate Algebra ( 3 cr ) or Mathematics General Education Course | 3 |
| Natural and Physical Science Discipline Area SC126 Anatomy \& Physiology ( 5 cr) or SC120 Human Anatomy and Physiology I(4 cr) and SC121 Human Anatomy and Physiology II ( 4 cr) | 5 |
| Social and Behavioral Science Discipline Area SS101 General Psychology (3 cr) SS105 Human Growth \& Development (3 cr) | 6 |


| Required Courses |  |  |  |
| :--- | :--- | :--- | :--- |
| NR110 | Health Assessment for Nurses | 34 |  |
| NR111 | Life Span Nursing I | 6 |  |
| NR112 | Life Span Nursing II | 9 |  |
| NR116 | Pharmacology for Nurses | 4 |  |
| NR211 | Life Span Nursing III | 9 |  |
| NR212 | Life Span Nursing IV | 9 |  |
| NR128 | Pathophysiology | 4 |  |

## CNA or equivalent.

## LPN to ADN - Advanced Standing Track



* LPN license prior to NR211



## Health Professions

## Associate of Science <br> 62 Hours



## Additional Electives

AH113 Medical Mathematics 1
AH114 Medical Office Vocabulary 3
AH197 Certified Nurse Aide 5
AH198 Certified Medication Aide 5
AH199 Home Health Aide 2
AR100 Art Appreciation 3
BE170 Business Statistics 3
BE210 Leadership Development 3
HE124 Nutrition 3
CM121 Introduction to Literature 3
CM122 American Literature I 3
CM123 American Literature II 3
CM124 World Literature \& the Human Experience 3
CM140 Theatre Appreciation 3
CM148 American Cinema Appreciation 3
CS108 Computer Applications 3
GE101 World Geography 3
HE124 Nutrition 3
HI120 World History I 3
HI121 World History II 3
HI122 U.S. History I 3
HI123 U.S. History II 3
HU201 Humanties I 3
HU202 Humanities II 3
MA112 Trigonometry 3
MA114 Elementary Statistics 3
MA115 General Calculus 3
MA120 Analytic Geometry and Calculus I 5
MA121 Analytic Geometry and Calculus II 5
MG102 Introduction to Entrepreneurship 3
MU100 Music Appreciation 3
MU102 World Music 3
MU103 History of Rock Music 3
NR220 Cooperative Ed Internship 1-4
PE131 First Aid and Safety 3
PE141 Personal Wellness 3
PE250 Stress Management 3
PH100 Introduction to Philosophy 3
SD100 College Skills 1
SS101 General Psychology 3
SS102 Abnormal Psychology 3
SS105 Human Growth \& Development 3
SS106 Marriage and Family 3
SS125 Introduction to Cultural Anthropology 3
SS130 Introduction to Sociology 3
Open Electives
$8-10 \mathrm{cr}$
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Science degree.

## Focus Areas:

Art, History, Music, Philosophy, Theatre, Religion

## HUMANITIES/ FINE ARTS

Department Chair: Amy Kern akern@cloud.edu••785.243.1435, ext. 326

Potential Careers:

- Graphic Designer
- Artists
- Attorney
- Event Coordinator
- Musician
- Music \& Art Educators

Program/General Education Learning Outcomes:

1. Explain the interrelated nature of humanities: how humanities shapes cultures and how the cultures shape humanities.
2. Demonstrate how the humanities can allow for introspection, selfdiscovery, and growth.

## Degrees \& Certificates

Associate of Arts $\qquad$ A.A. -62 hour

## Humanities and Fine Arts

## Associate of Arts <br> 62 Hours



## Communications

CM106 Creative Writing I

CM107 Creative Writing II
3
American Literature
CM123 American Literature II 3
CM124 World Literature \& the Human Experience 3
CM125 Literature for Children 3
CM127 The Short Story 3
CM140 Theatre Appreciation 3
CM143 Play Production 3
CM148 American Cinema Appreciation 3
CS104 Introduction to Website Design 3
CS107 Graphic Software Applications 3
CS108 Computer Applications 3
JN140 Beyond Web 2.0: Social Media as Identity 3

## History

HI108 Women in American Society 3
HI120 World History I 3
HI121 World History II 3
HI122 U.S. History I 3
HI123 U.S. History II 3
HI124 Introduction to History 3

## Music

MU100 Music Appreciation 3
MU102 World Music 3
MU103 History of Rock Music 3
MU104 Cloud County Community Chorale 1
MU110 Harmony \& Ear Training I 4
MU111 Harmony \& Ear Training II 4
MU117 College Band 1
MU118 College Band II 1
MU119 College Band III 1
MU126 Concert Band 1
MU127 Jazz Ensemble 1
MU130 Applied Music: Voice I 1
MU134 Applied Music: Voice II 1
MU137 Applied Music: Voice III 1
MU131 Applied Music: Instrument I 1
MU135 Applied Music: Instrument II 1
MU138 Applied Music: Instrument III 1
MU132 Applied Music: Piano I 1
MU136 Applied Music: Piano II 1
MU139 Applied Music: Piano III 1
MU146 Chamber Singers 1
MU147 Chamber Singers II 1
MU148 Chamber Singers III 1
MU160 Concert Choir 1
MU161 Concert Choir II 1

## Humanities and Fine Arts

## Associate of Arts (Con't)

Philosophy

World Religion

## Education

ED100 Introduction to Education
ED101 Introduction to Education Practicum

## Foreign Language

FL111 Spanish I 4
FL112 Spanish II 4

## Open Electives

$7-8 \mathrm{cr}$
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Arts degree.


## Focus Areas:

> Students may explore courses from any of the

academic departments to help identify their preferred areas of interest

Students with a degree are more competitive for employment opportunities.

## INTERDISCIPLINARY STUDIES



## Degrees \& CERTIFICATES

Applied Technologies
A.A.S. - 62 hours Associate of Arts.
A.A. - 62 hours

Associate of General Studies $\qquad$ A.G.S. - 62 hours Associate of Science
A.S. - 62 hours

# InTERDISCIPLINARY STUDIES 

Applied Technologies Associate of Applied Science<br>62 Hours

The Associate of Applied Science offers an opportunity for students to continue technical coursework from two or more approved technical programs. This will allow students to gain skills in emerging occupations or meet employer needs by blending courses from multiple technical disciplines into a single approved degree program. This is an individualized program of study between the student and their advisor using courses from Kansas Board of Regents Career and Technical approved programs.
Required General Education Courses
English Discipline AreaCM101 English Composition 1 orCM120 Survey of Technical Writing
Communication Discipline AreaCM115 Public Speaking orCM240 Interpersonal Communications
Arts and Humanities Disciipline Area ..... 3
Mathematics and Statistics Discipline AreaMathematics General Education Course orMA110 Intermediate Algebra ( 3 cr ) orMA104 Technical Math ( 3 cr )
Natural and Physical Science Discipline Area ..... 3Physical Science orBiological ScienceSocial and Behavioral Science Discipline Area3
(1 area required)
Anthropology EconomicsGeography PsychologyPolitical Science Sociology
Open Electives ..... 44 cr


# InTERDISCIPLINARY STUDIES 

AGS, AA, and AS Degrees

## 62 Hours



Arts and Humanities Discipline Area (060) ( 2 areas required)
Art Humanities

Music
Theatre
Foreign Language Literature Philosophy History

Institutionally Designated Area Elective (070)
6

## Open Electives

$27-28 \mathrm{cr}$
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Arts degree.

## Associate of Science



Focus Areas:
Architecture,
Engineering, Mathematics, Engineering Technology, Actuary Science

## MATHEMATICS \& ENGINEERING

Department Chair: Robert Zima robert.zima@cloud.edu•• 785.243.1435, ext. 218

## Potential Careers:

- Data Analyst
- Civil Engineer
- Chemical Engineer
- Electrical or Mechanical Engineer
- Actuary
- Architect


## Program/General Education Learning

 Outcomes:1. Recognize the mathematical concepts that are applicable to a scenario.
2. Apply technology in analysis.
3. Accurately interpret, validate, and communicate the result.

# Degrees \& Certificates 

Associate of Science
A.S. - 62 hours

## Mathematics and Engineering



Focus Areas: Wind Energy, Solar Energy, Blade Repair, Substation,
Unmanned Aircraft Systems (Drones)

## RENEWABLE ENERGY

Department Chair: Kit Thompson $k t h o m p s o n @ c l o u d . e d u \cdot \bullet 785.243 .1435$, ext.

Recent graduates hired as:

- Wind Farm Technician
- Substation Technician
- Blade Repair Technician
- Wind Farm Manager
- Solar Array Technician
- Drone Pilot


## Degrees \& CERTIFICATES

Solar Energy
Solar Energy
sUAS (Drones)
sUAS (Drones) $\qquad$
sUAS (Drones) $\qquad$
.30-hour certificate
A.A.S. - 62 hours
.33-hour certificate
A.A.S. - 64 hours 18-hour certificate

Blade Repair 16-hour certificate
Substation Technician.
.33-hour certificate
Wind Energy Technology. .33-hour certificate
Wind Energy Technology ..... A.A.S - 64 hours

## Renewable Energy

## Program Learning Outcomes

## Wind Energy Technology:

## 16-hour Certificate

1. Students will explain all general safety guidelines related to the wind energy industry.
2. Students will summarize all aspects of the fundamental operation of a wind turbine and its relationship relative to a wind farm.
3. Students will summarize the extensive aspects of the wind industry; computer technology, personal communications, teamwork, and environmental issues.

## 33-hour Certificate

1. Students will safely operate, maintain, troubleshoot, and repair mechanical systems.
2. Students will safely operate, maintain, troubleshoot, and repair electrical systems.
3. Students will safely operate, maintain, troubleshoot, and repair hydraulic systems.
4. Students will demonstrate the extensive skill sets of the wind industry; computer technology, personal communications, and teamwork.

## Associate of Applied Science

1. Students will explain and comply with all OSHA safety standards related to the wind energy industry.
2. Students will describe electrical transmission from a wind turbine, through a wind farm, and exiting a collection substation.
3. Students will troubleshoot and optimize wind farm performance through the collection and interpretation of data.

## sUAS:

## 18-hour Certificate

1. Students will explain a sectional chart and identify different airspace.
2. Students will match different platforms and sensor payloads with their appropriate missions.
3. Students will identify and describe all of the individual components of the sUAS and explain how they integrate into its system.

## 30-hour Certificate:

1. Students will use a sectional chart to comply with different airspace restrictions.
2. Students will program and perform an autonomous sUAS mission.
3. Students will describe and implement a scheduled and as needed maintenance strategy for various sUAS platforms.

## Associate of Applied Science

1. Students will describe and evaluate the impact of recent legislation dealing with sUAS.
2. Students will evaluate and select the appropriate platform and sensor payload for the required mission.
3. Students will analyze and compare all of the individual components of the sUAS and assess system integration.

## Solar Energy:

## 33-hour Certificate

1. Students will identify the various safety hazards associated with PV systems and components.
2. Students will identify common types of PV system application with and without energy storage.
3. Students will describe the purpose and principles of operation for major PV system components.
4. Students will explain how PV modules are configured in series and parallel to build voltage, current, and power output.
5. Students will identify the requirements for plan review, permitting, inspections, construction contracts and other matters associated with approvals and code-compliance for PV systems.
6. Students will describe project side considerations, including common roof structural design, types of electrical services, point of interconnection, effects of obstructions, shading analysis tools and techniques, and effects of wind exposure.

## Associate of Applied Science

1. Students will comply with all safety regulations associated with PV systems and components.
2. Students will analyze and compare different types of PV system application with and without energy storage.
3. Students will troubleshoot PV system components.
4. Students will configure and optimize PV modules in series and parallel to build voltage, current, and power output.
5. Students will demonstrate the required steps for plan review, permitting, inspections, construction contracts and other matters associated with approvals and codecompliance for PV systems.
6. Students will formulate and assess PV solutions to project site considerations, including common roof structural design, types of electrical services, point of interconnection, effects of obstructions, shading analysis tools and techniques, and effects of wind exposure.

## Renewable Energy

## Program Learning Outcomes

## Renewable Energy:

## Associate of General Studies

1. Students will apply the knowledge and skills from multiple disciplines with renewable energy to be prepared for opportunities in governmental policy, entrepreneurship, or technical professions.
2. Students will identify the various safety hazards associated with PV systems and components.
3. Students will identify common types of PV system application with and without energy storage.
4. Students will describe the purpose and principles of operation for major PV system components.
5. Asset Selection: Students will evaluate and select the appropriate platform and sensor payload for the required mission.
6. Industry Trends and Literacy: Students will describe and evaluate the impact of recent legislation dealing with sUAS.
7. System Literacy: Students will analyze and compare all of the individual components of the sUAS and assess system integration.
8. Students will explain all general safety guidelines related to the wind energy industry.
9. Students will summarize all aspects of the fundamental operation of a wind turbine and its relationship relative to a wind farm.
10. Students will summarize the extensive aspects of the wind industry; computer technology, personal communications, teamwork, and environmental issues.
11. Students will safely operate, maintain, troubleshoot, and repair electrical systems.


## Renewable Energy

## Solar Energy <br> 33-Hour Certificate

| General Education Required Courses | 6 cr |
| :---: | :---: |
| Communication Discipline Area CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communications ( 3 cr ) | 3 |
| Mathematics \& Statistics Discipline Area MA104 Technical Math (3 cr) or MA110 Intermediate Algebra ( 3 cr ) or Mathematics General Education Course | 3 |
| Required Solar Energy Courses | 21 cr |
| SE100 Introduction to Solar Energy | 3 |
| SE101 Solar Energy Fundamentals | 3 |
| SE102 Solar Energy Design | 3 |
| SE103 Solar Energy Operations \& Maintenance | 3 |
| WE105 Employability Skills, Safety, \& Blueprint Reading |  |
| WE110 Electrical Theory | 3 |
| WE250 Data Acquisition \& Communications | 3 |


| Elective Courses |  |  | $\mathbf{6 c r}$ |
| :--- | :--- | :--- | :--- |
| BE160 | Business Accounting | 3 |  |
| BE170 | Business Statistics | 3 |  |
| CS108 | Computer Applications | 3 |  |
| CS155 | Networking and Computer Technology | 3 |  |
| CS140 | Introduction to Robotics | 3 |  |
| MG102 | Introduction to Entrepreneurship | 3 |  |
| UA100 | Introduction to sUAS | 3 |  |
| UA110 | sUAS Ground School | 3 |  |
| SC109 | Applied Physics | 3 |  |
| WE100 | Introduction to Wind Energy | 3 |  |
| WE210 | Motor Control Circuits | 3 |  |
| WE225 | Electric Motors and Generators | 3 |  |
| WE230 | Substation \& Voltage Regulation | 3 |  |
| WE270 | Transformer Theory | 3 |  |
| WE280 | Wind Energy Technology Internship | $1-4$ |  |



## Renewable Energy

## Solar Energy <br> Associate of Applied Science <br> 64 Hours



| Required Solar Courses |  | $\mathbf{3 6}$ cr |
| :--- | :--- | :--- |
| SE100 | Introduction to Solar Energy | 3 |
| SE101 | Solar Energy Fundamentals | 3 |
| SE102 | Solar Energy Design | 3 |
| SE103 | Solar Energy Operations \& Maintenance | 3 |
| SE201 | Advanced Solar Energy Design | 3 |
| SE202 | Advanced Solar Energy Installation | 3 |
| SE203 | Solar Energy System Commissioning | 3 |
| SE204 | Solar Energy Advanced Operations \& Maintenance3 |  |
| WE105 | Employability Skills, Safety, \& Blueprint Reading | 3 |
| WE110 | Electrical Theory | 3 |
| WE210 | Motor Control Circuits | 3 |
| WE250 | Data Acquisition \& Communications | 3 |

Elective Courses
9 cr
BE160 Business Accounting 3
BE170 Business Statistics 3
CS108 Computer Applications 3
CS140 Introduction to Robotics 3
CS155 Networking and Computer Technology 3
MG102 Introduction to Entrepreneurship 3
SC109 Applied Physics 3
UA100 Introduction to sUAS 3
UA110 sUAS Ground School 3
WE100 Introduction to Wind Energy 3
WE225 Electric Motors and Generators 3
WE230 Substation \& Voltage Regulation 3
WE270 Transformer Theory 3
WE280 Wind Energy Technology Internship 1-4


## Renewable Energy

## sUAS Remote Pilot(Drones)

18-Hour Certificate

| General Education Required Courses | $\mathbf{6 ~ c r}$ |  |
| :---: | :---: | :---: |
| English Discipline Area | 3 |  |
| CM101 English Composition I $\quad(3 \mathrm{cr})$ or |  |  |
| CM120 Survey of Technical Writing $(3 \mathrm{cr})$ |  |  |
| Mathematics and Statistics Discipline Area | 3 |  |
| MA104 Technical Math $(3 \mathrm{cr})$ or |  |  |
| MA110 Intermediate Algebra or |  |  |
| Mathematics General Education Course |  |  |


| Required sUAS Courses | $\mathbf{9 ~ c r}$ |  |
| :--- | :--- | :--- |
| UA110 | sUAS Ground School | 3 |
| UA140 | sUAS Applications | 3 |
| UA150 | sUAS Personnel, Safety, \& Crew Resource Mgmt | 3 |

Elective Courses 3 cr
CS140 Introduction to Robotics 3
CS145 Introduction to CAD 3


## Renewable Energy

## sUAS (Drones)

 30-Hour Certificate$\left.\begin{array}{lll}\begin{array}{l}\text { General Education Required Courses } \\ \text { English Discipline Area } \\ \text { CM101 English Composition I (3 cr) or }\end{array} & \mathbf{6} \mathbf{~ c r} \\ \quad \text { CM120 Survey of Technical Writing (3 cr) }\end{array}\right)$

| Elective Courses |  | $\mathbf{6}$ cr |  |
| :--- | :--- | :--- | :--- |
| AG255 | Precision Ag Hardware | 3 |  |
| AG256 | Precision Ag Software | 3 |  |
| AR129 | Introduction to Digital Photography | 3 |  |
| CS140 | Introduction to Robotics | 3 |  |
| CS141 | Introduction to Additive Manufacturing |  |  |
|  | (3D Printing) | 3 |  |
| CS145 | Introduction to CAD | 3 |  |
| EC101 | Introduction to Macroeconomics | 3 |  |
| MG102 | Introduction to Entrepreneurship | 3 |  |
| UA100 | Introduction to sUAS | 3 |  |
| WE110 | Electrical Theory | 3 |  |
| WE250 | Data Acquisition \& Communications | 3 |  |
| WE280 | Wind Energy Technology Internship | 4 |  |



## Renewable Energy <br> sUAS (Drones) <br> Associate of Applied Science <br> 62 Hours

| General Education Required Courses | 19 cr |
| :---: | :---: |
| English Discipline Area | 3 |
| CM101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3 cr) |  |
| Communication Discipline Area CM115 Public Speaking ( 3 cr ) or CM240 Interpersonal Communication (3 cr) | 3 |
| Arts and Humanities Discipline Area (Choose from 1 area below) | 3 |
| Art Humanities |  |
| Music Literature |  |
| Theatre Philosophy |  |
| Foreign Language History |  |
| Mathematics and Statistics Discipline Area | 3 |
| MA104 Technical Math (3 cr) or |  |
| MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course |  |
| Natural and Physical Science Discipline Area SC107 Meteorology ( 4 cr ) recommended | 4 |
| Social and Behavioral Science Discipline Area SS101 General Psychology (Suggested) | 3 |

CM101 English Composition I ( $3 \mathrm{cr} \mathrm{)} \mathrm{or}$
CM120 Survey of Technical Writing (3 cr)
Communication Discipline Area
3
115 Public Speaking ( 3 cr ) or
nd Humanities Discipline Area Art

Humanities
Music
ature
Philosophy

Mathematics and Statistics Discipline Area
MA110 Intermediate Algebra (3 cr) or
Mathematics General Education Course
Natural and Physical Science Discipline Area 3
SS101 General Psychology (Suggested)

| Required Courses | $\mathbf{2 7}$ cr |  |
| :--- | :--- | :--- |
| UA100 | Introduction to sUAS | 3 |
| UA110 | sUAS Ground School | 3 |
| UA140 | sUAS Applications | 3 |
| UA150 | sUAS Personnel, Safety, \& Crew Resouce Mgmt | 3 |
| UA201 | sUAS Command, Control, \& Comm. | 3 |
| UA210 | sUAS Systems \& Conceptual Design | 3 |
| WE240 | GIS/GPS | 3 |
| WE250 | Data Acquisition and Communications | 3 |
| WE255 | Airfoils and Composite Repair | 3 |
|  |  |  |
| Elective Courses | $\mathbf{1 6}$ cr |  |
| AG255 | Precision Ag Hardware | 3 |
| AG256 | Precision Ag Software | 3 |
| AR129 | Introduction to Digital Photography | 3 |
| CS140 | Introduction to Robotics | 3 |
| CS141 | Introduction to Additive Manufacturing |  |
|  | $\quad$ (3D Printing) | 3 |
| CS145 | Introduction to CAD | 3 |
| CS155 | Networking \& Computer Technology | 3 |
| EC101 | Principles of Macroeconomics | 3 |
| MG102 | Introduction to Entrepreneurship | 3 |
| SC109 | Applied Physics | 3 |
| WE110 | Electrical Theory | 3 |
| WE280 | Wind Energy Technology Internship | 4 |



## Renewable Energy

## Blade Repair <br> 16-Hour Certificate

| General Education Required Courses | $\mathbf{3 ~ c r}$ |  |
| :---: | :---: | :---: |
| English Discipline Area | 3 |  |
| CM101 English Composition I $\quad(3 \mathrm{cr})$ or |  |  |
| CM120 Survey of Technical Writing $(3 \mathrm{cr})$ |  |  |


| Required Blade Repair Courses | $\mathbf{1 3} \mathbf{~ c r}$ |  |
| :--- | :--- | :--- |
| WE100 | Introduction to Wind Energy | 3 |
| WE255 | Airfoils and Composite Repair | 3 |
| WE257 | Applied Airfoils | 3 |
| *WE262 | Blade Repair Operations | 4 |

*Must have a physical on file prior to enrolling in this class.


## Renewable Energy

## Wind Energy Technology <br> 16-Hour Certificate

| General Education Required Courses |  | 3 cr |
| :---: | :---: | :---: |
| CM101 English Composition ( 3 cr ) or CM120 Survey of Technical Writing ( 3 cr) or MA104 Technical Math (3 cr) or MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course | 3 |  |
| Required Wind Energy Courses |  | 6 cr |
| WE100 Introduction to Wind Energy | 3 |  |
| WE110 Electrical Theory | 3 |  |


| Elective Courses |  |  |  |
| :--- | :--- | ---: | :--- |
| CS140 | Introduction to Robotics | 3 |  |
| CS155 | Networking \& Computer Technology | 3 |  |
| SE100 | Introduction to Solar Energy | 3 |  |
| UA100 | Introduction to sUAS | 3 |  |
| UA110 | sUAS Ground School | 3 |  |
| WE105 | Employability Skills, Safety, \& Bluepring |  |  |
| $\quad$ Reading |  | 3 |  |
| WE120 | Hydraulics | 3 |  |
| WE150 | Mechanical Systems | 3 |  |
| WE210 | Motor Control Circuits | 3 |  |
| WE225 | Electric Motors and Generators | 3 |  |
| WE250 | Data Acquisition \& Communications | 3 |  |
| WE255 | Airfoils and Composite Repair | 3 |  |
| *WE265 | Field Training \& Project Operations | 3 |  |
| WE280 | Wind Energy Technology Internship | $1-4$ |  |
|  |  |  |  |
| *Must have a physical on file prior to enrolling in this class. |  |  |  |



## Renewable Energy

## Substation Technician <br> 33-Hour Certificate

| General Education Required Courses | $\mathbf{6 c r}$ |  |
| :--- | :--- | :--- |
| English or Communication Discipline Area | 3 |  |
| CM101 English Composition I (3 cr) or |  |  |
| CM120 Survey of Technical Writing $(3 \mathrm{cr})$ or |  |  |
| CM115 Public Speaking (3 cr) or |  |  |
| CM240 Interpersonal Communications $(3 \mathrm{cr})$ |  |  |
| Mathematics and Statistics Discipline Area | 3 |  |
| MA104 Technical Math $(3 \mathrm{cr})$ or |  |  |
| MA110 Intermediate Algebra (3 cr) or |  |  |
| Mathematics General Education Course |  |  |

SE100 Introduction to Solar Energy 3
UA110 sUAS Ground School 3
WE100 Introduction to Wind Energy 3
WE210 Motor Control Circuits 3

## Required Substation Courses

WE105 Employability Skills, Safety, \& Blueprint Reading

3
WE110 Electrical Theory 3
WE202 Electrical Power Delivery 3
WE215 Electrical System Protection \& Coordination 3
WE225 Electric Motors and Generators 3
WE230 Substation \& Voltage Regulation 3
WE250 Data Acquisition \& Communications 3
WE270 Transformer Theory 3
Elective Courses
3 cr
$\square$



## Renewable Energy

## Wind Energy Technology 33-Hour Certificate

General Education Required Courses
English Discipline Area ..... 6 cr ..... 3CM101 English Composition I (3 cr) orCM120 Survey of Technical Writing ( 3 cr )
Mathematics and Statistics Discipline AreaMA104 Technical Math (3 cr) orMA110 Intermediate Algebra ( 3 cr ) orMathematics General Education Course
Required Wind Energy Courses ..... 21 cr
WE100 Introduction to Wind Energy
WE110 Electrical Theory ..... 3
WE120 Hydraulics ..... 3
WE150 Mechanical Systems ..... 3
WE210 Motor Control Circuits ..... 3
WE225 Electric Motors and Generators ..... 3
*WE265 Field Training \& Project Operations

| Elective Courses |  |  |  |
| :--- | :--- | :---: | :--- |
| CS140 | Introduction to Robotics | 3 |  |
| CS155 | Networking \& Computer Technology | 3 |  |
| SE100 | Introduction to Solar Energy | 3 |  |
| UA100 | Introduction to sUAS | 3 |  |
| UA110 | sUAS Ground School | 3 |  |
| WE105 | Employability Skills, Safety, \& Blueprint |  |  |
|  | $\quad$ Reading | 3 |  |
| WE230 | Substation \& Voltage Regulation | 3 |  |
| WE250 | Data Acquisition \& Communications | 3 |  |
| WE255 | Airfoils and Composite Repair | 3 |  |
| WE280 | Wind Energy Technology Internship | $1-4$ |  |
|  |  |  |  |
|  |  |  |  |
| *Must have a physical on file prior to enrolling in this course. |  |  |  |

*Must have a physical on file prior to enrolling in this course.


## Renewable Energy

## WIND ENERGY TECHNOLOGY (WET)

Associate of Applied Science 64 Hours

| General Education Required Courses |  |  |  | 19 cr |
| :---: | :---: | :---: | :---: | :---: |
| CM101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3) |  |  |  |  |
| Comm CM1 | unication Discipline Area <br> 15 Public Speaking ( 3 cr ) or M240 Interpersonal Communication (3 |  | 3 |  |
| Arts an <br> Art Musi Thea Fore | d Humanities Discipline Area Choose from 1 area below) <br> Humanities <br> Literature <br> Philosophy <br> gn Language <br> History |  | 3 |  |
| Mathe <br> MA1 | matics and Statistics Discipline area 04 Technical Math (3 cr) or A110 Intermediate Algebra ( 3 cr ) or Mathematics General Education Course |  | 3 |  |
| $\begin{array}{r} \text { Natura } \\ \text { SC10 } \end{array}$ | and Physical Science Discipline Area <br> 7 Meteorology ( 4 cr ) |  | 4 |  |
| Social SS10 | nd Behavioral Science Discipline Area 1 General Psychology ( 3 cr ) |  | 3 |  |
| Requir | ed Wind Courses |  |  | 39 cr |
| SC109 | Applied Physics | 3 |  |  |
| WE100 | Introduction to Wind Energy | 3 |  |  |
| WE105 | Employability Skills, Safety, \& Blueprint Reading | 3 |  |  |
| WE110 | Electrical Theory | 3 |  |  |
| WE120 | Hydraulics | 3 |  |  |
| WE150 | Mechanical Systems | 3 |  |  |
| WE210 | Motor Control Circuits | 3 |  |  |
| WE225 | Electric Motors and Generators | 3 |  |  |
| WE230 | Substation \& Voltage Regulation | 3 |  |  |
| WE240 | GIS/GPS | 3 |  |  |
| WE250 | Data Acquisition \& Communications | 3 |  |  |
| WE255 | Airfoils and Composite Repair | 3 |  |  |
| *WE265 | Field Training \& Project Operations | 3 |  |  |
| Elective Courses |  |  |  | 6 cr |
| CS140 | Introduction to Robotics | 3 |  |  |
| CS155 | Networking \& Computer Technology | 3 |  |  |
| SE100 | Introduction to Solar Energy | 3 |  |  |
| UA100 | Introduction to sUAS | 3 |  |  |
| UA110 | sUAS Ground School | 3 |  |  |
| WE260 | Wind Turbine Siting | 3 |  |  |
| WE270 | Transformer Theory | 3 |  |  |
| WE280 | Wind Energy Technology Internship | 3-4 |  |  |



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## Renewable Energy

## Associate of General Studies 62 Hour


IE117SE10133
SE103 Solar Energy Operations \& Maintenance ..... 3
SE201SE202 Advanced Solar Energy Installation3
SE203 Solar Energy System Commissioning ..... 3
SE204 Solar Energy Advanced O\&M ..... 3
UA201 sUAS Command, Control, and Communication ..... 3
UA210 sUAS Systems \& Conceptual Design ..... 3
WE105 Employability Skills, Safety, \& Blueprint Reading ..... 3
WE120 Hydraulics ..... 3
WE150 Mechanical Systems ..... 3
WE202 Electrical Power Delivery ..... 3
WE210 Electronics ..... 3
WE215 Electrical System Protection and Coordination ..... 3
WE220 Cooperative Ed Internship ..... 3
WE225 Electric Motors and Generators ..... 3
WE227 PLC's ..... 3
WE230 Substation \& Voltage Regulation ..... 3
WE240 GIS/GPS ..... 3
WE250 Data Acquisition \& Communication ..... 3
WE255 Airfoils \& Composite Repair ..... 3
WE257 Applied Airfoils ..... 3
*WE262 Blade Repair Operations ..... 3
*WE265 Field Training \& Project Operations ..... 3
WE270 Transformer Theory ..... 3
WE280 Wind Energy Technology Internship ..... 1-4
Additional Electives
CS108 Computer Applications ..... 3
CS155 Networking and Computer Technology ..... 3
MA114 Elementary Statistics ..... 3
SC107 Meteorology ..... 4
SC109 Applied Physics ..... 3
Life Skills
BE139
BE210 Leadership Development ..... 3
PE141 Personal Wellness ..... 3
PE250 Stress Management ..... 3
SS106 Marriage and Family ..... 3
Open Electives ..... 6 cr

[^1]
## Focus Areas:

Biology, Chemistry,

Earth Science,
Physics, Pre-Medicine,
Pre-Dentistry,
Pre-Pharmacy,

## SCIENCE

Department Chair: Josh Urban jrurban@cloud.edu•• 785.243.1435, ext. 245

Pre-Physical Therapy,
Pre-Physician Assistant

## Potential Careers:

- Environmental Scientist
- Wildlife/Field Biologist
- Doctor, Dentist, Chiropractor
- Research Scientist
- Conservation Officer
- Science Teacher

Program/General Education Learning Outcomes:

1. Apply the scientific process to evaluate current issues and circumstances.
2. Demonstrate scientific literacy and knowledge about the study.
3. Critically analyze events through a scientific lens.
4. Demonstrate quantitative reasoning and problem-solving.

# Degrees \& Certificates 

Associate of Science A.S. - 62 hours

## Science

## Associate of Science

62 Hours


## Physical Sciences

SC103 Physical Science 3
SC104 Geology 4
SC105 Astronomy 4
SC107 Meteorology 4
SC132 Chemistry II 5
SC137 Natural Hazards and Disasters 3
SC138 Natural Hazards and Disasters Lab 1
SC140 College Physics I 5
SC141 College Physics II 5
SC142 University Physics I 5
SC143 University Physics II 5


Focus Areas:
Anthropology,
Geography, Sociology, Psychology, Criminal Justice, Family Studies, Counseling/Social Work, Pre-Law/Political Science

## Potential Careers:

- Social Worker
- High School Counselor
- Corrections Officer
- Emergency Preparedness
- Police Officer


## BEHAVIORAL SCIENCE <br> Department Chair: Paul Gardner pgardner@cloud.edu ••785.243.1435, ext. 343 po <br> SOCIAL \&



Program/General Education Learning Outcomes:

1. Demonstrate critical thinking in understanding of psychological and/or social aspects of the human experience.
2. Describe the influence an individual (or group) can have on another individual (or group).

# Degrees \& Certificates 

Associate of Arts. A.A. -62 hours

## Social \& Behavioral Science

## Associate of Arts

62 Hours


| SS127 | Child Psychology | 3 |
| :--- | :--- | :--- |
| SS129 | Introduction to Social Work | 3 |
| SS130 | Introduction to Sociology | 3 |
| SS131 | Cultural Diversity and Ethnicity | 3 |
| SS140 | U.S. Government: National | 3 |
| SS141 | U.S. Government: State and Local | 3 |
| SS142 | Current Political Issues | 3 |
| SS150 | Introduction to International Relations | 3 |
| SS201 | Social Problems | 3 |
| SS220 | Cooperative Ed Internship | 3 |
|  |  |  |
|  | Additional Electives | 3 |
| BE154 | Business Law | 3 |
| BE161 | Accounting I | 3 |
| BE210 | Leadership Development | 3 |
| CM129 | Media Law and Ethics | 3 |
| CM240 | Interpersonal Communications | 4 |
| FL111 | Spanish I | 3 |
| HE168 | Family and Cultural Perspectives | 3 |
| HI108 | Women in American Society | 3 |
| HI120 | World History I | 3 |
| HI121 | World History II | 3 |
| H1122 | US History I | 3 |
| H123 | US History II | 3 |
| HI124 | Introduction to History | 3 |
| MA114 | Elementary Statistics | 3 |
| JN100 | Mass Media in Society | 3 |
| JN140 | Beyond Web 2.0: Social Media as Identity | 3 |
| PE131 | First Aid and Safety | 3 |
| PE250 | Stress Management | 3 |
| PH105 | Ethics |  |

## Open Electives

$9-10 \mathrm{cr}$
Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Arts degree.

## Course Descriptions

T The courses noted with this symbol qualify for guaranteed transfer. Visit www.kansasregents.org/transfer articulation for more information.

## AGRICULTURE

## *AG101 CROP SCIENCE <br> $\qquad$ .4

Is a transfer course designed to acquaint students with the botanical principles underlying plant growth, development and reproduction. Three hours lecture and one hour laboratory each week.

## AG102 INTRODUCTION TO PLANT PEST CONTROL <br> $\qquad$

 This course emphasizes the importance of pest control. Topics covered include the techniques of preventing damage to agriculture crops due to weeds, insects, diseases or nematodes, pesticide use, weed ecology, insects/entomology, and specific pest problems for individual crops.
## AG103 PLANT AND SOILS FOR CROP PRODUCTION....... 3

Covers the biological factors governing crop yield and the culture of major crops in the area. Prerequisite: Crop Science and Soils.
*AG104 SOILS 4
Covers fundamental principles underlying the formation, fertility and management of soils. Three hours lecture and one extended laboratory per week are required. Prerequisite: Chemistry 1 or General Chemistry.

## AG 105 RANGE MANAGEMENT

 .3An in-depth look at the management of grazing resources including ecology, economics, burning, brush and weed control, grazing systems and complementary grazing crops.

## AG106 SOIL CLASSIFICATION AND EVALUATION

$\qquad$ An exercise in classifying and evaluating soils according to criteria recognized by USDA soil scientists. Soils are evaluated for their usefulness for agriculture and engineering purposes.

## *AG107 AGRONOMY IDENTIFICATION AND. <br> $\qquad$ .1 EXPERIMENTATION

This course is designed to develop in students an ability to quickly and accurately identify plants by seed and vegetative characteristics and analyze seed samples for impurities. Students will prepare for national competition in agronomy.

## AG 108 ENVIRONMENTAL QUALITY

$\qquad$ .3
Is designed to acquaint land managers with the impact of various practices on such environmental parameters as groundwater, fish and wildlife, as well as to introduce methods of improving the environment on a local scale. Means of utilizing under-used natural resources in a profitable and ecologically sound manner will be stressed. Prerequisite: Chemistry I
*AG109 ENVIRONMENTAL QUALITY LAB $\qquad$ . .1

Is designed to allow students to experience concepts discussed in Environmental Quality lecture class. One extended laboratory per week, with frequent field trips. Prerequisite: concurrent enrollment in Environmental Quality.

## AG 111 ANIMAL MANAGEMENT

 .3Animal Management helps to acquaint agricultural students with production aspects of the livestock industry. It introduces the basic concepts of inheritance, breeding systems, nutrition and physiology of reproduction; concepts of lactation, growth, health, and muscular work; and acquaints students with marketing procedures.

## *AG112 AGRONOMY IDENTIFICATION AND <br> $\qquad$ . .1 EXPERIMENTATION II

This course is designed to guide students to quickly and accurately identify crops and weed species (both plant and seed) identification, identify pests of crops including insects and diseases, and distinguish common farming implements. All of these aspects are directed toward competition in the year-end national contests.

## AG114 Domestic Animal Production

 .3Is designed to acquaint students with the basic concepts and issues of the livestock, dairy, and poultry industries. The class will cover aspects in the areas of genetics, feeding, health, reproduction, and production systems for the major domestic species.

AG115 ANIMAL SCIENCE . .3
Helps to acquaint agricultural students with the scope of the livestock, dairy, and poultry industries. It introduces the basic concepts of inheritance, breeding systems, nutrition and physiology of reproduction; concepts of lactation, growth, egg laying and muscular work; and acquaints students with marketing procedures, carcass and slaughter grades, principles of carcass grading and aids in the evaluation of live animals.

## AG118 PRINCIPLES OF LIVESTOCK SELECTION I

$\qquad$ .2
This course will consist of the evaluation and appraisal of market livestock and their carcasses and breeding livestock based on visual appraisal and performance records in an effort to organize and justify comparative decisions by presenting oral reasons. This class is designed to make each student more adept at evaluating differences in animals of the same species.

## AG119 PRINCIPLES OF LIVESTOCK SELECTION II

$\qquad$ This course will consist of the advanced evaluation and appraisal of market livestock and their carcasses and breeding livestock based on visual appraisal and performance records in an effort to organize and justify comparative decisions by presenting oral reasons. Prerequisite: Principles of Livestock Selection I.
*AG122 INTRODUCTION TO HORSEMANSHIP .2
Introduction to Horsemanship helps to aquaint students with basic concepts involved in working with horses. This class will stress safety when working with equines for both the human and the horse. Students will study horse psychology including inherited and learned behavior, methods of communicating, and training. This course includes hands on practice and observation.

## AG123 BEEF SCIENCE

$\qquad$ .3
Will cover techniques and management practices used in commercial and purebred cow-calf operations, as well as feeder cattle and feedlot operations. Field trips and hands-on practicums are an integral part of this course.

## AG125 HORSE SCIENCE

 .3Horse Science is a study of the basic principles of animal agiculture specifically related to the equine industry. Prerequisite: Animal Science or consent of instructor.

## AG128 ANIMAL HEALTH AND NUTRITION

$\qquad$ .3
A study of the factors that influence animal health and proper nutrition. Typical species (cattle, swine, sheep and horses) in agriculture will be studied. Herd health methods along with up-to-date recommendations in animal nutrition will be provided. Prerequisite: AG115 Animal Science
*AG129 EQUINE GROUNDWORK TRAINING $\qquad$ Groundwork Training allows students with all equine interest levels and experience to learn the principles of working the horse's mind from the ground. It also provides handlers with a better understanding of and the importance of feel and timing when communicating during riding. This class will emphasize safety while teaching how to build a trusting and respectful relationship with horses. Lessons will consist of sensitizing the horse to move away from pressure and desensitizing the horse to help it relax while accepting applied pressure.

## AG130 PRINCIPLES OF AGRICULTURAL ECONOMICS .... 3

Is suggested for all students interested in the agricultural economy. A study of economic principles with emphasis on their application to the solution of farm, agribusiness and agricultural industry problems in relationship to other sectors of the U.S. economy and foreign countries.

## AG132 AGRICULTURE MANAGEMENT

$\qquad$
Relates specifically to management of farms and ranches. Course content will emphasize budget planning, record keeping, record analysis, ag finance/credit, taxes and machinery and land management. Management exercises simulating farm and ranch activities and decisions are incorporated. Microcomputers are used to aid in the completion of these management exercises. Prerequisite: Principles of Microeconomics.

AG134 AGRICULTURAL MARKETING .3
Provides an overview of marketing alternatives for agricultural commodities, primarily grains and livestock. Alternatives to be discussed will include cash sales and contracting, hedging, and options. Students will become familiar with marketing plans, basis, and the effect supply and demand has on the markets. Prerequisite: Principles of Macroeconomics or Principles of Microeconomics.

## *AG150 INTRODUCTION TO HORTICULTURE

$\qquad$ .4 This course introduces the basic concepts and practices of horticulture with a survey of different aspects and careers of the horticulture industry. Students will develop professional skills in preparation for a career in the horticultural industry. This course combines three hours lecture and one and one-half hours of laboratory time.

## AG159 EQUINE EVALUATION.

$\qquad$ . 1
The study of evaluating form and function in the equine species. Aspects of evaluation will include physical form as in halter classes, as well as the functional aspect of performance classes in both Western and English disciplines. The preparation of oral reasons to organize and justify comparative decisions will be emphasized. The class is designed to make each student more adept at evaluating differences in animals of the same species and is strongly recommended for students wishing to be on the horse judging team.

## *AG164 ADVANCED SOIL CLASSIFICATION AND EVALUATION .1

An advanced exercise in classifying and evaluating soils, according to criteria recognized by USDA soil scientists including the fundamental chemical, physical, and biological properties of soils; their formation, fertility, and management. Soils are evaluated for thier usefulness for agriculture and engineering purposes. Students will use techniques employed in writing descriptions of soil morphology and in classifying soils for intercollegiate soils judging.

## AG165 EQUINE EVALUATION II

$\qquad$ This course offers the continued study of evaluating form and function in equine species. Aspects of evaluation will include physical form as in halter classes, as well as the functional aspects of performance classes in both Western and English disciplines. The preparation and delivery of oral reasons to organize and justify comparative decisions will be emphasized. This class is required for students on the horse judging team. Prerequisite: Equine Evaluation

## AG166 FUNDAMENTALS OF LIVESTOCK NUTRITION..... 3

 This course teaches the elementary principles of comparative nutrition in farm animals. Additional topics include the anatomy and physiology of the digestive system; the process of nutrition; the origin, chemistry and feeding value of different feeds; the
## Course Descriptions

nutritional requirements; and the theory of practical economy for the maintenance and growth of farm animals. Prerequisite: Chemistry I.

## *AG188 VARSITY SPORTS: EQUESTRIAN/RODEO SKILLS <br> $\qquad$ .1

Students will learn safe horse equitation and livestock handling and basic techniques of showing horses in English and/or western disciplines to compete at Intercollegiate Horse Association events and/or individual National Intercollegiate Rodeo Association events.
*AG189 VARSITY SPORTS: EQUESTRIAN/RODEO SKILLS II. .1
Students practice safe horse equitation and livestock handling and learn advanced techniques of showing horses in English and/or western disciplines to compete at Intercollegiate Horse Association events and/or individual National Intercollegiate Rodeo Association events.

## AG210 AGRICULTURE ADVERTISING AND DESIGN........ 3

This course exposes students to advertising and marketing principles as they apply to hands-on projects. Students will use industry-adopted software to develop printed communication pieces to the point of being "printer ready". Assignments will integrate software functionality and design concepts with print production technology requirements.

## AG2 17 FARM COMPUTER APPLICATION I

$\qquad$ 3
Is designed for those with knowledge of Electronic Spreadsheets and Data Management and will involve setting up herd records for livestock operations, developing a ration formulation for actual herd records and developing machinery records and inventory.

AG220 COOPERATIVE EDUCATION INTERNSHIP $\qquad$ 1-6 See CA220
*AG225 BASIC EQUITATION $\qquad$ . .3
This course assists students in advancing basic techniques involved in horseback riding. Safety, proper equipment use, and communication techniques will be emphasized. Students will be expected to increase their skills in performing basic maneuvers on horseback.

## *AG226 ADVANCED EQUITATION <br> $\qquad$

Designed to instruct students in how to achieve a higher level of performance with the equine athlete. The course will stress safety while riding, cues and circumstances, and achieving elevated levels of performance. The students will be expected to safely perform advanced maneuvers on horseback. Prerequisite: Basic Equitation or instructor approval.
*AG228 FOCUSED EQUITATION .3
Designed to allow equestrian students who have completed the series of riding classes to focus on a particular discipline such as western pleasure, trail, hunter hack, jumping, reining, etc. This class will stress safety when working with equines, for both the human and horses. Horse psychology, learning, and training concepts will be introduced to the students. Prerequisite: completion of advanced equitation or instructor permission.

[^2] tech equipment and management strategies.
*AG256 PRECISION AG SOFTWARE . .3
This course will cover aspects of Global Positioning Systems (GPS), Geographic Information Systems (GIS), remote sensing, data acquisition, mapping, variable rate application, and the economics of precision agriculture software. Students will develop a fundamental understanding of precision agriculture software and how to effectively use data to create prescriptions.

* A lab fee will be assessed for these courses.


## ALLIED HEALTH

## AH113 MEDICAL MATHEMATICS

.1
This course covers application problems involving medical dosages and intravenous fluid rates. Students who need orientation to the mathematical procedures of medication calculations will benefit from this course.

## AH114 MEDICAL OFFICE VOCABULARY

$\qquad$ .3

This course presents a study of basic medical terminology.
Prefixes, suffixes, word roots, combining forms, special endings, plural forms, abbreviations, and symbols are included in the content. A programmed learning, word building systems approach is used to learn word parts for constructing or analyzing new terms. This provides the opportunity to decipher unfamiliar terms and check their spelling. Emphasis is placed on spelling, definition, usage, practical applications, personalization of medical terms as well as practice at pronunciation. Abbreviations are introduced as related terms presented with each unit.

## AH163 EMERGENCY MEDICAL TECHNICIAN

$\qquad$ 10
Is the emergency medical technician initial course of instruction required for persons involved in providing emergency care. It will include care of the patient prior to transport, control of the accident scene, preparation for transport, transport and care of the patient while en route to the hospital, transfer of a patient to a hospital emergency department, communications, reporting, record keeping, and vehicle care. It will provide the participant with the preparation necessary for testing for certification and practice as an Emergency Medical Technician in the State of Kansas. This

## Course Descriptions

Emergency Medical Technician course meets the requirements of the Kansas Board of Emergency Medical Services as set forth in the Kansas Administrative Regulations. Students must be 17 years or older to take the National Registry Exam.

## AH197 CERTIFIED NURSE AIDE

$\qquad$ .5
This course will provide fundamental knowledge of the aging process with emphasis on meeting the requirements of geriatric residents in health care facilities including ethics, communication, normal and aging body system function, nutrition, diseases, observation skills, documentation, and personal care skills. The student will complete a minimum 45 hours of instruction and 45 hours of clinical following the Kansas Department for Aging and Disability Services curriculum. The student will prepare to take the Kansas Certified Nurse Aide State test. Prerequisite: Student must be 16 years or older by the end of the class to enroll in this course.

## AH198 MEDICATION AIDE

 .5This course will enable the student to administer specific medications safely and accurately in an adult care home. The student will complete a minimum 50 hours of instruction and 25 hours of clinical following the Kansas Department for Aging and Disability Services curriculum. The student will prepare to take the Kansas Medication Aide State test. Prerequisite: appropriate reading comprehension score or English Composition I. Proof of active Kansas Nurse Aide Certification. Student must be 18 years or older by the end of the class to enroll in this course.

## AH199 HOME HEALTH AIDE

 .2This course will provide fundamental knowledge of the aging process with emphasis on providing services essential to the physical, mental, and psycho-social well-being of clients in the home setting; incorporating basic care of clients with the instrumental Activities of Daily Living in the home setting. The student will complete 30 hours of instruction following the Kansas Department for Aging and Disability Services curriculum. The student will prepare to take the Kansas Certified Home Health Aide State test. Prerequisite: appropriate reading comprehension score or English Composition I and proof of active Kansas Nurse Aide Certification.

## CRIMINAL JUSTICE

## AJ100 TV INTRODUCTION TO CRIMINAL JUSTICE ........... 3

This course provides an introduction to the historical development and the internal and external issues of the various components of the criminal justice system including police, corrections, and the courts. The student will illustrate how these interrelated components result in the administration of justice today.

AJ112 SPECIAL TOPICS IN CRIMINAL JUSTICE $\qquad$ .3
An organized course offering the opportunity for intensive examination of specialized topics in criminal justice not normally or not often available as part of regular course offerings. Course involves lectures, readings and classroom discussion of selected
topics. Special topics may be repeated for credit when topics vary. Specific topic will be indicated when offered.

## AJ118 INTRODUCTION TO CORRECTIONS . 3

Students will evaluate the historical development of the correctional system as well as the role of corrections in our criminal justice system and society. The course analyzes how offenders are supervised in facilities and within the community. The range of sanctions used historically and today are discussed and examined. Issues in corrections such as gender, race relations, ethics, addictions, death penalty, and juveniles, are explored. This course will also examine careers and the future of corrections.

## AJ145 AGENCY ADMINISTRATION

.3
This course conducts a practical analysis of modern administration theory and supervisory, management principles and their application to the unique operating problems of criminal justice organizations.

## AJ200 LAW ENFORCEMENT OPERATIONS AND PROCEDURES .3

This course examines the role of police in society and the application of key concepts to policing scenarios. Students identify, discuss and assess critical police practices and processes to include deployment, arrest procedures, search strategies, and other operational considerations.

## AJ2O5 CRIMINOLOGY

 .3 Is designed to introduce the student to the study of the origin and nature of the development of law and its impact on the behavior of society. It is a study of the conditions which might lead a person to act in ways which are deemed to be "incorrect or deviant behavior" by the society in which they are a part of. It also attempts to define the terms of, and then measure, deviant behavior through the analysis of available research information.
## AJ206 CRIMINAL LAW

 . .3The course examines the history, scope and nature of law. It focuses on the parties to a crime; classification of offenses; criminal acts and intent; the capacity to commit crime; and criminal defenses. It will cover the elements of misdemeanor and felony crimes.

## AJ207 CRIMINAL PROCEDURES

 . 3This course introduces basic court system procedures and the jurisdiction of the courts. It also focuses on the constitutional and other legal requirements that affect law enforcement practices and procedures. Specific topics include confessions and interrogations, identification procedures, arrest, search and seizure, and admissibility of evidence.

AJ209 JUVENILE DELINQUENCY AND JUSTICE. .3 This course examines the historical precedents and philosophical reasons for treating juveniles differently from adults. It reviews

## Course Descriptions

empirical evidence about child development that can illuminate the reasons for their special status within the system. It will study the major theories that have been proposed as explanations of delinquent behavior. The course will also provide a detailed overview of the juvenile justice system, from its beginnings to the current state of the institution.
*AJ210 CRIMINAL INVESTIGATION. 3

This course explores issues including the effective interview and interrogation techniques, crime scene management and lab processes, crime scene documentation methods, case preparation and court presentation.

## AJ211 CRIMINAL JUSTICE INTERVIEW AND REPORT WRITING <br> .. 3

This course focuses on the unique types of writing required in a criminal justice career. Students are required to gather pertinent information and then record that information by writing a variety of report narratives representative of those prepared by individuals working in a profession within the criminal justice system.

## AJ220 COOPERATIVE EDUCATION INTERNSHIP <br> $\qquad$ 1-6

 See CA220
## AJ225 ETHICS IN CRIMINAL JUSTICE

 . .3 This course explores the major components involved in the study of ethics, particularly as it applies to the field of criminal justice. Focus is placed on the code of conduct and ethics of the criminal justice profession and the standards held to in their professional role. The aim of the course is to produce professionals who are not only critical thinkers, but who have the skills necessary to pursue sound ethics in their day-to-day decisions and activities.
## AJ251 CRIME SCENE INVESTIGATIONS

$\qquad$ . .4
This course is designed to provide students with the basic theoretical and philosophical understanding of the investigatory process. This course will examine techniques and methods of crime scene investigation such as: fundamentals of preliminary investigations, identification, collection of evidence, and fingerprinting. This course will provide students with a general introduction to the mechanics of crime scene investigation and its role in the criminal justice process.

* A lab fee will be assessed for these courses.


## ART

## AR100 T ART APPRECIATION.

 .3Art Appreciation is a basic level course. The course is a study and appreciation of art and its development through the various periods and movements of man's existence. The course brings the student to a better understanding of art today, its past influences and its current significance.
*AR120 T DESIGN I + ....................................................... 3 Design I is a basic level course. This course introduces the basic concepts of design essential to working in the field of graphic design or visual communications. This class is beneficial to students in art, architecture, education, child care and interior design. It is structured around the basic organization of visual communication. The students will have hands on experience dealing with the elements and principles of design and will work with twodimensional organization on both manual and computer-aided design projects. The four and one-half hour per week class is considered both lecture and lab.
*AR121 GRAPHIC DESIGN I + $\qquad$ .3
In Graphic Design I, students will explore the creation and manipulation of visual content using basic design concepts and industry standard computer software. Students will learn to generate hardcopy output using laser and photo quality ink-jet printers. Students will become familiar with the latest practices in the field. Extensive hands-on work with the computer will enable the student to extend their design skills and computer software expertise. The four and one-half hour per week class is considered both lecture and lab. Prerequisite: Graphic Software Applications and Design I or with instructor permission.
*AR122 GRAPHIC DESIGN II + $\qquad$ 3
Graphic Desing II allows the student visual designer and artist to work with computer hardware and software fundamental for the visual designer and artist. It provides the basic knowledge necessary to operate Macintosh computers and to use software applications in design projects related to product and promotional purposes. This course integrates the graphic design process with the computer's capabilities. The student learns to take a sketch idea and develop it through digital thumbnails, laser proofs, and color output comprehensives as well as the creation and implementation of multimedia and web content. The four and one-half hour per week class is considered both lecture and lab. Prerequisite: Graphic Software Applications, Design I or TwoDimensional Design, and Graphic Design I, or with instructor approval.

## *AR129 INTRODUCTION TO DIGITAL

 PHOTOGRAPHY + .3Introduction to Digital Photography is a course of study to develop an understanding of basic photographic techniques and computer assisted image manipulation. This course will include, but not limited to, the following topics; basic camera functions, basic digital image processing, visualization and design skills, and digital manipulation techniques needed in today's market place. Students will have opportunities to create portfolio pieces. The four and one-half hour class is considered both lecture and lab.
${ }^{*}$ AR130 ${ }^{\text {T }}$ DRAWING I + $\qquad$ 3
Drawing I is an introductory drawing course for the student with limited art background. Students work on techniques of perception and graphic composition, using a variety of art materials. This is a hands-on class and begins with basic skills in perception

## Course Descriptions

and development of technique with various subject matter and drawing medias. The four and one-half hour class is considered both lecture and lab.
*AR131 DRAWING II +...................................................... 3 Drawing II is a continuation of the Drawing I course. Students will continue to work on techniques of perception and graphic composition, as well as working with a variety of art materials. This is a hands-on class that will help the students enhance their personal vision and style by increasing their knowledge of perception and technique development with various subject matter and drawing medias. The four and one-half hour class is considered both lecture and lab.
*AR140 PAINTING I + $\qquad$ Painting I is an introductory painting course with a concentration on painting techniques and color mixing. Emphasis is placed on individual creativity and experimentation. This is a hands-on class and covers the fundamentals of painting, from color theory, techniques of color application, color modeling and surface separation and definition. The four and one-half hour class is considered both lecture and lab.
*AR141 PAINTING II +...................................................... 3
Painting II is a continuation of Painting I focusing on individual experimentation in traditional, contemporary, and experimental techniques. The four and one-half hour class is considered both lecture and lab.
*AR145 WATERCOLOR + $\qquad$ .3
Watercolor is a hands-on class dealing with water-based paint media. The student will explore the many uses and applications of this media. The associations of color in illustration will be applied through various media techniques to master balance through contrast, property of light, shadows, simultaneous contrast and tints. The applications will be achieved through the use of color theory, color themes and the various painting techniques associated with watercolor. The four and one-half hour per week class is considered both lecture and lab.

* A lab fee will be assessed for these courses.
+ These courses are considered lab courses.


## BUSINESS

## BE100 T INTRODUCTION TO BUSINESS

$\qquad$
This course is an introduction to a broad range of terminology and topics useful to business management. Terminology necessary to understand business literature is emphasized. The course will provide an overall picture of business operations, as we cover different types of economic systems, global trade, business
entrepreneurship, e-business, managerial decision-making, techniques for increasing employee motivation, packing, pricing \& distributing products, the relationship between management and unions, business ethics, and much more. This course is designed to develop student responsibility for learning, thinking, and questioning while using business as the model.

## BE115 BUSINESS MATHEMATICS

 .3Is a course starting with the basic math concepts and moving to more complex mathematical concepts. The course will not only deal with theory but will concentrate on applications of using those concepts in solving problems dealing with personal finance, business finance, and business analysis.

## BE121 BUSINESS COMMUNICATIONS

 .3Provides instruction on the role of communication in the business environment and identifies the most effective methods for creating, sending, and receiving messages. In addition, students should be able to utilize effective oral and written communication skills in business; write and evaluate business documents, including letters, memos, and reports using the principles of correct style, organization and format; and prepare an effective oral business presentation.

## BE124 LEGAL OFFICE VOCABULARY

$\qquad$ .2 Is designed to give students a working vocabulary of legal terms necessary for office success. The material is divided into modules, with content introduced at a basic level, progressing, by specialization, to more difficult matters.

## BE139 BASIC PERSONAL FINANCE

 .1This course focuses on the basic skills in personal financial management with an emphasis on basic money management including budgeting, personal financial statements, consumer credit, consumer debt, tax strategies, and investing fundamentals.

## BE152 SALESMANSHIP

 .3The student will be provided examples of selling in a global environment, information about the technology available to every salesperson, and most importantly, the ABC's (the fundamentals) of relationship selling. The course is a vehicle by which the student is given ample materials to construct his/her own sales presentation. Covering the basic foundations for understanding the concepts and practices of selling in a practical, straight-forward, and effective manner, the course provides the student a guide to use in preparing sales presentations and role-playing exercises.

## BE153 T PERSONAL FINANCE .3

A personal financial management course that emphasizes time value of money, budgeting, borrowing, taxes, insurance, consumer credit, risk management, investments, retirement, and estate planning. Practical knowledge and application of these areas are stressed.

## Course Descriptions

BE154 B BUSINESS LAW .3
Few subjects are as dramatic and challenging as the law. Because laws grow from human conflict, lawsuits are often emotional, complex, and costly. Despite these costs, more and more business and personal disputes are being settled in court every day. Ours is a "litigious society." Knowing more about the law can help students avoid legal conflicts in their professional and personal lives. If they cannot resolve a dispute, a background in the law will help them preserve their rights.

BE155 MARKETING .3
Is essential to the operation of any business firm or public service organization. The successful enterprise in today's changing and competitive world is increasingly characterized by its understanding of the many facets of marketing and by its ability to deliver goods and services to the market more efficiently than its competitors. This course is designed to introduce students to the basic concepts, practices, and techniques of marketing.

## BE160 BUSINESS ACCOUNTING

$\qquad$ .3
Students receive instruction in the fundamentals of accounting from recording business transactions including financial statement preparation. Emphasis is on the fundamentals of double entry accounting and the basic accounting cycle for service and merchandising enterprises.

## BE161 ACCOUNTING I

 .3 An introduction to financial accounting fundamental principles and practices. This course focuses on preparing all aspects of the accounting cycle for sole proprietorships including, but not limited to, analyzing transactions, the use of journals and ledgers, preparing financial statements as per U.S. GAAP, recording write-offs, calculating the different methods of depreciation, and the valuation of inventory.
## BE162 T ACCOUNTING II

$\qquad$ .3
A continuation of BE161 Accounting I. This course focuses specifically on the basic procedures in financial accounting and statement analyses of partnerships and corporations. Managerial Accounting is introduced in this course Prerequisite: Accounting I with grade of C or higher.

## BE165 COMPUTERIZED ACCOUNTING

$\qquad$
Provides a hands-on approach to learning how computerized integrated accounting systems function. Provided is an overview for using the software QuickBooks Pro and developing the process for recording transactions involving sales, receivables, purchases, payables, general accounting, end-of-period procedures, payroll, and computerization of a manual accounting system. Prerequisite: High School Accounting, Business Accounting, or higher.

BE 166 PAYROLL ACCOUNTING .3
An in-depth look at the many aspects of preparing, distributing, and recording payroll. Included in this course are issues regarding
reporting, deductions, Federal forms, deposits, regulations, and government laws related to payroll. Prerequisite: High School Accounting, Business Accounting or higher (may be enrolled currently).

## BE170 BUSINESS STATISTICS . 3

 Is an introduction to descriptive and inferential statistics. Included are the uses of measures of central tendency and dispersion, probability, estimation and hypothesis testing, analysis of variance, and correlation. Recommended Prerequisite: High school algebra, Intermediate Algebra, or Survey of Math with a C or better or appropriate Accuplacer/ACT score.
## BE185 HUMAN RESOURCE MANAGEMENT

 .3 This course examines the role of the human resource professional as a strategic partner in managing today's organizations. Key functions such as recruitment, selection, development, appraisal, retention, compensation, and labor relations are examined. Implications of legal and global environments are appraised and current issues such as diversity training, sexual harassment policies, and rising benefit costs are analyzed.
## BE188 PRINCIPLES OF ADVERTISING

 .3Students will learn the fundamental role of advertising in the communication process, how it works as an element of the marketing process, basic terminology, the functions and effects of advertising in business, the influence of economics on the evolution of advertising, and advertising's overall impact on the society in which it operates. Emphasis is placed on analyzing current examples of advertising along with real-world experiences in the advertising industry.

## BE210 LD LEADERSHIP DEVELOPMENT,

 . 3 Is designed to prepare students to assume increasingly responsible leadership roles in their personal, professional and academic lives. The course focuses not only on significant theories of leadership and their applicability to leaders of the past and present, but also includes substantial hands-on experiential learning opportunities which puts leadership into action.
## BE220 COOPERATIVE EDUCATION INTERNSHIP

 1-6> See CA220

## CAREER CENTER

CA220 COOPERATIVE EDUCATION INTERNSHIP....... 1-6
Experiential learning in a work setting related to college major and career plans. Hands on work and observation is utilized to gain understanding of the job duties, environment, and related activities.

## COMMERCIAL DRIVERS LICENSE

## *TD250 CDL CLASS A TRUCK DRIVING TRAINING I....... 8

This is the first course of a concurrent two-course program where students will gain the knowledge and practical experience necessary to be a driver of a commercial tractor-trailer unit and begin work with an over-the-road trucking firm. Students will take written and driving tests at the Kansas Department of Motor Vehicles and obtain their Class A Commercial Driver's License. Additional emphasis will be placed on driver's daily log and mileage records, defensive driving, vehicle inspections, and contemporary industry trends. Prerequisite: Students must be a 18 years old for intrastate (within the state) driving. To qualify for operation in interstate commerce, a driver must be at least 21 years old and must meet federal and state physical and health requirements. In addition, students must not be using narcotics or other habit forming drugs.

## *TD251 CDL CLASS A TRUCK DRIVING TRAINING II ..... 7

This is the second course of a concurrent two-course program where students will gain knowledge and practical experience necessary to be a driver of a commercial tractor-trailer unit and begin work with an over-the-road trucking firm. Students will practice driving a manual-shift combination tractor-trailer unit in rural, city, and interstate settings during daylight and dark, and in as many weather conditions as the season allows. Additional emphasis will be placed on safety, work ethic, driver health and wellness, and federal motor carrier regulations, including Motor Carrier Safety Improvement Act and Department of Transportation regulations. Prerequisite: Students must be a 18 years old for intrastate (within the state) driving. To qualify for operation in interstate commerce, a driver must be at least 21 years old and must meet federal and state physical and health requirements. In addition, students must not be using narcotics or other habit forming drugs.

## *TD252 DEFENSIVE DRIVING FOR THE PROFESSIONAL

 TRUCK DRIVERDuring this course, students will complete The National Safety Council's Defensive Driving Course for the Professional Truck Driver and will receive a certificate of completion to provide to employers and insurers. Students will also be instructed by an industry representative on the topic of railroad safety according to the Operation Lifesaver curriculum. Students will draw upon their driving experiences during the certificate program. Students will plan a coast-to-coast trip, utilizing the skills they have learned in the areas of defensive driving, map reading, route selection, hours of service, and log book recordkeeping. Prerequisite: Students must be a 18 years old for intrastate (within the state) driving. To qualify for operation in interstate commerce, a driver must be at least 21 years old and must meet federal and state physical and health requirements. In addition, students must not be using narcotics or other habit forming drugs. Must be currently enrolled in or previously passed TD251.

## COMMUNICATIONS

(Courses numbered 099 and below will not apply toward graduation.)

## CMO67 TRANSITIONAL ENGLISH WORKSHOP

$\qquad$ 1

An applied course for the development of reading, writing, listening, and speaking skills for students with low proficiency in English. The student will use online textbook support material and instructor-guided activities to develop functional and academic skills necessary to engage in college-level courses in English. Corequisite: Because Transitional English Workshop focuses on building basic reading and writing skills, it is paired with a Transitional English (CM 098) course at the time of enrollment. Students withdrawing from Transitional English will need instructor's permission to remain in Transitional English Workshop. Prerequisite: Appropriate ACT Compass writing score, TOEFL score (or equivalent), or an appropriate writing score on the col-lege-administered Accuplacer test.

## CM071 ENGLISH AS SECOND LANGUAGE I

$\qquad$ . 3

Through a variety of learning activities focused on improving reading and writing skills, students will improve their vocabulary and use of English structure. Prerequisite: appropriate Accuplacer composite ESL Reading, ESL Listening, and ESL Grammar Usage scores.

## CMO72 ENGLISH AS SECOND LANGUAGE II

 .3 The second part of a two-semester developmental sequence in ESL instruction, this course provides a variety of learning activities to improve reading and vocabulary skills through writing activities. Prerequisite: appropriate Accuplacer composite ESL Reading, ESL Listening, and ESL Grammar Usage scores.
## CMO79 PEER TUTOR TRAINING

$\qquad$ . .1

This course prepares students to be peer tutors. The students will learn how to adjust to different learning styles, incorporate brainbased learning, and apply study strategies to specific courses.

## CMO87 READING COMPREHENSION

 1-3Complex materials are no longer a mystery as critical thinking about main ideas and details, summarization, and identification of patterns of organization are used to comprehend text. Reading and writing are blended to build strong academic skills.
*CMO94 COMPOSITION WORKSHOP 3
Composition Workshop is a developmental course designed for the student who needs individualized instruction in the clear and correct usage of English grammar, extended practice with writing form and purpose, and additional support in the development of successful writing habits. Co-requisite: Because Composition Workshop focuses on building writing skills, Composition

* A lab fee will be assessed for these courses.


## Course Descriptions

Workshop should be paired with an English Composition I (CM 101) course at the time of enrollment. Students withdrawing from English Composition I (CM 101) will need instructor's permission to remain in Composition Workshop. Prerequisite: Appropriate ACT Accuplacer writing score, an appropriate writing score on the college-administered writing sample, or a C or better in Transitional English.

## CMO98 TRANSITIONAL ENGLISH

$\qquad$ .3
Transitional English helps students develop their reading and writing skills in preparation for English Comp I and English Comp II courses. This class includes various writing assignments, grammar review, and critical reading. The class structure consists of lecture, discussions, class workshops, individual conferences, small group work, and in-class writing. Students may also be required to work with the Student Success Center.

## CM101 T ENGLISH COMPOSITION I

$\qquad$ .3
English Composition I provides instruction in writing with emphasis on grammatical correctness, acceptable usage, effective organization, and expression of ideas. Assigned reading, research and expository writing are required. Prerequisites: Appropriate ACT/Accuplacer score or Transitional English (CM098) with a C or better and enrollment in co-requisite, Composition Workshop (CM094). Co-requisite: Composition Workshop (CM094) determined by appropriate ACT/Accuplacer score.

## CM102 ENGLISH COMPOSITION II

 .3English Composition II is a continuation of English Composition I with a focus on critical reading, writing, and research. Emphasis is placed on finding, evaluating, and ethically utilizing research to strengthen critical thinking skills and create substantive writing. Prerequisite: English Composition I.

## CM106 CREATIVE WRITING I

$\qquad$ .3
Creative Writing I is designed to present opportunities for the writing and rewriting of short story, poetry, drama, and other genres. It is a time for students to immerse themselves in the discipline of writing and become more conscious as writers - trying other genres, setting writing schedules, trying out advice for revision, discovering what makes them tick as a writer. Recommended preparatory course: English Composition I.

CM107 CREATIVE WRITING II $\qquad$
Creative Writing II is designed to stimulate creativity and encourage students to seek answers and interpretations beyond the obvious - to develop insight and creative vision. It goes beyond the requirements of Creative Writing I, however, in that students work on one lengthy work or a series of connected short works, and consult with the instructor in and outside class in addition to the regular work of the class. Prerequisite: Creative Writing I.

## CM115 T PUBLIC SPEAKING

.3
Public Speaking is an elementary course in the study and practice of the basic principles of speech and interpersonal communication with emphasis on critical thinking, the creative and intelligent selection of material, organization and oral presentation. Students taking this class in an online format will be required to record and submit speeches electronically. All speeches must be recorded in front of a live audience which the students must arrange. Minimum audience numbers vary by speech.

## CM1 20 SURVEY OF TECHNICAL WRITING

$\qquad$ .3
Survey of Technical Writing is an introduction to the process of technical and business writing. Topics include conducting audience and needs analysis; organizing and writing clear, precise, grammatically correct workplace prose; and producing a variety of routine professional reports and correspondence. Focused projects will include applied business/industry or technical degree exercises. Prerequisite: Appropriate ACT/Accuplacer score or Transitional English.

## CM121 ${ }^{\text {º }}$ INTRODUCTION TO LITERATURE

 .3 Introduction to Literature is a survey of literature from Britain, the United States and other countries emphasizing major poets, fiction writers and playwrights plus general literary analysis, including the literary devices used in these genres. Prerequisite: English Composition I. Recommended preparatory course: English Composition II.
## CM122 ${ }^{\text {T }}$ AMERICAN LITERATURE I

 3 American Literature I is a historical survey of the literature of early Americans, emphasizing major authors, literary trends, historical events and significant ideas from early Native American works through the Transcendental Movement of the 1850's. Prerequisite: English Composition I. Recommended preparatory course: English Composition II.
## CM123 TV AMERICAN LITERATURE II

$\qquad$ .3 American Literature II is a study of American literature from the Civil War period through the trends of realism, naturalism, and on into the ideas and literary trends of modern and contemporary America. Prerequisite: English Composition I. Recommended Preparatory Courses: English Composition II.

## CM1 24 WORLD LITERATURE AND THE HUMAN

 EXPERIENCE. .3
The course emphasizes the study of the literary, cultural, and human significance of select works of world literature. The class promotes an understanding of the works in their cultural/historical contexts and the enduring human values which unite the different literary traditions. Prerequisite: English Composition I. Recommended preparatory courses: English Composition II.

## Course Descriptions

## CM125 LITERATURE FOR CHILDREN

$\qquad$
Literature for Children is a survey of literature for children particularly in the elementary grades. It gives an opportunity to read and evaluate many books, stories, and poems. Also promoted are resources and practical applications for reading aloud in the classroom, as well as igniting a love for reading in the mind of the individual child. For teachers in elementary education. Prerequisite: English Composition I. Recommended preparatory course: English Composition II.

CM127 THE SHORT STORY .3
The Short Story is a survey of short stories from both American and selected world authors. Selected short stories from different eras are studied. Assigned readings, various themes, and literary analysis are included. Prerequisite: English Composition I. Recommended preparatory course: English Composition II

CM139 SPORTS BROADCASTING $\qquad$ . 3 Sports Broadcasting provides students a more in-depth look at the mechanics and preparation involved in the coverage of a sporting event. Students will operate the equipment, prepare the information, and do the actual "on-air" broadcasts of sporting events. Emphasis will also be placed on sports reports, coach and athlete interviews, broadcast equipment terminology, and play-by-play announcing.

## CM140 T THEATRE APPRECIATION

$\qquad$ .3
Theatre Apreciation challenges students to interpret, criticize, and appreciate the roles theatre plays in society through positive comparisons to our modern "theatre of availability", television and film.

## CM141 ${ }^{\text {「 }}$ INTRODUCTION TO ACTING

 .3Introduction to Acting offers majors and non-majors the fundamentals of acting in daily life and as a profession. Students should be able to connect acting experiences found in the lives of ordinary people with those crafted for theatrical characterizarion. Students explore the procss of acting from critical thinking and analysis to public presentation.

CM142 ${ }^{\text {T }}$ ACTING II .3
Acting II examines the evolution of actor training towards a holistic, sustainable, and healthy acting practice. This class explores major approaches to the actor's process of analysis and style. Students will investigate classical and contemporary training modalities, and the role played by voice and movement.

## CM143 T PLAY PRODUCTION

 .3Play Production is a lecture-lab course with emphasis on acting in dramatic productions under performance conditions. Lectures and practice in the processes of interpretation and techniques of theatrical expression. Course culminates in a performance for public viewing.

## CM146 T PLAY PRODUCTION II.

 . .3Play Production II, a continuation of Play Production, is a lecturelab with emphasis on direct experience in play production, either as a performer, assistant director, stage manager, or technical support.

## CM148 AMERICAN CINEMA APPRECIATION

$\qquad$ American Cinema Appreciation is a survey of the American film industry as an art form, as a business, and as a system of representation and communication. The course further explores how Hollywood films work technically, aesthetically, and culturally to reinforce and challenge America's national self image.

## CM157 MASS MEDIA PRODUCTION I.

$\qquad$ . .3 This course is a hands-on, in-depth study of how media conventions and content interact. In this applied production course, students will use the principles of convergent media to report school, community, and national news, sports, and lifestyle stories to T-Bird News as well as other real-world industry outlets. Students will work hands-on, discovering, developing, composing, editing, and publishing a story. Students will be required to produce and publish each story using a variety of media including print, radio, video, and web.

## CM158 MASS MEDIA PRODUCTION II

$\qquad$ .3
This course emphasizes a multi-disciplinary and multimedia approach to business-client relationships. Students will prepare a stategic communication campaign on behalf of a local client. It will include the production of material in a variety of mediums including print, radio, video, and web for use by the client. These materials, in turn, may be used by the students as they develop their professional portfolios. This class is rooted in critical thinking, research, multimedia production, and problem solving as well as professionalism and strong communiction skills.

CM220 COOPERATIVE EDUCATION INTERNSHIP -6 See CA220.

## CM240 ${ }^{\text {T }}$ INTERPERSONAL COMMUNICATIONS <br> . .3

This course is a study of dyadic communication within interpersonal relationships between friends, family, fellow students, romantic partners, supervisors, and colleagues in the workplace. Emphasis is placed on the role of healthy and meaningful communication in establishing, building, maintaining, and sometimes refashioning personal and/or professional interpersonal relationships. Course content stresses how to become a more effective and competent communicator by exploring personal communication goals, analyzing communication barriers, identifying relational breakdowns in communication, and addressing conflict scenarios in order to deepen a student's understanding of the communication process and improve communication skills.

[^3]
## Course Descriptions

## COMPUTER SCIENCE

## CS107 GRAPHIC SOFTWARE APPLICATIONS . 3

Introduction to, and studio practice in, the area of visual communication. Emphasis is placed on mastery of software applications used in the communication graphics industry. Emphasis will be given to concepts relating to the organization of how software applications can support design concepts, color usage, image and concept development, and creative problem solving.

## CS108 ${ }^{\text {T }}$ COMPUTER APPLICATIONS

$\qquad$ .3
An introductory computer course designed for individuals to become familiar with computers and their operations. An integrated software program will be used to apply this knowledge in word processing, database, and electronic spreadsheet technology for both home and business use.

## CS140 INTRODUCTION TO ROBOTICS

 .3Introduction to Robotics students will be introduced to many facets of robotics and microcontrollers. This course will cover basic principles of open source software use and development. Class topics will cover components of a micro controlled circuit, terminology used within both the software and development of micro controller prototyping boards and programs.

## CS141 INTRODUCTION TO ADDITIVE

MANUFACTURING (3D PRINTING) $\qquad$ .3

Introduction to Additive Manufacturing, or 3D Printing as it is more comonly called, is a revolution in the modern era. This course will cover the basics of the history of 3D Printing, how Open Source communities have advanced the technology, and how to use the hardware and software to produce many prototype devices or products. The course will also explore the limitations of 3D Printing and what the future holds for the discovery of new 3D printing applications.

## CS145 INTRODUCTION TO CAD

$\qquad$ .. 3
Students in this Autodesk Fusion 360 course will be introduced to many facets of Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), Computer Aided Engineering (CAE), and 3D Printing. This course will cover the fundamentals of how to use these design tools to connect your entire product development process into one cloud-based platform.

## CS155 NETWORKING AND COMPUTER TECHNOLOGY... 3

 Introduces the student to the networking field. Focuses on network terminology and protocols, local-area networks (LANs), wide-area networks(WANs), Open System Interconnection (OSI) model, cabling, cabling tools, switches, routers, Ethernet, Internet Protocol (IP) addressing, and network standards. The course will reinforce lecture and study from the text with laboratory activities through a simulated networking program called LabSim ${ }^{\text {™ }}$ Online for Network+.
## ECONOMICS

## EC101 T PRINCIPLES OF MACROECONOMICS

$\qquad$ .3
Presents a macroeconomic approach in the introduction of the concepts of scarcity, national income and monetary analysis, the economic role of government, brief history, and economic growth.

## EC102 T PRINCIPLES OF MICROECONOMICS .3

 Is concerned with microeconomic approach to the economics of the business firms and the market structures for the product and resource market allocation. Supply and demand will be studied in some detail, plus cost-benefit analysis and some domestic and international problems.EC220 COOPERATIVE EDUCATION INTERNSHIP 1-6 See CA220.

## EDUCATION

## ED100 T INTRODUCTION TO EDUCATION .3

An introductory course for students considering a career in professional education. The course includes historical, philosophical, sociological and learning developments within the education profession, professional needs and demands and requirements of professional education programs.

## ED101 INTRODUCTION TO EDUCATION PRACTICUM 1-2

 The practicum is designed to provide aspiring education majors an opportunity to observe and interact with teachers and students in an elementary and secondary setting. Opportunities to evaluate the total spectrum of education will be offered through direct observation. Prerequisite: proof of liability insurance. The student must be dual enrolled in ED100 Introduction to Education.
## ED114 ART IN THE ELEMENTARY CLASSROOM

$\qquad$
This course is for elementary education majors or any student interested in Visual Arts. Lectures, demonstrations, and projects will explore a variety of media and methods for creating art with different levels of developmental skills and age groups. Knowledge of historical artworks and artists will be used to help apply the elements and principles of design. Students will plan, develop, and implement project assignments and lesson plans for the elementary and middle level classroom. Students will learn educational methods and best practices for artistic development and evaluation.

## Course Descriptions

ED119 TEACHER CADET CLASS . 3
The course is an introduction to the field of teaching. The course includes observation opportunities in local classrooms and didactic experiences in their various high schools. The intent of the class is to help students to decide if teaching is a career that they would want to pursue in the future.

## ED123 T MUSIC IN THE ELEMENTARY CLASSROOM...... 3

This course is designed for students going into the profession of early childhood and elementary education. It is designed to show how music can be taught and integrated into other areas of the early childhood and elementary classroom curriculum. Traditional areas of music instruction will be covered, including fundamentals of music, singing, playing general music classroom instruments, listening, moving to music, establishing course objectives, preparing lesson plans and course materials, incorporating multicultural approaches, and creative experiences with music.

ED 124 ELEMENTARY SCHOOL PHYSICAL EDUCATION .. 3 A methods class that is designed to instruct students in the essential components for teaching physical education to elementary students. Included in the class will be teaching styles, the development of children's physical, cognitive, and social skills, and organization of movement activities.

## ED130 TECHNOLOGY FOR TEACHERS.

 .3 In this course, students will learn more about common technologies teachers are expected to know how to use in their classrooms to facilitate teaching and learning, the creation of lesson plans and instructional materials, and in preparing students to participate in a digital world. Students will evaluate different technologies, consider the social, ethical, and legal impacts of utilizing them, and have an opportunity to practice using them in the development of their own teaching materials.
## ED220 COOPERATIVE EDUCATION INTERNSHIP 1-6

 See CA220.
## FOREIGN LANGUAGE

## FL111T SPANISH I.

 .4A course designed as an overview of the initial grammar, vocabulary, and special features of the Spanish language. The focus of the course is upon the enhancement of reading, writing and oral communication skills.

## FL112 T SPANISH II

 .4A course designed to complete the initial grammar, vocabulary, and Spanish language began in Spanish I. The focus of the course is upon the enhancement of reading, writing, and oral communication skills. Prerequisite: Spanish I.

## GEOGRAPHY

## GE101 T WORLD GEOGRAPHY. .. 3

World Geography is designed to survey the geographic and cultural features of the world's major regions. A central theme concerns the role played by technological change in shaping both the lifestyles and landscapes found in each of the regions studied. The resulting contrasts between the Technological World and the Developing World are examined in detail.

## HISTORY

## HI108 WOMEN IN AMERICAN SOCIETY .3

Will explore the many facets of women in American society and the impact on relationships and family, both from historical and contemporary perspectives. Students will be offered a cross section of available information from a liberal arts perspective, including literature, psychology, history, political science, and social philosophy.

## HI120 T WORLD HISTORY

 .3 World History I is an introductory survey of major developments in the history of the world from the origins of civilizations to the 15th century. The focus is on a comparison of key trends and conditions in different parts of the world throughout these centuries.
## HI121 T WORLD HISTORY II

$\qquad$ World History II is an introductory survey of major developments in the history of the world from the 15th century to the 21st century. Students will examine changes and continuities, patterns in and among various societies as they come into contact, influence each other, and, in places, become interdependent.

## HI122 T U.S. HISTORY I

 .3A survey of American History from its European background through the time of the Civil War and Recontruction. The political, economic and social growth of our country is emphasized.

HI123 TV.S. HISTORY II. . .3
A survey of American History from Reconstruction to the present. The intellectual, political, economic, and social growth of our country is emphasized.

## HI124 INTRODUCTION TO HISTORY

 . 3Covers what history is, how it is produced, and what its functions are. Designed for students who want an introductory course which explains the methodology and purposes of the discipline.

## Course Descriptions

## HUMAN ECOLOGY

## HE124 ${ }^{\text {T }}$ nUTRITION

 .3Designed to support the concept that achieving and maintaining optimal nutritional status is an essential component of health promotion. A molecular approach to nutrition is used as a basis for understanding the importance of nutrition in health and disease. Facts and principles are included to give the student a basic nutritional background to later enhance high quality nutritional care. The information acquired in this course will be used as the basis for understanding therapeutic nutrition.

## EARLY CHILDHOOD EDUCATION

## *HEO95 ORIENTATION TO EARLY CHILDHOOD

 DEVELOPMENT .2A supplemental course to accompany HE150, Early Childhood Development, and is designed to aid the student who has scored below 74 on the reading and below 78 on the writing of the Accuplacer test, or below 41 on the ASSET test, or below 21 on the ACT test, or who indicated that they would like additional assistance with the course. Included will be review of the lectures in a discussion format, computer aided instruction, additional videos to explain concepts, and the use of chapter vocabulary worksheets and review questions for the HE150 lectures.

## *HE144 EDUCATING EXCEPTIONAL STUDENTS

$\qquad$ .3
This course will introduce the concept of special education for exceptional students with a focus on the legal context for services for exceptional students and the different types of exceptionalities that impact students and challenge educators.

## *HE147 PRINCIPLES OF THE CHILD DEVELOPMENT associate credential <br> .3

Focuses on the preparation for the Child Development Associate (C.D.A.) credential. The students will write their competency statements, prepare their Professional Resources File and study for the Early Childhood Studies Review. A person who has met the criteria established by the Council for Early Childhood Professional Recognition earns the CDA Credential. Successful completion of this course does not guarantee the granting of the C.D.A. by the Council for Early Childhood Professional Recognition.

## *HE149 INTRODUCTION TO EARLY CHILDHOOD

 EDUCATION .1An introduction to employment opportunities in Early Childhood Education. An overview of philosophies, ethics and developmentally appropriate practice will offer students a look into what they can expect from this field.
${ }^{*}$ HE150 ${ }^{\text {T }}$ EARLY CHILDHOOD DEVELOPMENT. $\qquad$ .3
A study of the physical, cognitive, affective, social, and emotional development of the child from conception to age eight. Emphasis is on the interrelationship of growth and behavior of the preschool child. Included will be the influence of cultural environment on development and individual differences in development.
${ }^{*}$ HE151 EARLY CHILDHOOD DEVELOPMENT LAB $\qquad$ The student will observe and learn about cognitive, emotional, social and physical development of the child from birth to age eight. The student will also learn proper observation techniques to be used for tracking healthy development.

## *HE152 INTERACTION TECHNIQUES WITH YOUNG CHILDREN .3

A study of the guidance approaches which can be used to interact with and guide young children in a group or family setting. Communication skills and development of a positive self-concept will be emphasized.

## ${ }^{*}$ HE153 CREATIVE ACTIVITIES FOR YOUNG CHILDREN. .3

An introduction to various learning activities which may be used with preschool aged children in a group setting, focusing on selection, preparation, and presentation. Prerequisite: Successful completion of HE150.

*HE154 CREATIVE ACTIVITIES FOR YOUNG CHILDREN
LAB
. 1

A laboratory experience to plan, prepare, present, and evaluate a variety of activities for preschool aged children.

## *HE155 PARENT, PROVIDERS, AND COMMUNITY RELATIONSHIPS .3

A study of Early Childhood Education provider's interrelationships with parents, colleagues, and the community. Topics included are public relations, family diversity and development, asset building, evaluations, parent meetings, parent-teacher communications, and professionalism.

## *HE156 DEVELOPMENTAL PROGRAM PLANNING FOR YOUNG CHILDREN OVER 2.5 3

A study of the techniques of curriculum planning for young children over 2.5 years in a group setting, emphasizing the organization of activities into complete unit plans and year long plans. Assessment techniques and accountability in terms of curriculum will be emphasized.. Prerequisite: Successful completion of HE152, HE153, and HE154.

## *HE157 DEVELOPMENTAL PROGRAM PLANNING FOR YOUNG CHILDREN OVER 2.5 LAB .1

Students will participate in various activity centers in a child care
facility and will teach segments of the unit plans developed in Developmental Program Planning. Prerequisite: Successful completion of HE154 with a C or better.

## * HE160 CHILD CARE ADMINISTRATION AND ORGANIZATION .3

An analysis of the administrator's role in the Early Childhood Education Center. Application of philosophical approaches, communication techniques, and management skills necessary to operate early childhood programs. Federal, State, and local regulations and support systems will also be discussed.

* HE161 HEALTH \& NUTRITION FOR YOUNG CHILDREN. .3
A study of the health, safety, and nutritional needs of children (prenatal to age 8). Emphasis will be placed on the methods in which these health, safety, and nutritional needs can be met in a child care facility..


## *HE162 CHILD CARE MANAGEMENT. <br> $\qquad$ <br> 1

A reflective course dealing with management style as it relates to child care and guidance. The practical application of management principles as they relate to child care and guidance will be emphasized.
*HE163 PARENTING .3
A study of varying approaches to parenting and their impact on the child's behavior and development. The major content of the course concerns preparing for parenthood using the democratic approach to parenting.

## *HE164 DEVELOPMENTAL PROGRAMS PLANNING FOR YOUNG CHILDREN UNDER 2.5 <br> $\qquad$ 3

Focuses on the development of the child ages birth to thirty-six months and how to plan for this child in group care. Emphasis will be placed upon the parent-child relationship, parent-teacher relationship, child-teacher relationship, and development of the child.

## *HE165 DEVELOPMENTAL PROGRAMS PLANNING FOR YOUNG CHILDREN UNDER 2.5 LAB <br> $\qquad$ .1

Focuses on developing appropriate care giving behaviors for working with infants and toddlers. Focus will be placed upon developing care giving skills through direct involvement with the children. The semester will be shared between the infants and toddlers.

## *HE168 FAMILY AND CULTURAL PERSPECTIVES <br> $\qquad$ .3

An overview of diversity topics in early childhood education. Material covered may include, but is not limited to, reviewing personal biases, relationships with families, preparing the early childhood environment, sensitivity to diversity and conflict resolution.

* HE1 77 STARTING YOUR FAMILY DAY CARE HOME $\qquad$ .1
This course will focus on the practical and required elements of starting a family day are home. Licensing requirements, bookkeeping techniques, meal planning and preparation, activities for the children, and contracts will be presented and will be developed for the participants.


## HE 220 COOPERATIVE EDUCATION INTERNSHIP <br> $\qquad$ 1-6

 See CA220.* A lab fee will be assessed for these courses.


## HUMANITIES

## HU2O1 HUMANITIES I

 .3Humanities I is designed to help you gain a richer understanding and enjoyment of the humanities, particularly in Western culture. This course includes an overview of the history of Western cultures between 1600 and the early 1800's and introduces great works of literature, philosophy, art, and music. As an interdisciplinary course, it seeks to show how these different elements contribute to and express human creativity and values. Prerequisite: English Composition I.

## HU2O2 HUMANITIES II

 .3 Humanities II promotes the understanding and enjoyment of the humanities in Western culture. This course includes an overview of the history of Western cultures from the 1830's to present time and introduces great works of literature, philosophy, art, and music. As an interdisciplinary course, it seeks to show how these different elements contribute to and express human creativity and values. Humanities I is not a prerequisite for Humanities II. Prerequisite: English Composition I.
## INDUSTRIAL EDUCATION

## IE116 OSHA 10-HOUR CONSTRUCTION TRAINING ... 1/2

This course is intended to provide an entry level construction worker with broad awareness in recognizing and preventing hazards on a construction site. It is also ideal for supervisors with safety and health responsibilities. OSHA recommends the training as an orientation to occupational safety and health. Students will be introduced to OSHA policies, procedures, and standards. Emphasis will be placed on hazard identification, avoidance, control, and prevention. Upon successful completion of the course, participants will receive an OSHA 10-Hour Construction DOL Course Completion Card by mail.

## IE117 OSHA 10-HOUR GENERAL INDUSTRY

Training
. .1
This course is intended to provide an entry level general industry worker with broad awareness in recognizing and preventing hazards on a general industry site. It is also ideal for supervisors with safety and health responsibilities. The course covers a variety of safety and health hazards which a worker may encounter. Students will be introduced to OSHA policies, procedures, and standards as well as general industry safety and health principles. Emphasis will be placed on hazard identification, avoidance, control, and prevention. Upon successful completion of the course, participants will receive an OSHA 10-Hour General Industry DOL Course Completion Card by mail.
*IE125 BLUEPRINT READING AND CUTTING PROCESSES .2
In this course, students will learn the importance of blue-prints/ working drawings in welding as well as a variety of cutting processes. Line conventions, drawing views, dimensioning, scales, and welding symbols will be explored. Students will describe and demonstrate oxyacetylene, plasma, and carbon arc cutting following shop drawings. This is a combination lecture and lab course which requires additonal seat time.
*IE 126 SHIELDED METAL ARC WELDING .3
Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up ofthe SMAW workstation; associate SMAW electrode classifications with base metals and joint criteria;demonstrate proper electrode selection and use based on metal types and thicknesses; build pads ofweld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; perform basic SMAW welds on selected weld joints; and perform visual inspection of welds. This is a combination lecture and lab course which requires additonal seat time.
*IE 127 GAS METAL ARC WELDING .3
Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain gas metal arc welding process (GMAW); demonstrate the safe and correct set up of the GMAW workstation.; correlate GMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; produce basic GMAW welds on selected weld joints; and conduct visual inspection of GMAW welds. This is a combination lecture and lab course which requires additonal seat time.
*IE 128 FLUX CORE ARC WELDING .3

This course focuses on the Flux Cored Arc Welding (FCAW) process. Students in this course will describe and demonstrate Flux Cored Arc Welding through classroom and shop learning.

Proficiency in welding in all positions according to AWS standard will be stressed.

IE 129 GAS TUNGSTEN ARC WELDING . .3
Through classroom and/or lab/shop learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW); demonstrate the safe and correct set up of the GTAW workstation; relate GTAW electrode and filler metal classifications with base metals and joint criteria; build proper electrode and filler metal selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes and filler material in the flat position; build pads of weld beads with selected electrodes and filler material in the horizontal position; perform basic GTAW welds on selected weld joints; and perform visual inspection of GTAW welds. This is a combination lecture and lab course which requires additonal seat time.

## * A lab fee will be assessed for these courses.

## JOURNALISM

## JN100 T MASS MEDIA IN SOCIETY. 3

This course is a general survey of the various mediums of mass communication, including print media, electronic media, and movies, and their roles in American society.

JN101 BASIC MEDIA WRITING. 3
Basic Media Writing explores mass media sources of information as well as the preparation and the application of the media message. After learning techniques for information gathering, students will study and practice the fundamentals of writing for various mass media outlets.

## JN140 BEYOND WEB 2.0: SOCIAL MEDIA AS IDENTITY . 3

 For today's college students, digital communication is the norm, but what does it mean to exist in an online community? Tools like Facebook, Twitter, and text messaging are prevalent and you can learn to use them all to maintain privacy, enhance reputation, and build a more satisfying personal and professional life online. This course proposes to make every enrolled student an astute digital learner. Students will also understand the sociocultural implications of their digital existence and the powerful marketing tool that is social media.
## JN220 COOPERATIVE EDUCATION INTERNSHIP. 1-6

 See CA220.
## MANAGEMENT

## MG101 T MANAGEMENT PRINCIPLES

 . .3Is an introductory course designed to provide the student with fundamental concepts and terminology. Designed for development of managerial techniques and practices and the understanding of their utilizations. For both terminal degree and transfer students.

MG102 INTRODUCTION TO ENTREPRENEURSHIP $\qquad$ In this course you will find information on high growth, start-up ventures, such as Dell Computer, Google and Microsoft (all started while the founders were college students, by the way!). But more importantly you will find information on the kinds of small businesses most people really do start. These are small businesses in traditional industries and markets from the "Mom and Pop" retail, a manufacturing or service business, a web-based enterprise to the sophisticated, pre-packaged franchise operation. According to the textbook authors, small businesses are vitally important to our economy and helping them survive has long been an art. In this course you will study the art and the science of small business management. The objective of the course is to help you understand the challenge before you operate your own small business.

## MG220 COOPERATIVE EDUCATION INTERNSHIP <br> $\qquad$ 1-6

 See CA220.
## MATHEMATICS

(Courses numbered 099 and below will not apply toward graduation.)

MA092 COLLEGE ALGEBRA APPLICATIONS $\qquad$ This course is designed and structured to support College Algebra students who have appropriate test scores. Students in the prescribed range of test scores must be enrolled in this course and a paired section of MA111 College Algebra or they may enroll in MA110 Intermediate Algebra.

MA099 ELEMENTARY ALGEBRA 3

This course is designed for students with little or no high school algebra, or those who have appropriate math scores on the ACT or Accuplacer exam. Topics covered will include properties of the graphs of linear equations, polynomials, factoring rational expressions, and radicals.

## MA104 TECHNICAL MATH

This course is intended as a terminal course for students seeking an AAS degree or various certificates. This course will not fulfill prerequisites for either Intermediate Algebra or College Algebra, and will not serve as a replacement for these classes to satisfy degree requirements for mathematics courses. This course covers the mathematics commonly used in technical fields at an elementary level. Topics covered may include, but are not limited to, the following: review of arithmetic operations and the Order of Operations agreement, simplifying various algebraic expressions, solving various types of equations, setting up and solving ratios, proportions and variation problems, rules for how to work with exponents and radicals, conversion of measurements between different systems, formulas for perimeter, area and volume of basic geometric objects, angles and trigonometric ratios, and personal finance tools and technologies. Prerequisite: none

MA108 CONTEMPORARY MATH . .3
Explores the uses of mathematics in different settings. Applications are seen in the contemporary world, across different disciplines. Topics will include, but are not limited to, the following: critical and logical thinking, statistics and probability, the application of mathematics to social issues such as voting, and financial applications. Prerequisite: appropriate test scores or Elementary Algebra with a grade of "C" or better or its equivalent.

## MA110 ${ }^{\text {T }}$ INTERMEDIATE ALGEBRA

$\qquad$ .3
This course is designed for students who are inadequately prepared for College Algebra. Topics covered will include linear equations and inequalities, functions, systems of linear equations, polynomials, exponents, rational expressions, radical expressions, and quadratic equations. Prerequisite: appropriate test scores or Elementary Algebra with a grade of C or better.

## MA111T COLLEGE ALGEBRA

 . .3 This course reviews standard topics of algebra. Students will study linear and quadratic equations, functional notation, linear, quadratic, rational, logarithmic and exponential functions, systems of equations and inequalities, and matrix algebra. Other topics may be covered at the instructor's discretion. Prerequisite: appropriate test scores or Intermediate Algebra with a grade of C or better.

## MA112 TRIGONOMETRY

 . .3 Is a study of trigonometric functions and their applications, solutions to right and oblique triangles, trigonometric identities, inverse functions, graphs of trigonometric functions, and vectors. Prerequisite: appropriate test scores or College Algebra with a grade of $C$ or better.
## MA114 ${ }^{\text {T }}$ ELEMENTARY STATISTICS

.3
This course is designed for students with adequate algebra background to cover introductory, non-calculus based statistics. Topics covered will include sampling and displaying data, measures of central tendency and variation, introductory probability theory, discrete probability distributions (binomial), normal distributions, standard normal distributions, sampling distributions and the central limit theorem, estimating parameters, hypothesis testing, regression and correlation, chi-square, and non-parametric statistics. Prerequisite: College Algebra with a C or better.

## MA115 GENERAL CALCULUS

$\qquad$ This course is an introduction to calculus particularly useful to economics and business administration students. It requires no knowledge of trigonometry, and is not intended for a student seeking a degree in a science related field. Topics covered include limits, derivatives, multivariate calculus, and basic integrals. Practical applications include optimization, analysis of graphs for sales and marketing purposes, and marginal analysis. Prerequisite: College Algebra with a C or better.

MA120T ANALYTIC GEOMETRY AND CALCULUS I $\qquad$ .5 This course reviews inequalities, linear equations, function notation, graphing and trigonometry. Students will study limits, continuity, derivatives, differentia ls, L'Hopital's Rule, and integrals. Practical applications include graphing, motion, optimization, related rates, Newton's Method, and L'Hopital's Rule, and area. Prerequisite: appropriate test scores or College Algebra and Trigonometry with grades of C or better.

## MA121 ANALYTIC GEOMETRY AND CALCULUS II .5

 This course picks up where MA120 left off with applications of integration. Develops calculus as applied to logarithmic and exponential functions. Students study limits, techniques of integration, infinite series, parametric equations and polar coordinates. Practical applications include growth and decay, Taylor series, surface area, work and arc length. Prerequisite: Analytic Geometry and Calculus I with a C or better.MA122 ANALYTIC GEOMETRY AND CALCULUS III.......... 5
Students will study vectors, vector functions, surfaces, differentiation, integration, cylindrical and spherical coordinates, and vector calculus. Practical applications will include arc length, area, volume, and optimization. Prerequisite: Analytic Geometry and Calculus II with a C or better.

## MA123 DIFFERENTIAL EQUATIONS

$\qquad$ .4 This course is the study of qualitative and quantitative behavior of first- and second-order differential equations, as well as systems of first-order equations. Both analytical and numerical methods for solution will be studied, including the use of Laplace transforms. Prerequisite: Analytic Geometry and Calculus III with a C or better.

## MA220 COOPERATIVE EDUCATION INTERNSHIP <br> $\qquad$ 1-6

 See CA2zo.
## MUSIC

## MU100 T MUSIC APPRECIATION

 .3Music Appreciation is a basic study of the development of the art of music (European based) and personal development of the art of creative listening through frequent use of listening examples. Recommended for the general student and music major.

## MU102 WORLD MUSIC

$\qquad$
Through the study of music from around the world, this course exploes how music shapes and is shaped by the cultural settings in which it is performed. By learning about the musical elements and structures of diverse selections of world music, students will understand music as culture, human and social activity, and artistic expression.

History of Rock Music is a survey of the evolution of rock music and its origins, characteristics, and stylistic development, as well as the sociological, economic, and cultural factors that shaped the many styles and genres of rock music.

## MU104 CLOUD COUNTY COMMUNITY CHORALE

$\qquad$ .1
The Cloud County Community Chorale is the community choir of Concordia and North Central Kansas. Comprised of singers from within the community as well as CCCC, the Chorale emphasizes the ideal of the "singing city" --friends and neighbors gathered together to rehearse and perform music from different time periods, with added emphasis on fostering arts and music within Concordia and the broader region. Rehearsals are held once weekly with performances throughout the year. No audition is required.

## MU110 HARMONY AND EAR TRAINING I

$\qquad$ .4
Harmony and Ear Training I is the study of the structure and components of western music. This study will include the fundamental concepts of notation, tonality, intervals, chords, melodic organization, rhythm, harmonic progression and analysis. Additional aural skills concepts of dictation and sight singing will also be covered.

## MU111 ${ }^{\text {T }}$ HARMONY AND EAR TRAINING II. <br> $\qquad$

 Harmony and Ear Training II is the intermediate study of the structure and components of western music and builds on the concepts explored in Harmony and Ear Training I. This study will include supplemental concepts of notation, tonality, intervals, chords, melodic organization, rhythm, harmonic progression and analysis. Additional aural skills, concepts of dictation, and sight singing will also be covered. Prerequisite: Harmony and Ear Training I or consent of instructor.
## MU117 COLLEGE BAND

$\qquad$ .1
The "Rolling Thunder" is the college activity band. This ensemble rehearses twice per week and performs in a college service capacity at athletic contests and other appropriate campus and community events. This ensemble rehearses three times per week.

## MU118 COLLEGE BAND II

. 1
This course is a continuation of College Band. The "Rolling Thunder" is the college activity band. This ensemble rehearses twice per week and performs in a college service capacity at athletic contests and other appropriate campus and community events. This ensemble rehearses three times per week.

## MU119 COLLEGE BAND III

$\qquad$ .1
This course is a continuation of College Band II. The "Rolling Thunder" is the college activity band. This ensemble rehearses twice per week and performs in a college service capacity at athletic contests and other appropriate campus and community events. This ensemble rehearses three times per week.

MU126 CONCERT BAND $\qquad$ .. 1
Concert Band rehearses one day weekly and will perform a formal

## Course Descriptions

concert each semester. Literature performed will be from the traditional as well as modern band repertoire and will include works from such representative composers as Gustav Holst, Ralph Vaughan-Williams, John Philip Sousa, and Johan DeMeij. Prerequisite: Proficiency on a traditional wind or percussion instrument.

MU127 JAZZ ENSEMBLE. .1

Jazz Ensemble is a small instrumental group designed to perform in the popular idiom, including rock, soul, folk type, and country music. This group is primarily a public performing ensemble that is small enough to be mobile yet large enough to perform all types of music in the popular fields. By audition. Jazz Ensemble meets one evening per week.

## *MU130 APPLIED MUSIC: VOICE

$\qquad$ .1
Applied Music: Voice provides the opportunity for the student to improve his singing skills in a direct teacher-to-student instructional setting. Technical skills and their application will be explored within a varied song repertoire.
${ }^{*}$ MU131 APPLIED MUSIC: INSTRUMENT............................ 1 Applied Music: Instrument is for individual instruction in instrument of student's choice beginning with student's level of competency.

## ${ }^{*}$ MU132 T APPLIED MUSIC: PIANO <br> $\qquad$ .1

 Applied Music: Piano is for individual instruction in piano beginning with the student's level of competency and developing piano techniques and building a repertoire.
## ${ }^{*}$ MU134 APPLIED MUSIC: VOICE II.

$\qquad$ .1
Applied Music: Voice II is a continuation of Applied Music: Voice. It involves private instruction in voice techniques. Appropriate skills and applications will be addressed through preparation of appropriate literature for recital performance.
${ }^{*}$ MU135 APPLIED MUSIC: INSTRUMENT II $\qquad$ . .1 Applied Music: Instrument II is a continuation of Applied Music: Instrument. It involves private instruction in instrumental techniques. Appropriate skills and applications will be addressed through preparation of appropriate literature for recital performance.

## ${ }^{*}$ MU136T APPLIED MUSIC: PIANO II

$\qquad$ .. 1
Applied Music: Piano II is a continuation of Applied Music: Piano. It involves private instruction in piano techniques. Appropriate skills and applications will be addressed through preparation of appropriate literature for recital performance.
${ }^{*}$ MU137 APPLIED MUSIC: VOICE III $\qquad$ Applied Music: Voice III is a continuation of Applied Music: Voice II. It involves private instruction in piano techniques. Appropriate skills and applications will be addressed through preparation of appropriate literature for recital performance.
*MU138 APPLIED MUSIC: INSTRUMENT III $\qquad$ Applied Music: Instrument III is a continuation of Applied Music: Instrument II. It involves private instruction in piano techniques. Appropriate skills and applications will be addressed through preparation of appropriate literature for recital performance.
*MU139 APPLIED MUSIC: PIANO III. $\qquad$ .1 Applied Music: Piano III is a continuation of Applied Music: Piano II. It involves private instruction in piano techniques. Appropriate skills and applications will be addressed through preparation of appropriate literature for recital performance.

## MU146 CHAMBER SINGERS

 . .1Chamber Singers is the flagship ensemble of CCCC that performs for college, community and area events. Emphasis is placed on performance, literature and musicianship. This ensemble performs frequently. Memembership is by audition.

## MU147 CHAMBER SINGERS II

$\qquad$ .1
Chamber Singers II is a continution of Chamber Singers. Chamber Singers is the flagship ensemble of CCCC that performs for college, community and area events. Emphasis is placed on performance, literature and musicianship. This ensemble performs frequently. Memembership is by audition.

## MU148 CHAMBER SINGERS III

$\qquad$ .1
Chamber Singers III is a continuation of Chamber Singers II. Chamber Singers is the flagship ensemble of CCCC that performs for college, community and area events. Emphasis is placed on performance, literature and musicianship. This ensemble performs frequently. Memembership is by audition.

## MU160 CONCERT CHOIR

$\qquad$ . .1

Concert Choir is a large, mixed-voice ensemble that performs for collegiate and community events. Emphasis is placed on developing musical skills, exploring diverse musical literature, and offering a challenging and satisfying musical experience. Rehearsals are one evening per week. No audition is required.

MU161 CONCERT CHOIR II . 1
Concert Choir II is a continuation of Concert Choir. Rehearsals are one evening per week.

## MU220 COOPERATIVE EDUCATION INTERNSHIP 1-6

 See CA220.* A lab fee will be assessed for these courses.


## NURSING

## *NR110 HEALTH ASSESSMENT FOR NURSES .3

This course is designed to provide students with a basic

## Course Descriptions

understanding and working knowledge of health assessments to begin making clinical judgments. Opportunities are provided for students to demonstrate competencies of the individual across the life span. Emphasis is placed on the interview process and recognition of expected findings for history and physical examination of each system. Prerequisite: Anatomy \& Physiology, Human Growth \& Developement, Intermediate Algebra or higher, and English Composition I with a grade C or higher.
*NR111 LIFESPAN NURSING I . .6
This course is an introduction to the professional role of the nurse and nursing process. Foundational psychomotor skills, safe practice, and basic communication skills are taught to provide care to adults and older adults. Requisite lab and clinical experiences are part of this course. Prerequisite: Anatomy \& Physiology, Human Growth and Development, English Composition I, Intermediate Algebra or higher with grade C or higher, admission to the associate degree nursing program, and NR110 taken concurrently or completed with an $80 \%$ (B) or higher.

## *NR112 LIFESPAN NURSING II

 .9This course is an introduction to the care of healthy families, health promotion, and patient centered care associated with common acute and chronic physical and psychosocial health alterations across the lifespan. Requisite lab and clinical experiences are part of this course. Prerequisite: Successful completion of Lifespan Nursing I and Health Assessment for Nurses with a grade of $80 \%$ (B) or higher.

## *NR116 PHARMACOLOGY FOR NURSES <br> $\qquad$

This course focuses on nursing implications associated with pharmacologic therapy for patients from diverse populations across the lifespan experiencing acute and chronic health alterations. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, adverse effects and nursing implications of medications. The nurse's role in drug administration, assessment, and patient education are emphasized. Prerequisite: Pathophysiology, Human Growth \& Developement, Intermediate Algebra or higher, and English Composition I with a grade C or higher,

## NR128 PATHOPHYSIOLOGY

$\qquad$
Focuses on pathophysiologic concepts related to the functional and structural changes that accompany disease processes and the application of basic concepts to body systems and selected disease processes. Etiologies, signs, symptoms, courses, and complications of common diseases of the following organ systems are included: neurologic, endocrine, reproductive, hematologic, cardiovascular, lymphati, pulmonary, renal and urologic, digestive, musculoskeletal, and integumentary. This course is a four hour lecture class. This course has no lab. Prerequisite: SC126 Anatomy and Physiology or SC120 Human Anatomy and Physiology I and SC121 Human Anatomy and Physiology II.
*NR210 LPN TO RN BRIDGE COURSE
.1
This course focuses on professional standards, scope of practice, clinical reasoning and psychomotor skills for the Registered Nurse. Prerequisite: Completion of a practical nurse program, LPN licensure or candidate for licensure, admission to the ADN program, Anatomy and Physiology, Human Growth and Development, Intermediate Algebra, General Psychology, English Composition I, and Pathophysiology.
*NR211 LIFESPAN NURSING III ........................................ 9 This course builds to provide care for patients with complex, acute and chronic, physical and psychosocial health problems. The concepts of prioritization and clinical judgment are incorporated to provide care for patients across the lifespan. Requisite lab and clinical experiences are part of this course. Prerequisite: Successful completion of Lifespan Nursing II with a grade 80\% (B) or higher (or) LPN licensure and Concurrent NR210; and admission to the ADN program.

## *NR212 LIFESPAN NURSING IV

 . 9 This course addresses emergent and multisystem healthcare problems. It supports the transition of the student to the professional role of the nurse. Requisite lab and clinial experiences are part of this course. Prerequisite: Pharmacology II and Lifespan Nursing III with a grade $80 \%$ (B) or higher.* A lab fee will be assessed for these courses.


## PHYSICAL EDUCATION

## PE101 TEAM SPORTS I

$\qquad$ . .1
Is designed to give the student an opportunity to participate in physical education activities of a team nature. Areas of interest includes, but are not limited to, soccer, men's basketball, women's basketball, volleyball, baseball, softball, and men's and women's track.

## PE 102 TEAM SPORTS II

 .1Is designed to give the student an opportunity to participate in physical education activities of a team nature. Second semester activities are basketball, volleyball, and softball.
*PE108 ARCHERY $\qquad$ .. 1
Is designed for students interested in the sport of archery. The course will teach the student fundamentals in archery skills and competition.

## PE 110 TOTAL FITNESS

.. 1
Is designed to bring about changes in the body as manifested by physical exercise. This course can be physically demanding, but very satisfying for those interested in improving their physical condition. Students will be informed on how to correctly use all of

## Course Descriptions

the equipment in the fitness center, and will have the opportunity to ask questions of the instructor or the fitness center staff member on duty when working out.

## PE125 FITNESS FOR LIFE

 .1The primary purpose of this course is to acquaint students with a basic knowledge, understanding and value of physical activity as related to optimal healthful living.

## PE1 26 CHEERLEADING I

$\qquad$ Is designed to teach the student the fundamentals of cheerleading. This is a first level cheer class. Students will learn beginning stunting including the preparation and practice of routines, weight conditioning programs, knowledge of personal health and selfmotivation, as well as focusing on cheer techniques. Students will also learn cheer terminology, choreography, and other related topics. (With approval of Cheer Coach.)

## PE1 27 CHEERLEADING II

$\qquad$ .. 1
Is designed to teach the student the fundamentals of cheerleading. This is the second level of cheerleading. Students will be expected to be role models and help teach the advanced stunting to the first level students. This includes the preparation and practice of routines, weight conditioning programs, knowledge of personal health and self-motivation, as well as focusing on stunting techniques. Students will also learn stunting terminology, choreography, and other cheer related topics. (With approval of Cheer Coach.)

## PE128 DANCE TEAM I

$\qquad$
Is designed to teach the student the fundamentals of dance. This is a first level dance class that will include the preparation and practice of routines, weight conditioning programs, knowledge of personal health and self-motivation, as well as focusing on jazz, hip hop, lyrical, and modern dance techniques. Students will also learn dance terminology, choreography, and other dance topics. (With approval of Dance Coach.)

## PE1 29 DANCE TEAM II

 .1Is designed to teach the student the fundamentals of dance. This is a second level class where the students will be more involved with helping demonstrate techniques and will include the preparation and practice of routines, weight conditioning programs, knowledge of personal health and self-motivation, as well as focusing on jazz, hip hop, lyrical, and modern dance techniques. Students will also learn dance terminology, choreography, and other dance related topics. (With approval of Dance Coach.)

## PE130 INTRODUCTION TO PHYSICAL EDUCATION

 . .3Surveys the modern program of physical education, fitness and sport as to its history, philosophy, aims and objectives. It covers a broad scope of topics including personal fitness, scientific foundations, exploring careers professional development, coaching and
athletics and social foundations.
*PE131 FIRST AID AND SAFETY .3

Acquaints the student with safety and first aid (treating injuries and sudden illnesses) in the home, school, and community. The National Safety Council first aid course and American Heart Association Heartsaver and Healthcare Provider courses are offered.

## PE132 RULES AND OFFICIATING

$\qquad$ .1
This course is designed for those who want to stay engaged in athletics beyond playing. Topics covered will include general principles of officiating, rule knowledge, situational awareness, as well as tax information and earning potential. Students will have the opportunity to participate in group discussions, share positive experiences with others, and submit article summaries. The course will focus on football and basketball but may expand to other sports. There will be opportunities for extra credit involving actual officiating experiences in games. The course will prepare student to register with the National Federation of State High Schools Association and to become certified officials.

## PE134 PERSONAL AND COMMUNITY HEALTH

 .3The study of personal health and wellness of the individual. The course examines several areas of wellness to include the physical, psychological, social, intellectual, spiritual, and environmental dimensions. The student will assess him/herself in numerous areas of lifestyle (i.e. stress, physical fitness, nutrition, destructive behaviors, communicable diseases, chronic diseases) and examine ways to improve his/her health for the future.

## PE 135 CONCEPTS OF PHYSICAL EDUCATION.

$\qquad$ ... 1
The primary purpose of this course is to acquaint students with a basic knowledge, understanding and value of physical activity as related to optimal healthful living. The course will include physical fitness assessment, exercise prescription, nutrition, weight management and stress management.

## PE 136 THEORY OF COACHING

 .3 A comprehensive introduction to the art and science of coaching. This course introduces a positive coaching philosophy, the principles of coaching as digested from the fields of sport psychology, sport pedagogy, sport physiology, sport medicine, and sport management. This course includes American Sport Education Program Coaching Principles certification (K.S.H.S.A.A. - Level 1 certification)
## PE137 INTRODUCTION TO RECREATION

 . 3This course is designed to introduce the student to the nature, scope and history of recreation, leisure services, and outdoor education. It examines trends and issues of leisure studies and out-of-door recreation, and potential of these areas of service as a
profession.

## PE139 TECHNIQUES OF COACHING BASKETBALL ......... 2

Is designed to provide coaches with the skills needed to organize and develop a quality basketball program. It will include basketball techniques, strategies, theories, philosophies of offense and defense, also organizational, administrative skills to handle parents, players, assistant coaches and school personnel. Class will consist of lectures, small group activity, videos, observations and gymnasium activity.

## PE140 TECHNIQUES OF COACHING VOLLEYBALL ......... 2

Is designed to provide coaches with the skills needed to organize and develop a quality volleyball program. It includes volleyball techniques and tactical strategies (offenses and defenses) of the game.

## PE141 TV PERSONAL WELLNESS .3

The study of personal health and wellness of the individual. The course examines several areas of wellness to include the physical, psychological, social, intellectual, spiritual, and environmental dimensions. The student will assess him/herself in numerous areas of lifestyle (i.e. stress, physical fitness, nutrition, destructive behaviors, communicable diseases, chronic diseases) and examine ways to improve his/her health for the future.

## PE143 TOTAL FITNESS II

$\qquad$
This class is designed to bring about continued changes in the body as manifested by increased amounts of physical exercise. This course is physically demanding, but very satisfying for those interested in continuing to improve their physical condition. Prerequisite: Total Fitness.

## *PE144 ARCHERY II

$\qquad$ .1
This class is designed for students interested in the sport of archery. This course is designed to teach the student more advanced archery skills and levels of competition.

## PE146 CONCEPTS OF TEAM SPORTS.

$\qquad$ .3
This course is to provide learning experiences that will lead to the development of basic skills in team sports. In addition to skill acquisition, the course will focus on how to plan, implement, and explain the different sports/activities that are presented. An emphasis will be placed on the use of the game stages and movement framework as a guide for designing a variety of sport game experiences. Students will be expected to achieve an intermediate level of skill in the selected team sports. Practice outside of class time may be necessary for some students to achieve the expected performance level.

## PE148 INTRODUCTION TO SPORTS MANAGEMENT . .3

Introduction to the discipline of sports management and its vast array of career opportunities. Successful management is required in all segments of the sport industry whether professional or amateur, private or public, school-related or club, community or
national, and at all levels of competition.

## PE150 BASIC CARE AND PREVENTION OF ATHLETIC INJURIES I

Is designed for students interested in the prevention and care of athletic injuries. Basic principles of all aspects of athletic training are covered. Through lectures on specific injuries and practical lab experiences, the student will learn how to recognize and care for common athletic injuries. This course is open to all students, it is a first semester requirement for students in the Athletic Training Program.

## PE 151 BASIC CARE AND PREVENTION OF ATHLETIC

 INJURIES II.3
This course is designed for students interested in the evaluation, treatment, and rehabilitation of upper extremity athletic injuries. The anatomy involved in specific injuries that commonly occur in athletics and evaluation techniques will be emphasized. The use of therapeutics modalities and rehabilitation exercises for athletic injuries will be presented. Through lectures on specific injuries and practical lab experiences the student will learn about basic athletic training. This course is open to all students. This course is a second semester requirement for students in the Athletic Training program. Prerequisite: Basic Care \& Prevention of Athletic Injuries I with passing grade or consent of instructor.

PE155 RECOGNITION \& CARE OF ATHLETIC INJURIES.. 3 This course will acquaint the student with the first-response recognition, evaluation and treatment techniques for more than 110 sport related injuries and illnesses. It will cover treatment of injuries and illness, injury prevention, as well as cardiopulmonary resuscitation (CPR) for young adults. This course includes American Sport Education Program Sport First Aid Certification (K.S.H.S.A.A. - Level 2 certification).

## PE156T PRINCIPLES OF STRENGTH \& CONDITIONING

This course is designed to provide students with the theoretical and practical knowledge of the physiological, biomechanical and administrative aspects of designing and supervising safe and effective strength and conditioning programs for youth through adult populations.

## PE160 VARSITY SPORTS: BASEBALL

$\qquad$ . .1
A sport for baseball players. It begins the first day of classes for the fall semester and ends with the regional and national baseball tournaments in May. Baseball consists of skill development, intended to produce a competitive baseball team, in pitching, fielding and hitting skills.

PE161 VARSITY SPORTS: BASKETBALL .1
A sport for basketball players. Practice begins the first of October and concludes in March. Preseason conditioning starts four weeks preceding regular practice. Players will practice six days a week and play approximately 30 regular season games.

## Course Descriptions

PE162 VARSITY SPORTS: TRACK . .1
A sport for track and field athletes. Athletes are expected to participate in all practices and meets scheduled by the coach.

## PE165 VARSITY SPORTS: SOFTBALL

$\qquad$ .1
A sport for softball players, which includes Fall and Spring Semester participation. Softball consists of daily practices and a schedule of approximately 20 games in the Fall and 50 games in the Spring.

## PE167 VARSITY SPORTS: CROSS COUNTRY

$\qquad$ A sport for distance runners. It begins in August or at the start of the Fall Semester and ends with the National Championship in November. Cross country consists of a variety of hill, road and track workouts to better develop the cardiovascular system.

## PE168 VARSITY SPORTS: VOLLEYBALL

$\qquad$ .1
This class is designed to bring about changes in the body as manifested by physical exercise. This course can be physically demanding, but very satisfying for those interested in improving their physical condition. Students will be informed on how to correctly play the game of volleyball, and will have numerous opportunities to play the game as well. Also students will be provided the opportunity to ask questions of the instructor training or competing.

PE169 VARSITY SPORTS: WRESTLING $\qquad$ .1 A sport for wrestlers. The course begins the first day of classes for the fall semester and ends with the regional wrestling tournaments in February. Wrestling consists of skill deelopment intended to produce a nationally competitive NJCAA wrestling program in all aspects.

## PE185 VARSITY SPORTS: BASKETBALL II

$\qquad$
Students will comprehend and demonstrate the fundamental skills of shooting, passing, dribbling, and rebounding the basketball. Students will learn to analyze and demonstrate these skills within a competitive environment. This course is a continuation of Varsity Sports: Basketball.

## PE220 COOPERATIVE EDUCATION INTERNSHIP

$\qquad$ 1-6
See CA220.

## PE250 STRESS MANAGEMENT

$\qquad$ 3

This course will study the mind-body relationship and the psychophysiology of stress including the relationship of the stress reaction to specific illnesses and disease. The course will cover an understanding of the basic principles of stress management through coping skills, the study of the mind-body relationship in stress management, cognitive reappraisal of daily life stressors, and techniques to deal with these stressors. The cognitive strategies and relaxation techniques are cornerstones for optimal health and can help one manage stressors in a healthful and productive
manner.

* A lab fee will be assessed for these courses.


## PHARMACY TECHNICIAN

## PM104 PHARMACY TECHNICIAN I. . .5

This course is an introduction to the pharmacy technician field by covering general pharmacy topics such as history, laws and regulations, pharmacy technician roles, body systems, drug classifications, basic concepts for pharmacy, begin basic patient prescription processing, and career information. This course examines the various drug classes, mechanisms of action, calculations, and the pharmacy technician's role in best practice with patient safety.

## PM105 PHARMACY TECHNICIAN II

$\qquad$ . .5
The course builds to provide a coprehensive introduction to further prepare students for employment in community, institutional, and other pharmacy settings covering the laws, regulations, and ethics that guide the practice. A focus on complex calculations, forms of non-sterile and sterile compounding of pharmaeuticals, preparation of intravenous asmixtures, inventory management, and the role of pharmacy tehnicians in the hospital, specialty, and institutional setting. Covering institutional and pharmacy organization, operation, terminology, medication distribution systems, and packaging. Upon completion of this course students will be eligible to sit for the certification exam. Prerequisite: Successful completion of PM104 Pharmacy Technician I.

## PHILOSOPHY

## PH100 T INTRODUCTION TO PHILOSOPHY

 .3A survey course designed to increase the student's understanding of their own ideas, the ideas of philosophers, and the ideas of their fellow students. Topics covered include: logic, epistemology, ethics, pragmatism, and existentialism.

## PH101 INTRODUCTION TO CRITICAL THINKING <br> ... 3

Designed to help students recognize inaccurate and fallacious reasoning and identify and practice good thinking. Students will apply the standards of good reasoning to traditional and contemporary ethical, social, economic and political problems.

## PH105 T ETHICS

.3
Explores basic concepts, theories, and methods of moral philosophy, their application to specific moral problems, and aspects of the rich history of moral philosophy Traditional Ethical Philosophers are discussed such as Bentham, Mill, and Kant, to

## Course Descriptions

name a few. Moral problems and social issues such as abortion, capital punishment, business practices, and sexuality are examples of subjects examined from various viewpoints and philosophies.

## RELIGION

## RE1O4 WORLD RELIGIONS

 3Discusses religions of mankind set in historical perspective. The course will focus upon the basic teachings of each of the major religions of the world, their founders, geographic distribution and importance in the theological world.

## SCIENCE

## *SC101 T GENERAL BIOLOGY + <br> $\qquad$

Engages the non-biology major in explorations of the unity and diversity of organisms with particular attention devoted to the commonalities. Students are involved in various investigative simulations and extended laboratory activities. Study begins with the chemical foundation of life and culminates with interactions between organisms and environment. This course combines three hours lecture and one and one-half hours of laboratory time.
${ }^{*}$ SC103 T PHYSICAL SCIENCE + ....................................... 5
This course is a study of the physical world emphasizing fundamental universal laws and their implications in modern living through observations and analysis of sensible data. Topics may include, but not limited to, the following areas: astronomy, chemistry, geology, meteorology, and physics. This course combines three hours of lecture and three hours of laboratory time. Prerequisite: Elementary Algebra with a C or better or appropriate Accuplacer/ACT scores.
*SC1O4 ${ }^{\text {T }}$ GEOLOGY + $\qquad$ This course provides a study of the basic landforms and geological processes. Topics include Earth structure and composition, erosional and depositional processes, minerals and rocks, stream flow, glaciation, plate tectonics, and groundwater. This course includes three hours lecture and one and one-half hours laboratory time.

## *SC105 ${ }^{\text {T }}$ GENERAL ASTRONOMY + <br> $\qquad$

This course is an introduction to space science designed to acquaint students with the history of astronomy, the universe, the solar system, the Sun and other stars, the evolution and properties of celestial bodies, and astronomical phenomena. This course includes three hours lecture and one and one-half hours laboratory time.

## ${ }^{*}$ SC107 ${ }^{\text {T }}$ METEOROLOGY + <br> $\qquad$

This course introduces the nature, origin, processes, and dynamics of the Earth's atmospheric environment. Content will focus on: (1) weather systems and processes, (2) seasonal trends, (3) atmospheric circulation, pressure, and moisture, (4) storm
development, (5) air pollution, and (6) anthropogenic influences on weather and climate. This course includes three hours lecture and one and one-half hours laboratory time.

## *SC109 APPLIED PHYSICS

 .3The applied physics course is designed to teach the basic concepts of physics, while applying them to practical situations pertaining to wind energy and wind energy generation. Students will use a hands-on approach to study the concepts of force, work, rate, resistance and energy as related to mechanical, fluid, electrical, and thermal systems. Prerequisite: MA104 Technical Math, MA110 Intermedite Algebra, or Mathematics General Education Course taken concurrently or completed with "C" or higher.
*SC110 T PRINCIPLES OF BIOLOGY I + $\qquad$ .5
This course is a combined lecture and laboratory course for students planning to choose majors in biological sciences. Topics include basic biochemistry, cell structure and function, bioenergetics, cellular reproduction, molecular biology and genetics, integrated into an evolutionary perspective. This course includes three hours of lecture and three hours of laboratory per week.

## SC111 MICROBIOLOGY LECTURE

 .3 Is a study of microorganisms with emphasis on bacteria including fundamentals of their morphology, physiology, genetics and relationship to health and disease. (This is a three-hour lecture only class. No lab is included. Students wishing to take Microbiology Lab will also need to enroll in SC112.) Prerequisite: A college level biological science course with a C or better.
## ${ }^{*}$ SC112 T MICROBIOLOGY LAB +

$\qquad$ .2
Is an extended weekly time period during which students are given the opportunity to demonstrate via specific laboratory procedures, proper handling of microbes, principles of microbial structure, function, and the relationship of microbes to health and disease. This course includes three hours laboratory time. Prerequisite: Microbiology Lecture (SC111) or concurrent enrollment.

## *SC115 GEOLOGY LAB +

$\qquad$ This lab is intended as a hands-on approach to learning Earth materials and geological processes. Experiments will include: (1) using the scientific method and science tools to interpret geologic data, (2) examining the cause and effects of geologic hazards, (3) identifying rocks and minerals, (4) simulating stream and coastal processes, (5) assessing groundwater pollution, (6) analyzing geologic maps, and (7) interpreting the geologic history of the Great Plains. This course includes one and one-half hours laboratory time. Prerequisite: Previous credit in Geology lecture and approval from instructor
*SC116 METEOROLOGY LAB + $\qquad$ .1
This lab is a hands-on study of atmospheric processes. Students will apply the scientific method to learn the reason for seasons and the causes of precipitation, weather hazards (tornadoes and hurricanes), atmospheric phenomena (mirages, halos, and rainbows),
air pollution, and climate change. This course includes one and one-half hours laboratory time. Prerequisite: Previous credit in Meteorology lecture and approval from instructor.

## *SC117 GENERAL BIOLOGY LAB +

$\qquad$
This is a laboratory class that is an opportunity for an extended weekly time period during which students are given the opportunity to demonstrate via specific laboratory procedures, principles of scientific method, cellular biology, enzymatic functions, diversity, evolution, and ecology. This course includes one and one-half hours laboratory time. Prerequisite: Previous credit in Biology lecture and approval from instructor.

## *SC120 T HUMAN ANATOMY \& PHYSIOLOGY I + <br> $\qquad$ . .4

This course is an introduction to the basic concepts of biochemistry, cytology, histology, and cellular physiology that relate to all tissues, organs and organ systems of the human body. It focuses on the anatomical and physiological aspects of the following organ systems: integumentary, skeletal, muscular, and nervous. This course includes three hours of lecture and one and one-half hours of laboratory time.

## *SC121 T HUMAN ANATOMY \& PHYSIOLOGY II + .......... 4

This course is a continuation of topics introduced in Human Anatomy and Physiology I. It focuses on the anatomical and physiological aspects of the following organ systems and topics: special senses, endocrine, cardiovascular, lymphatic, respiratory, and reproductive. This course includes three hours of lecture and one and one-half hours of laboratory time. Prerequisite: Completion of or concurrent enrollment in Human Anatomy and Physiology I (SC120) or completion of Anatomy and Physiology (SC126).

## *SC125 HUMAN BODY DISSECTION +

$\qquad$ . 1
This course is designed to provide more advanced students an opportunity for hands-on dissection experience with a human cadaver. This course includes one and one-half hours of laboratory time. Prerequisite: Completion of or concurrent enrollment in Human Anatomy \& Physiology I.

## *SC126 T ANATOMY AND PHYSIOLOGY + ....................... 5

Anatomy and Physiology is an introduction to the basic concepts of biochemistry, cytology, histology, and cellular physiology that relate to all tissues, organs and organ systems of the human body. It will focus on the anatomical and physiological aspects of the following organ systems an topics: integumentary, skeletal, muscular, nervous, special senses, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive. This course includes three hours of lecture and three hours of laboratory time.
*SC129 T INTRODUCTION TO CHEMISTRY + $\qquad$ This course is an introduction to the basic concepts of inorganic chemistry for non-majors or those with little or no chemistry background preparing for careers in the sciences. Topics include dimensional analysis, states of matter, atomic and molecular
structure, chemical bonding, nomenclature, chemical reactions and energetics, solutions, gas laws, and acids and bases. Emphasizes mathematical problem solving and application of measurements involving solutions, gases, and acids/bases. This course includes 3 hours lecture and 3 hours laboratory time. Prerequisite: Elementary Algebra with a "C" or better or appropriate ACT/Accuplacer scores.

## *SC130 T GENERAL, ORGANIC, \& BIOCHEMISTRY +..... 5

This course is an introduction to principles of general, organic, and biological chemistry relevant to health-related professions (nursing, dental hygiene, medical laboratory technician, and other allied health fields). Topics include dimensional analysis, atomic theory, bonding, nomenclature, stoichiometry, gas laws, acids/bases, solutions, reactions and energetics, and structure, properties, and reactions of major organic molecules. This course includes 3 hours lecture and 3 hours laboratory time. Prerequisite: Intermediate Algebra with a "C" or better or appropriate ACT/ Accuplacer scores.

## *SC131 ${ }^{\text {T }}$ CHEMISTRY I +

$\qquad$ .5

This is an introductory course designed for engineering, allied health and science majors. This is the first course of a twosemester sequence examining the principles of chemistry and the properties of the elements and their compounds. Topics include the fundamental laws of chemistry, atomic theory and structure, periodic properties, chemical reactions and calculations, chemical bonding and three-dimensional molecular structure, gas laws and the kinetic molecular theory, chemical kinetics, aqueous solutions, acids, bases, and salts are covered in ths course. This course includes three hours lecture and three hours laboratory time. Prerequisite: Intermediate Algebra with a " C " or better or appropriated ACT/Accuplacer scores.
${ }^{*}$ SC132 ${ }^{\text {T }}$ CHEMISTRY II + .5 This is the second course of a two-semester sequence examining the principles of chemistry and the properties of the elements and their compounds. Topics include the intermolecular forces, properties of solids and solutions, chemical kinetics, chemical equilibrium and applications (acids, bases, pH , buffers, and solubility), thermodynamics (spontaneity, entropy, and free energy), electrochemistry, and an overview of organic and biochemistry. This course includes three hours lecture and three hours laboratory time. Prerequisite: Chemistry I with a "C" or better.

## SC137 NATURAL HAZARDS AND DISASTERS

$\qquad$ . 3
This course will examine the physical mechanisms that create natural hazards and disasters, explore the geographic distribution of disasters around the globe, and address how humans mitigate against and respond to them. Topics include tornadoes, earthquakes, tsunamis, volcanoes, floods, hurricanes, heat waves, and droughts, as well as some lesser-known and larger scale phenomena such as the El Nino/La Nina cycle, meteorite impacts, and

## Course Descriptions

global climate change. This course includes three hours lecture. This course has no lab. Students wishing to take Natural Hazards and Disasters Lab must enroll in SC138.
*SC138 NATURAL HAZARDS AND DISASTERS LAB + .... 1 This lab will examine the physical mechanisms that create natural hazards and disasters, explore the geographic distribution of disasters around the globe, and address how humans mitigate and respond to them. Topics include tornadoes, earthquakes, tsunamis, volcanoes, floods, hurricanes, heat waves, and droughts, as well as some lesser-known and larger scale phenomena such as El Nino/La Nina cycle, meteorite impacts, and global climate change. This course includes one and one-half hour slab time. Prerequisite: Credit for Natural Hazards and Disasters lecture (SC137) or concurrent enrollment.

## *SC140 T COLLEGE PHYSICS I + <br> $\qquad$ .5

This course develops basic principles of translational and rotational motion, force, work, mechanical and thermal energy, linear and angular momentum, and fluid mechanics using the tools of algebra and trigonometry. College Physics I is recommended for majors in science and allied health fields. This course includes three hours lecture and three hours laboratory time. Prerequisite: College Algebra and College Trigonometry with a "C" or better or appropriate ACT/Accuplacer scores.

## *SC141 COLLEGE PHYSICS II + <br> $\qquad$ . .5

College Physics II is the continuation of College Physics I. Topics covered in this course will include electricity and magnetism, waves, optics, and an introduction to modern physics. College Physics II is recommended for majors in science and allied health fields. This course includes three hours lecture and three hours laboratory time. Prerequisite: College Physics I with a C or better.

## *SC142 ${ }^{\text {「 }}$ UNIVERSITY PHYSICS I +

$\qquad$ This course is an introductory course covering the general topics of mechanics and heat and is recommended for majors in science and engineering. Topics include the study of translational and rotational motion, force, work, mechanical and thermal energy, linear and angular momentum, mechanical waves, and fluid mechanics using the tools of algebra, trigonometry, and calculus. This course includes three hours of lecture and three hours of laboratory time. Co-requisite: Analytic Geometry and Calculus I.

[^4]
## *SC151 P PRINCIPLES OF BIOLOGY II +

$\qquad$

This is a combined lecture and laboratory course for students planning to choose majors in biological sciences. Topics include basic plant and animal morphology and physiology, biodiversity and phylogeny, population genetics, and principles of evolution and ecology. This course includes three hours of lecture and three hours of laboratory time.

SC220 COOPERATIVE EDUCATION INTERNSHIP 1-6 See CA220.

## * A lab fee will be assessed for these courses. <br> +These courses are considered lab courses.

## STUDENT DEVELOPMENT

## SD099 PERSONAL ASSESSMENT AND PLANNING <br> $\qquad$ . .1

 Allows students to assess their skills, aptitudes, interests, and values. It helps students: 1) determine what obstacles are interfering with their learning, 2) devise a plan to overcome these obstacles, and 3) gain the self-confidence and self-determination necessary for college success. All students with academic probation status are required to enroll in this course. Students may not drop or withdraw from this course without prior approval from the VicePresident of Academic Affairs.
## SD100 COLLEGE SKILLS AND RESOURCES

$\qquad$ .1
Familiarizes incoming Cloud students with the campus, its facilities, procedures and regulations. Students are assisted in 1) defining their educational goals, 2) identifying courses and experiences that can help fulfill their goals and 3) accessing the support services necessary to achieve their goals. Required for first-time college students enrolled in nine or more credit hours unless sole program is CDL, Welding, EMT, or Pharmacy Technician.

## SOCIAL SCIENCE

## SS101 GENERAL PSYCHOLOGY

 3General Psychology is an introductory course covering a survey of methods, facts, and principles relating to basic psychological processes. Major topic areas include neural bases of behavior, learning and motivation, psychosocial development and psychological disorders, human cognition, cognitive development, and individual differences and social psychology.

## SS102 ABNORMAL PSYCHOLOGY

 .3This class examines psychological disorders in the current Diagnostic and Statistical Manual of Mental Disorders. Other types to be studied are neurocognitive disorders, substance-related and addictive disorders, neurodevelopmental and disruptive disorders, and eating, sleep and elimination disorders. Study of major theoretical models explaining psychological disorders, and discussions of major psychological and psychiatric models for treating

## Course Descriptions

and modifying abnormal behavior will be a part of the course.

## SS103 SOCIAL PSYCHOLOGY

$\qquad$
Is an introduction to the discipline that utilizes the scientific method to attempt to understand and explain how the individual's behavior, thoughts, and feelings are influenced by the actual, imagined or implied presence of others. Analysis of the self, culture and gender will be given special emphasis in regard to their direct and indirect influence upon human behavior.

SS105 HUMAN GROWTH AND DEVELOPMENT .............. 3 The class is a study of the self and steps which lead to psychological maturity. The class will include an analysis of our culture in relationship to the needs for personal growth and will study the individual from conception through death. The course will cover physical, mental, and cultural needs for a rich and satisfying life.

## SS106T MARRIAGE AND FAMILY

$\qquad$ .3
Is a study of mate selection, marriage, and the family from the psychological, sociological, biological, and developmental points of view. Included are the relationship of values to marriage, sex roles, dating and engagement, family planning, parenthood, family economics, communication and marital growth and fulfillment, and death in the family.

## SS 107 HUMAN SEXUALITY

 . 3Human Sexuality is an introductory course focusing on the biological, cultural, psychological, social, and legal aspects of human sexuality. Discussions of sexual attitudes, ideals, and behaviors of the past and present, as well as similarities and differences in the United States and other parts of the world regarding sexual issues will be covered.

## SS113 HUMAN RELATIONS

 .3Is an experience-oriented class which is designed to assist persons to focus upon themselves and others. Utilizing group interaction and discussion, emphasis is placed upon the development of listening and communication skills, conflict management, personal and interpersonal awareness, goal setting, and effective time management.

## SS125 INTRODUCTION TO CULTURAL ANTHROPOLOGY .3

Is designed to introduce students to the extraordinary diversity of human cultures. This variation is viewed as a reflection of each society's continuing need to adapt successfully to local, social and environmental conditions. While the course focuses chiefly upon primitive and nonindustrialized societies today (i.e., those living in the "ethnographic present"), past cultures are also surveyed from the perspectives of physical anthropology and archaeology.

[^5]of physical, neurological, cognitive, psychosocial and personality development of the child from conception through adolescence. Research methods and genetic, behavioral and environmental theory will be included. This course will explore current impacts on behavior and development.

## SS129 INTRODUCTION TO SOCIAL WORK <br> $\qquad$ . .3

This course aims to assist students gain knowledge about the nature of social work practice including its values, ethics, roles and activities; understand some of the differences between conventional and progressive approaches to social work; understand more about themselves in regard to social work; and gain familiarity with the work done by social workers in the community and the world.

## SS130T INTRODUCTION TO SOCIOLOGY

 . .3Is designed as an introduction to the study of the structure and function of human groups, particularly those which occur in contemporary industrialized cultures. The relationships between the individual and his society, culture and society, and the social dynamics of institutions are investigated.

## SS131 T CULTURAL DIVERSITY AND ETHNICITY .3

 This course seeks to expose students to historical and contemporary issues related to diversity, race, and ethnicity in the United States. The course will utilize different sociological perspectives to critically analyze racial and ethnic relations. The course will highlight concepts such as power, oppression, stereotypes, inequality, prejudice, and social stratification. The course examines social policy as it relates to race and ethnicity and analyzes the ways in which racial and ethnic relations are a social, structural, and systemic problem rather than an individual problem. The class will highlight social reform, social justice and cultural change and the many ways in which each of us can be a change agent.
## SS140 T U.S. GOVERNMENT: NATIONAL

 . .3 Is an introduction to the structure and function of the United States Government and the political behavior of the American people.
## SS141 TV.S. GOVERNMENT: STATE AND LOCAL .......... 3

Is a study of the structure and function of state and local governments with special attention given to the governments in Kansas.

## SS142 CURRENT POLITICAL ISSUES

 . 3An introduction to contemporary political issues and the problems that concern American society. This course will look at current events that are shaping current political policy at the local, state and national levels.

## SS150 T INTRODUCTION TO INTERNATIONAL

 RELATIONS . .3This course focuses on concepts and patterns of political behavior within societies, and the reasons behind these patterns. The aim of this course is to furnish students with the intellectual tools to

## Course Descriptions

understand the future, as well as current events in their society and around the globe.

## SS2O1 SOCIAL PROBLEMS .. 3

This course involves the application of sociological concepts and principles to the description and critical analysis of major social problems of modern societies. A founding assumption to this course is that it is crucial for people to be able to subject their own society to scrutiny in order to arrive at intelligent assessments of particular social problems. It is equally important that people understand the general patterns of societal development that often cause or aggravate these problems. Within this framework, this course will examine various problems including those of wealth and poverty, class stratification, race and ethnicity, crime and deviance, gender, and problems of our consumer society.

## SS220 COOPERATIVE EDUCATION INTERNSHIP

$\qquad$ 1-6 See CA220.

## SOLAR ENERGY

## *SE100 INTRODUCTION TO SOLAR ENERGY <br> $\qquad$

 Introduction to Solar Energy students will be exposed to many facets of the solar industry. This course will cover basic principles of solar energy conversion. The solar industry worldwide is growing every year and the cost of the energy has been declining because of the efficiency of new technologies. Class topics will not only cover the mechanical, technical, and electrical aspects of solar energy but also environmental, social, political and economic aspects of solar energy.
## *SE101 SOLAR ENERGY FUNDAMENTALS

$\qquad$ .3
Solar Energy Fundamentals will cover the solar industry, composition of PV systems, basic terminology for the industry, importance of the sun's insolation, and the effects of solar shading. The course will also examine the specifics of a panel at the component level and the importance of panel selection.
*SE102 SOLAR ENERGY DESIGN .3
Solar Energy Design students will learn real world knowledge, experience, and understanding of solar photovoltaic and solar power systems. This course will cover designing, estimation, bidding, submitting, permitting, building, and passing inspections of PV systems.

## *SE103 SOLAR ENERGY OPERATIONS \& MAINTENANCE

Solar Energy Operations and Maintenance course will cover analyzing results of test tools used during commissioning, performance evaluations, operations, maintenance, and troubleshooting. Tools include insulation resistance testing, IV curve tracing, infrared cameras, and thermal imaging. Students will learn the proper set-up, use, and function of the tools and the proper ways to evaluate the system. The course will also include the proper ways to troubleshoot and locate common faults of PV systems using tools
and methods.
*SE201 ADVANCED SOLAR ENERGY DESIGN .3
Solar Energy Advanced System students will be exposed to the specific techniques in design of a solar project. This course will cover customer expectations and characteristics specific to a site. Class topics will also cover the mechanical, technical, and electrical design requirements of solar PV systems.
*SE202 ADVANCED SOLAR ENERGY INSTALLATION ...... 3 Solar Energy Advanced Installation will cover all aspects of the installation of a solar PV project. The course will explore the safety requirements of the solar industry and hazards associated. It will also cover the proper regulations and methods required by the NEC and other governing bodies.
*SE203 SOLAR ENERGY SYSTEM COMMISSIONING......... 3
Solar Energy System Commissioning students will learn the proper procedures in commissioning of a solar PV system. This course will cover equipment use, proper inspection, conducting proper tests, and verification of proper system operation.
$\begin{aligned} \text { *SE204 } & \text { SOLAR ADVANCED OPERATIONS \& } \\ & \text { MAINTENANCE......................................................... } 3\end{aligned}$
Solar Energy Advanced Operations and Maintenance course will learn methods for verifying system operation and performance in order to diagnose and correct problems. Students will perform preventative maintenance on PV systems in real life situations and determine corrective actions to take.

* A lab fee will be assessed for these courses.


## UNMANNED AIRCRAFT SYSTEMS

*UA100 INTRODUCTION TO SUAS.................................... 3
This course is an introduction to Unmanned Aerial Systems. It will cover the safety requirements to operate in the National Air Space in the United States. It will also evaluate the role of the FAA and local laws which govern the operation of UAV's. Other organizations which work to keep citizens and operators safe and efficient in their operation of UAV's will also be introduced. Through the course, the different types of drones and applications in today's world will be explored.

## *UA110 SUAS GROUND SCHOOL .3

The sUAS Ground School Course sets a sturdy foundation of required aeronautical knowledge for remote pilots of UAS less than 55 pounds. The curriculum addresses all pertinent aeronautical knowledge factors outlined by the FAA for the Unmanned Aircraft General (UAG) examination and augments those with safety concepts and practices to develop well-informed and responsbile remote pilots. Students who successfully complete the course receive a certificate of completion from ARGUS Unmanned and are well prepared to pass the UAG exam.

## Course Descriptions

* UA1 40 SUAS APPLICATIONS .3
Unmanned Applications course objectives is to provide an understanding of how unmanned aircraft are used to accomplish a variety of tasks in a complex environment and how remote pilots apply UAS technology for commercial, scientific, and governmental purposes while respecting both the physical and regulatory limitations. Additionally, this course creates a foundation for the concept of professionalism and ethics as they apply to remote pilots.


## * UA150 SUAS PERSONNEL, SAFETY, \& CREW RESOURCE MANAGEMENT .3

 sUAS sUAS Personnel, Safety, and Crew Resource Management course objective is to provide the basic knowledge needed to integrate drones into the National Airspace and to develop a workflow for UAV missions. The importance of safety and mitigating risk is of paramount importance for UAV's to be considered a viable means of collecting data in the National Airspace. This course is not intended to be a management of personnel but a framework to develop safe, efficient, workflow for all UAV missions.
## * UA2 201 SUAS COMMAND, CONTROL, \& COMMUNICATIONS .3

Command, Control, and Communications will be covered as it relates to the team operation of a UAS. Students will learn the various types of systems and controls required to operate a UAV in the National Air Space. They will learn the devices needed and the reliability of the differing technologies for safe and effective flight. Both hardware components and software control solutions will be covered.

## *UA210 SUAS SYSTEMS AND CONCEPTUAL DESIGN ....... 3

This course will introduce the components required for remote controlled flight by a multi-rotor vehicle. Within the course the structural pieces of the UAV will be constructed by 3D printer techniques and all components which cannot be printed will be added to the design with a finished flying UAV by the end of the course. Through this process students will learn the various laws of physics and construction and repair techniques to create an airworthy multi-copter.

* A lab fee will be assessed for these courses.


## WIND ENERGY

## *WE100 INTRODUCTION TO WIND ENERGY

 .3Students will be exposed to the many facets of the wind industry.

This course will cover basic principles of wind energy conversion. The wind industry world wide is growing faster than any other energy source. Class topics will not only cover the mechanical, technical, and electrical aspects of wind energy but also environmental, social, political and economic aspects of wind energy.

## *WE105 EMPLOYABILITY SKILLS, SAFETY,

 BLUEPRINT READING .3A course designed specifically for the wind energy students. Each of the course's topics will be presented for approximately a third of the semester. Employability Skills will provide the student with lifelong career planning skills and employability skills necessary to secure a career in the wind industry. Safety will cover the necessary topics of OSHA safety training in the electrical industry. Blueprint Reading will provide the student with communication skills in the areas of reading blueprints for development, construction, operation, maintenance, and electrical power systems.

## *WE110 ELECTRICAL THEORY . 3

Students will be exposed to many facets of electrical energy. This course will cover basic electrical circuit information such as voltage, current, resistance, series circuits, parallel circuits, combination circuits, conductors, insulators, electrical power, sources of electrical energy, magnetism, meters, AC/DC current, and other topics that are appropriate.

## *WE 120 HYDRAULICS

 .3 Hydraulics is a study dealing with the mechanical properties of liquids. Hydraulic topics cover concepts such as hydraulic pumps, actuators, accumulators, cylinders, control valves, check valves, flow control valves, directional control valves, pressure control valves, motors, filters, coolers, and reservoirs.[^6]
## Course Descriptions

*WE210 MOTOR CONTROL CIRCUITS $\qquad$
The study of the flow of charge through various electrical devices and the transmission of power and information. This course will cover principles of the electronics fields which will be necessary to understand how electronic components are used to make complex electrical systems. These electrical systems are the backbone of the electrical energy industry. Prerequisite: Electrical Theory with a C or better

## *WE215 ELECTRICAL SYSTEM PROTECTION AND COORDINATION . 3

Students will learn how circuit breakers and fuses are employed to ensure optimal system protection from system faults and overload conditions. Proper installation and operation of switching mechanisms, fuses, and single-phase and three-phase circuit breakers and reclosers will be covered through lecture and hands-on experience. Protective relaying, sectionalizing, and remote monitoring and control through SCADA systems will also be covered.

## WE220 COOPERATIVE EDUCATION INTERNSHIP 1-6

 See CA220.*WE225 ELECTRIC MOTORS AND GENERATORS $\qquad$ .3
Provides students with the basic understanding of the principles of motors, generators, motor controls, and programmable logic controllers (PLCs). Both electromechanical and solid state electronic control devices are covered in this course.
*WE227 PLCS (PROGRAMMABLE LOGIC CONTROLLERS) .... 3 The PLC course will provide a broad-based understanding of important PLC principals and concepts. You will understand how to connect to PLC hardware, create ladder logic programs, explore applications of PLC controls, and see how they function in various control systems. You will also study various programming conventions, as well as practical issues about automation controls and components.

## *WE230 SUBSTATION \& VOLTAGE REGULATION .3

A study of substations, capacitors, voltage regulators, boost and buck boosters; practical experience in substation grounding, inspections, substation maintenance; operation and installation of high side fuses, power transformers, substation buswork, and transfer switches; methods of voltage regulation, and Supervisory Control and Data Acquisition (SCADA).
*WE240 GIS/GPS $\qquad$ The GIS/GPS course is designed to provide a basic working knowledge of Geographical Information Systems and Global Positioning Systems as they relate to the operation of small UAVs. Upon completion of this course, the student will understand the timeline
of development for GIS, GPS, and UAVs. The student will be able to demonstrate necessary software configuration, operation and maintenance of a UAV for purposes of aerial imaging. The course will be taught with the intent of expanding one's ability to complete inspection of wind turbine blades, power lines and substations, agricultural surveys and the integration of sports and event photography.

## *WE250 DATA ACQUISITION AND COMMUNICATIONS .. 3

 This course will give students information on how resource data is collected and analyzed for the use in the generation of electricity. Analog-to-digital data conversion will be studied, as well as instrument calibration. Students will also learn how data is communicated to assess power production of generation systems. The function of Supervisory Control and Data Acquisition (SCADA) systems will be discussed in detail.
## *WE255 AIRFOILS AND COMPOSITE REPAIR

 .3Students will be exposed to many facets of composites to build concrete foundations and blades on a wind turbine. This course will cover basic principles of the wind turbine blade design, blade composition, and base construction. The airfoils portion of this class will cover the aero-dynamic basics of the wind turbine blades using the wind to convert one form of energy to another. Composite materials will be studied as they are used in the manufacturing processes of wind turbine components.

## *WE257 APPLIED AIRFOILS

 .3Applied Airfoil students will be exposed to many facets of wind turbine blades from the wind turbine industry. Reliability of wind turbines is directly related to the quality and service of the rotor and blades. Documentation of defects from manufacturing as well as current stress is vital to determining blade length of service and projected maintenance schedules. This course will cover fundamental principles of mold construction, blade construction, quality control, inspection, and materials used for wind turbine blades.

## *WE262 BLADE REPAIR OPERATIONS

$\qquad$ Blade Repair Operations will introduce the students to industry standards of safety, operation, and maintenance of wind turbines and project operations. Students will be trained on the proper techniques and safety to gain access to the blades of a wind turbine for inspection and repair procedures. Specific training on suspended access equipment will allow student to safely inspect/ repair wind turbine blades. Safety is at the heart of everything we do in this training program. Students will also understand the concept of day to day operations of a blade repair technician. Students will become familiar with the tools and equipment used and learn the value of teamwork as it applies to operations and repair of wind turbine blades. Students must have a physical on
file to enroll in this class.
*WE265 FIELD TRAINING \& PROJECT OPERATIONS ...... 5
This course will introduce students to industry standards of safety, operation and maintenance of wind turbines and project operations. Students will also benefit from field trips to operational projects to gain perspective of day to day operations of a wind turbine generation facility. Students must have a physical on file to enroll in this class.
*WE270 TRANSFORMER THEORY .3
A transformer is a device used to transform (change) electrical power from one circuit to another. This course will cover the basics of magnetism, induction, windings, turns ratios, step-up transformers, step-down transformers, efficiencies, power transmission, single-phase power, three-phase power, delta windings, wye windings, and other transformer topics.
*WE280 WIND ENERGY TECHNOLOGY INTERNSHIP...... 4 The CCCC WET Internship program allows students to gain real world experiences with a wind energy or electrical related industrial company. Internships provide a bridge between classroom learning and full-time employment. Students work as a team with other competent employees who help guide the students to develop job skill sets necessary for employment in the area of electrical generation and distribution. An internship enables students to experience valuable work experience to help make future career choices.

* A lab fee will be assessed for these courses.

T The courses noted with this symbol qualify for guaranteed transfer. Visit www.kansasregents.org/transfer articulation for more information.

## Professional Staff

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[^0]:    WET internships are available. Visit with department chair for information.

[^1]:    ${ }^{*}$ Must have a physical on file prior to enrolling in this course.

[^2]:    **AG255 PRECISION AG HARDWARE .3
    Students will gain a basic knowledge of precision agriculture high

[^3]:    * A lab fee will be assessed for these courses.

[^4]:    *SC143 ${ }^{\text {TI }}$ UNIVERSITY PHYSICS II + $\qquad$ . .5 University Physics II is the continuation of University Physics I. It uses the tools of algebra, trigonometry, and calculus to examine the topics of electricity and magnetism, waves, optics, and modern physics. University Physics II is recommended for majors in science and engineering. This course includes three hours lecture and three hours laboratory time. Prerequisite: University Physics I with a "C" or better.

[^5]:    SS127 CHILD PSYCHOLOGY. .3
    Child psychology is designed to cover the developmental aspects

[^6]:    *WE150 MECHANICAL SYSTEMS .3
    Mechanical Systems will expose the wind energy students to the installation, use, maintenance, and troubleshooting of mechanical drive components. This course will cover basic principles of wind energy mechanical systems with practical hands-on tasks which will be encountered in the wind industry.
    *WE202 ELECTRICAL POWER DELIVERY $\qquad$ .3
    This course will cover the entire scope of electric power delivery from generation to transmission and distribution to electrical loads. Students will learn about the generation systems that convert resources into electrical power. Underground and overhead transmission cables, distribution lines, and substations will be studied. The students will also learn about the interconnection of electrical energy into the electrical grid, and how it is distributed throughout the grid to electrical loads. General transformer function and operation will be discussed, as well as protective relaying and circuit breaker types. A combination of site visits to operating generation plants, substations, and electric utility companies will reinforce the classroom material.

