



**SOUTHEASTERN**

COMMUNITY COLLEGE

Credit Course Catalog  
2015-2016

# Southeastern Community College

## 2015-2016 Course Catalog

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## SCC Campus Information

#### ■ SCC West Burlington Campus

1500 West Agency Road  
P.O. Box 180  
West Burlington, IA 52655-0180  
319-752-2731  
Toll-free 866-722-4692  
Fax 319-752-4957

#### ■ SCC Fort Madison Center

1602 Avenue F  
Fort Madison, IA 52627  
319-376-2286

#### ■ SCC Keokuk Campus

335 Messenger Road  
P.O. Box 6007  
Keokuk, IA 52632-6007  
319-524-3221  
Toll-free 866-722-4692  
Fax 319-524-8621

#### ■ SCC Mount Pleasant Center

200 North Main Street  
Mount Pleasant, IA 52641  
319-385-8012

#### ■ SCC Center for Business

RiverPark Place  
610 North 4th Street, Suite 220  
Burlington, IA 52601  
319-208-5375  
Toll-free 866-722-4692  
Fax 319-752-3407

MISSION:

Southeastern Community College provides accessible, quality programs and services which promote student success and economic vitality.

VISION:

Southeastern Community College, a visionary leader in lifelong learning, embraces diversity, transforms lives, strengthens communities, and inspires individuals to excellence.

VALUES:

Excellence:

we are committed to the highest standards in all aspects of teaching and learning.

Integrity:

we encourage honesty, respect and personal accountability among and between students, staff, and stakeholders.

Stewardship:

we are effective and vigilant stewards of our financial, physical, and human resources.

Continuous Improvement:

we promote evidence-based decisions and systems within a culture of empowerment and teamwork.

Southeastern Community College is accredited by  
The Higher Learning Commission.

230 South LaSalle Street, Suite 7-500  
Chicago, IL 60604-1411  
Phone: 312.263.0456.  
[www.ncahlc.org](http://www.ncahlc.org)



*Southeastern Community College is an Affirmative Action/Equal Opportunity Employer. Southeastern Community College is a publicly supported community college serving the Iowa counties of Merged Area XVI.*

*The college makes every effort to ensure the accuracy of the content of this catalog but reserves the right to make changes at any time without prior notice. This catalog is for informational purposes and does not constitute a contract.*

*Published through the Office of Academic Affairs.*

Southeastern Community College is accredited by the Iowa Department of Education.

Southeastern Community College is a member of:

- The American Association of Community Colleges
- Association of Community College Trustees
- Iowa Association of Community College Trustees
- Iowa Association of Community College Presidents
- League for Innovation in Community Colleges

# 2015-2016 Academic Calendar

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## ■ Fall 2015

8/17-18 .....Faculty Workshops  
8/19 .....Fall Semester classes begin.  
8/24 .....16 week online classes begin.  
8/24 .....1st 8 week online classes begin.  
9/7 .....Labor Day - no classes, offices closed.  
9/21 .....12 week online classes begin.  
10/14 .....Mid-Term.  
10/16 .....No on campus classes, faculty in service.  
10/16 .....1st 8 week online classes end.  
10/19 .....2nd 8 week online classes begin.  
11/25-27 .....Thanksgiving Break - no classes,  
offices closed.  
12/11 .....16 week, 2nd 8 week online, and  
12 week online classes end.  
12/15 .....Fall Semester ends.  
12/16-17 .....Faculty Workshop. Final grades due.  
12/18-22 .....Faculty and Students off - no classes.  
12/23-31 .....College offices closed.

## ■ Spring 2016

1/1 .....College offices closed.  
1/4 .....College Offices reopen.  
1/4-8 .....Faculty and Students off - no classes.  
1/11-12 .....Faculty workshops.  
1/13 .....Spring classes begin.  
2/19 .....Professional Development Day - no classes,  
offices closed.  
3/9 .....Mid Term.  
3/14-18 .....Spring Break - no classes, offices closed.  
5/11 .....Spring Semester ends.  
5/10 .....High School Equivalency Graduation.  
5/11 .....Keokuk Campus Commencement.  
5/12-13 .....Faculty Workshop. Final grades due.  
5/12 .....West Burlington Campus Commencement.

## ■ Summer 2016

5/30 .....Memorial Day - Offices closed.  
6/1 .....Summer Session classes begin (four and  
eight weeks in length).  
6/28 .....End early four-week classes.  
6/29 .....Late Summer Session classes begin  
(four-week length only).  
7/4 .....Independence Day - No classes,  
offices closed.  
7/27 .....Early Summer Session (eight-week)  
and Late Summer Session classes end.

The complete tuition and bookstore refund schedule and last day to drop are available on SCC website

# Admissions Information

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The rules, policies, procedures, and fees described herein may be changed by the authorities of this institution without advance notice and without commitment to such original rules, policies, procedures, and fees deemed necessary to change.

## ■ General Admissions Policy

The basic expectation of students entering the college credit program is a desire to learn. The college provides educational opportunities for a wide variety of achievement levels and has established realistic entrance standards for each level. These standards may include mandatory placement.

## ■ Non-Discrimination Statement

It is the policy of Southeastern Community College to select, develop, and promote employees and students based on individual ability and performance. It has been, and shall continue to be, the policy of Southeastern Community College not to discriminate on the basis of race, creed, color, sexual orientation, gender identity, national origin, sex, disability, religion, or age in its programs, activities, or employment practices as required by the Iowa Code sections 216.9 and 256.10(2), Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C. §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), and the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.).

Individuals having questions or complaints related to compliance with this policy should contact Human Resources, SCC, 1500 W. Agency Road, West Burlington, IA 52655, phone number 319/208-5063, fax 319/208-5006 or the Director of the Office for Civil Rights, U.S. Department of Education, Citigroup Center, 500 W. Madison, Suite 1475, Chicago, IL 60661, phone number 312/730-1560, fax 312/730-1576.

## ■ Students with Disabilities

It is the policy of SCC to comply with the access provisions of the state and federal civil rights legislation for persons with disabilities. Support services are provided to students with disabilities to ensure equal access in reaching their academic goals. The Disability Coordinator will review and grant requests for reasonable accommodations. The Disability Coordinator will meet with the student and work in a partnership with the student to coordinate services to develop an individual plan for accommodations in all education, activities, services and practices. Each individual's needs and abilities are evaluated in accordance with ADA. A student needing accommodations should register with SCC Disability Services and speak to the Disability Coordinator in the Student Success Center, room 513. For additional information, contact the Disability Coordinator at (319) 208-5167 or (319) 208-5155.

## ■ Mandatory Placement

Southeastern Community College has adopted mandatory placement standards for English, reading, and mathematics. All full-time and all part-time degree-seeking students must take the COMPASS or ACT and e-Write before enrolling in classes. Assessment scores are valid for two years provided the student has been continuously enrolled. Students with scores older than two years will need to test again. Students with scores below an established level will be required to enroll in developmental course(s) in their first term of enrollment. Several career education programs also have minimum standards for admission. Program and course admission standards are available in the Enrollment Services Office.

## ■ Specific Admissions Requirements

### *Arts and Sciences/Career Education Curricula*

The minimum requirements for admission as a regular student to programs in either the Arts and Sciences Division or Career, Technical and Health Division shall be graduation from an approved secondary school, its equivalent (determining equivalency of a secondary school diploma shall be consistent with the practice employed by the three state institutions for higher education in Iowa) or demonstrated interest, aptitude, and the ability to benefit from coursework offered by the curricula.

### *Health Career Programs*

Students entering health career programs are expected to maintain a high standard of ethical and professional behavior throughout their courses of study. Characteristics of honesty, integrity, commitment, safety and confidentiality are essential for program success. It is also expected that students will maintain regular attendance in classroom and clinical assignments. Students must maintain a high degree of professional behavior with patients and families during clinical assignments. All students will be required to pass a mandatory back ground check. In addition to meeting the admissions requirements for the college, students entering health career programs must meet additional program admissions requirements. All health career programs require students to earn a grade of "C" (2.0) or above in all coursework within the program for which they are applying. In addition, students must have standardized placement scores completed within 24 months prior to the date of enrollment.

## ■ Admissions/Enrollment Prior to High School Graduation

Through agreements with area high schools, high school students who meet requirements as outlined in Senior Year Plus legislation have the opportunity to take college courses prior to high school graduation. Eligible courses are outlined in agreements between each area high school and SCC.

Upon completion of the enrolled course(s), students will earn both high school and college credit. Postsecondary credits earned are transferable to other colleges and universities depending on degree requirements at that institution. Contact a high school counselor for additional information on these opportunities.

### *Jump Start Career & Technical and/or Arts & Sciences*

SCC, in cooperation with area high schools, can help high school students get a jump start on college and career and increase skill levels for employment. These programs are taught by SCC-approved instructors and offered at various locations around the area. Both high school and

college credit are awarded for every class. High school counselors have complete listings of these offerings through their districts.

## Application Procedures - Credit Courses

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### *Educational Curricula for the Disabled or Disadvantaged*

The admissions requirements for persons who are disabled or disadvantaged to an extent which prevents them from succeeding in regular programs shall be based on analysis, evaluation and screening. Each individual's needs, abilities, and interests are evaluated in accordance with procedures established by appropriate divisions of the Iowa Department of Education and this institution's program of affirmative action.

### ■ **Procedures for Students Applying for Admission**

Applications for Admission are accepted at any time and may be submitted online at our website ([www.scciowa.edu](http://www.scciowa.edu)). Application forms can also be distributed or mailed from the Enrollment Services Office. Enrollment is limited in certain courses and programs. In order to receive full consideration, students are encouraged to have all entrance requirements completed and available to the Enrollment Services Office at the earliest possible date. Students should submit an Application for Admission to the Enrollment Services Office, as well as transcripts of all previously earned academic credit, i.e., high school, high school equivalency or college.

An admissions committee may evaluate an application to determine admission to particular programs. Students are required to complete a new student orientation, which is available online, prior to enrollment. Career and technical programs may also require participation in a program orientation prior to enrollment.

Students must have a current (within the last two years) ACT or COMPASS and e-Write score report on file with the Enrollment Services Office. The ACT or COMPASS and e-Write is used for advising, mandatory course placement, and admission into certain career education programs.

### ■ **Transfer Students**

Students who wish to transfer from another college are eligible to apply for admission. Students transferring to Southeastern Community College from other institutions will have their credits evaluated on an individual basis. All transfer students are advised to consult with the Registrar's Office well in advance of the beginning of each term so that transfer status may be established.

### ■ **International Students (F-1 Status)**

International Students (F-1 Status) International students who apply from abroad or who would like to transfer from other institutions in the United States to Southeastern Community College must have a high school diploma or the equivalent. Students must submit an Application for Admission, TOEFL or COMPASS-ESL score, and high school/college transcripts. Students must also provide financial documentation showing proof of funds available to cover the cost of tuition, books, room, board, etc. SCC is authorized under Federal law to enroll nonimmigrant students. For more information, please contact the Enrollment Services Office at 319.752.2731, ext. 5017.

### ■ **Non-Native Speakers**

All applicants to Southeastern Community College whose native language is not English are required to submit scores from the Test of English as a Foreign Language (TOEFL) or COMPASS-ESL with their Application for Admission and supporting academic documents. Students must demonstrate proficiency in the English language by obtaining a satisfactory score on the TOEFL/COMPASS ESL. For more information, please contact the Enrollment Services Office at 319.752.2731, ext. 5017.



# Graduation Requirements

## ■ General Information

A student who intends to graduate from Southeastern Community College must file a Request to Graduate petition. This petition should be completed when registering for the last anticipated semester of classes. Petition forms are available in the Registrar's office and on the SCC website.

Degree, diploma, and certificate requirements stated in the Southeastern Community College catalog at the time of a student's initial enrollment will remain in effect for that student until graduation. If changes occur in graduation requirements subsequent to initial enrollment, the student may elect to graduate under the most recent degree or diploma requirements. The ability to graduate under the requirements of an older catalog is subject to a five-year limitation. The final determination of graduation requirements rests with the Registrar.

It is the responsibility of the student to know and to observe the requirements of his/her curriculum and the rules governing academic work. Although an Enrollment Specialist will attempt to help the student make wise decisions, the final responsibility for meeting the requirements for graduation rests with the student.

Graduation from Southeastern Community College shall be certified by the issuance of a degree, diploma, or certificate. No student shall be issued an award who has not earned a cumulative grade point average of at least 2.00 at SCC.

If a student receives information from an Enrollment Specialist which may have an impact upon the student's graduation requirements or application of credits toward graduation, the student is advised to secure the information in writing. It is further advised that this documentation be retained by the student.

## ■ Commencement

Commencement is an integral part of the student's experience in college. The commencement is held at the conclusion of the spring semester. Any student of the college who has completed all the necessary requirements for a degree, diploma, or a certificate requiring 15 or more semester hours is eligible to participate. Additionally, any student of Southeastern Community College is eligible to participate in commencement if there is a clear indication made to the Registrar by the student at the beginning of the spring semester that necessary requirements will be completed prior to the beginning of the next fall semester.

## ■ Graduation with Honors

Qualifying students are recognized as meeting the requirements of Graduation with Honors at commencement ceremonies. To qualify for this recognition, the student's cumulative grade point average must be 3.75 or above as of the end of the fall semester. A minimum of 15 semester hours must have been completed at Southeastern Community College. A student with a GPA below 3.75, but above a 3.50, may qualify at the end of the spring semester if he/she receives spring grades which are high enough to raise his/her GPA to 3.75 or above at the end of the spring semester. It is the responsibility of the student to notify the registrar of this possible last-minute designation.

## ■ Assessment Philosophy

Assessing student academic achievement at Southeastern Community College is a process of documenting student learning within the domain of general education requirements and within career education programs that go beyond traditional course grades. The purpose of assessment is to promote and document continuous educational improvement throughout the institution.

The data gathered will be used to make adjustments within courses and/or programs when deemed necessary. Assessment data will also provide valuable information for use in the college's strategic planning and program review processes. The assessment of students' knowledge of course content and general education and career education objectives

will also allow the college to become more articulate in its communication efforts with internal and external constituents regarding how well the college is accomplishing its mission and goals/ objectives.

## ■ General Education Statement

The goal of Southeastern Community College is to instill within its degree graduates a body of knowledge, skills, and attitudes upon which they can build to be contributing members of society. To accomplish this, associate degree requirements are established which meet a diversity of interests associated with comprehensive community college students. Southeastern Community College requires that the associate of arts (AA) degree and the associate of science (AS) degree includes courses in the following areas:

1. Communication
2. Social Science
3. Humanities
4. Mathematics
5. Science
6. Cultural Awareness

SCC is committed to ensuring that students graduating with associate degrees have attained skills in the following areas:

- Communication
- Critical Thinking
- Scientific, Quantitative, and Qualitative Reasoning
- Responsible Citizenship
- Awareness and appreciation of cultural diversity

■ **General Education Group Requirements**

*Communication*

ENG English; SPC Speech

*Humanities*

ART Art; LIT Literature; Foreign Language — FLF French, FLG German, FLS Spanish; HIS History; HUM Humanities; MUS, MUA Music; PHI Philosophy; DRA Drama; REL Religion

*Social Sciences*

ECN Economics; GEO Geography; HIS History; POL Political Science; PSY Psychology; SOC Sociology

*Math and Science*

MAT Mathematics; BIO Biology; CHM Chemistry; ENV Environmental Science; PHY Physics; PHS Physical Science Credit earned toward satisfaction of one group requirement may not be applied toward satisfaction of a second group requirement.

*Cultural Awareness*

ART Art; DRA Drama; ENG English; FLS Foreign Language Spanish; HIS History; HUM Humanities; MUS Music; PHI Philosophy; REL Religion; SOC Sociology

■ **Academic Awards**

Requirements for each of the college's curriculum must be satisfactorily completed prior to an individual being eligible to receive an award from Southeastern Community College. One of the following will be awarded to a student who completes the specified requirements:

- Associate of Arts degree
- Associate of Science degree
- Associate of Applied Science degree
- Diploma
- Certificate

■ **Associate of Arts Degree**

The associate of arts degree is primarily intended for those students who plan to transfer to a four-year college or university. A transfer student should always consult with the four-year institution to determine application of particular courses toward his/her degree objectives.

All candidates for the Associate of Arts Degree must meet the following requirements:

1. Earn a minimum of 15 of the last 20 semester hours of credit in resident classes at Southeastern Community College.
2. Earn a minimum cumulative grade point average (GPA) of 2.00 at SCC.
- 3a. All general education group requirements necessary for the associate of arts degree must be selected from transfer course offerings.
- 3b. Each of the following minimum general education group requirements must be met:  
Communication (ENG-105, ENG-106, SPC-101 or SPC-112)..... 9 sem. hrs.  
Humanities.....\*12 sem. hrs.  
Social Sciences.....\*12 sem. hrs.  
Science & Mathematics ..\*10 sem. hrs.  
Cultural Awareness ..... 3 sem. hrs.  
Electives .....\*14 sem. hrs.  
Minimum Total..... 60 sem. hrs.

*\* Select courses from at least two different disciplines in this area. In the science and mathematics group, at least one lab science and one mathematics course must be taken.*

■ **Associate of Science Degree**

The associate of science degree is primarily intended for those students who plan to transfer to a four-year college or university. A transfer student should consult with the four-year institution to determine application of particular courses toward his/her degree objectives.

All candidates for the Associate of Science Degree must meet the following requirements:

1. Earn a minimum of 15 of the last 20 semester hours of credit in resident classes at Southeastern Community College.
2. Earn a minimum cumulative grade point average (GPA) of 2.00 at SCC.
- 3a. All general education group requirements and specialty area requirements necessary for the associate of science degree must be selected from transfer course offering.
- 3b. Each of the following minimum general education group requirements must be met:  
Communication (ENG-105, ENG-106, SPC-101 or SPC-112)..... 9 sem. hrs..  
Humanities.....\*6 sem. hrs.  
Social Sciences.....\*6 sem. hrs.  
Science & Mathematics ..\*21 sem. hrs.  
Cultural Awareness ..... 3 sem. hrs.  
Electives .....\*15 sem. hrs.  
Minimum Total..... 60 sem. hrs.

*\* Select courses from at least two different disciplines in this area.*



### ■ Associate of Applied Science Degree

The associate of applied science degree is intended for those students who are enrolled in a two-year career education program.

All candidates for the Associate of Applied Science Degree must meet the following requirements:

1. Earn a minimum of 15 of the last 20 semester hours of credit in resident classes at Southeastern Community College.
2. Earn a minimum cumulative grade point average (GPA) of 2.00 in the AAS degree curriculum at SCC.
3. General education courses required for the associate of applied science degree must be selected from courses listed in the approved program curriculum. A minimum of 15 semester hours of general education requirements must be taken with at least one course from each of the three areas: Communication; Social Sciences and/or Humanities; Mathematics and/or Science.
4. Satisfactory completion of all core and general education requirements as specified for the curriculum selected. These requirements are stated in the career education section of this catalog. Core and general education requirements of the individual career education curriculums vary in terms of the credit hour requirements. Therefore, requirements should be evaluated carefully by the student. Normally, the length of all career education curricula leading to an associate of applied science degree is a minimum of four semesters.

### ■ Diploma

The diploma shall be issued to a person who has graduated from an approved vocational program which does not culminate in a degree or certificate.

All candidates for a Diploma must meet the following requirements:

1. Earn a minimum of ten of the last 13 semester hours of credit in resident classes at Southeastern Community College.
2. Earn a minimum cumulative grade point average (GPA) of 2.00 at SCC in the diploma curriculum.
3. General education courses and elective credit required for a diploma are listed in the approved curriculum for that diploma.
4. Satisfactory completion of all general education and core requirements as specified for the diploma program. These requirements are stated in the career education section of this catalog. Requirements of diploma programs vary in terms of length and credit hours.

### ■ Certificate

A certificate of completion may be issued to a student who has satisfactorily completed a course of study prescribed by the institution other than one that is intended to result in the awarding of a diploma or degree.

All candidates for a Certificate must meet the following requirements:

1. All requirements must be met through earned SCC credits or through approved action by the registrar.
2. Earn a minimum cumulative grade point average (GPA) of 2.00 in the certificate curriculum at SCC.
3. General education courses, if required, are listed in the approved curriculum for that certificate.
4. Satisfactory completion of all core, general education and/or elective requirements as specified for the certificate program. These requirements are stated in the program section of the college catalog. Requirements of certificate programs vary in terms of length and credit hours.

# Arts and Sciences (College Transfer)

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The arts and sciences program provides courses of study which will readily transfer to most colleges and universities. Students planning to earn a baccalaureate degree may begin coursework at Southeastern Community College and complete the general education requirements for most majors with the completion of an SCC Associate of Arts degree.

Iowa community colleges and Iowa regent universities (University of Iowa, University of Northern Iowa, and Iowa State University) have developed an articulation agreement to assist in the transfer process. SCC also has articulation agreements with other colleges and universities. Students should consult with an SCC enrollment specialist to determine the transfer of coursework since many majors require specific classes. Students may also be referred to faculty for questions regarding specific majors.

Students can start classes at SCC and transfer for a degree in any of the following majors:

Accounting  
Agriculture  
Art  
Athletic Training/Exercise Science  
Biological Science  
Business  
Chemistry  
Chiropractic  
Communication  
Computer Science  
Criminal Justice/Law Enforcement  
Dentistry  
Early Childhood  
Elementary Education  
Engineering  
English  
Graphic Communication/Design  
Industrial/Engineering Technology  
Law  
Mathematics  
Medicine  
Music  
Nursing Home and Health Services Administration  
Nutrition/Dietetics  
Optometry  
Pharmacy  
Physical Education  
Physical Therapy  
Psychology  
Secondary Education  
Social Work  
Veterinary Medicine

## ■ Steps to Assist in the Transfer of Credit

Students who intend to transfer credits earned at SCC toward degree requirements at another college are urged to observe the following steps:

Students should:

1. **THINK** carefully about personal interests and abilities. Students will then be in a better position to make decisions regarding educational goals, and SCC will be able to better assist the student in accomplishing those goals.
2. **MEET** with an SCC enrollment specialist to discuss educational plans and select courses for each term.
3. **CONTACT** the transfer college to obtain information necessary for a successful transfer. Students should be aware that many majors require specific coursework at SCC.
4. **DISCUSS** any change in educational plans with an SCC enrollment specialist. Never rely on rumors about what will and will not transfer. Always visit with an enrollment specialist or the transfer institution and get the facts.

To be assured of an ideal transfer, it is very important for students to know both their chosen majors and transfer colleges as soon as possible. Most transfer colleges provide information on their websites for transfer students.

To see how an SCC class transfers, go to the SCC website [www.scciowa.edu](http://www.scciowa.edu).

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If your intended major is not listed, contact Enrollment Services for suggested coursework.

# Educational Programs Available at SCC

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## ■ Degree and Certificate Services and Programs

### Associate of Arts (AA) or Associate of Science (AS) Transfer Majors

#### College Transfer Options

- Criminal Justice (AA)
- Elementary Education (AA)
- Fine Arts (AA)
- Graphic Design (AA)
- Athletic Training (AS)
- Forensic Chemistry (AS)
- Biology (AS)

### AAS, Diploma, Certificate

- Accounting
- Administrative Assistant
  - Accounting Administrative Assistant
  - Legal Administrative Assistant
  - Medical Administrative Assistant
- Agriculture Management
- Animation for Television, Film, and New Media
- Automobile Collision Repair
- Automotive Technology
  - Management Option
- Biomedical Electronics Technician
- Business Administration
- Chemical Dependency Counselor
- Construction Technology
  - Construction Management
- Criminal Justice
- Drafting Technology
- Electronics Technology
- Emergency Medical Services
- Fire Science Technology
- Industrial Maintenance Technology
  - Electrical Maintenance Technician
  - Mechanical Maintenance Technician
- Information Technology
  - Network Administration & Cyber Security
  - Web Design & Development
- Interactive & Social Media Marketing
- Medical Assistant
- Medical Coding and Billing
- Nursing
  - Associate Degree
  - Practical Nursing
- Respiratory Care
- Skilled Trades
- Technical Studies
- Welding

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at [www.scciowa.edu](http://www.scciowa.edu)

# Graduation Requirements for Associate of Arts Degree

To graduate, a student must have a 2.00 grade point average or above and have successfully completed sixty (60) semester hours of credit in courses designated for transfer. In addition, every student must meet the following requirements:

	Semester Hours
<b>Communications</b>	<b>9</b>
Composition: ENG- 105 AND 106	6
Speech: SPC- 101 OR 112	3
<b>Humanities - Select from at least 2 different departments</b>	<b>12</b>
Art: ART- 101, 109, 120, 123, 133, 134, 138, 143, 144, 154, 157, 173, 174, 184, 203, 204, 208, 922, 928	
Drama: DRA- 101, 110, 130, 141, 142, 145, 165	
English: ENG- 221, 929	
History & World Civ: HIS- 131, 132, 151, 152, 211, 231, 251, 257, 266, 268, 271	
Humanities: HUM- 114, 145, 287, 290	
Journalism: JOU- 120, 121	
Literature: LIT- 101, 105, 120, 121, 122, 125, 131, 150, 151, 184, 204, 209	
Mass Media Studies: MMS- 111	
Music: MUA- 101, 104, 106, 108, 109, 120 thru 127, 143, 146, 170, 173, 180, 183	
MUS- 100, 102, 120, 121, 135, 136, 140, 150, 162, 204, 220, 221, 235, 236	
Philosophy: PHI- 101, 105, 110, 122	
Religion: REL- 101	
Spanish: FLS- 129, 141, 142, 231, 232, 922	
Speech: SPC- 115	
<b>Social Science - Select from at least 2 different departments</b>	<b>12</b>
Economics: ECN- 120, 130	
Geography: GEO- 121, 141, 161, 922	
History & World Civ: HIS- 131, 132, 151, 152, 211, 231, 251, 257, 266, 268, 271	
Political Science: POL- 110, 111, 112	
Psychology: PSY- 102, 111, 121, 211, 226, 227, 228, 241, 251	
Sociology: SOC- 110, 114, 115, 120, 136, 160, 161, 186, 207, 212, 220, 221, 230, 240, 251, 270, 922	
<b>Math &amp; Science - Must include one math and one laboratory science course</b>	<b>10</b>
Mathematics: MAT- 110, 112, 113, 127, 128, 140, 149, 156, 165, 170, 210, 216, 219, 227	
Lab Science: BIO- 105, 112, 113, 138, 163, 168, 173, 186, 248, 252; CHM- 122, 165, 175, 263, 273;	
ENV- 111; PHS- 120, 151; PHY- 106, 160, 161, 212, 222; SCI- 123	
Non-Lab Science: BIO- 151, 277; PHS- 165, 185; SCI- 922, 928	
<b>Cultural Awareness - Minimum of 3 hours</b>	<b>3</b>
ART- 101, 203, 204, 208; DRA- 101, 110, 130; ENG- 221; FLS- 141, 142; HIS- 211, 257	
HUM- 114; LIT- 120, 121, 122, 131, 209; MUS- 100, 204; PHI- 101, 105, 122; REL- 101; SOC- 186, 212, 851	
<b>Electives</b>	<b>14</b>
All transfer level courses may be used here including courses listed above (if additional 14 are taken beyond requirements). Students should plan their elective courses according to their college major if they are planning to transfer on for a four year degree. Information on suggested coursework is available in the Enrollment Services office.	
<b>Total</b>	<b>60</b>

# Associate of Arts Degree Worksheet

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

## I. COURSE REQUIREMENTS

Course Name / #	Hrs.
-----------------	------

### A. Communications (9 semester hours)

ENG-105 Composition I (C- or better) \_\_\_\_\_

ENG-106 Composition II \_\_\_\_\_

SPC-101 or SPC-112 \_\_\_\_\_

Total \_\_\_\_\_

### B. Humanities (minimum of 12 semester hours)\*

Select from at least 2 of the following subject areas:  
art, music, philosophy, literature, foreign language,  
history\*\*, and theatre.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total \_\_\_\_\_

### C. Social Science (minimum of 12 semester hours)\*

Select from at least 2 of the following subject areas:  
History\*\*, political science, geography, sociology,  
psychology, and economics.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total \_\_\_\_\_

### D. Science/Math (minimum of 10 semester hours)\*

Must include both science and math. Must include 1 lab science.

#### Science

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total \_\_\_\_\_

#### Math

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total \_\_\_\_\_

## E. Cultural Awareness

Three (3) additional hours from specific courses listed under graduation requirements for Cultural Awareness.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total \_\_\_\_\_

## F. Electives (maximum of 14 semester hours)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total \_\_\_\_\_

### ■ Total Hours

- 60 hours are required to graduate •

Communications ..... \_\_\_\_\_

Humanities ..... \_\_\_\_\_

Social Science ..... \_\_\_\_\_

Science/Math ..... \_\_\_\_\_

Electives ..... \_\_\_\_\_

**Total** \_\_\_\_\_

## II. OTHER REQUIREMENTS

Residency Requirement

(15 of last 20 hours must be completed at SCC)

**Requirement Met** \_\_\_\_\_

GPA Requirement

(2.0 required for graduation)

**Requirement Met** \_\_\_\_\_

\*Excess hours in these categories will be in category F (elective hours).

\*\*History courses may count as either Social Science or Humanities credit.

# Criminal Justice Transfer Major (AA)

## West Burlington and Keokuk Campuses

### Criminal Justice Transfer Major Sample curriculum - Associate of Arts Degree Requirements

#### Program Contact:

Cindy Shireman - Instructor  
ext. 5232 (WB) or ext. 1998 (KEO)  
Email: cshireman@scciowa.edu

For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).

Fall Semester I		Lec.	Lab.	Credit
ENG-105	Composition I	3	0	3
SOC-110	Introduction to Sociology	3	0	3
MAT110	Math for Liberal Arts <i>or</i>	3	0	3
MAT 156	Statistics	3	0	3
CRJ-100	Introduction to Criminal Justice	3	0	3
CRJ-120	Introduction to Corrections	3	0	3
		15	0	15

Spring Semester I		Lec.	Lab.	Credit
ENG-106	Composition II	3	0	3
PSY-111	Introduction to Psychology	3	0	3
SOC-240	Criminology	3	0	3
CRJ-132	Criminal Law	3	0	3
ART-101	Art Appreciation <i>or</i>	3	0	3
ART-133	Drawing I	3	0	3
		15	0	15

Fall Semester II		Lec.	Lab.	Credit
SPC-112	Public Speaking	3	0	3
HUM-114	Multicultural Perspectives	3	0	3
PSY-241	Abnormal Psychology	3	0	3
MUS-204	History of Rock and Roll <i>or</i>	3	0	3
DRA-110	Introduction to Film	3	0	3
SOC-230	Juvenile Delinquency	3	0	3
PHS-151	Introduction to Astronomy <i>or</i>	3	0	3
PHS-165	Introduction to Meteorology <i>or</i>	3	0	3
PHS-185	Introduction to Earth Science	3	0	3
		18	0	18

Spring Semester II		Lec.	Lab.	Credit
POL-111	American National Government <i>or</i>	3	0	3
POL-112	American State and Local Government	3	0	3
PHI-105	Introduction to Ethics	3	0	3
HIS-151	US History to 1865 <i>or</i>	3	0	3
HIS-152	US History since 1865	3	0	3
SCI-123	Forensic Science <i>or</i>	3	0	3
BIO-105	Introduction to Biology <i>or</i>	3	0	3
PHS-120	Exploring Physical Science	3	2	4
SOC-115	Social Problems	3	0	3
		15	2	16

*Program Total . . . . . 64*

*SCC has established 2+2 agreements with four-year institutions for this transfer major. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.*



# Elementary Education Transfer Major (AA)

**Program Contact:**

Karen Cahill - English Instructor, ext. 5242  
 Email: kcahill@scciowa.edu

**West Burlington and Keokuk Campuses**

**Elementary Education Transfer Major**

**Sample curriculum - Associate of Arts Degree Requirements**

For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).

	Lec.	Lab.	Credit
<b>Fall Semester I</b>			
LIT-101 Introduction to Literature	3	0	3
EDU-210 Foundations of Education	3	0	3
EDU-920 Field Experience	0	4	2
ENG-105 Composition I	3	0	3
MAT-112 Math for Elementary Teachers I	3	0	3
	12	6	14
 <b>Spring Semester I</b>			
EDU-247 Teaching Exceptional Learners	3	1	3.5
ENG-106 Composition II	3	0	3
MAT-113 Math for Elementary Teachers II	3	0	3
PSY-111 Introduction to Psychology	3	0	3
SPC-112 Public Speaking	3	0	3
	15	1	15.5
 <b>Fall Semester II</b>			
EDU-240 Educational Psychology	3	0	3
HIS-151 Unites States History to 1877	3	0	3
HUM-114 Multicultural Perspectives	3	0	3
MUS-204 History of Rock and Roll <i>or</i>	3	0	3
DRA-110 Introduction to Film	3	0	3
EDU-235 Children's Literature	3	0	3
	15	0	15
 <b>Spring Semester II</b>			
BIO-105 Introductory Biology	3	2	4
ART-101 Art Appreciation	3	0	3
SOC-110 Introduction to Sociology	3	0	3
PSY-121 Developmental Psychology	3	0	3
POL-111 American National Government	3	0	3
	14	2	16

*Program Total . . . . . 60.5*

*SCC has established 2+2 agreements with four-year institutions for this transfer major. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.*

# Fine Arts Transfer Major (AA)

## West Burlington and Keokuk Campuses

### Fine Arts Transfer Major

#### Sample curriculum - Associate of Arts Degree Requirements

Note: some online coursework may be required for those courses not offered on campus

Fall Semester I		Lec.	Lab.	Credit
ENG-105	Composition I	3	0	3
DRA-110	Introduction to Film	3	0	3
DRA-101	Introduction to Theatre	3	0	3
LIT-101	Introduction to Literature	3	0	3
ART-133	Drawing I	2	2	3
		<u>14</u>	<u>2</u>	<u>15</u>
Spring Semester I				
DRA-141	Theatre and Speech Participation I	0	2	1
ENG-106	Composition II	3	0	3
MAT-110	Math for Liberal Arts	3	0	3
HUM-114	Multicultural Perspectives	3	0	3
PSY-111	Introduction to Psychology	3	0	3
HIS-151	US History to 1877 <i>or</i>	3	0	3
HIS-152	US History since 1877 <i>or</i>	3	0	3
HIS-211	Modern Asian History	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>
Fall Semester II				
BIO-105	Introductory Biology	3	2	4
DRA-165	Stagecraft	2	2	3
SOC-110	Introduction to Sociology	3	0	3
ART-203	Art History I	3	0	3
LIT-209	Forms of Literature: Film Adaptation	3	0	3
		<u>14</u>	<u>4</u>	<u>16</u>
Spring Semester II				
MUS-100	Music Appreciation	3	0	3
ENG-221	Creative Writing	3	0	3
PHS-165	Introduction to Meteorology	3	0	3
POL-110	Introduction to Political Science <i>or</i>	3	0	3
POL-111	American National Government	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>15</u>	<u>0</u>	<u>15</u>

*Program Total* ..... 62

SCC has established 2+2 agreements with four-year institutions for this transfer major. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.

## Program Contact:

Leigh Pirtle - Music Instructor, ext. 5245

Email: lpirtle@scciowa.edu

For current information, please visit our website at www.scciowa.edu.

# Graphic Design Transfer Major (AA)

## Instructor and Staff

Carlene Woodside - Instructor, ext. 5201  
 Email: cwoodside@scciowa.edu

## West Burlington Campus

### Graphic Design Transfer Major

#### Sample curriculum - Associate of Arts Degree Requirements

For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).

Fall Semester I		Lec	Lab	Credit
ART-120	2-D Design	2	2	3
ENG-105	Composition I	3	0	3
MAT-110	Math for Liberal Arts <i>or</i>	3	0	3
MAT-156	Statistics	3	0	3
MUS-100	Music Appreciation <i>or</i>	3	0	3
MUS-204	History of Rock & Roll	3	0	3
GRA-137	Digital Design	2	2	3
		<u>13</u>	<u>4</u>	<u>15</u>
Spring Semester I				
ART-101	Art Appreciation <i>or</i>			
ART-203	Art History	3	0	3
ENG-106	Composition II	3	0	3
PSY-111	Intro to Psychology	3	0	3
HUM-287	Leadership Development <i>or</i>	3	0	3
HUM-114	Multicultural Perspectives	3	0	3
SOC-115	Social Problems <i>or</i>	3	0	3
SOC-120	Marriage & Family	3	0	3
		<u>15</u>	<u>0</u>	<u>15</u>
Fall Semester II				
SPC-112	Public Speaking	3	0	3
ART-133	Drawing I	2	2	3
ENV-111	Environmental Science	3	2	4
GRA-140	Digital Imaging	2	2	3
GRA-173	Typography	3	0	3
		<u>13</u>	<u>6</u>	<u>16</u>
Spring Semester II				
BIO-105	Introductory Biology	3	2	4
HIS-131	World Civilization <i>or</i>	3	0	3
HIS-211	Modern Asian History	3	0	3
POL-110	Intro to Political Science <i>or</i>	3	0	3
POL-112	American State & Local Government	3	0	3
GRA-127	Illustrator I	2	2	3
GRA-116	Digital Preflight Production	2	2	3
		<u>13</u>	<u>6</u>	<u>16</u>

*Program Total . . . . . 62*

*SCC has established 2+2 agreements with four-year institutions for this transfer major. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.*

# Graduation Requirements for Associate of Science Degree

To graduate, a student must have a 2.00 grade point average or above and have successfully completed sixty (60) semester hours of credit in courses designated for transfer. In addition, every student must meet the following requirements:

	Semester Hours
<b>Communications</b>	<b>9</b>
Composition: ENG- 105 AND 106	6
Speech: SPC- 101 OR 112	3
<b>Humanities - Select from at least 2 different departments</b>	<b>6</b>
Art: ART- 101, 109, 120, 123, 133, 134, 138, 143, 144, 154, 157, 173, 174, 184, 203, 204, 208, 922, 928	
Drama: DRA- 101, 110, 130, 141, 142, 145	
English: ENG- 221, 929	
History & World Civ: HIS- 131, 132, 151, 152, 211, 231, 251, 257, 266, 268, 271	
Humanities: HUM- 114, 145, 287, 290	
Journalism: JOU- 120, 121	
Literature: LIT- 101, 105, 120, 121, 122, 125, 131, 150, 151, 184, 204, 209	
Mass Media Studies: MMS- 111	
Music: MUA- 101, 104, 106, 108, 109, 120 thru 127, 143, 146, 170, 173, 180, 183	
MUS- 100, 102, 120, 121, 135, 136, 140, 150, 162, 204, 220, 221, 235, 236	
Philosophy: PHI- 101, 105, 110, 122	
Religion: REL- 101	
Spanish: FLS- 141, 142, 231, 232, 922	
Speech: SPC- 115	
<b>Social Science - Select from at least 2 different departments</b>	<b>6</b>
Economics: ECN- 120, 130	
Geography: GEO- 121, 141, 161, 922	
History & World Civ: HIS- 131, 132, 151, 152, 211, 231, 251, 257, 266, 268, 271	
Political Science: POL- 110, 111, 112	
Psychology: PSY- 102, 111, 121, 211, 226, 227, 228, 241, 251	
Sociology: SOC- 110, 114, 115, 120, 136, 160, 161, 186, 207, 220, 221, 230, 240, 270, 851, 922	
<b>Math &amp; Science - Must include one math and one laboratory science course</b>	<b>21</b>
Mathematics: MAT- 127, 128, 140, 149, 156, 165, 170, 210, 216, 219, 227	
Lab Science: BIO- 112, 113, 138, 163, 168, 173, 186, 248, 252; CHM- 165, 175, 263, 273; PHY- 160, 161, 212, 222	
<b>Cultural Awareness - Minumum of 3 hours</b>	<b>3</b>
ART- 101, 203, 204, 208; DRA- 101, 110, 130; ENG- 221; FLS- 141, 142; HIS- 211, 257; HUM- 114; LIT- 120, 121, 122, 131, 209; MUS- 100, 204; PHI- 101, 105,122; REL- 101; SOC- 186, 212, 851	
<b>Electives</b>	<b>15</b>
All transfer level courses may be used here including courses listed above (if additional 15 are taken beyond requirements). Students should plan their elective courses according to their college major if they are planning to transfer on for a four year degree. Information on suggested coursework is available in the Enrollment Services office.	
<b>Total</b>	<b>60</b>

# Associate of Science Degree Worksheet

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

## I. COURSE REQUIREMENTS

Course Name / #	Hrs.
-----------------	------

**A. Communications** (9 semester hours)  
 ENG-105 Composition I (C- or better) \_\_\_\_\_  
 ENG-106 Composition II \_\_\_\_\_  
 SPC-101 or SPC-112 \_\_\_\_\_  
 Total \_\_\_\_\_

**B. Humanities** (minimum of 6 semester hours)\*  
 Select from at least 2 of the following subject areas:  
 art, music, philosophy, literature, English, foreign language,  
 history\*\*, and theatre.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Total \_\_\_\_\_

**C. Social Science** (minimum of 6 semester hours)\*  
 Select from at least 2 of the following subject areas:  
 History\*\*, political science, geography, sociology,  
 psychology, and economics.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Total \_\_\_\_\_

**D. Science/Math** (minimum of 21 semester hours)\*  
 Must include both science and math. Must include 1 lab science.

**Science**  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Total \_\_\_\_\_

**Math**  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Total \_\_\_\_\_

## E. Cultural Awareness

Three (3) additional hours from specific courses listed under graduation requirements for Cultural Awareness.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Total \_\_\_\_\_

**F. Electives** (15 semester hours)  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Total \_\_\_\_\_

**■ Total Hours**

- 60 hours are required to graduate •

Communications .....	_____
Humanities.....	_____
Social Science .....	_____
Science/Math.....	_____
Electives.....	_____
<b>Total</b>	_____

## II. OTHER REQUIREMENTS

**Residency Requirement**  
 (15 of last 20 hours must be completed at SCC)  
**Requirement Met** \_\_\_\_\_

**GPA Requirement**  
 (2.0 required for graduation)  
**Requirement Met** \_\_\_\_\_

\*Excess hours in these categories will be counted in category F (elective hours).  
 \*\*History courses may count as either Social Science or Humanities credit.

# Athletic Training Transfer Major (AS)

## West Burlington and Keokuk Campuses

### Athletic Training Transfer Major

#### Sample curriculum - Associate of Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
ENG-105	Composition I	3	0	3
BIO-252	Biomolecular Processes	2	2	3
HIS-151	United States History to 1877	3	0	3
PEH-102	Health	3	0	3
DRA-110	Introduction to Film <i>or</i>	3	0	3
MUS-204	Introduction to Rock and Roll	3	0	3
		<u>14</u>	<u>2</u>	<u>15</u>
Spring Semester I				
ENG-106	Composition II	3	0	3
PET-105	Basic Athletic Training	3	0	3
MAT-127	College Algebra & Trigonometry	5	0	5
BIO-186	Microbiology	3	2	4
		<u>14</u>	<u>2</u>	<u>15</u>
Fall Semester II				
BIO-168	Anatomy & Physiology I	3	2	4
PET-230	Prevention & Care of Athletic Injuries	2	2	3
PHI-122	Philosophy of Contemporary Issues	3	0	3
SPC-112	Public Speaking	3	0	3
CHM-165	General Chemistry I	3	2	4
		<u>14</u>	<u>6</u>	<u>17</u>
Spring Semester II				
BIO-173	Anatomy & Physiology II	3	2	4
PEH-169	Principles of Weight Training	0	4	2
CHM-175	General Chemistry II	3	2	4
SOC-110	Introduction to Sociology <i>or</i>	3	0	3
SOC-115	Social Problems	3	0	3
PSY-111	Introduction to Psychology	3	0	3
		<u>12</u>	<u>8</u>	<u>16</u>

*Program Total* ..... **63**

SCC has established 2+2 agreements with four-year institutions for this transfer major. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.

#### Program Contact:

Sheena K. Abbott, MS, ATC/L, CES  
Great River Health Systems  
skabbott@grhs.net

For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).



# Forensic Chemistry Transfer Major (AS)

**Program Contact:**

Amber Ruskell-Lamer - Instructor  
 ext. 1957  
 Email: aruskell-lamer@scciowa.edu

**West Burlington and Keokuk Campuses**

**Forensic Chemistry Transfer Major  
 Sample curriculum - Associate of Science Degree Requirements**

For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).

			Lec.	Lab.	Credit
<b>Fall Semester I</b>					
ENG-105	Composition I		3	0	3
MAT-210	Calculus I		4	0	4
CHM-165	General Chemistry I		3	2	4
PHI-105	Introduction to Ethics		3	0	3
SPC-112	Public Speaking		3	0	3
			16	2	17
<b>Spring Semester I</b>					
GEO-121	World Regional Geography		3	0	3
CHM-175	General Chemistry II		3	2	4
MAT-216	Calculus II		4	0	4
ENG-106	Composition II		3	0	3
BIO-112	General Biology I		3	2	4
			16	4	18
<b>Fall Semester II</b>					
HIS-151	United States History to 1877 <i><b>or</b></i>		3	0	3
HIS-152	United States History since 1877 <i><b>or</b></i>		3	0	3
HIS-211	Modern Asian History		3	0	3
BIO-113	General Biology II		3	2	4
PSY-111	Introduction to Psychology		3	0	3
ART-101	Art Appreciation		3	0	3
PHY-212	Classical Physics I		4	2	5
			16	4	18
<b>Spring Semester II</b>					
BIO-186	Microbiology*		3	2	4
PHY-222	Classical Physics II		4	2	5
SOC-110	Introduction to Sociology <i><b>or</b></i>		3	0	3
PSY-214	Abnormal Psychology		3	0	3
MAT-156	Statistics		3	0	3
			13	4	15

**Program Total . . . . . 68**

*\* BIO-252 is not required as a prerequisite to BIO-186 if CHM-165 and CHM-175 are taken prior to this course.*

*This transfer major has 2+2 agreements established with four-year colleges and universities. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.*

# Biology Transfer Major (AS)

## West Burlington and Keokuk Campuses

### Biology Transfer Major

#### Sample curriculum - Associate of Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
ENG-105	Composition I	3	0	3
CHM-165	General Chemistry I	3	2	4
PHI-105	Introduction to Ethics	3	0	3
SPC-112	Public Speaking	3	0	3
PSY-111	Introduction to Psychology	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>
Spring Semester I				
CHM-175	General Chemistry II	3	2	4
ENG-106	Composition II	3	0	3
BIO-112	General Biology I	3	2	4
ART-101	Art Appreciation	3	0	3
SOC-110	Introduction to Sociology <i>or</i>	3	0	3
PSY-241	Abnormal Psychology	3	0	3
		<u>15</u>	<u>4</u>	<u>17</u>
Fall Semester II				
HIS-151	United States History to 1877 <i>or</i>	3	0	3
HIS-152	United States History since 1877 <i>or</i>	3	0	3
HIS-211	Modern Asian History	3	0	3
PHY-160	General Physics I	4	2	5
BIO-113	General Biology II	3	2	4
MAT-128	Precalculus	4	0	4
		<u>14</u>	<u>4</u>	<u>16</u>
Spring Semester II				
BIO-186	Microbiology *	3	2	4
PHY-161	General Physics II	4	2	5
MAT-156	Statistics	3	0	3
GEO-121	World Regional Geography	3	0	3
		<u>13</u>	<u>4</u>	<u>15</u>

*Program Total* ..... 64

\* *BIO-252 is not required as a prerequisite to BIO-186 if CHM-165 and CHM-175 are taken prior to this course.*

*SCC has established 2+2 agreements with four-year institutions for this transfer major. Depending upon where you plan to transfer, your SCC coursework may differ from the example above. Contact your enrollment specialist to learn which courses you should take.*

#### Program Contact:

Amber Ruskell-Lamer - Instructor  
ext. 1957

Email: aruskell-lamer@scciowa.edu

For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).

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For current information, please visit our website at [www.scciowa.edu](http://www.scciowa.edu).

## West Burlington Campus, Keokuk Campus and Online

(Keokuk students will be required to enroll in courses at either the West Burlington Campus or online or both to complete this program.) \* *Not offered at Keokuk Campus*

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
ACC-131	Principles of Accounting I	4	0	4
*ACC-805	Accounting Problems I ( <i>WB, Online</i> )	0	4	2
BUS-185	Business Law I	3	0	3
CSC-110	Introduction to Computers	3	0	3
Elective	Accounting Math	3	0	3
Elective	Accounting Program	3	0	3
		16	4	18

#### Spring Semester I

ACC-132	Principles of Accounting II	4	0	4
*ACC-161	Payroll Accounting ( <i>WB, Online</i> )	3	0	3
*ACC-806	Accounting Problems II ( <i>WB, Online</i> )	0	4	2
ADM-114	Keyboarding Applications	2	2	3
BCA-152	Comprehensive Spreadsheets ( <i>Online</i> ) <b>or</b>	2	2	3
BCA-157	Intermediate Spreadsheets	2	2	3
Elective	Accounting English	3	0	3
		14	8	18

**Program Total . . . . . 36**

### Accounting Assistant Diploma awarded

#### Fall Semester II

*ACC-231	Intermediate Accounting I ( <i>WB, Online</i> )	3	2	4
*ACC-261	Income Tax Accounting ( <i>WB, Online</i> )	3	0	3
ACC-310	Computer Accounting <b>or</b>	2	0	2
ACC-311	Computer Accounting ( <i>Online</i> )	3	0	3
ECN-130	Principles of Micro-Economics	3	0	3
Elective	Accounting Communications	3	0	3
Elective	Accounting Math	3	0	3
		17/18	2	18/19

#### Spring Semester II

*ACC-221	Cost Accounting ( <i>WB, Online</i> )	3	0	3
*ACC-232	Intermediate Accounting II ( <i>WB, Online</i> )	3	2	4
BUS-180	Business Ethics	3	0	3
*BUS-936	Business Capstone ( <i>Online only</i> )	1	0	1
MAT-156	Statistics	3	0	3
Elective	Accounting Program	3	0	3
		16	2	17

**Program Total . . . . . 71/72**

#### Accounting Electives:

*Though students may choose any combination of courses to complete each of the elective requirements, students should focus upon their future objectives regarding career and/or transfer to a 4-year college as they make their selections.*

#### Accounting Program Electives:

*Students must complete at least 6 semester hours of approved Program Elective courses. Approved Program Elective courses include:*  
 Career Focus —  
 ACC-932 Accounting Internship

BUS-102 Introduction to Business  
 BUS-186 Business Law II  
 FIN-130 Principles of Finance  
 HUM-287 Leadership Development Studies  
 MGT-101 Principles of Management  
 MGT-170 Human Resources Management  
 MKT-110 Principles of Marketing  
 Transfer Focus —  
 BUS-121 Business Communications  
 ECN-120 Principles of macro-Economics  
 ENG-106 Composition II  
 PSY-111 Introduction to Psychology  
 SOC-110 Introduction to Sociology

#### Accounting Communications

**Electives:**  
*Students must complete at least 3 semester hours of approved Communications Elective courses. Approved Communications Elective courses include:*  
 Career Focus —  
 BUS-121 Business Communication  
 Transfer Focus —SPC-112 Public Speaking

#### Accounting English Electives:

*Students must complete at least 3 semester hours of approved English Elective courses. Approved English Elective courses include:*

Career Focus —ENG-131 Business English  
 Transfer Focus —ENG-105 Composition I

#### Accounting Math Electives:

*Students must complete at least 6 semester hours of approved Math Elective courses, and the Statistics course. Approved Math Elective courses include:*  
 Career Focus —  
 ADM-133 Business Math/Calculators  
 Transfer Focus —  
 MAT-140 Finite Math  
 MAT-165 Business Calculus

This program is designed to provide students with the necessary knowledge and skills for entry-level accounting positions. The program will also take the student through balance sheets, financial statements, income tax analysis and cost accounting.

This Associate of Applied Science Degree Program is four semesters in length. The second year is comprised of advanced level courses to increase the skill level of the student and thus contribute to potentially more rapid advancement upon employment.

#### Where will this take me?

Accounting Clerk  
 Accounts Payable Clerk  
 Bookkeeper  
 Inventory Clerk  
 Payroll Clerk  
 Tax Accountant Clerk

#### Instructor and Staff

Kevin Rosenberg - Instructor, ext. 5199  
 Email: [krosenberg@scciowa.edu](mailto:krosenberg@scciowa.edu)  
 BBA, University of Iowa  
 MA, University of Iowa

#### Career Outlook

Median Wages (2013)  
 \$17.18 hourly, \$35,730 annually  
 Projected Growth 2012 -2022:  
 8% to 14%

*For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaaid/finaid/gainemp.aspx>.*

# Administrative Assistant

SCC's Administrative Assistant program prepares students to provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings.

An extra-curricular activity for students in Administrative Assistant programs is the Business Professionals of America.

This organization provides students with leadership training, field trips, and competitive opportunities with other clubs throughout the state and nation.

SCC offers four different degrees.

- Accounting Administrative Assistant
- Administrative Assistant
- Legal Administrative Assistant
- Medical Administrative Assistant

## Where will this take me?

- Administrative Assistant
- Executive Assistant
- Marketing Secretary
- Office Manager
- Office Planner
- Program Coordinator
- Records Clerk

## Instructor and Staff

- Trisha Hopper - Instructor, ext. 5212  
Email: thopper@scciowa.edu  
AA, Carl Sandburg College  
BA, Western Illinois University
- Carla Pilkington - Instructor, ext. 1986  
Email: cpilkington@scciowa.edu  
Diploma & AA, SCC  
BA, Buena Vista Univ., Storm Lake, IA  
Additional study: UNI, Cedar Falls, IA

## Career Outlook

- Median wages (2013): \$19.74 hourly, \$41,100 annually
- Projected Growth 2012-2022: (12%)

## West Burlington and Keokuk Campuses

### Associate of Applied Science Degree Requirements

		Lec.	Lab.	Credit
<b>Fall Semester I</b>				
ACC-131	Principles of Accounting I	4	0	4
ADM-114	Keyboarding Applications	2	2	3
ADM-162	Office Procedures	3	0	3
BUS-102	Introduction to Business	3	0	3
CSC-110	Intro to Computers	3	0	3
ENG-131	Business English	3	0	3
		<u>18</u>	<u>2</u>	<u>19</u>
<b>Spring Semester I</b>				
ADM-116	Keyboarding II	1	4	3
ADM-171	Records Management	1	2	2
BUS-121	Business Communications	3	0	3
MAT-110	Math for Liberal Arts <i>or</i>	3	0	3
MAT-772	Applied Math ( <i>Online only</i> ) <i>or</i>	3	0	3
BIO-105	Introductory Biology <i>or</i>	3	2	4
PHS-151	Introduction to Astronomy <i>or</i>	2	2	3
PHS-165	Introduction to Meteorology <i>or</i>	3	0	3
PHS-185	Introduction to Earth Science	3	0	3
SPC-101	Fundamentals of Oral Communication <i>or</i>	3	0	3
SPC-112	Public Speaking	3	0	3
Elective	*Business Elective	3	0	3
		<u>13-14</u>	<u>6-8</u>	<u>17-18</u>
<b>Fall Semester II</b>				
ACC-310	Computer Accounting	2	0	2
ADM-119	Keyboarding III	1	4	3
ADM-133	Business Math/Calculators	3	0	3
ADM-149	Transcription	2	2	3
BUS-180	Business Ethics	3	0	3
MGT-101	Principles of Management	3	0	3
		<u>14</u>	<u>6</u>	<u>17</u>
<b>Spring Semester II</b>				
ADM-129	Keyboarding IV	1	4	3
BUS-290	Employment Search & Workplace Success	1	0	1
BUS-932	Business Internship	0	14	4
ENG-105	Composition I	3	0	3
Elective	*Business Elective	3	0	3
PSY-102	Human and Work Relations <i>or</i>	3	0	3
PSY-111	Introduction to Psychology <i>or</i>	3	0	3
SOC-110	Introduction to Sociology <i>or</i>	3	0	3
SOC-114	Conflict Resolution in the Workplace	3	0	3
		<u>11</u>	<u>18</u>	<u>17</u>
<b>Program Total</b>				<b>70-71</b>

\*Select from:

- BUS-185 Business Law I
- FIN-121 Personal Finance
- MGT-130 Principles of Supervision
- MGT-170 Human Resources Management
- MKT-110 Principles of Marketing
- MKT-160 Principles of Retailing
- SMM-108 Social Media Engagement

# Administrative Assistant – Accounting

## West Burlington and Keokuk Campuses

### Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
ACC-131	Principles of Accounting I	4	0	4
ADM-114	Keyboarding Applications	2	2	3
ADM-162	Office Procedures	3	0	3
CSC-110	Intro to Computers	3	0	3
ENG-131	Business English	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>

Spring Semester I		Lec.	Lab.	Credit
ACC-132	Principles of Accounting II	4	0	4
ADM-116	Keyboarding II	1	4	3
ADM-171	Records Management	1	2	2
BCA-157	Intermediate Spreadsheets	2	2	3
BUS-121	Business Communications	3	0	3
MAT-110	Math for Liberal Arts <i>or</i>	3	0	3
MAT-702	Introduction to Math Applications <i>or</i>	2	2	3
MAT-772	Applied Math ( <i>Online only</i> ) <i>or</i>	3	0	3
BIO-105	Introductory Biology <i>or</i>	3	2	4
PHS-151	Introduction to Astronomy <i>or</i>	2	2	3
PHS-165	Introduction to Meteorology <i>or</i>	3	0	3
PHS-185	Introduction to Earth Science	3	0	3
		<u>13-14</u>	<u>8-10</u>	<u>18-19</u>

Fall Semester II		Lec.	Lab.	Credit
ACC-310	Computer Accounting	2	0	2
ADM-119	Keyboarding III	1	4	3
ADM-133	Business Math/Calculators	3	0	3
BUS-180	Business Ethics	3	0	3
ENG-105	Composition I	3	0	3
SPC-101	Fundamentals of Oral Communication <i>or</i>	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>15</u>	<u>4</u>	<u>17</u>

Spring Semester II		Lec.	Lab.	Credit
ACC-161	Payroll Accounting	3	0	3
ADM-129	Keyboarding IV	1	4	3
BUS-290	Employment Search & Workplace Success	1	0	1
BUS-932	Business Internship	0	14	4
PSY-102	Human and Work Relations <i>or</i>	3	0	3
PSY-111	Introduction to Psychology <i>or</i>	3	0	3
SOC-110	Introduction to Sociology <i>or</i>	3	0	3
SOC-114	Conflict Resolution in the Workplace	3	0	3
		<u>8</u>	<u>18</u>	<u>14</u>

*Program Total* ..... 65-66

### Recommended Additional Course Work

FIN-121	Personal Finance	3	0	3
SMM-108	Social Media Engagement	2	2	3

The Accounting Administrative Assistant program is designed to prepare students for employment in various accounting office positions.

An extra-curricular activity for students in the Administrative Assistant program is the Business Professionals of America. This organization provides students with leadership training, field trips, and competitive opportunities with other clubs throughout the state and nation.

SCC offers four different degrees.

- Accounting Administrative Assistant
- Administrative Assistant
- Legal Administrative Assistant
- Medical Administrative Assistant

### Where will this take me?

- Accounting Clerk
- Clerk Bookkeeper
- Data Entry
- Inventory Clerk

### Instructor and Staff

- Trisha Hopper - Instructor, ext. 5212  
Email: thopper@scciowa.edu  
AA, Carl Sandburg College  
BA, Western Illinois University
- Carla Pilkington - Instructor, ext. 1986  
Email: cpilkington@scciowa.edu  
Diploma & AA, SCC  
BA, Buena Vista Univ., Storm Lake, IA  
Additional study: UNI, Cedar Falls, IA

### Career Outlook

- Median wages (2013): \$19.74 hourly, \$41,100 annually
- Projected Growth 2012-2022: (12%)



# Administrative Assistant – Legal

The Legal Administrative Assistant degree is designed to prepare students for employment in various legal office positions.

An extra-curricular activity for students in the Administrative Assistant program is the Business Professionals of America. This organization provides students with leadership training, field trips, and competitive opportunities with other clubs throughout the state and nation.

SCC offers four different degrees.

- Accounting Administrative Assistant
- Administrative Assistant
- Legal Administrative Assistant
- Medical Administrative Assistant

## Where will this take me?

- Legal Secretary
- Legal Transcriptionist

## Instructor and Staff

- Trisha Hopper - Instructor, ext. 5212  
Email: thopper@scciowa.edu  
AA, Carl Sandburg College  
BA, Western Illinois University
- Carla Pilkington - Instructor, ext. 1986  
Email: cpilkington@scciowa.edu  
Diploma & AA, SCC  
BA, Buena Vista Univ., Storm Lake, IA  
Additional study: UNI, Cedar Falls, IA

## Career Outlook

- Median wages (2013): \$19.74 hourly, \$41,100 annually
- Projected Growth 2012-2022: (12%)

## West Burlington and Keokuk Campuses

### Associate of Applied Science Degree Requirements

#### Fall Semester I

		Lec.	Lab.	Credit
ACC-131	Principles of Accounting I	4	0	4
ADM-114	Keyboarding Applications	2	2	3
ADM-162	Office Procedures	3	0	3
BUS-102	Introduction to Business	3	0	3
CSC-110	Introduction to Computers	3	0	3
ENG-131	Business English	3	0	3
		<u>18</u>	<u>2</u>	<u>19</u>

#### Spring Semester I

ADM-116	Keyboarding II	1	4	3
ADM-171	Records Management	1	2	2
BUS-121	Business Communications	3	0	3
MAT-110	Math for Liberal Arts <i>or</i>	3	0	3
MAT-702	Introduction to Math Applications <i>or</i>	2	2	3
MAT-772	Applied Math ( <i>Online only</i> ) <i>or</i>	3	0	3
BIO-105	Introductory Biology <i>or</i>	3	2	4
PHS-151	Introduction to Astronomy <i>or</i>	2	2	3
PHS-165	Introduction to Meteorology <i>or</i>	3	0	3
PHS-185	Introduction to Earth Science	3	0	3
PSY-102	Human and Work Relations <i>or</i>	3	0	3
PSY-111	Introduction to Psychology <i>or</i>	3	0	3
SOC-110	Introduction to Sociology <i>or</i>	3	0	3
SOC-114	Conflict Resolution in the Workplace	3	0	3
		<u>10-11</u>	<u>8</u>	<u>14-15</u>

#### Fall Semester II

ADM-119	Keyboarding III	1	4	3
ADM-133	Business Math/Calculators	3	0	3
ADM-149	Transcription	2	2	3
BUS-180	Business Ethics	3	0	3
BUS-185	Business Law I	3	0	3
SPC-101	Fundamentals of Oral Communication <i>or</i>	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>15</u>	<u>6</u>	<u>18</u>

#### Spring Semester II

ADM-129	Keyboarding IV	1	4	3
ADM-186	Legal Documents	1	2	2
BUS-186	Business Law II	3	0	3
BUS-290	Employment Search & Workplace Success	1	0	1
BUS-932	Business Internship	0	14	4
ENG-105	Composition I	3	0	3
		<u>9</u>	<u>20</u>	<u>16</u>

*Program Total . . . . . 67-68*

#### Recommended Additional Course Work

SMM-108	Social Media Engagement	2	2	3
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# Administrative Assistant – Medical

## West Burlington and Keokuk Campuses

### Associate of Applied Science Degree Requirements

		Lec.	Lab.	Credit
<b>Fall Semester I</b>				
ACC-131	Principles of Accounting I	4	0	4
ADM-114	Keyboarding Applications	2	2	3
ADM-162	Office Procedures	3	0	3
CSC-110	Intro to Computers	3	0	3
ENG-131	Business English	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>
<b>Spring Semester I</b>				
ADM-116	Keyboarding II	1	4	3
ADM-171	Records Management	1	2	2
BUS-121	Business Communication	3	0	3
ENG-105	Composition I	3	0	3
SPC-101	Fundamentals of Oral Communication <i>or</i>	3	0	3
SPC-112	Public Speaking	3	0	3
PSY-102	Human and Work Relations <i>or</i>	3	0	3
PSY-111	Introduction to Psychology <i>or</i>	3	0	3
SOC-110	Introduction to Sociology <i>or</i>	3	0	3
SOC-114	Conflict Resolution in the Workplace	3	0	3
		<u>14</u>	<u>6</u>	<u>17</u>
<b>Fall Semester II</b>				
ADM-119	Keyboarding III	1	4	3
ADM-133	Business Math/Calculators	3	0	3
ADM-149	Transcription	2	2	3
BIO-163	Essentials of Anatomy and Physiology	3	2	4
BUS-180	Business Ethics	3	0	3
HSC-114	Medical Terminology	2	2	3
		<u>14</u>	<u>10</u>	<u>19</u>
<b>Spring Semester II</b>				
ADM-129	Keyboarding IV	1	4	3
ADM-212	Medical Documents	1	2	2
BUS-290	Employment Search & Workplace Success	1	0	1
BUS-932	Business Internship	0	14	4
HIT-211	Basic Medical Insurance & Coding	2	2	3
MAP-532	Human Body: Health and Disease	3	0	3
		<u>8</u>	<u>22</u>	<u>16</u>
<i>Program Total</i> .....		<b>68</b>		

### Recommended Additional Course Work

SMM-108	Social Media Engagement	2	2	3
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The Medical Administrative Assistant degree is designed to prepare students for employment in various medical office positions.

An extra-curricular activity for students in the Administrative Assistant program is the Business Professionals of America. This organization provides students with leadership training, field trips, and competitive opportunities with other clubs throughout the state and nation.

SCC offers four different degrees.

- Accounting Administrative Assistant
- Administrative Assistant
- Legal Administrative Assistant
- Medical Administrative Assistant

### Where will this take me?

- Medical Secretary
- Medical Records Manager
- Medical Claims Clerk
- Medical Administrative Assistant
- Medical Transcriptionist

### Instructor and Staff

- Trisha Hopper - Instructor, ext. 5212  
Email: thopper@scciowa.edu  
AA, Carl Sandburg College  
BA, Western Illinois University
- Carla Pilkington - Instructor, ext. 1986  
Email: cpilkington@scciowa.edu  
Diploma & AA, SCC  
BA, Buena Vista Univ., Storm Lake, IA  
Additional study: UNI, Cedar Falls, IA

### Career Outlook

- Median wages (2013): \$19.74 hourly, \$41,100 annually
- Projected Growth 2012-2022: (12%)

# Advanced Manufacturing Technology

SCC's Advanced Manufacturing Technology Program is designed to provide students with the skills necessary to enter the production environment as entry level Computer Numeric Controls Programmers or Production Technicians.

The program provides broad theoretical and hands-on education for those seeking careers in the production field. This program emphasizes various levels of the production process.

Each level builds upon the previous section, continuing the students' education and knowledge base of the production process.

Students will learn skills in safety, 2D and 3D production design, machining, and quality control with an emphasis placed on emerging trends including 5-axis design and machining principles. An OSHA 10 General Industry card will be awarded upon the successful completion of the IND-163 course.

## Where will this take me?

- Computer Numerical Controls Machine Programmer (CNC)
- Production Maintenance Technician
- Tool and Die Maker
- Manufacturing Production Technician
- Manufacturing Engineering Technologist

## Instructor and Staff

Jan Wolbers –  
Interim Dean for Career and Technical Education, ext. 5061  
Email: [jwolbers@scciowa.edu](mailto:jwolbers@scciowa.edu)

## Career Outlook

Median Wages (2013)  
\$22.36 hourly, \$46, 510 annually  
Projected Growth 2012-2022:  
22% or higher

## West Burlington Campus

### Associate of Applied Science Degree Requirements

#### Fall Semester I

		Lec.	Lab.	Credit
CAD-101	Introduction to CAD	1	4	3
DRF-113	Fundamentals of Technical Drafting	1	4	3
ENG-105	Composition I	3	0	3
IND-163	OSHA & Plant Safety	2	0	2
MAT-702	Intro to Math Applications	2	2	3
MFG-237	Intro to Machine Trades	1	4	3
		<u>10</u>	<u>14</u>	<u>17</u>

#### Spring Semester I

CAD-277	3-D Dimensional (3-D) Modeling	1	4	3
EGT-116	Continuous Quality Management	3	0	3
MFG-212	Basic Machine Theory	1	4	3
SOC-114	Conflict Resolution in the Workplace	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>11</u>	<u>8</u>	<u>15</u>

#### Fall Semester II

CAD-140	Parametric Solid Modeling	1	4	3
MFG-156	Introduction to CNC Machining	1	4	3
MFG-206	Manufacturing Processes I	1	4	3
MFG-228	Machine Operations II	2	4	4
PHY-160	General Physics I	4	2	5
		<u>9</u>	<u>18</u>	<u>18</u>

#### Spring Semester II

CAD-230	Geometric Dimensioning & Tolerancing	1	2	2
ELE-127	Troubleshooting	0.5	1	1
MFG-165	Engineering Materials	3	0	3
MFG-303	Advanced CNC Programing	3	6	6
MFG-323	MasterCAM Design	1	2	2
MFG-511	Lean Quality Management	3	2	4
		<u>11.5</u>	<u>13</u>	<u>18</u>

*Program Total* ..... 68

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
AGA-114	Principles of Agronomy	2	2	3
AGM-200	Farm Welding	0.5	2.5	1.7
AGP-340	Foundations of GIS and GPS	2	2	3
AGS-113	Survey of Animal Industry	3	0	3
CSC-110	Introduction to Computers	3	0	3
		10.5	6.5	13.7

Spring Semester I		Lec.	Lab.	Credit
AGA-154	Fundamentals of Soil Science	2	2	3
AGA-376	Integrated Pest Management	2	2	3
AGM-155	Farm Equipment Management ( <i>Online</i> )	2	0	2
COM-102	Communication Skills <i>or</i>	3	0	3
*SPC-112	Public Speaking	3	0	3
ELE-130	Home and Farm Electricity	1	2	2
MAT-702	Introduction to Math Applications <i>or</i>	2	2	3
*MAT-110	Math for Liberal Arts <i>or</i>	3	0	3
*MAT-127	College Algebra and Trigonometry	5	0	5
PSY-102	Human and Work Relations	3	0	3
		15-18	6-8	19-21

*Program Total* .....32.7-34.7

### Agriculture Diploma Awarded

Summer Session		Lec.	Lab.	Credit
AGB-816	Student Internship I	0	15	3.7
AGB-930	Agriculture Seminar	1	0	1
		1	15	4.7

Fall Semester II		Lec.	Lab.	Credit
AGA-158	Soil Fertility	2	2	3
AGB-470	Farm Records, Accounts and Analysis	2	2	3
AGB-826	Student Internship II	0	15	3.7
AGH-131	Greenhouse Management <i>or</i>	3	0	3
AGS-319	Animal Nutrition	2	2	3
AGM-151	Farm Equipment Adjustment	0	4	2
AGP-421	Applications of GIS	1	2	2
AGS-225	Swine Science	2	2	3
		9-10	27-29	19.7

Spring Semester II		Lec.	Lab.	Credit
AGB-210	Agricultural Law	2	0	2
AGB-235	Introduction to Agriculture Markets	2	2	3
AGB-330	Farm Business Management	2	2	3
AGB-336	Agricultural Selling	3	0	3
AGS-228	Beef Cattle Science	5	0	5
ECN-110	Introduction to Economics <i>or</i>	3	0	3
*ECN-130	Principles of Microeconomics	3	0	3
		17	4	19

*Program Total* .....76.1-78.1

\*Transfer courses to be able to enroll in Agricultural Studies Bachelor of Science degree from Iowa State University.

Students in SCC's Agriculture Management Program have the opportunity to prepare for a lifetime of learning through classroom and internship positions limited only by students' initiative and imagination. This program prepares students to serve the food production and processing industries through operation of feed mills, fertilizer plants, elevators, retail farm supply stores and farm equipment dealers. The program is also designed to provide improved skills in the areas of crop and livestock production, agriculture equipment and farm business management. This program offers a diploma and degree in Agriculture Management.

Students wanting to incorporate business classes into livestock or crop areas would also benefit greatly from the certificate. Students will be expected to complete four courses: one each from the areas of Agronomy, Animal Science and Business and another Agriculture elective.

#### Where will this take me?

- Animal Science Technician
- Farm and/or Feedlot Owner/Operator
- Fruit and Vegetable Grower
- Grain and/or Livestock Farmer
- Livestock Breeding Manager
- Specialty Animal Producer

#### Instructor and Staff

Sabrina Pidgeon - Instructor, ext. 5104  
 Email: spidgeon@scciaowa.edu  
 BS, Iowa State University

Adam Raub - Instructor, ext. 5103  
 Email: araub@scciaowa.edu  
 BS, Western Illinois University  
 MBA, St. Ambrose University

#### Career Outlook

Median Wages (2013) Farmers and Ranchers; \$33.71 hourly, \$70,110 annually

Purchasing Agents and Buyers, Farm Products; \$26.66 hourly, \$55,450 annually

Projected Growth 2012-2022: Farmers and Ranchers; (3%)

Purchasing Agents and Buyers, Farm Products; (3% to 7%)

# Animation for Television, Film, and New Media

SCC's new Animation for Television, Film and New Media program will prepare students to enter into a wide variety of careers in computer generated and stop motion animation for Information, Entertainment, Gaming and New Media industries.

Students will use state-of-the-art technology in SCC's all-new Animation Computer Lab and Stop Motion Lab located on the West Burlington campus. Course competencies will include understanding the fundamentals of film, art, computers and new media communications. Skills in storytelling, concept design, modeling, rigging, texturing, animation, rendering, lighting and motion graphics will be emphasized. This broad-based instructional program will also feature training in a number of industry-specific software applications.

## Where will this take me?

- 3-D Modeler
- Character Animator
- Effects Animator
- Filmmaker
- Lighting & Rendering Artist
- Stop-Motion Animator
- Storyboard & Concept Artist
- Technical Artist-Rigging
- Video Game Designer

## Instructor and Staff

Tyler Horn - Instructor, ext. 5256  
 Email: thorn@scciowa.edu  
 BFA, The Illinois Institute of Art at Schaumburg

## Career Outlook

Median Wages (2013) \$29.70 hourly,  
 \$61,800 annually  
 Projected Growth 2012 -2022: (13%)

## West Burlington Campus

### Associate of Applied Science Degree Requirements

#### Fall Semester I

		Lec.	Lab.	Credit
ANI-101	Animation Software I	2	2	3
ANI-116	Exploring Human Movement	2	2	3
ANI-136	Stop Motion/Video Production	2	2	3
ART-133	Drawing	2	2	3
DRA-110	Introduction to Film	3	0	3
ENG-105	English Composition I	3	0	3
		<u>14</u>	<u>8</u>	<u>18</u>

#### Spring Semester I

ANI-102	Animation Software II	2	2	3
ANI-109	Animation Principles & Techniques	2	6	5
ANI-111	Production Pipeline Studio - I	2	2	3
ENG-221	Creative Writing	3	0	3
Elective	*Specialty Topics	<u>0-3</u>	<u>1-2</u>	<u>1-4</u>
		9-12	11-12	15-18

#### Summer Semester

ANI-112	Production Pipeline Studio II	2	2	3
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#### Fall Semester II

ANI-103	Animation Software III	2	2	3
ANI-113	Production Pipeline Studio III	2	6	5
ANI-952	Topics	1	2	2
Elective	*Specialty Topics	<u>0-3</u>	<u>1-2</u>	<u>1-4</u>
MAT-110	Math for Liberal Arts	<u>3</u>	<u>0</u>	<u>3</u>
		8-11	11-12	14-17

#### Spring Semester II

ANI-104	Animation Software IV	2	2	3
ANI-114	Production Pipeline Studio IV	2	6	5
ANI-932	Animation Internship <i>or</i>	0	15	3.7
ANI-941	Animation Studio Practicum	2	2	3
Elective	*Specialty Topics	<u>0-3</u>	<u>1-2</u>	<u>1-4</u>
		4-9	11-25	12-15.7

*Program Total* ..... 62-71.7

#### \*Specialty Topics Electives

- ART-120 2-D Design (2-2-3)
- ART-123 3-D Design (2-2-3)
- ART-138 Figure Drawing (2-2-3)
- ART-143 Painting (2-2-3)
- ART-184 Photography (2-2-3)
- BIO-168 Human Anatomy & Physiology I (3-2-4)
- DRA-141 Theater & Speech Participation (0-2-1)

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester I		Lec	Lab.	Credit
CRR-300	Preparation	1	2	2
CRR-340	Metal Straightening	1	4	3
CRR-400	Panel Replacement and Adjustment	2	3	3.5
CRR-500	Damage Analysis	1	2	2
CRR-800	Introduction to Automotive Refinishing	1	3	2.5
MAT-702	Introduction to Math Applications	2	2	3
SCI-115	Basic Electricity	1	2	2
		<u>9</u>	<u>18</u>	<u>18</u>

Spring Semester I		Lec	Lab.	Credit
ENG-111	Technical Writing	3	0	3
CRR-120	MIG (GMAW) Welding	1	4	3
CRR-454	Glass Replacement	1	2	2
CRR-525	Straightening Structural Parts	2	7	5.5
CRR-610	Steering and Suspension	1	1	1.5
CRR-812	Surface Preparation	2	6	5
		<u>10</u>	<u>20</u>	<u>20</u>

*Total Hours* ..... 38

### Auto Body Diploma Awarded

#### Summer Session

Art-133	Drawing	2	2	3
Elective	Social Science	3	0	3
		<u>5</u>	<u>2</u>	<u>6</u>

#### Fall Semester II

CRR-201	Plastic Repair	1	2	2
CRR-575	Advanced Structural Repair	2	8	6
CRR-580	Advanced Frame Straightening	2	8	6
CRR-765	Computer Diagnosis for Auto Collision	2	6	5
		<u>7</u>	<u>24</u>	<u>19</u>

#### Spring Semester II

CRR-410	Full or Partial Body Panel Replacement	1	5	3.5
CRR-818	Intro to Waterborne Finishes	1	2	2
CRR-845	Color Tinting and Matching	1	3	2.5
CRR-875	Advanced Refinishing Methods	2	8	6
CRR-932	Internship	0	16	4
		<u>5</u>	<u>34</u>	<u>18</u>

*Total Hours* ..... 81

### AAS in Auto Collision Repair Awarded

The Auto Collision Repair Program provides training in shop processes used to restore damaged vehicles to the original condition. This program is designed to use the latest techniques in the field of Auto Collision Repair. SCC's Auto Collision Repair program combines state-of-the art equipment with an I-CAR curriculum, giving students the advanced knowledge required to keep up with the ever-changing automobile industry. I-CAR techniques and procedures are the industry standard for Auto Collision Professionals.

In addition to the auto industry, another growing industry that recruits automotive collision students, is the renewable energy industry. Many of the same concepts and skills involved in auto collision repair are also involved in the assembly and maintenance of wind energy components, including windmill blades and towers. While SCC offers no specific class dedicated to such specific technology, the concepts match closely.

#### Where will this take me?

- Auto Collision Estimator
- Auto Collision Equipment Sales
- Auto Collision Repair Technician
- Auto Glass Installation Expert
- Auto Wheel Alignment Technician
- Frame Repair Specialist
- Insurance Adjuster
- Paint Product Rep/Sales
- Paint Retailer
- Windmill Blade Repair Technician

#### Instructor and Staff

Randy Wachter - Instructor, ext. 5110  
 Email: [rwachter@scciowa.edu](mailto:rwachter@scciowa.edu)  
 AAS, Southeastern Community College

Tim Weaver - Instructor, ext.5111  
 Email: [tweaver@scciowa.edu](mailto:tweaver@scciowa.edu)  
 ASE Master Collision Repair

#### Career Outlook

Auto Collision Repair  
 Median wages (2013) \$17.20 hourly,  
 \$35,800 annually  
 Projected Growth 2012-2022: 17%

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>



# Automotive Technology

The SCC Automotive Technology program is an ASE (Automotive Service Excellence) Certified program. This certification assures the student that the program meets the standards set by NATEF (National Automotive Technicians Education Foundation) regarding equipment, tools, scheduling, instructors and curriculum. In order for a technician to become ASE certified, he/she must have two years experience in addition to passing tests in the various areas of automotive repair. However, by attending the SCC Automotive Technology program, students may take these tests at any time during their education. If they pass these tests, they will become ASE Certified pro-tem upon graduation. After just one year of experience in the field, they become officially ASE Certified. One benefit of this program is the on the job training (OJT) it provides. OJT gives the students hands-on experience in an actual work environment. In this two year program, students will not only receive an education, but they will also receive hands-on experience while being paid. The Automotive Technology Program - Management Option allows students to pursue a management track in their second year.

## Where will this take me?

- Automotive Diagnostic Expert
- Automotive Parts Sales
- Automotive Repair Technician
- Automotive Service Advisor
- Insurance Adjuster
- Transmission Specialist

## Instructor and Staff

Wes Carpenter - Instructor, ext. 5109  
 Email: wcarpenter@scciowa.edu  
 AAS, Lincoln Technical Institute  
 BA, Western Illinois University  
 ASE Master Tech  
 ASE Advanced Engine Performance GM and Ford Certified

Timothy Hunter - Instructor, ext. 5108  
 Email: tahunter@scciowa.edu  
 AAS, Indian Hills Community College

Kelly Kroll - Support Specialist, ext. 5107  
 Email: kkroll@scciowa.edu

## Career Outlook

Median wages (2013) \$17.20 hourly,  
 \$35,800 annually  
 Projected Growth 2012-2022: 17%

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
AUT-106	Intro to Automotive Technology	1	2	2
AUT-126	Fund. of Automotive Servicing	1	2	2
AUT-405	Automotive Suspension & Steering	2	6	5
AUT-505	Automotive Brake Systems	2	6	5
HSC-181	First Aid/CPR for Non-Health Care Workers	1	1	1.5
MAT-702	Introduction to Math Applications	2	2	3
		9	19	18.5

### Spring Semester I

AUT-166	Automotive Engine Repair	3	6	6
AUT-244	Manual Drivetrains I	1	4	3
AUT-610	Automotive Electrical I	2	4	4
COM-102	Communication Skills	3	0	3
SCI-115	Basic Electricity	1	2	2
SDV-125	Workplace Readiness	1	0	1
		11	16	19

*Program Total* ..... 37.5

### Auto Mechanics Diploma awarded

#### Summer Session

BUS-140	Small Business	2	0	2
Elective	General Education	3	0	3
		5	0	5

#### Fall Semester II

AUT-625	Automotive Electrical II	4	8	8
AUT-800	Engine Performance	4	8	8
PSY-111	Introduction Psychology <i>or</i>	3	0	3
SOC-110	Introduction Sociology	3	0	3
		11	16	19

#### Spring Semester II

AUT-190	Hybrid Fundamentals	1	2	2
AUT-207	Auto Transmissions & Transaxles	2	8	6
AUT-246	Manual Drivetrains II	1	4	3
AUT-700	Auto Heating & Air Conditioning	1	3	2.5
AUT-911	Cooperative/Internship	0	16	4
		5	33	17.5

*Total Hours* ..... 79

### AAS in Automotive Technology Awarded

*For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>*

# Automotive Technology – Management Option

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
AUT-106	Intro to Automotive Technology	1	2	2
AUT-126	Fund. of Automotive Servicing	1	2	2
AUT-405	Automotive Suspension & Steering	2	6	5
AUT-505	Automotive Brake Systems	2	6	5
HSC-181	First Aid/CPR for Non-Health Care Workers	1	1	1.5
MAT-702	Introduction to Math Applications	2	2	3
		9	19	18.5

### Spring Semester I

AUT-166	Automotive Engine Repair	3	6	6
AUT-244	Manual Drivetrains I	1	4	3
AUT-610	Automotive Electrical I	2	4	4
COM-102	Communication Skills	3	0	3
SCI-115	Basic Electricity	1	2	2
SDV-125	Workplace Readiness	1	0	1
		11	16	19

*Total Hours* . . . . . 37.5

### Auto Mechanics Diploma awarded

#### Summer Session

BUS-140	Small Business	2	0	2
Elective	General Education	3	0	3
		5	0	5

#### Fall Semester II

ACC-131	Principles of Accounting I	4	0	4
ADM-114	Keyboarding Applications	2	2	3
BUS-102	Introduction to Business	3	0	3
BUS-180	Business Ethics	3	0	3
MGT-101	Principles of Management	3	0	3
		15	2	16

#### Spring Semester II

BUS-121	Business Communication	3	0	3
HUM-287	Leadership Development Studies	3	0	3
MGT-130	Principles of Supervision <i>or</i>	3	0	3
MGT-170	Human Resources Management	3	0	3
MKT-110	Principles of Marketing	3	0	3
PSY-111	Introduction Psychology <i>or</i>	3	0	3
SOC-110	Introduction Sociology	3	0	3
		15	0	15

*Total Hours* . . . . . 73.5

### AAS in Auto Technology Management Awarded

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>

The SCC Automotive Technology program is an ASE (Automotive Service Excellence) Certified program. This certification assures the student that the program meets the standards set by NATEF (National Automotive Technicians Education Foundation) regarding equipment, tools, scheduling, instructors and curriculum. In order for a technician to become ASE certified, he/she must have two years experience in addition to passing tests in the various areas of automotive repair. However, by attending the SCC Automotive Technology program, students may take these tests at any time during their education. If they pass these tests, they will become ASE Certified pro-tem upon graduation. After just one year of experience in the field, they become officially ASE Certified. One benefit of this program is the on the job training (OJT) it provides. OJT gives the students hands-on experience in an actual work environment. In this two year program, students will not only receive an education, but they will also receive hands-on experience while being paid. The Automotive Technology Program - Management Option allows students to pursue a management track in their second year.

#### Where will this take me?

- Automotive Diagnostic Expert
- Automotive Parts Sales
- Automotive Repair Technician
- Automotive Service Advisor
- Insurance Adjuster
- Transmission Specialist

#### Instructor and Staff

- Wes Carpenter - Instructor, ext. 5109  
Email: [wcarpenter@scciowa.edu](mailto:wcarpenter@scciowa.edu)  
AAS, Lincoln Technical Institute  
BA, Western Illinois University  
ASE Master Tech  
ASE Advanced Engine Performance GM and Ford Certified
- Timothy Hunter - Instructor, ext. 5108  
Email: [tahunter@scciowa.edu](mailto:tahunter@scciowa.edu)  
AAS, Indian Hills Community College
- Kelly Kroll - Support Specialist, ext. 5107  
Email: [kkroll@scciowa.edu](mailto:kkroll@scciowa.edu)

#### Career Outlook

Median wages (2013) \$29.65 hourly,  
\$61,700 annually  
Projected Growth 2012-2022: 3%



# Biomedical Electronics Technician

Electronics in the medical and health field is an important and growing part of patient care. From the ambulance to the operating room to your physician's office, electronic biomedical equipment supports health care.

The Biomedical Technology program combines electronics technology with health sciences courses. And, with its internship in the last semester, students will complete a 16 hour per week clinical. The internship brings together electronics and health courses, further preparing students for entry into the field.

Admissions standards apply to this program. Please contact the Admissions office for details.

## Where will this take me?

- Electronics Technology Applications Engineer
- Prototype Assembler
- Electrical Test Engineer
- Electronics Quality Control Technician
- Engineering Manager
- Field Service Technician
- Biomedical Option
- Biomedical Electronic Technician
- Medical Equipment Service Technician
- Medical Equipment Sales Representative
- Instrumentation Technician

## Instructor and Staff

Derek Schreiner - Instructor, ext. 5211  
 Email: dschreiner@scciowa.edu  
 AS & AA, Southeastern Community College  
 BA, Iowa Wesleyan College  
 Additional study: St. Ambrose University

## Career Outlook

Median wages (2013): \$21.60 hourly, \$44,900 annually  
 Projected Growth 2012-2022:  
 22% or higher

## West Burlington Campus

### Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
CAD-101	Introduction to CAD	1	4	3
CSC-140	Computer Fundamentals	3	2	4
ELT-116	Principles of Electronics	3	4	5
MAT-127	College Algebra & Trigonometry <b><i>or</i></b>	5	0	5
MAT-704	Math Applications	5	0	5
		12	10	17
Spring Semester I				
BIO-252	Biomolecular Processes	2	2	3
ELT-119	Applied Human Biology/Biomedical Tech	3	0	3
ELT-329	Digital Electronics for ET <b><i>or</i></b>	3	2	4
EGT-420	Digital Electronics	2	2	3
ELT-355	Electronic Circuits I	3	4	5
ENG-111	Technical Writing	3	0	3
		13-14	8	17-18
Fall Semester II				
ELT-357	Electronic Circuits II	3	4	5
ELT-630	Microprocessor/Interfacing	3	4	5
ELT-800	Biomedical Electronics Systems	3	2	4
Elective	Humanities <b><i>or</i></b> Social Science	3	0	3
		12	10	17
Spring Semester II				
ELT-435	Telecommunications	4	2	5
ELT-801	Medical Documentation & Compliance	3	0	3
ELT-932	Internship	0	16	4
NET-118	Basic Computer Networking/Hardware	2	2	3
		9	20	15

*Program Total . . . . . 66-67*

## West Burlington Campus, Keokuk Campus and Online

It is strongly recommended that students enrolled in any of the business curricula have attained a keyboarding competency rate of 30 wpm.

### Associate of Applied Science Degree

Fall Semester I		Lec.	Lab.	Credit
BUS-102	Introduction to Business	3	0	3
CSC-110	Introduction to Computers	3	0	3
ENG-105	Composition I	3	0	3
ENG-131	Business English	3	0	3
PSY-111	Introduction to Psychology <i>or</i>	3	0	3
SOC-110	Introduction to Sociology	3	0	3
		<u>15</u>	<u>0</u>	<u>15</u>
Spring Semester I				
ACC-142	Financial Accounting	3	0	3
BUS-121	Business Communications	3	0	3
BUS-180	Business Ethics	3	0	3
MGT-130	Principles of Supervision	3	0	3
MKT-110	Principles of Marketing	3	0	3
		<u>15</u>	<u>0</u>	<u>15</u>
Fall Semester II				
BUS-185	Business Law I	3	0	3
ECN-130	Principles of Micro-Economics	3	0	3
MAT-156	Statistics	3	0	3
MGT-101	Principles of Management	3	0	3
MKT-140	Principles of Selling <i>or</i>	3	0	3
MKT-150	Principles of Advertising	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>18</u>	<u>0</u>	<u>18</u>
Spring Semester II				
ACC-146	Managerial Accounting	3	0	3
BUS-936	Business Capstone	1	0	1
ECN-120	Principles of Macro-Economics	3	0	3
FIN-130	Principles of Finance	3	0	3
HUM-287	Leadership Development Studies	3	0	3
MGT-170	Human Resource Management	3	0	3
		<u>16</u>	<u>0</u>	<u>16</u>
<i>Program Total</i> .....				<b>64</b>

The associate of applied science degree is intended for those students who wish to specialize in business.

The Business Professionals of America is an activity for students in the Business Program. This organization provides students with leadership training, field trips and competitive opportunities with other clubs throughout Iowa and the United States.

### Where will this take me?

Administrative Assistant  
 Business Manager  
 Human Resources Manager  
 Marketing, Advertising and Public Relations Manager  
 Merchandise Manager  
 Office Manager  
 Supervisor

### Instructor and Staff

Myra Bruegger - Instructor, ext. 5198  
 Email: mbruegger@scciowa.edu  
 BS, Western Illinois University  
 MBA, Western Illinois University, CPA

Tom Haas - Instructor, ext. 1982  
 Email: thaas@scciowa.edu  
 AS, Southeastern Community College  
 BS, University of Iowa  
 MBA, St. Ambrose University  
 Additional study: Washington University, University of Missouri, Western Illinois University

Deborah Hedger - Instructor, ext. 5226  
 Email: dhedger@scciowa.edu  
 AA, Southeastern Community College  
 BBA, Western Illinois University  
 MA, Western Illinois University  
 PhD, Northern Illinois University

Kevin Rosenberg - Instructor, ext. 5199  
 Email: krosenberg@scciowa.edu  
 BBA, University of Iowa  
 MA, University of Iowa

Renee Smith - Instructor, ext. 5194  
 Email: rsmith@scciowa.edu  
 AA & AAS, Southeastern community College  
 BA, Buena Vista University  
 MBA, Grand Canyon University

### Career Outlook

Median wages (2013) \$21.51 hourly, \$44,700 annually  
 Projected Growth 2012-2022: 8% to 14%

# Chemical Dependency Counselor (AAS)

The Chemical Dependency Counselor Associate in Applied Science Program is designed to provide students with the knowledge and skills established by the Iowa Board of Substance Abuse to become a certified alcohol and drug counselor (CADC).

In order to complete this program in two years (4 semesters), students should closely follow the established sequence of courses. During the last semester, students will serve a practicum in an alcohol and drug treatment center. During this practicum, students will be actively involved in applying the core functions of an alcohol and drug counselor under the direct supervision of a certified counselor. Students must be interviewed and accepted by the treatment agency in order to be eligible to enter the practicum.

## Where will this take me?

Where will this take me?  
 Alcohol and Drug Dependency Counselor  
 Family Recovery Counselor  
 Halfway House Counselor  
 Residential Treatment Counselor

## Instructor and Staff

Milo VanVeldhuizen - Instructor ext. 5220  
 Email: mvanveldhuizen@scciowa.edu  
 B.A., University of Iowa  
 Master of Divinity, Western Theological Seminary  
 M.A., University of Notre Dame  
 Ph.D., University of Notre Dame

## Career Outlook

Median wages (2013) \$17.13 hourly,  
 \$35,600 annually  
 Projected Growth 2012-2022: 22 % or higher

## West Burlington and Keokuk Campuses

(Keokuk students will be required to enroll in courses at either the West Burlington Campus or online or both to complete this program.)

Admission standards apply to this program.

- Reading Scores ACT of 19; or COMPASS of 83
- ACT English score of 17; or COMPASS writing score of 62.
- Must successfully complete HSV-261 Introduction to Chemical Dependency Counseling with a grade of C (2.0) or above.
- Students will be required to pass a mandatory background check and drug screening.

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

Please contact Enrollment Services for details.

## Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
*ENG-105	Composition I	3	0	3
*HSV-261	Intro to Chemical Dependency Counseling	3	0	3
BIO-105	Introductory Biology	3	2	4
HUM-114	Multicultural Perspectives	3	0	3
PSY-111	Introduction to Psychology	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>
Spring Semester I				
ENG-106	Composition II	3	0	3
**HSV-163	Helping Skills	3	0	3
**HSV-220	Intro to Counseling Theories	3	0	3
**HSV-228	Group Counseling Techniques	2	2	3
**HSV-240	Special Issues Counseling Women	1	0	1
SOC-160	Introduction to Social Work	3	0	3
		<u>15</u>	<u>2</u>	<u>16</u>
Summer				
Elective	Humanities (from ART, PHI, MUS or REL)	3	0	3
Fall Semester II				
**HSV-262	Working with Families of Alcohol and Drug Abuse	3	0	3
**HSV-285	Case Management: Intake to Discharge	3	0	3
**HSV-241	Special Issues Counseling Adolescents	1	0	1
PSY-121	Developmental Psychology	3	0	3
SOC-115	Social Problems <i>or</i>	3	0	3
SOC-136	Foundations of Conflict Resolution	3	0	3
SPC-101	Fundamentals of Oral Communication <i>or</i>	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>16</u>	<u>0</u>	<u>16</u>
Spring Semester II				
**HSV-920	Counseling Practicum	0	40	11
**HSV-925	Counseling Practicum Seminar	1	0	1
		<u>1</u>	<u>40</u>	<u>12</u>
<i>Program Total</i> . . . . .				<b>63</b>

\*These classes must be completed before taking the other HSV courses.

\*\*Only available at the West Burlington campus.

# Chemical Dependency Counselor (Diploma)

## West Burlington and Keokuk Campuses

(Keokuk students will be required to enroll in courses at either the West Burlington Campus or online or both to complete this program.)

Admission standards apply to this program.

- A. ACT reading scores of 19; or COMPASS of 83
- B. ACT English score of 17; or COMPASS writing score of 62.
- C. Must successfully complete HSV-261 Introduction to Chemical Dependency Counseling with a grade of C (2.0) or above.
- D. Students will be required to pass a mandatory background check and drug screening.

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

Please contact Enrollment Services for details.

## Diploma Requirements

Fall Semester I		Lec.	Lab.	Credit
ENG-111	Technical Writing <i>or</i>	3	0	3
ENG-105	Composition I	3	0	3
HSV-261	Intro to Chemical Dependency Counseling	3	0	3
HSV-262	Working with Families of Alcohol and Drug Abuse	3	0	3
HSV-285	Case Management: Intake to Discharge	3	0	3
HUM-114	Multicultural Perspectives	<u>3</u>	<u>0</u>	<u>3</u>
		15	0	15
Spring Semester I				
HSV-163	Helping Skills	3	0	3
HSV-220	Intro to Counseling Theories	3	0	3
HSV-228	Group Counseling Techniques	2	2	3
PSY-121	Developmental Psychology	3	0	3
SOC-136	Foundations of Conflict Resolution <i>or</i>	3	0	3
SOC-160	Introduction to Social Work	<u>3</u>	<u>0</u>	<u>3</u>
		14	2	15
<i>Diploma Total</i> .....		<b>30</b>		

The Chemical Dependency Counselor Diploma is designed for the following types of students: 1) Students who already have a bachelor's degree and want to get certified as an addictions counselor. 2) Students getting an AA degree and intending to transfer to another institution and do not want to complete the practicum. 3) Students who already have an AA degree without any specialization.

## Where will this take me?

Alcohol and Drug Dependency Counselor  
 Family Recovery Counselor  
 Halfway House Counselor  
 Residential Treatment Counselor

## Instructor and Staff

Milo VanVeldhuizen - Instructor ext. 5220  
 Email: mvanveldhuizen@scciowa.edu  
 BS, University of Iowa  
 Master of Divinity Degree, Western Theological Seminary  
 MBA, University of Notre Dame  
 PhD, University of Notre Dame

## Career Outlook

Median wages (2013) \$17.13 hourly, \$35,600 annually  
 Projected Growth 2012-2022: 22 % or higher

# Construction Technology – Carpentry Emphasis

The SCC Construction Technology Program combines the NCCER Curricula with the Associate of Applied Science Degree requirements. Students will receive an Associate of Applied Science Degree upon completion of this program. Program curriculum is based on NCCER Curricula & combines illustrated instructional material with structured classroom activities.

This program emphasizes four levels of carpentry. Each level builds on the previous level, continuing the students' education and knowledge of carpentry. Agreements exist with local high schools that will allow students to take up to level 2 of carpentry while still in high school.

During the summer term, between the students' first and second year, a paid internship is required. This paid internship enables the student to experience an actual work environment provided by a local construction company.

Upon graduation, the student will receive an Associate of Applied Science Degree.

## Where will this take me?

- Carpenter
- Concrete Finisher
- Construction Materials Sales Representative
- Estimator
- Construction Materials Supplies Coordinator
- Finish Carpenter
- Framer
- Roofer

## Instructor and Staff

Douglas Riley - Instructor, ext. 5184  
 Email: driley@scciowa.edu  
 AA, Southeastern Community Colleg  
 BA, Iowa Wesleyan College

## Career Outlook

Median wages (2013) \$17.82 hourly or \$37,100 annually  
 Projected Growth 2012-2022: 22% or higher

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

*Certificate will be awarded upon successful completion of CON-147, CON-148, CON-149 and CON-262.*

Fall Semester I		Lec.	Lab.	Credit
CON-108	Construction Safety	1	0	1
*CON-147	Carpentry I	3	6	6
CON-332	Construction Materials & Resources	3	0	3
ENG-105	Composition I or	3	0	3
ENG-111	Technical Writing	3	0	3
		<u>10</u>	<u>6</u>	<u>13</u>

### Spring Semester I

CAD-101	Introduction to CAD	1	4	3
CON-113	Construction Printreading	1	2	2
*CON-148	Carpentry II	3	6	6
CON-252	Construction Electricity	1	4	3
SOC-114	Conflict Resolution in the Workplace	3	0	3
		<u>9</u>	<u>16</u>	<u>17</u>

### Summer Session

CON-350	Construction Management Internship	0	20	5
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*Program Total . . . . . 35*

### Building Construction Diploma awarded

#### Fall Semester II

*CON-149	Carpentry III	3	6	6
CON-270	Mechanical Systems	1	4	3
CON-340	Construction Surveying <i>or</i>	2	2	3
HEQ-131	Safety & Intro to Heavy Equipment	2	2	3
MAT-702	Introduction to Math Applications	2	2	3
		<u>8</u>	<u>14</u>	<u>15</u>

#### Spring Semester II

CON-128	Const. Management and Estimating	2	2	3
*CON-262	Commercial Carpentry II	3	6	6
CON-345	Soils & Concrete	3	0	3
PSY-102	Human and Work Relations	3	0	3
		<u>11</u>	<u>8</u>	<u>15</u>

*Program Total . . . . . 65*

*\*Certificate will be awarded upon successful completion of CON-147, CON-148, CON-149, and CON-262. A completed apprenticeship program may be substituted for CON-147, -148, -149, and -262. Students who have completed an apprenticeship approved by the Bureau of Apprenticeship & Training and the Iowa Department of Education will be allowed to articulate up to 29 credits after 12 credits of "C" or better are earned in the approved Construction Technology degree program at SCC.*

*For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>.*

# Construction Technology – Management Option

## West Burlington Campus

### Associate of Applied Science Degree Requirements

		Lec.	Lab.	Credit
<b>Fall Semester I</b>				
CON-108	Construction Safety	1	0	1
CON-332	Construction Materials & Resources	3	0	3
DRF-113	Fundamentals of Technical Drafting	1	4	3
ECN-120	Principles of Macro-Economics	3	0	3
ENG-105	Composition I	3	0	3
MAT-127	College Algebra & Trigonometry	5	0	5
		16	4	18
<b>Spring Semester I</b>				
ACC-142	Financial Accounting	3	0	3
CAD-101	Introduction to CAD	1	4	3
CON-113	Construction Printreading	1	2	2
HIS-151	U.S. History to 1877 <i>or</i>	3	0	3
HIS-152	U.S. History since 1877	3	0	3
PSY-102	Human & Work Relations	3	0	3
		11	6	14
<b>Summer Semester</b>				
CON-350	Construction Management Internship	0	20	5
<b>Fall Semester II</b>				
ARC-113	Architectural Drafting I	2	4	4
CON-340	Construction Surveying <i>or</i>	2	2	3
HEQ-131	Safety & Intro to Heavy Equipment	2	2	3
MGT-101	Principles of Management	3	0	3
PHY-160	General Physics I	4	2	5
		11	8	15
<b>Spring Semester II</b>				
CON-128	Construction Management Estimating	2	2	3
CON-345	Soils & Concrete	3	0	3
PHY-161	General Physics II	4	2	5
SOC-114	Conflict Resolution in the Workplace	3	0	3
		12	4	14
<b>Program Total</b>		<b>66</b>		

The SCC Construction Technology Program combines the NCCER Curricula with the Associate of Applied Science Degree requirements. Students will receive an Associate of Applied Science Degree upon completion of this program. Program curriculum is based on NCCER Curricula & combines illustrated instructional material with structured classroom activities.

This program emphasizes four levels of carpentry. Each level builds on the previous level, continuing the students' education and knowledge of carpentry. Agreements exist with local high schools that will allow students to take up to level 2 of carpentry while still in high school.

During the summer term, between the students' first and second year, a paid internship is required. This paid internship enables the student to experience an actual work environment provided by a local construction company.

Upon graduation, the student will receive an Associate of Applied Science Degree.

#### Where will this take me?

Job Site Superintendent  
Supervisory Managing Positions

#### Instructor and Staff

Douglas Riley - Instructor, ext. 5184  
Email: driley@scciowa.edu  
AA, Southeastern Community College  
BA, Iowa Wesleyan College

#### Career Outlook

Median wages (2013) \$25.24 hourly,  
\$52,500 annually  
Projected Growth 2012-2022:  
24% or higher

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>



# Criminal Justice

The Criminal Justice Program is designed to prepare students for careers in several areas of the administration of justice. Program graduates find jobs with local police departments, sheriff's offices, the state highway patrol, federal/state narcotics agencies, correctional institutions and state and local probation and parole agencies. This program is also designed to allow graduates to transfer to four-year institutions to earn a Bachelor's degree. The Associate of Applied Science Degree is awarded upon successful completion of program requirements.

NOTE: Students who have a criminal background history may complete the program. However, these students will have serious difficulty obtaining an internship or employment.

## Where will this take me?

- Baliff
- Corrections Officer
- Federal/State Law Enforcement Agent
- Police Officer
- Rehabilitation Counselor
- Sheriff's Deputy

## Instructor and Staff

Cindy Shireman -  
 Instructor, ext. 5232 or ext. 1998  
 Email: cshireman@scciaowa.edu  
 BA, University of Iowa  
 MA, University of Iowa  
 MS, Kaplan University

## Career Outlook

Median wages (2013):  
 Police officers - \$25.18 hourly, \$52,400 annually  
 Detectives/Investigators - \$31.93 hourly, \$66,400  
 Correctional or Probation Officers, Treatment specialist - \$31.98 hourly, \$66,500 annually

Projected Growth 2012-2022:  
 Police officers -3% to 7%  
 Detectives/Investigators - 0% to 2%  
 Correctional or Probation Officers, Treatment specialist - 14% to 19%

## West Burlington Campus, Keokuk Campus and Online

### Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab	Credit
CRJ-100	Introduction to Criminal Justice	3	0	3
CRJ-101	Ethics in Criminal Justice	3	0	3
CRJ-120	Introduction to Corrections	3	0	3
ENG-105	Composition I	3	0	3
MAT-110	Math for Liberal Arts	3	0	3
		15	0	15
Spring Semester I				
CRJ-111	Police and Society	3	0	3
CRJ-130	Criminal Law	3	0	3
ENG-106	Composition II	3	0	3
PSY-111	Introduction to Psychology	3	0	3
SOC-240	Criminology	3	0	3
		15	0	15
Fall Semester II				
*CRJ-109	Theories of Interviewing	3	0	3
CRJ-132	Constitutional Law	3	0	3
*CRJ-141	Criminal Investigation	3	0	3
HUM-114	Multicultural Perspectives	3	0	3
PSY-241	Abnormal Psychology	3	0	3
SOC-230	Juvenile Delinquency	3	0	3
		18	0	18
Spring Semester II				
CRJ-222	Correctional Treatment Methods <i>or</i>	3	0	3
CRJ-932	Internship	0	12	3
POL-111	American National Government <i>or</i>	3	0	3
POL-112	American State and Local Government	3	0	3
CRJ-301	Intro to Homeland Security	3	0	3
SPC-112	Public Speaking	3	0	3
BIO 105	Introductory Biology <i>or</i>	3	2	4
ENV-111	Environmental Science <i>or</i>	3	2	4
SCI-123	Forensic Science	3	2	4
		15	2	16

**Program Total . . . . . 64**

*\*Classes to be taken during same semester.*

*NOTE: Students who have a criminal background history may complete the program. However, these students will have serious difficulty obtaining an internship or employment.*

## West Burlington Campus

### Associate of Applied Science Degree Requirements

		Lec.	Lab.	Credit
<b>Fall Semester I</b>				
CAD-101	Introduction to CAD	1	4	3
CSC-110	Introduction to Computers	3	0	3
DRF-113	Fundamentals of Technical Drafting	1	4	3
ENG-105	Composition I <i>or</i>	3	0	3
ENG-111	Technical Writing	3	0	3
MAT-127	College Algebra & Trigonometry <i>or</i>	5	0	5
MAT-704	Math Applications	5	0	5
		<u>13</u>	<u>8</u>	<u>17</u>
<b>Spring Semester I</b>				
CAD-277	3-D Modeling I	1	4	3
MFG-212	Basic Machine Theory	1	4	3
PHY-106	Survey of Physics <i>or</i>	3	2	4
PHY-160	General Physics I	4	2	5
SOC-114	Conflict Resolution in the Workplace	3	0	3
SPC-101	Fundamentals of Oral Communication <i>or</i>	3	0	3
SPC-112	Public Speaking	3	0	3
		<u>11-12</u>	<u>10</u>	<u>16-17</u>
<b>Fall Semester II</b>				
ARC-113	Architectural Drafting I	2	4	4
CAD-140	Parametric Solid Modeling <i>or</i>	1	4	3
EGT-400	Introduction to Engineering Design	1	4	3
DRF-121	Fundamentals of Technical Drafting II	1	4	3
SDV-153	Pre-Employment Strategies	2	0	2
ANI-101	Animation Software I <i>or</i>	2	2	3
CON-270	Mechanical Systems <i>or</i>	1	4	3
NET-122	Computer Hardware Basics	2	2	3
		<u>7-8</u>	<u>14-16</u>	<u>15</u>
<b>Spring Semester II</b>				
ARC-129	Residential/Light Commercial Drafting	2	4	4
CAD-230	Geometric Dimensioning and Tolerancing	1	2	2
CAD-248	Parametric CAD II	1	4	3
MFG-511	Lean Quality Manufacturing	3	2	4
		<u>7</u>	<u>12</u>	<u>13</u>

*Program Total . . . . . 61-62*

SCC's Drafting Technology Program AAS Degree is designed to provide the student with skills necessary to enter the industrial environment as a drafter and/or design technician. The program provides broad theoretical and hands-on education for those seeking careers in the drafting and design or related fields.

Students also have the option of choosing related courses in the mechanical or construction areas. Engineering graphics and architectural construction & design are covered in the program with emphasis on the current trends, including computer aided drafting and design.

#### Where will this take me?

- Architectural Engineering Technician
- CAD Operator
- Drafter/Design Technician
- Mechanical Engineering Technician
- Project Manager

#### Instructor and Staff

Jonathan Gaddis - Instructor, ext. 5258  
 Email: jgaddis@sccciowa.edu  
 AAS, Southeastern Community College  
 BA, Iowa Wesleyan College  
 MBA, St. Ambrose University

#### Career Outlook

Median wages (2013): \$24.29 hourly,  
 \$50,500 annually  
 Projected Growth 2012-2022: 3% to 8%



# Electronics Technology

SCC's Electronics Technology programs are intended to provide a broad base of knowledge, through courses and laboratories. There are three programs to choose from: Electronics Technology Diploma, Electronics Technology AAS, Biomedical Technology AAS. The Electronics Technology program is designed so that the first two semesters include a selection of core courses that result in an Electronics Technology Diploma upon completion. Technical elective(s) in the third and fourth semesters allow students to select an area of specialization. Students learn the skills of an electronics technician and in addition, develop skills in mechanical design, construction, analysis and repair of various electronic circuits. The Electronics Technology Program is designed to provide students with the necessary skills and knowledge to begin working in industry at an entry-level position as an electronics technologist. Admissions standards apply to this program. Please contact the Admissions office for details.

## Where will this take me?

- Electronics Technology Applications Engineer
- Prototype Assembler
- Electrical Test Engineer
- Electronics Quality Control Technician
- Engineering Manager
- Field Service Technician

## Instructor and Staff

Derek Schreiner - Instructor, ext. 5211  
 Email: dschreiner@scciowa.edu  
 AS & AA, Southeastern Community College  
 BA, Iowa Wesleyan College  
 Additional study: St. Ambrose University

## Career Outlook

Median wages (2013): \$27.92 hourly, \$58,100 annually  
 Projected Growth 2012-2022: 0% to 3%

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester		Lec.	Lab.	Credit
CAD-101	Introduction to CAD	1	4	3
CSC-140	Computer Fundamentals	3	2	4
ELT-116	Principles of Electronics	3	4	5
MAT-062	Elementary Algebra <i>or</i>	2	2	3
MAT-702	Intro to Math Applications	2	2	3
		9	12	15

### Spring Semester

ELT-232	PLC Applications	2	4	4
ELT-329	Digital Electronics for ET <i>or</i>	3	2	4
EGT-420	Digital Electronics	2	2	3
ELT-355	Electronic Circuits I	3	4	5
ENG-111	Technical Writing	3	0	3
		10-11	10	15-16

*Program Total* .....30-31

### Electronics Technology Diploma Awarded

Fall Semester I		Lec.	Lab.	Credit
CAD-101	Introduction to CAD	1	4	3
CSC-140	Computer Fundamentals	3	2	4
ELT-116	Principles of Electronics	3	4	5
MAT-127	College Algebra & Trigonometry <i>or</i>	5	0	5
MAT-704	Math Applications	5	0	5
		12	10	17

### Spring Semester I

ELT-232	PLC Applications	2	4	4
ELT-329	Digital Electronics for ET <i>or</i>	3	2	4
EGT-420	Digital Electronics	2	2	3
ELT-355	Electronic Circuits I	3	4	5
ENG-111	Technical Writing	3	0	3
		10-11	10	15-16

### Fall Semester II

ELT-357	Electronic Circuits II	3	4	5
ELT-486	Electromechanical Technology	2	2	3
ELT-630	Microprocessor/Interfacing	3	4	5
Elective	Humanities <i>or</i> Social Science	3	0	3
		11	10	16

### Spring Semester II

ELT-435	Telecommunications	4	2	5
PHY-106	Survey of Physics	3	2	4
NET-118	Basic Computer Networking/Hardware	2	2	3
MFG-511	Lean Quality Manufacturing	3	2	4
		12	8	16

*Program Total* .....64-65

### Associate of Applied Science Degree Awarded

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>.

## West Burlington Campus

Admission standards apply to this program.

- A. COMPASS testing is required.
- B. Proof of high school graduation is required for admission to the Paramedic program.
- C. Students will be required to pass a mandatory background check and drug screening.

Please contact Enrollment Services for details.

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

## Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Clin.	OJT.	Credit
BIO-163	Essentials of Anatomy & Physiology	3	2			4
CSC-110	Introduction to Computers	3	0			3
HSC-114	Medical Terminology	2	2			3
MAT-702	Introduction to Math Applications	2	2			3
PSY-111	Introduction to Psychology	3	0			3
		<u>13</u>	<u>6</u>			<u>16</u>

Spring Semester I		Lec.	Lab.	Clin.	OJT.	Credit
*EMS-201	Emergency Medical Technician	5	2	3		7
ENG-105	Composition I	3	0			3
HUM-114	Multicultural Perspectives	3	0			3
PHI-105	Introduction to Ethics	3	0			3
		<u>14</u>	<u>2</u>	<u>3</u>		<u>16</u>

Fall Semester II		Lec.	Lab.	Clin.	OJT.	Credit
EMS-663	Paramedic I	12	8			16

Spring Semester II		Lec.	Lab.	Clin.	OJT.	Credit
EMS-664	Paramedic II	9	8	3	4	15

Summer Semester		Lec.	Lab.	Clin.	OJT.	Credit
EMS-665	Paramedic III	3	2		12	7

*Program Total . . . . . 70*

*\*Successful completion of EMT State Certification required prior to admission to the Paramedic Program.*

*\*\*Optional Courses may not be available every term.*

*\*\*EMS-114, Emergency Medical Responder (1-2-2)*

*\*\*EMS-239, Adv. Emergency Medical Technician (5-2-3-7)*

The Emergency Medical Technician (EMT) Paramedic curriculum is designed to prepare the student for the National Registry exam for certification as a Paramedic. Selected general education courses are related to the field of Emergency Medical Services and will provide the student with a broad base upon which to make reasoned decisions when giving emergency care.

The EMT classes are offered in both night and day part-time format and the Paramedic is offered as a full-time day format.

Students enrolling in the Paramedic program must have a high school diploma or high school equivalency diploma and current EMT certification.

### Where will this take me?

Certified EMT/Paramedic working:  
 Ambulance Service  
 Fire Station  
 Hospital  
 Industry  
 Air Medical Transport

### Instructor and Staff

James Steffen, Instructor, ext. 5253  
 Email: [jsteffen@scciowa.edu](mailto:jsteffen@scciowa.edu)  
 AAS, Southeastern Community College  
 Tina Young - Coordinator of Emergency Response Programs, ext. 5101  
 Email: [tyoung@scciowa.edu](mailto:tyoung@scciowa.edu)

### Career Outlook

Median wages (2013): \$14.81 hourly, \$30,800 annually  
 Projected Growth 2012-2022: 22% or higher

# Fire Science

The Fire Science curriculum is designed to prepare the student for employment in fire service at the entry level. Students study a variety of Fire and Emergency Services topics. After two semesters, students will earn the Fire Service Diploma. Most of the diploma classes are offered completely online, allowing students to do their coursework without having to travel to campus. Only FIR 139 and FIR 143 will require some on-site skills completion.

The AAS degree is based on the model curriculum from the Fire and Emergency Services Higher Education which is endorsed by the National Fire Academy. Selected arts and sciences courses included as degree requirements are related to the firefighting field and will provide the student a broad base upon which to make rational decisions during emergency operations.

## Where will this take me?

- Certified Firefighter working:
- Ambulance Services
- Fire Stations
- Industry
- Property Protection Systems

## Instructor and Staff

Tina Young - Coordinator of Emergency Response Programs, ext. 5101  
 Email: tyoung@scciowa.edu  
 Paramedic Specialist, Southeastern Community college

## Career Outlook

Median wages (2013): \$19.43 hourly, \$40,400 annually  
 Projected growth 2012-2022: 5% to 7%

**Online** (May require some skills completion on West Burlington Campus)

## Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
FIR-127	Fire Behavior and Combustion	3	0	3
*FIR-139	Fire Fighter I	3	2	4
FIR-213	Principles of Emergency Services	3	0	3
FIR-214	Legal Aspects of the Emergency Services	3	0	3
MAT-702	Introduction to Math Applications	2	2	3
		14	4	16

Spring Semester I		Lec.	Lab.	Credit
ENG-105	Composition I	3	0	3
FIR-124	Building Construction	3	0	3
FIR-130	Fundamentals of Fire Prevention	3	0	3
*FIR-143	Fire Fighter II	2	2	3
FIR-152	Fire Protection Systems	3	0	3
FIR-200	Occupational Safety & Health in Emergency Services	3	0	3
		17	2	18

*Program Total* ..... 34

## Fire Service Diploma Awarded

Fall Semester II		Lec.	Lab.	Credit
FIR-145	Fire Strategy and Tactics	3	0	3
FIR-180	Chemistry of Hazardous Materials	3	0	3
FIR-226	Fire Administration I	3	0	3
FIR-400	Fire & Emergency Services Safety & Survival	3	0	3
PSY-102	Human and Work Relations <i>or</i>	3	0	3
PSY-111	Introduction to Psychology	3	0	3
		15	0	15

Spring Semester II		Lec.	Lab.	Credit
EMS-201	Emergency Medical Technician	5	2	7
HUM-114	Multicultural Perspectives	3	0	3
PHI-105	Introduction to Ethics	3	0	3
		11	2	13

*Program Total* ..... 62

\* May require some skills completion on-site; contact coordinator of Emergency Response Programs for more information.

# Industrial Maintenance Technology

## Keokuk Campus

### Certificates, Diploma and Associate of Applied Science Degree Requirements

First Semester		Lec.	Lab.	Credit
BUS-121	Business Communications	3	0	3
ELE-195	Motor Controls	1	4	3
ELE-310	Industrial Electricity	1	2	2
ELT-250	Programmable Logic Controllers	1	4	3
ELT-295	AC/DC Fundamentals	1	2	2
IND-163	Plant Safety	2	0	2
MAT-702	Intro to Math Applications	2	2	3
		11	14	18

### Electrical Maintenance Technology Certificate Awarded

Second Semester		Lec.	Lab.	Credit
EGT-142	Fluid Power 1 (Hydraulics)	1	2	2
EGT-143	Fluid Power 2 (Pneumatics)	1	2	2
ELE-116	Blueprint Reading	1	0	1
IND-104	Industrial Pumps	.5	1	1
IND-141	Power Transmission	1	2	2
MFG-209	Machine Shop Practices	1	4	3
MFG-520	Predictive Maintenance	1	2	2
PSY-102	Human and Work Relations <i>or</i>	3	0	3
PSY-111	Introduction to Psychology <i>or</i>	3	0	3
SOC-110	Introduction to Sociology	3	0	3
		9.5	13	16

### Mechanical Maintenance Technology Certificate Awarded

Diploma Total . . . . . **34**

### Industrial Maintenance Technology Diploma Awarded

Third Semester		Lec.	Lab.	Credit
EGT-147	Hydraulic Power Systems & Troubleshooting	.5	1	1
ELT-132	Motor Drives	.5	1	1
ELT-262	Adv. PLC & System Integration (Mechatronics)	2	8	6
ENG-105	Composition I	3	0	3
IND-106	Machine Shop II	1	2	2
IND-107	Valves	1	0	1
		8	12	14

### Fourth Semester

CAD-114	AutoCad I (1-2-2) [Online] <i>or</i>	1	2	2
CAD-101	Intro to CAD (WB Campus only)	1	4	3
ELE-127	Troubleshooting	.5	1	1
ELT-176	Instrumentation	1	4	3
IND-179	Boiler Operations and Control	1	2	2
IND-180	Industrial Heating and Cooling	1	2	2
HIS-151	US History to 1877 <i>or</i>	3	0	3
HIS-152	US History since 1877 <i>or</i>	3	0	3
PHI-101	Introduction to Philosophy <i>or</i>	3	0	3
PHI-105	Introduction to Ethics	3	0	3
BIO-105	Introductory to Biology <i>or</i>	3	2	4
ENV-111	Environmental Science <i>or</i>	3	2	4
PHS-151	Introduction to Astronomy	2	2	3
		9.5-10.5	11-15	16-18

Program Total . . . . . **64-66**

### Industrial Maintenance Technology Associate of Applied Science Degree Awarded

This program is developed to prepare individuals as plant maintenance technicians. Students will learn technical skills in maintaining and troubleshooting electrical and mechanical systems used in industry. Skills are developed in mechanical and electrical theory, troubleshooting and repair for today's industrial systems. The Electrical Maintenance Technician certificate is awarded after completion of the first semester.

The Mechanical Maintenance Technician certificate is awarded after completion of the second semester.

Instruction is delivered in a module format designed for flexibility and customization for each student. Module delivery allows students to take as many or as few training sessions as they want. Students interested in earning a one-year diploma or a two-year Associate of Applied Science degree can do so by attending full-time. Those interested in learning a select set of skills can also take advantage of the program by taking only those modules relevant to their needs.

### Where will this take me?

- Industrial Engineering Technologist
- Industrial Engineering Technician
- Industrial Engineer
- Industrial Safety & Health

### Instructor and Staff

Jeron Lindsay - Instructor, ext. 1937  
 Email: jlindsay@scciowa.edu  
 Electrical & Mechanical Maintenance  
 Certificates, Southeastern Community  
 College

Welding & Industrial Maintenance  
 Diploma, Southeastern Community  
 College

Jason Radel - Instructor, ext. 1990  
 Email: jradel@scciowa.edu  
 AAS, Southeastern Community College  
 AAS, Northwest Iowa Community  
 College

### Career Outlook

Median Wages (2013): \$22.22 hourly,  
 \$46, 200 annually  
 Projected Growth 2012-2022: 19%

# Information Technology – Network Administration & Cyber Security

SCC's Information Technology Programs use the latest equipment and software and offer students the opportunity to specialize in one of two options: Network

Administration & Cyber Security or Web Design & Development.

SCC's Network Administration & Cyber Security Programs provide experience with Microsoft and Linux operating systems. They place emphasis on hands-on installation, maintenance, and administration of PC networks and use the latest equipment and software. The Network program also includes security principles, along with router, switch and firewall configuration.

After completing the first two semesters, students will have an opportunity to receive an IT Technician Diploma. With the 34 credit hour diploma, students will be able to work as PC support technicians, technical retail associates, bench technicians or help-desk technicians.

Students who wish to continue their education and complete the second year of the program will receive an Associates of Applied Science Degree in Network Administration & Cyber Security. During the second year, students will take NET-153, Advanced Networking, which includes the CIW Network Technology Associates exam. Those who pass will receive the CIW NTA certificate.

## Where will this take me?

- Network Administration & Cyber Security
- Network Administrator
- Network Installer
- Network Technician

## Instructor and Staff

Brenda Wamsley - Instructor, ext. 5195  
 Email: bwamsley@scciowa.edu  
 Diploma, Southeastern Community College

Stewart Jack - Instructor, ext. 5196  
 Email: sjack@scciowa.edu  
 BS, Glasgow Caledonian University

## Career Outlook

- Median wages (2013): \$32.94 hourly, \$68,500 annually
- Projected growth 2012-2022: 22% or higher

## West Burlington Campus

### Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
CIS-125	Intro to Prog. Logic w/Lang	2	2	3
CSC-110	Intro to Computers	3	0	3
NET-122	Comp. Hardware Basics	2	2	3
NET-142	Network Essentials	3	0	3
NET-442	Linux Operation System	2	2	3
MAT-702	Intro to Math Applications <i>or</i>	2	2	3
MAT-772	Applied Math	3	0	3
		14/15	6/8	18

### Spring Semester I

CIS-504	Structural Systems Analysis	2	2	3
ENG-105	Composition I <i>or</i>	3	0	3
ENG-111	Technical Writing	3	0	3
NET-310	Virtual Machines	2	2	3
NET-314	Windows Server	2	4	4
NET-716	Database Administration/Service Application	2	2	3
		11	10	16

*Diploma Total* . . . . . **34**

### IT Technician Diploma Awarded

#### Fall Semester II

BUS-203	Professional Development	2	0	2
CFR-100	Intro to Comp. Forensics	2	2	3
NET-637	Network Intrusion Investigation	2	2	3
ACC-111	Intro to Accounting <i>or</i>	3	0	3
BUS-180	Business Ethics	3	0	3
HUM-287	Leadership Development <i>or</i>	3	0	3
PSY-111	Intro to Psychology <i>or</i>	3	0	3
SOC-110	Intro to Sociology	3	0	3
		12	4	14

#### Spring Semester II

CIS-810	Emerging Technologies Seminar	1	0	1
NET-153	Adv. Networking	2	4	4
NET-717	Email Applications	2	2	3
NET-820	Network Specialist Internship	0	15	3.7
SPC-112	Public Speaking	3	0	3
		8	21	14.7

*Program Total* . . . . . **62.7**

# Information Technology – Web Design & Development

## West Burlington Campus

### Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
CSC-110	Introduction to Computers	3	0	3
GRA-140	Digital Imaging	2	2	3
GRA-175	Graphic Design Principles	3	0	3
SMM-108	Social Media Engagement	2	2	3
ENG-105	Composition I <i>or</i>	3	0	3
ENG-111	Technical Writing	3	0	3
		<u>13</u>	<u>4</u>	<u>15</u>

Spring Semester I		Lec.	Lab.	Credit
GRA-127	Illustrator I	2	2	3
GRA-158	Web Multimedia	2	2	3
GRA-166	Web Animations	2	2	3
MKT-121	Digital Marketing	3	0	3
WDV-101	Intro HTML and CSS	2	2	3
ART-120	2-D Design <i>or</i>	2	2	3
ART-133	Drawing <i>or</i>	2	2	3
ART-184	Photography <i>or</i>	2	2	3
ENG-221	Creative Writing	3	0	3
		<u>12/13</u>	<u>10/12</u>	<u>18</u>

Summer Session		Lec.	Lab.	Credit
MAT-702	Introduction to Math Apps	2	2	3
<i>Diploma Total</i> . . . . .				<b>36</b>

### Web Design Diploma Awarded

Fall Semester II		Lec.	Lab.	Credit
CIS-125	Intro to Programming Logic w/Language	2	2	3
CIS-332	Database and SQL	2	2	3
GRA-299	Electronic Portfolio	2	2	3
NET-142	Network Essentials	3	0	3
WDV-120	Interface Design	2	2	3
		<u>11</u>	<u>8</u>	<u>15</u>

Spring Semester II		Lec.	Lab.	Credit
BUS-150	E-Commerce	3	0	3
NET-825	Internet/Web Internship	0	15	3.7
WDV-132	Mobile Application Development	2	2	3
WDV-341	Intro PHP	2	2	3
ART-120	2-D Design <i>or</i>	2	2	3
ART-133	Drawing <i>or</i>	2	2	3
ART-184	Photography <i>or</i>	2	2	3
ENG-221	Creative Writing	3	0	3
		<u>9-10</u>	<u>19-21</u>	<u>15.7</u>

*Program Total* . . . . . **66.7**

SCC's Information Technology Programs use the latest equipment and software and offer students the opportunity to specialize in one of two options: Network Administration & Cyber Security or Web Design & Development.

The Web Design & Development Program is designed to offer a broad spectrum of PC skills needed in small to medium-sized organizations. Students receive instruction on networking, graphic and web design, and small business management.

Completion of the first year earns students a Web Design Diploma and is focused on content creation and design. Image editing, layout, animation, sound and video production go hand in hand with HTML scripting, responsive design techniques and electives such as photography or drawing to serve up a year bursting with creativity.

The second year challenges a student's technical ability with courses in online databases, web programming, interface design and building mobile apps. We top things off with the development of an electronic portfolio designed to present student accomplishments to prospective employers and an industry internship to develop real world work experience.

### Where will this take me?

- Web Design & Development
- Web Developer
- Web Site Administrator
- Webmaster

### Instructor and Staff

Brenda Wamsley - Instructor, ext. 5195  
 Email: bwamsley@scciowa.edu  
 Diploma, Southeastern Community College

Stewart Jack - Instructor, ext. 5196  
 Email: sjack@scciowa.edu  
 BS, Glasgow Caledonian University

### Career Outlook

Median wages (2013): \$29.70 hourly, \$61,800 annually  
 Projected growth 2012-2022: 14% or higher



# Interactive and Social Media Marketing

The Interactive & Social Media Marketing program prepares students with the necessary skills and knowledge to begin working in various pre-press/pre-media positions within the printing industry. The curriculum includes classroom and laboratory instruction, as well as internship experience. Students receive instruction in the following areas: design/layout, typography, graphics, and pre-flighting. Internships can be arranged in the printing, publishing, and marketing industries, or other businesses that utilize Social Media Marketing.

Students completing the curriculum will receive an AAS.

This curriculum replaces the Graphic Communications ASCO previously offered.

## Where will this take me?

- Graphic Designer
- Marketing Assistant
- Typographer
- Pre-press/Graphic Design Specialist
- Print or Electronic Media Copywriter
- Public Relations Assistant

## Instructor and Staff

Carlene Woodside - Instructor, ext. 5201  
 Email: cwoodside@scciowa.edu  
 AAS, Carl Sandburg College  
 BS, Western Illinois University  
 MBA, Western Illinois University

## Career Outlook

Median wage (2013): \$25.24 hourly,  
 \$52,500 annually  
 Projected Growth 2012-2022: 12%

## West Burlington Campus

### Associate of Applied Science Degree Requirements

		Lec	Lab.	Credit
<b>Fall Semester I</b>				
CSC-110	Intro to Computers	3	0	3
ENG-105	Composition I	3	0	3
GRA-137	Digital Design	2	2	3
GRA-175	Graphic Design Principles	3	0	3
MAT-110	Math for Liberal Arts <i>or</i>	3	0	3
MAT-156	Statistics	3	0	3
SMM-108	Social Media Engagement	2	2	3
		16	4	18
<b>Spring Semester I</b>				
ART-184	Photography	2	2	3
GRA-275	Advanced Graphic Design	2	2	3
MKT-121	Digital Marketing	2	2	3
MMS-111	Video Production	1	4	3
WDV-101	Intro HTML & CSS	2	2	3
		9	12	15
<b>Summer I</b>				
BUS-140	Small Business Start-up	2	0	2
<b>Fall Semester II</b>				
GRA-140	Digital Imaging	2	2	3
GRA-173	Typography	3	0	3
MKT-150	Principles of Advertising	3	0	3
SMM-220	Navigating the Media Minefield	3	0	3
PSY-111	Intro to Psychology <i>or</i>	3	0	3
SOC-115	Social Problems <i>or</i>	3	0	3
SOC-120	Marriage & Family	3	0	3
SPC-112	Public Speaking	3	0	3
		17	2	18
<b>Spring Semester II</b>				
GRA-127	Illustrator I	2	2	3
GRA-158	Web Multimedia	2	2	3
GRA-166	Web Animations	2	2	3
GRA-190	Electronic Media Projects	1	4	3
GRA-932	Internship	0	15	3.7
		7	25	15.7

*Program Total* ..... 68.7

## West Burlington (Keokuk Campus offers selected courses.)

Admission standards apply to this program. Please contact Enrollment Services for more details.

- A. COMPASS reading score of 81, or ACT score of 19
- B. COMPASS numerical score of 50, or ACT score of 19
- C. 35 net words per minute on a typing test
- D. Standardized placement scores must be current (completed within 24 months) at the time of enrollment.
- E. Satisfy “Essential Functions” guidelines.
- F. Students will be required to pass a mandatory background check and drug screening.
- G. Students will be required to submit (at their own expense) a completed physical examination form and immunizations.
- H. Current certification in Basic Life Support - Healthcare Provider\*\*
- I. Current certification of Mandatory Reporter - Adult & Child\*\*
- J. Return of Handbook consent forms as directed in orientation.

•• Each of the certifications can be obtained at Southeastern Community College. Students should work with an enrollment specialist for the appropriate courses and dates to obtain these certifications.

The program is three semesters in length conducted over a period of 11 months. Educational development of each student is directed toward the application of accurate knowledge in practical situations, making judgments, applying reason, thinking independently and engaging in problem solving.

The program normally begins in the fall and continues through the summer months when the student gains supervised clinical experience in a physician’s office. Upon successful completion of the program, the graduate is eligible to write the national certification examination for certified medical assistants administered by the American Association of Medical Assistants. Expectations of the Medical Assistant Program are to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skill), and affective (behavior) learning domains.

SCC’s Medical Assistant Program is an accredited program by the Commission on Accreditation of Allied Health Education Program (CAAHEP) [www.caahep.org](http://www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Program (CAAHEP)  
1361 Park Street, Clearwater, Florida 33756. Telephone: (727) 210-2350

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

### Requirements for Medical Assistant Diploma

Fall Semester		Lec.	Lab.	Credit
BIO-163	Essentials of Anatomy and Physiology	3	2	4
HSC-114	Medical Terminology	2	2	3
MAP-121	Administrative Procedures I: Med Office	2	4	4
MAP-128	Introduction to Electronic Health Records	1	2	2
MAP-364	Clinical Procedures for Medical Office I	3	8	7
MAP-431	Human Relations	1	0	1
		<u>12</u>	<u>18</u>	<u>21</u>
Spring Semester				
HIT-211	Basic Medical Insurance & Coding	2	2	3
MAP-122	Administrative Procedures II: Med Office	2	2	3
MAP-369	Clinical Procedures for Medical Office II	4	6	7
MAP-370	Specialty Clinical Procedures	2	4	4
MAP-401	Medical Law and Ethics	1	0	1
MAP-532	Human Body: Health and Disease	3	0	3
		<u>14</u>	<u>14</u>	<u>21</u>
Summer Session				
MAP-602	Clinical Externship Seminar	1	0	1
MAP-615	Clinical Externship	0	20	5
		<u>1</u>	<u>20</u>	<u>6</u>
<b>Program Total</b> .....				<b>48</b>

The Medical Assistant Program prepares students for employment in a private physician’s office, clinic, hospital, and health related agencies.

The program is three semesters in length conducted over a period of 11 months. Educational development of each student is directed toward the application of accurate knowledge in practical situations, making judgments, applying reason, thinking independently and engaging in problem solving.

The program normally begins in the fall and continues through the summer months when the student gains supervised clinical experience in a physician’s office. Upon successful completion of the program, the graduate is eligible to write the national certification examination for certified medical assistants administered by the American Association of Medical Assistants. Expectations of the Medical Assistant Program are to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skill), and affective (behavior) learning domains.

### Where will this take me?

Medical Assistant  
Medical Records Manager  
Medical Secretary

### Instructor and Staff

Deb Shaffer - Program Coordinator / Instructor, ext. 5213  
Email: [dshaffer@scciowa.edu](mailto:dshaffer@scciowa.edu)  
AAS, Mount St. Clare College  
ADN, Southeastern Community College

Megan Massner - Instructor, ext. 5203  
Email: [mmassner@scciowa.edu](mailto:mmassner@scciowa.edu)  
Diploma, SCC

Carla Pilkington - Instructor, ext. 1986  
Email: [cpilkington@scciowa.edu](mailto:cpilkington@scciowa.edu)  
Diploma & AA, SCC  
BA, Buena Vista Univ., Storm Lake, IA  
Additional study: UNI, Cedar Falls, IA

### Career Outlook

Median wages (2013): \$14.02 hourly,  
\$29,200 annually  
Projected Growth 2012-2022: 22% or higher

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC’s financial aid website at <http://www.scciowa.edu/admissions/costaidd/finaid/gainemp.aspx>.



# Medical Coding and Billing – Physician Emphasis

The Medical Coding and Billing-Physician Emphasis Diploma provides the latest information related to medical coding, chart auditing and insurance reimbursement.

The Medical Coding and Billing Diploma option prepares the student for employment in a private physician's office, clinic, and health-related agencies. The role includes specific knowledge and skills necessary for coding and billing of insurance claims for medical services provided. The student will be trained in current diagnostic coding, CPT and HCPCS coding languages which conforms with HIPAA transaction standards for billing and insurance. Medical coding and billing is a growing field; the demand for individuals with coding skills is increasing as new procedures and regulations are being implemented by government and insurance groups.

This course is affiliated with the American Academy of Professional Coders (CPC). Upon completion of the course students will be eligible to sit for certification as a Certified Professional Coder (CPC).

## Where will this take me?

Medical Insurance Claims Adjuster  
 Medical Insurance Salesperson  
 Medical Records Manager  
 Medical Secretary  
 Medical Transcriptionist

## Instructor and Staff

Deb Shaffer - Program Coordinator/  
 Instructor, ext. 5213  
 Email: [dshaffer@scciova.edu](mailto:dshaffer@scciova.edu)  
 AAS, Mount St. Clare College  
 ADN, Southeastern Community College

Megan Massner - Instructor, ext. 5203  
 Email: [mmassner@scciova.edu](mailto:mmassner@scciova.edu)  
 Diploma, SCC

Carla Pilkington - Instructor, ext. 1986  
 Email: [cpilkington@scciova.edu](mailto:cpilkington@scciova.edu)  
 Diploma & AA, SCC  
 BA, Buena Vista Univ., Storm Lake, IA  
 Additional study: UNI, Cedar Falls, IA

## Career Outlook

Median wages (2013): \$15.83 hourly,  
 \$32,900 annually  
 Projected Growth 2012-2022: 22% or  
 higher

## West Burlington (Keokuk Campus offers selected courses.)

\*Admission standards apply to this program.

- A. COMPASS reading score of 81, or ACT score of 19
- B. COMPASS numerical score of 40, or ACT score of 17
- C. Satisfy "Iowa Core Performance Standards".
- D. Standardized placement scores must be current (completed within 24 months) at the time of enrollment.
- E. Must successfully complete a course in Anatomy and Physiology Essentials with a grade of C (2.0) or above.
- F. Students will be required to pass a mandatory background check and drug screening.
- G. Students will be required to achieve a 35 wpm typing test.
- H. Students will be required to submit (at their own expense) a completed physical examination form and immunizations.

Please contact Enrollment Services for more details.

**All health career programs require students to earn a grade of "C" (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

## Requirements for Medical Coding and Billing Diploma

Prerequisite		Lec.	Lab.	Credit
BIO-163	Essentials of Anatomy & Physiology	3	2	4
<b>Fall Semester</b>				
CPC-120	*Intro. to Medical Procedural Coding	3	3	4.5
CPC-125	*Diagnostic Coding	2	2	3
CPC-129	*Intro. to Medical Insurance & Billing	1	2	2
HSC-114	Medical Terminology	2	2	3
MAP-145	Medical Records Management	2	2	3
MAP-431	Human Relations	1	0	1
		<u>11</u>	<u>11</u>	<u>16.5</u>
<b>Spring Semester</b>				
CPC-131	*Medical Insurance & Billing II	2	2	3
CPC-150	*Medical Procedural Coding	3	0	3
CPC-160	*Applications of Procedural Coding	0	4	2
CSC-110	Introduction to Computers	3	0	3
ENG-131	Business English	3	0	3
MAP-401	Medical Law and Ethics	1	0	1
MAP-532	Human Body: Health and Disease	3	0	3
		<u>15</u>	<u>6</u>	<u>18</u>
<b>Summer Session</b>				
CPC-810	*Medical Coding and Billing Externship	0	10	2.5
CPC-945	*Medical Coding and Billing Seminar	1	0	1
		<u>1</u>	<u>10</u>	<u>3.5</u>
<b>Program Total</b>				<b>42</b>

\*Courses considered program courses – no prepping allowed.  
 All courses must be passed with a grade of "C" (2.0)

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciova.edu/admissions/costaid/finaid/gainemp.aspx>

# Nursing – Practical Nursing Diploma

## West Burlington Campus day and evening and Keokuk Campus

**Admission standards and application deadlines dates apply to this program and on the subsequent page. Please contact Enrollment Services for details.**

The nursing program is fully accredited by the Iowa Board of Nursing, the Iowa Department of Education and for Veteran's Educational Benefits. The program is also a participating member of the Iowa Plan for Educational Articulation in Iowa. The associate of applied science degree will articulate for advanced placement in all nursing programs at baccalaureate-degree granting institutions in the state of Iowa.

Admission standards and application deadlines dates apply to this program.

- High school diploma or equivalency
- ACT reading score of 19; or COMPASS of 83
- ACT mathematical score of 18; or COMPASS pre-algebra score of 50
- ACT English score of 17; or COMPASS writing score of 62.

Students are expected to complete and provide documentation of the following enrollment requirements prior to beginning the first nursing course:

- Completed Physical Examination Form\* and immunizations
- Current Iowa Certification as a Certified Nursing Assistant\*\*
- Current certification in Basic Life Support—Healthcare Providers\*\*
- Current certification in Mandatory Reporter\*\*—Adult & Child
- Signed Confidentiality Agreement.

Students will be required to pass a mandatory background check and drug screening.

*\*Students may be expected to have additional follow-up by a health care provider if there are indications that a student may be a safety or health hazard to clients during clinical assignments.*

*\*\*Each of the certifications can be obtained at Southeastern Community College. Students should work with an enrollment specialist for the appropriate courses and dates to obtain these certifications.*

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

## Requirements for Practical Nursing Diploma

Prerequisite		Lec.	Lab.	Clinical	Credit
BIO-168	Human Anatomy & Physiology I	3	2	0	4
BIO-173	Human Anatomy & Physiology II	3	2	0	4
		<u>6</u>	<u>4</u>	<u>0</u>	<u>8</u>
<b>Session I</b>					
ENG-105	Composition I	3	0	0	3
PNN-160	Intro to Nursing Practice	2	0	0	2
PNN-220	Pharmacology for Nursing I	2	0	0	2
		<u>7</u>	<u>0</u>	<u>0</u>	<u>7</u>
<b>Semester I</b>					
BIO-186	Microbiology	3	2	0	4
PNN-534	Medical-Surgical Nursing I	8	1	12	12.5
PSY-121	Developmental Psychology	3	0	0	3
		<u>14</u>	<u>3</u>	<u>12</u>	<u>19.5</u>
<b>Semester II</b>					
PNN-311	PN Issues and Trends	1	0	0	1
PNN-535	Medical-Surgical Nursing II	8	0	12	12
		<u>9</u>	<u>0</u>	<u>12</u>	<u>13</u>

**Program Total . . . . . 47.5**

## PN Diploma awarded

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>

Nursing is one of the most trusted healthcare professions. Those interested in entering nursing should be caring and compassionate, responsible, detail-oriented and have the ability to manage stress in dealing with patients and families with acute and chronic diseases. The majority of the nursing workforce today consists of LPN's (Licensed Practical Nurses) and RN's (Registered Nurses). SCC's nursing program offers an educational program for each of these options. Licensed Practical Nurses work primarily in long-term care settings, physicians' offices, clinics and home health care. Nursing professionals work daytime, evening, night, and weekend hours. Upon completion of the requirements of the nursing program for the practical nursing diploma option the student is eligible to take the National Council for Licensure Examination (NCLEX-PN) for practical nursing. Successful completion of the NCLEX-PN will allow the individual to practice as a Licensed Practical Nurse. Upon successful completion of the Practical Nursing Diploma requirements the student may also advance to the Associate Degree Nurse career option. Students receiving the PN Diploma and passing the licensure examination may work as an LPN while pursuing the Associate Degree in Nursing.

## Preparatory Nursing

Students prep for Nursing by completing related courses before enrolling in the PNN courses. Review offerings with an Enrollment Specialist before enrolling.

- Developmental Psychology
- English Composition I
- Introduction to Psychology
- Human Anatomy & Physiology I
- Human Anatomy & Physiology II
- Introduction to Sociology
- Microbiology

## Instructor and Staff

Kristi Schroeder - Director of Nursing  
ext. 5100  
Email: [kschroeder@scciowa.edu](mailto:kschroeder@scciowa.edu)  
Diploma, Augustana Hospital School of Nursing  
BSN & MSN, University of Phoenix

## Career Outlook

Median wages (2013): LPN: \$18.09 hourly, \$37,600 annual  
Projected Growth 2012-2022: 22% or higher

# Nursing – Associate Degree Nursing (ADN)

Nursing is one of the most trusted healthcare professions. Those interested in entering nursing should be caring and compassionate, responsible, detail-oriented and have the ability to manage stress in dealing with patients and families with acute and chronic diseases.

The majority of the nursing workforce today consists of LPN's (Licensed Practical Nurses) and RN's (Registered Nurses). SCC's nursing program offers an educational program for each of these options.

The Associate Degree in Nursing builds upon the foundations of practical nursing. The associate degree nurse is responsible for the management of patient and family nursing care in which the needs are more complex. The associate degree nurse also utilizes the nursing process, advanced clinical skills, and leadership to promote and facilitate health across the lifespan. The associate degree nurse works in a variety of healthcare settings such as hospitals, clinics, home health care, long-term care facilities, and community and public health settings.

Upon completion of the requirements of the nursing program for the associate of applied science degree the student is eligible to take the National Council for Licensure Examination (NCLEX-RN). Successful completion of the NCLEX-RN will allow the individual to practice as a Registered Nurse.

## Instructor and Staff

Kristi Schroeder - Director of Nursing  
ext. 5100  
Email: ks Schroeder@scciaowa.edu  
Diploma, Augustana Hospital School of Nursing  
BSN & MSN, University of Phoenix

## Career Outlook

Median wages (2013): ADN: \$25.30 hourly, \$52,600 annual  
Projected Growth 2012-2022: 22% or higher

## West Burlington Campus day and evening and Keokuk Campus

**Admission standards and application deadlines dates apply to this program and on the previous page. Please contact Enrollment Services for details.**

The nursing program is fully accredited by the Iowa Board of Nursing, the Iowa Department of Education and for Veteran's Educational Benefits. The program is also a participating member of the Iowa Plan for Educational Articulation in Iowa. The associate of applied science degree will articulate for advanced placement in all nursing programs at baccalaureate-degree granting institutions in the state of Iowa. Graduates of the nursing program are eligible for the NCLEX-RN examination for licensure.

Admission standards and application deadlines dates apply to this program.

- A. High school diploma or equivalency
- B. ACT reading score of 19; or COMPASS of 83
- C. ACT mathematical score of 18; or COMPASS pre-algebra score of 50
- D. ACT English score of 17; or COMPASS writing score of 62.

Students are expected to complete and provide documentation of the following enrollment requirements prior to beginning the first nursing course:

- Completed Physical Examination Form\* and immunizations
- Current Iowa Certification as a Certified Nursing Assistant\*\* or LPN
- Current certification in Basic Life Support—Healthcare Providers\*\*
- Current certification in Mandatory Reporter\*\*—Adult & Child
- Signed Confidentiality Agreement.

Students will be required to pass a mandatory background check and drug screening.

*\*Students may be expected to have additional follow-up by a health care provider if there are indications that a student may be a safety or health hazard to clients during clinical assignments.*

*\*\*Each of the certifications can be obtained at Southeastern Community College. Students should work with an enrollment specialist for the appropriate courses and dates to obtain these certifications.*

**Students who successfully completed the practical nursing coursework may be eligible for admission into the associate degree program.**

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met. Please contact Enrollment Services for details.**

## Associate of Applied Science Degree Requirements for ADN Nurse

Session II		Lec.	Lab.	Clinical	Credit
ADN-145	Role Transition	1	0	0	1
ADN-221	Pharmacology II	2	0	0	2
PSY-111	Introduction to Psychology	3	0	0	3
		<u>6</u>	<u>0</u>	<u>0</u>	<u>6</u>
Semester III					
ADN-641	Nursing III	8	1	18	14.5
SOC-110	Introduction to Sociology	3	0	0	3
		<u>11</u>	<u>1</u>	<u>18</u>	<u>17.5</u>
Semester IV					
ADN-311	RN Issues & Trends	1	0	0	1
ADN-642	Nursing IV	8	0	18	14
		<u>9</u>	<u>0</u>	<u>18</u>	<u>15</u>

**Program Total . . . . . 86**

*ADN Degree awarded*

# Respiratory Care Program

## West Burlington Campus

Admission standards apply to this program.

- ACT reading score of 19; or COMPASS of 83
- ACT numerical score of 18; or COMPASS of 50
- 80% or higher on the interdepartmental math exam.

Students who do not meet the 80% score should be referred to MAT-080, Math Skills I. After successful completion of the math course, the student will be expected to score 80% or above on the interdepartmental math exam in three attempts or less.

- Minimum GPA of C (2.0) for at least 12 semester hours of baccalaureate credit OR either an AA, AAS or Baccalaureate degree with a minimum of 2.0 GPA OR upper half of high school graduating class and ACT composite of 20.

Students are expected to complete and provide documentation of the following enrollment requirements prior to beginning the first respiratory course:

- Completed Physical Examination Form
- Signed Confidentiality Agreement.
- Copy of current certification in Basic Life Support—Healthcare Providers
- Complete criminal background check.
- Copy of current certification in Mandatory Reporter
- Pass drug screening.
- Proof of health insurance.

**All health career programs require students to earn a grade of “C” (2.0) or above in all coursework within the program. All other eligibility requirements must be met.**

## Associate of Applied Science Degree Requirements

Prerequisites		Lec.	Lab.	Clinical	Credit
HSC-114	Medical Terminology	2	2	0	3
BIO-252	Biomolecular Processes	2	2	0	3
		4	4	0	6
<b>Fall Semester I</b>					
*BIO-163	Essentials of Anatomy & Physiology	3	2	0	4
*BIO-186	Microbiology	3	2	0	4
*ENG-105	Composition I	3	0	0	3
RCP-230	Intro to Respiratory Care	3	4	0	5
		12	8	0	16
<b>Spring Semester I</b>					
RCP-330	Respiratory Care II	4	2	0	5
RCP-350	Pulmonary Pathology	3	0	0	3
RCP-751	Respiratory Care Clinic I	0	0	15	5
SPC-101	Fundamentals of Oral Communication	3	0	0	3
		10	2	15	16
<b>Summer Session</b>					
PSY-111	Introduction to Psychology	3	0	0	3
RCP-524	Respiratory Care III	4.5	1	0	5
RCP-757	Respiratory Care Clinic II	1	0	4.5	2.5
		8.5	1	4.5	10.5
<b>Fall Semester II</b>					
RCP-440	Cardio/Pulmonary Diagnostics	2	0	0	2
RCP-450	Respiratory Care IV	2.5	1	0	3
RCP-620	Neonatal/Pediatric Respiratory Care	4	2	0	5
RCP-761	Respiratory Care Clinic III	0	0	15	5
		8.5	3	15	15
<b>Spring Semester II</b>					
RCP-766	Respiratory Care Clinic IV	0	0	21	7
RCP-810	Respiratory Care Professional	2	0	0	2
RCP-880	Respiratory Care V	4	2	0	5
		6	2	21	14

\*Courses may be taken before beginning the program.

Program Total . . . . . 71.5-77.5

SCC’s Respiratory Care program was created to meet the need for respiratory care professionals locally and in the surrounding communities.

Respiratory Care is a specialty field in the health occupation career field. Simply stated, “It deals with everything to do with the heart and lungs from babies through adulthood.” This field is growing rapidly and has a great demand for graduates with an associate degree in respiratory care. Respiratory care ranks among the Top 20 fastest growing occupations for the 21st century.

This two-year program includes clinical studies. These clinical studies consist of hands-on training that will take place in rotating hospitals within a 75-mile radius. Graduates of this program will be able to initiate, conduct, or modify respiratory care techniques in emergency and non-emergency settings.

Upon successful graduation from the Advanced Respiratory Care Program, the student will be eligible to sit for the following credentialing exams offered by the National Board of Respiratory Care, NBRC: National Certification Exam and the National Registry. Upon satisfactory completion, students can obtain the Registered Respiratory Therapist credential. The respiratory care program is a two-year advanced level therapist program and is accredited by the Commission on Accreditation for Respiratory Care ([www.coarc.com](http://www.coarc.com)). Commission on Accreditation for Respiratory Care 1248 Harwood Road Bedford, Texas 76021-4244, (817) 283-2835

## Instructor and Staff

Stacy Lewis-Sells - Instructor,  
Program Coordinator , ext. 5204  
Email: [ssells@scciowa.edu](mailto:ssells@scciowa.edu)  
AAS, Kirkwood Community College  
BHS, University of Missouri-Columbia  
Ed.M., University of Illinois  
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AAS, Kirkwood Community College  
BBA, American InterContinental  
University  
MBA, St. Ambrose University

For more information about our credentialing pass rates, graduation rates, and other important information, please visit the CoARC website at <http://www.coarc.com/47.html>

# Skilled Trades Degree

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The Skilled Trades degree starts with the completion of an apprenticeship training program for which the student will be granted the equivalent of 45 credits. The apprenticeship program must be approved by the U.S. Department of Labor Bureau of Apprenticeship and Training. The final 18 credits of this degree will round out the students' educational experience by providing general education background in areas such as communications, social sciences and humanities, mathematics and science, computers and business.

## Where will this take me?

This program is designed to assist students who have completed a technical apprenticeship to obtain a college degree. They will then be eligible to advance into supervisory and management positions.

## Program Contact

Jan Wolbers –  
Interim Dean for Career and Technical  
Education, ext. 5061  
Email: [jwolbers@scciowa.edu](mailto:jwolbers@scciowa.edu)

## West Burlington and Keokuk Campuses

### Associate of Applied Science Degree Requirements

	Credit
Bureau of Apprenticeship and Training (BAT)- approved apprenticeship hours	30
BAT-approved on-the-job- training (OJT)	15
General Education Elective courses (100 level or above)	15
• Communications - 1 course	
• Social Sciences and/or Humanities - 1 course	
• Mathematics and/or Science - 1 course	
• Additional course from the 3 areas above	
• Computer course	
Business Elective course	<u>3</u>
	63
<i>Program Total</i> .....	<i>63</i>

The student must meet SCC's residency requirements (minimum of 15 of the last 20 semester credit hours earned in classes from SCC).

## West Burlington and Keokuk Campuses

### Associate of Applied Science Degree Requirements

Students will work with one or more faculty members in the chosen career area as well as the Dean of that area to develop meaningful coursework resulting in an Associate of Applied Science Degree

	Credit
General Education	15
(must include Communications, Math/Science and Humanities Science)	
*Technical Electives	45
(can come from any of the college's career education offerings)	
Internship	4
	64
<i>Program Total</i> .....	<i>64</i>

*\*Technical Electives are to be chosen with an SCC faculty member and approved by appropriate SCC Dean prior to student having completed 30 semester hours. Student must meet SCC residency requirements as well.*

The Technical Studies degree is a means for a student to customize a degree program to address a highly-specific set of career skills. These may be based on a personal interest or driven by a business need for a combination of skills not currently supported by any one degree program. The selection of a customized skill set will be advised by a faculty member and a dean to assure that the final program is appropriate for the stated needs.

#### Where will this take me?

This program will enable the student to proceed to a unique position of employment, an entrepreneurial enterprise, or to work in a predetermined position at a specific company.

#### Program Contact

Jan Wolbers –  
Interim Dean for Career and Technical  
Education, ext. 5061  
Email: [jwolbers@scciowa.edu](mailto:jwolbers@scciowa.edu)



# Welding

SCC's Welding Program is designed to give students a solid foundation in the principles, practices and usages of both gas and electric welding in the industrial setting. Additionally, ample practice is given in the welding skills, brazing and flame cutting. Students receive instruction on the latest types of equipment including oxyacetylene, shielded metal arc, gas tungsten arc, gas metal arc and thermoplastic welding. Instruction emphasizes production fabrication techniques, maintenance and repair procedures, blueprint reading, properties of metals, inspection methods, among other aspects of the welding trade. Many welding courses are offered at times other than the traditional term dates, including nights.

## Where will this take me?

Construction Welder  
 Industrial Welder  
 Maintenance Welder  
 Pipe Welder

## Instructor and Staff

Bill White, Day Instructor, ext. 5181  
 Email: [bwhite@scciowa.edu](mailto:bwhite@scciowa.edu)  
 Brian Brooks, Afternoon Instructor,  
 ext. 5135  
 Email: [bbrooks@scciowa.edu](mailto:bbrooks@scciowa.edu)  
 Mike Kaczinski,  
 Evening Instructor, ext. 5207  
 Email: [mkaczinski@scciowa.edu](mailto:mkaczinski@scciowa.edu)  
 AWS Certification of Welding  
 Educators

## Career Outlook

Median wages (2013): \$16.62 hourly,  
 \$34,600 annually  
 Projected Growth 2012-2022: 21%

## West Burlington Campus

### Diploma and Associate of Applied Science Degree Requirements

Fall Semester I		Lec.	Lab.	Credit
MAT-702	Introduction to Math Applications	2	2	3
WEL-130	Oxyacetylene Welding	1	2	2
WEL-160	Arc Welding I (SMAW)	2	6	5
WEL-186	GMAW	2	4	4
WEL-192	Gas Tungsten Arc Welding	2	4	4
		<u>9</u>	<u>18</u>	<u>18</u>

### Spring Semester I

ENG-111	Technical Writing	3	0	3
WEL-111	Welding Blueprint Reading	2	2	3
WEL-164	Arc Welding II (SMAW)	1	6	4
WEL-172	Advanced Shielded Metal Arc Welding II	1	6	4
WEL-197	Gas Tungsten Arc Welding-Tube	1	4	3
		<u>8</u>	<u>18</u>	<u>17</u>

*Program Total* ..... 35

### Diploma awarded

#### Fall Semester II

DRF-113	Fundamentals of Technical Drafting	1	4	3
SDV-153	Pre-employment Strategies	2	0	2
SOC-114	Conflict Resolution in the Workplace	3	0	3
WEL-182	FCAW	1	2	2
WEL-198	Adv. Gas Metal Arc Welding-Aluminum	1	2	2
WEL-292	Pipe Welding/SMAW-Uphill	1	6	4
		<u>9</u>	<u>14</u>	<u>16</u>

#### Spring Semester II

MGT-130	Principles of Supervision	3	0	3
PSY-102	Human and Work Relations	3	0	3
WEL-235	Layout & Fabrication	0	8	4
WEL-720	Introduction to Robotic Arc Welding	1	2	2
		<u>7</u>	<u>10</u>	<u>12</u>

*Program Total* ..... 63

*For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit SCC's financial aid website at <http://www.scciowa.edu/admissions/costaid/finaid/gainemp.aspx>.*

# Course Descriptions

A brief narrative description of each course offered by Southeastern Community College is found in this section. Descriptions also contain the course number, course title, number of lecture and laboratory hours, and the number of semester hours of credit granted upon successful completion of each course.

The Iowa community colleges have developed a systematic numbering system for all the credit courses they offer. The goal of this common course numbering system is to facilitate transfer and articulation processes for community college students in Iowa.

<b>ABC</b>	Discipline prefix of program or subject
123	
000-099	developmental courses
100-899	courses intended to meet specific requirements for certificates, diplomas, and degrees in career and technical and transfer programs
900-999	generic focus courses such as special topics, OJT, internships

## Key to Course Prefixes

<b>ACC</b>	Accounting	<b>DRF</b>	Drafting	<b>PHI</b>	Philosophy
<b>ADM</b>	Administrative Assistant	<b>ECE</b>	Early Childhood Education	<b>PHS</b>	Physical Science
<b>ADN</b>	Associate Degree Nursing	<b>ECN</b>	Economics	<b>PHY</b>	Physics
<b>AGA</b>	Agriculture – Agronomy	<b>EDU</b>	Education	<b>PNN</b>	Practical Nursing
<b>AGB</b>	Agriculture – Farm Management	<b>EGT</b>	Engineering Technology	<b>POL</b>	Political Science
<b>AGC</b>	Agriculture – Comprehensive – Misc.	<b>ELE</b>	Electrical Technology	<b>PSY</b>	Psychology
<b>AGH</b>	Agriculture – Horticulture	<b>ELT</b>	Electronics	<b>RCP</b>	Respiratory Therapy
<b>AGM</b>	Agriculture – Mechanics	<b>EMS</b>	Emergency Medical Services	<b>RDG</b>	Reading
<b>AGN</b>	Agriculture – Natural Resources and Forestry	<b>ENG</b>	English Composition	<b>REL</b>	Religion
<b>AGP</b>	Agriculture – Precision Ag	<b>ENV</b>	Environmental Science	<b>SCI</b>	Science
<b>AGS</b>	Agriculture – Animal Science	<b>ESI</b>	Intensive - English as a Second Language	<b>SDV</b>	Student Development
<b>AGT</b>	Agriculture – Technology	<b>ESL</b>	Non-Intensive - English as a Second Language	<b>SMM</b>	Social Media & Marketing
<b>ANI</b>	Animation	<b>FIN</b>	Finance	<b>SOC</b>	Sociology
<b>ARC</b>	Architectural	<b>FIR</b>	Fire Science	<b>SPC</b>	Speech
<b>ART</b>	Art	<b>FLF</b>	Foreign Language – French	<b>WDV</b>	Web Development
<b>AUT</b>	Automotive Technology	<b>FLG</b>	Foreign Language – German	<b>WEL</b>	Welding
<b>BCA</b>	Business Computer Applications	<b>FLS</b>	Foreign Language – Spanish		
<b>BIO</b>	Biology	<b>GEO</b>	Geography		
<b>BUS</b>	Business	<b>GRA</b>	Graphic Communications		
<b>CAD</b>	Computer Aided Drafting	<b>HEQ</b>	Heavy Equipment		
<b>CFR</b>	Computer Forensics	<b>HIS</b>	History		
<b>CHM</b>	Chemistry	<b>HIT</b>	Health Information Technology		
<b>CIS</b>	Computer Programming	<b>HSC</b>	Health Sciences		
<b>COM</b>	Communication	<b>HSV</b>	Human Services		
<b>CON</b>	Construction	<b>HUM</b>	Humanities		
<b>CPC</b>	Certified Professional Coder	<b>IND</b>	Industrial Technology		
<b>CRJ</b>	Criminal Justice	<b>JOU</b>	Journalism		
<b>CRR</b>	Collision Repair/Refinish	<b>LIT</b>	Literature		
<b>CSC</b>	Computer Science	<b>MAP</b>	Medical Assistant		
<b>DRA</b>	Drama	<b>MAT</b>	Mathematics		
		<b>MFG</b>	Manufacturing		
		<b>MGT</b>	Management		
		<b>MKT</b>	Marketing		
		<b>MMS</b>	Mass Media Studies		
		<b>MUA</b>	Music – Applied		
		<b>MUS</b>	General Music		
		<b>NET</b>	Computer Networking		
		<b>PEA</b>	Physical Education Activities		
		<b>PEC</b>	Coaching Officiating		
		<b>PEH</b>	General Phys Ed & Health		
		<b>PET</b>	Physical Education Training		
		<b>PEV</b>	Intercollegiate Physical Ed		

## Course Prerequisites

The instructor of any course (other than health careers classes and ENG-105) may waive any stated prerequisite of the course when, in the judgment of the instructor, the student can demonstrate sufficient evidence to justify enrollment.

## Course Offerings

If there is sufficient demand, courses may be offered more frequently than announced. Insufficient demand or unforeseen staffing problems may result in the cancellation of announced offerings. Southeastern Community College reserves the right to alter the course offerings and/or course content without further notice. Students are advised to consult the schedule of classes available in Enrollment Services.



## **ACC Accounting**

### **ACC-111 Introduction to Accounting**

Lec. 3 Lab. 0 Credit 3

An introduction to financial accounting theory and practice with emphasis on the use of the accounting cycle and computer application thereof. This course is designed for non-business majors. Prerequisite: CSC-110 or permission of instructor.

### **ACC-131 Principles of Accounting I**

Lec. 4 Lab. 0 Credit 4

This first course covering the principles of accounting introduces the basic terms, concepts, and procedures of the double-entry system of accounting. The course is intended for students who will major in accounting or have chosen a career which requires extensive use of accounting information. During the course, the focus will be on the completion of the accounting cycle, including the preparation of journal entries, posting to the ledger, and the preparation of adjusting entries, financial statements, and closing entries at the end of the accounting period. Specific attention will also be given to special journals and subsidiary ledgers, the information needed to account for merchandising businesses, and the special accounting procedures related to cash, receivables, payables, and systems of control. Prerequisite: COMPASS Pre-Algebra score of 50 or higher, COMPASS Algebra score of 36 or higher, ACT Math score of 19 or higher, or equivalent AND COMPASS Reading score of 61 or higher, ACT Reading score of 15 or higher, or equivalent.

### **ACC-132 Principles of Accounting II**

Lec. 4 Lab. 0 Credit 4

A continuation of Principles of Accounting I, the second principles of accounting course will proceed through the recognition, valuation, and financial reporting requirements for merchandise inventory, fixed assets, intangibles, payroll, current liabilities, and long-term liabilities, before looking at the specific accounting issues related to corporations and partnerships. The course will conclude with coverage of the Statement of Cash Flows and financial statement analysis. Prerequisite: ACC-131.

### **ACC-142 Financial Accounting**

Lec. 3 Lab. 0 Credit 3

An introduction to financial accounting theory and practice with emphasis on the use and interpretation of financial statements.

### **ACC-146 Managerial Accounting**

Lec. 3 Lab. 0 Credit 3

An introduction to managerial accounting and practice with emphasis on the sources and uses of data for decisions. Prerequisite: ACC-142.

### **ACC-161 Payroll Accounting**

Lec. 3 Lab. 0 Credit 3

Payroll accounting emphasizes the methods of computing wages and salaries, the methods of keeping records, and the preparation of government reports. Extensive coverage of federal and state laws impacting payroll accounting is provided. During the course of the semester, students will explore numerous manual and computerized payroll systems. Prerequisite: ACC-131 or equivalent.

### **ACC-221 Cost Accounting**

Lec. 3 Lab. 0 Credit 3

This introductory course in Cost Accounting is designed as an intensive, practical course in cost accounting procedures. After a preliminary consideration of the three cost elements of material, labor and factory overhead, three concepts are applied to cost gathering procedures for both job-order and process costing. Finally, attention is given to standard costing and analysis of cost factors for decision making by management. Prerequisite: ACC-132 or ACC-146.

### **ACC-231 Intermediate Accounting I**

Lec. 3 Lab. 2 Credit 4

This first course in Intermediate Accounting examines the generally accepted accounting principles applied in income determination and balance sheet presentation. The primary purpose is the preparation of financial statements in a meaningful, understandable and adequate manner for the external user. After a preliminary review of the basic accounting process, the content and format of the income statement and balance sheet, the course material will specifically consider the balance sheet classifications of cash, temporary investments, receivables, inventories, plant and intangible assets. Prerequisites: ACC-132 or ACC-142 or equivalent.

### **ACC-232 Intermediate Accounting II**

Lec. 3 Lab. 2 Credit 4

A continuation of ACC-231, this course will continue to examine the generally accepted accounting principles as applied to income determination and balance sheet preparation. The course will specifically consider the classification, recognition, and valuation of current liabilities, bonds and other long-term

liabilities, stockholders' equity, dividends, dilutive securities and their effect on earnings per share, leases, pensions, and income taxes. The course will conclude with coverage of the Statement of Cash Flows. Prerequisite: ACC-231.

### **ACC-261 Income Tax Accounting**

Lec. 3 Lab. 0 Credit 3

Coverage of income tax returns for individuals, including filing requirements, gross income inclusions and exclusions, dependency requirements, itemized deductions, etc.

### **ACC-310 Computer Accounting**

Lec. 2 Lab. 0 Credit 2

This course is designed to apply the fundamental accounting principles in a computerized environment by using the text/workbook combined with computerized standard accounting software package. Also electronic spreadsheets will be explored. A prior knowledge of accounting is required and knowledge of Windows will be helpful. It is necessary that each student be able to set aside lab time to complete assignments, either in the computer labs or on a similar computer with computerized standard accounting software package. Prerequisites: ACC-131 or ACC-142 or permission of instructor.

### **ACC-311 Computer Accounting**

Lec. 3 Lab. 0 Credit 3

Studies payroll records and payroll taxes imposed by state and federal agencies. The course will focus on computerized accounting records, including general ledger, accounts receivable, accounts payable, depreciation and payroll systems.

### **ACC-805 Accounting Problems I**

Lec. 0 Lab. 4 Credit 2

This course is designed to give the student an opportunity to apply the concepts and procedures covered in Principles of Accounting in solving manual and computerized accounting problems. Due to the relationship between the courses, it is suggested that Accounting Problems I be taken concurrently with Principles of Accounting I though this is not required. Prerequisite: Appropriate placement test score.

### **ACC-806 Accounting Problems II**

Lec. 0 Lab. 4 Credit 2

A continuation of ACC-805, this course is also designed to give the student an opportunity to apply the concepts and procedures covered in Principles

of Accounting in solving manual and computerized accounting problems. Due to the relationship between the courses, it is suggested that Accounting Problems II be taken concurrently with Principles of Accounting II, although this is not required. Prerequisites: ACC-805.

### **ACC-932 Accounting Internship**

Lec. 0 Lab. 0 OJT 16 Credit 4

Accounting students who have completed the prerequisite courses may use this opportunity to gain practical experience in the field of accounting. Student placement will vary, depending upon availability of internship positions. The specific arrangements for the nature of the work and scheduling of contact hours will be made under the supervision of the employer. Prerequisites: ACC-132, ACC-806, CSC-110, and ENG-105 or equivalents.

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## **ADM Administrative Assistant**

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### **ADM-020 Keyboarding Skills**

Lec. 0 Lab. 2 Credit 1

The course is designed for students with no keyboarding skills or for those who need to relearn the keyboard. Emphasis will be on learning to type by touch. The entire keyboard will be included (alphabet, numbers, and symbols). This will enable students to interact with a computer via keyboard (by touch).

### **ADM-025 Keyboarding Skills and Applications**

Lec.0 Lab.4 Credit 2

This course is designed for students with no keyboarding skills or for those who need to relearn the keyboard. Emphasis will be learning to type by touch. The entire keyboard will be included (alphabet, numbers, and symbols). This will enable students to interact with a computer via the keyboard (by touch). Students will learn to prepare simple business documents such as letters, memos, reports, and tables using word processing software. Skill building will also be emphasized for improving speed and accuracy on timed writings.

### **ADM-027 Keyboarding and Advanced Applications**

Lec. 0 Lab. 4 Credit 2

This course is designed for students with good keyboarding skills who need to develop knowledge of writing reports utilizing different styles. Prerequisite: ADM-025.

### **ADM-030 Office Machine Skills**

Lec. 0 Lab. 2 Credit 1

The course is designed to introduce students to the proper techniques for using transcription machines, ten-key adding machines and calculators.

### **ADM-035 Bookkeeping Skills I**

Lec. 0 Lab. 2 Credit 1

The course is designed to help the student understand the principles of double-entry bookkeeping such as: journalizing, posting and preparing financial statements. The course will provide the foundation needed for advanced study in accounting.

### **ADM-040 Bookkeeping Skills II**

Lec. 0 Lab. 4 Credit 2

Continuation of ADM-035. Expands account cycle for a merchandising business using specialized journals and subsidiary ledgers.

### **ADM-112 Keyboarding**

Lec. 2 Lab. 2 Credit 3

A fundamental course in the techniques of keyboarding. Touch keying of letters, numbers and symbols of the keyboard is taught. Correct keying techniques are stressed. Targeted for students in arts and sciences (general education) as well as any career education program. Open to students with no previous training in keyboarding.

### **ADM-114 Keyboarding Applications**

Lec. 2 Lab. 2 Credit 3

A fundamental course in the technique of keyboarding. Touch keying of letters, numbers and symbols of the keyboard is taught. Correct keying techniques are stressed. Emphasis on proper formatting of basic office documents such as memorandums, letters, tables and reports.

### **ADM-116 Keyboarding II**

Lec. 1 Lab. 4 Credit 3

An introduction to basic document formatting using word processing software features to produce mailable documents. Emphasis is on speed and accuracy in keying. Prerequisites: ADM-114 or permission of instructor.

### **ADM-119 Keyboarding III**

Lec. 1 Lab. 4 Credit 3

An advanced course enabling students to use advanced word processing software features to produce more complex business documents in mailable form. Continued development of speed and accuracy in keying. Prerequisite: ADM-116 or permission of instructor.

### **ADM-129 Keyboarding IV**

Lec. 1 Lab. 4 Credit 3

An advanced course integrating mastery level skills in keyboarding and document formatting. Use of advanced software features in an office-style environment to produce mailable documents. Prerequisite: ADM-119.

### **ADM-133 Business Math/Calculator**

Lec. 3 Lab. 0 Credit 3

This course will focus on the use of 10-key calculators to review arithmetic fundamentals and solve common business problems, including banking, payroll, weights and measurements, percentage, commissions, discounts, mark-ups, interest, borrowing by business, consumer credit, sales taxes, property taxes, income taxes, and insurance. Prerequisite: COMPASS Pre-Algebra score of 50 or higher, COMPASS Algebra score of 36 or higher, ACT Math score of 19 or higher, or equivalent.

### **ADM-149 Transcription**

Lec. 2 Lab. 2 Credit 3

Designed for students in the Office Administration program to develop skills in transcribing various business documents. Prerequisites: ADM-116, ENG-131 or permission of instructor.

### **ADM-162 Office Procedures**

Lec. 3 Lab. 0 Credit 3

Emphasis will be on records management skills including filing rules, records storage and retrieval, understanding of the overall records management process, and an understanding of equipment and supplies.

### **ADM-171 Records Management**

Lec. 1 Lab. 2 Credit 2

This course is designed to familiarize students with alphabetic, numeric, geographic and subject filing systems. Both manual and electronic systems will be utilized. Prerequisite: ADM-114 or CSC-110 or permission of instructor.

### **ADM-186 Legal Documents**

Lec. 1 Lab. 2 Credit 2

A specialized course in which legal documents are studied. Emphasis is on creating and completing legal documents electronically. Transcription skills are refined with a concentration on legal documents. Legal terminology is applied throughout the course. Prerequisites: ADM-149, ADM-119.

### **ADM-212 Medical Documents**

Lec. 1 Lab. 2 Credit 2

A specialized course in which medical documents are studied. Emphasis is on creating and completing medical documents electronically. Transcription skills are refined with a concentration on medical documents. Medical terminology is applied throughout the course. Prerequisite: ADM-149, ADM-119.

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## **ADN Associate Degree Nursing**

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### **ADN-145 Role Transition**

Lec. 1 Lab. 0 Credit 1

This course allows associate degree nursing students to explore the role expectation of the registered nurse and facilitate the transition from practical nursing to registered nursing. An emphasis is placed on health education and advanced application of the nursing process. Prerequisite: PNN (Level I) Curriculum.

### **ADN-221 Pharmacology II**

Lec. 2 Lab. 0 Credit 2

This course focuses on concepts of pharmacology with special emphasis on the role of the nurse in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. Understanding how drugs work and their relationship to expected outcomes and possible adverse reactions is explored. Recognition of safe dosage ranges, potential interactions, patient factors that affect drug actions, and safe administration techniques are included. The education of clients about their drug therapies is a crucial component. Prerequisite: PNN (Level I) Curriculum. Corequisite: ADN-145.

### **ADN-311 RN Issues and Trends**

Lec. 1 Lab. 0 Credit 1

This course assists the associate degree nursing student to begin the transition to an autonomous nursing practice. Career development, opportunities, and challenges of the registered nurse are explored in relation to changing health care trends. Principles of leadership and management are introduced. Prerequisite: ADN-641.

### **ADN-641 Nursing III**

Lec. 8 Lab. 1 Clinical 18 Credit 14.5

This course integrates concepts and strands previously presented in the curriculum. A systematic approach is utilized in planning and providing nursing care to individuals,

families, and groups across the lifespan (pediatrics, adult and geriatrics). This course emphasizes selected acute and complex alterations in health and includes advanced content related to maternity care. An opportunity is provided for students to expand their theoretical knowledge, to broaden the application of critical thinking to the nursing process, and to refine their nursing skills in clinical settings. Prerequisites: ADN-145, ADN-221. Corequisite: PSY-111.

### **ADN-642 Nursing IV**

Lec. 8 Lab. 0 Clinical 18 Credit 14

This course integrates concepts and strands previously presented in the curriculum. A systematic approach continues to be utilized in planning and providing nursing care to individuals, families, and groups across the lifespan (pediatric, adult and geriatrics). This course emphasizes selected acute and complex alterations in health and includes advanced content related to mental health. An opportunity is provided for students to expand their theoretical knowledge, to extensively apply critical thinking to the nursing process, and to continue to refine their nursing skills in clinical settings. Prerequisite: ADN-641.

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## **AGA Agriculture - Agronomy**

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### **AGA-114 Principles of Agronomy**

Lec. 2 Lab. 2 Credit 3

Detailed studies will be made of corn and soybean production, fertilization and harvesting methods. The processing of seed and grain will also be studied in this course, along with a close look at other cropping alternatives for the corn belt area. Laboratory work will be used to increase the understanding of key concepts.

### **AGA-154 Fundamentals of Soil Science**

Lec. 2 Lab. 2 Credit 3

This course covers soil properties affected by their formation due to climate, vegetative cover, parent material, drainage and topography. Laboratory work will be used to increase the understanding of key concepts.

### **AGA-158 Soil Fertility**

Lec. 2 Lab. 2 Credit 3

This course explains the phenomena involved in making and keeping a soil in its most economical, productive state. Students learn why soils must be managed differently due to differences in origin and make up.

Laboratory work will be used to increase the understanding of key concepts.

### **AGA-376 Integrated Pest Management**

Lec. 2 Lab. 2 Credit 3

This course includes field observation of chemical control of weeds and insects and principles of safety and ecological ramifications of chemicals used in modern farming operations. The course also includes alternative pest control systems in modern farming practices and insect and weed identification in the field. Material will also be presented to prepare the student to pass the Iowa Commercial Pesticide Core, Insects and Agriculture Weed tests. Laboratory work will be used to increase the understanding of key concepts.

### **AGA-450 Issues in Sustainable Agriculture**

Lec. 2 Lab. 2 Credit 3

This course provides a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental and social impacts of agriculture. Students will identify and apply the principles of sustainable agriculture as they relate to basic production. Lab work required.

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## **AGB Agriculture - Farm Management**

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### **AGB-210 Agriculture Law**

Lec. 2 Lab. 0 Credit 2

This course is designed to make the student aware of the legalities of the farm business in regard to estate planning, leasing, contracts and legal liability.

### **AGB-235 Introduction to Agriculture Markets**

Lec. 2 Lab. 2 Credit 3

A course dealing with supply and demand relationships, determining cost of production, futures hedging, futures options, basis, technical analysis and developing marketing plans. Use of MarketMaxx.net online trading program for training purposes will be used. Laboratory work will be used to increase the understanding of key concepts.

### **AGB-330 Farm Business Management**

Lec. 2 Lab. 2 Credit 3

A study of the use of the principles of farm management in developing a farm or farm business operation. Laboratory work will be used to increase the understanding of key concepts. Prerequisite: AGB-470.

### **AGB-331 Entrepreneurship in Agriculture**

Lec. 3 Lab. 0 Credit 3

This course relates specifically to management of agriculture farms and businesses. Course content emphasizes budget planning, record keeping, record analysis, Ag finance/credit, and machinery and land management. Management exercises simulating farm activities and decisions are incorporated. Computers are used to aid in the completion of these management exercises.

### **AGB-336 Agricultural Selling**

Lec. 3 Lab. 0 Credit 3

Students will gain the necessary knowledge and the techniques of selling agriculture products directly to producers. Included is knowledge of the buying process, communication skills and other factors that are beneficial in building relationships with customers.

### **AGB-437 Commodity Marketing**

Lec. 3 Lab. 0 Credit 3

Commodity Marketing examines basis, fundamental and technical price analysis, commodity futures, futures options, alternative cash contracts, sources and uses of marketing information, and relevant agricultural marketing strategies.

### **AGB-466 Agriculture Finance**

Lec. 3 Lab. 0 Credit 3

This course is a study of the terminology and tools of agricultural finance. It emphasizes the preparation of financial statements, cash flows, budgets and bookkeeping principles. It also discusses financial risk strategies and credit costs.

### **AGB-470 Farm Records, Accounts, Analysis**

Lec. 2 Lab. 2 Credit 3

Emphasis is placed on the importance of records as an essential management tool. Laboratory work will be used to increase the understanding of key concepts.

### **AGB-816 Student Internship I**

Lec. 0 Lab. 0 OJT 15 Credit 3.7

Individuals gain practical experience as employees in approved places of business. Prerequisite: Passage of Commercial Pesticide Applicators Exam.

### **AGB-826 Student Internship II**

Lec. 0 Lab. 0 OJT 15 Credit 3.7

Individuals gain practical experience as employees in approved places of business. Prerequisite: Passage of Commercial Pesticide

Applicators Exam.

### **AGB-930 Agriculture Seminar**

Lec. 1 Lab. 0 Credit 1

This course is designed to enable the student to gain practical experience in the areas of farm equipment maintenance, equipment adjustment and operation, crop scouting for weeds, insects and diseases, and weed and insect management. It will be taught on an arranged basis at the SCC West Burlington campus as time and weather influence the operations necessary.

### **AGB-949 Special Topics**

Lec. 0 Lab. 2-12 Credit 1-6

This course is intended to provide the students an opportunity to explore an area of study in greater depth. Individual study projects will be determined by consultation between the student and the instructor. The course can be used for students studying abroad. Living experience, study, and travel will determine credit. The course may be repeated for up to 6 credit hours.

## **AGC Agriculture - Comprehensive - Misc.**

### **AGC-216 Career Seminar**

Lec. 2 Lab. 0 Clinical 0 Credit 2

This course is designed to help students explore and discover the many opportunities that are available in the profession of agriculture and related industries both nationally and internationally.

### **AGC-420 Issues in Agriculture**

Lec. 3 Lab. 0 Clinical 0 Credit 3

This course provides students the opportunity to collect, discuss, interpret, and defend current economic, environmental and social issues that affect the production of agricultural commodities.

### **AGC-936 Occupational Experience**

Lec. 3 Lab. 0 Credit 3

An "on-the-job" experience at a local business. The business will provide a training sponsor in cooperation with an instructor/coordinator from the college staff. Hands-on experience in observing and demonstrating the knowledge and skills developed in the classroom. Prerequisites: AGC-420, AGB-437.

## **AGH Agriculture - Horticulture**

### **AGH-131 Greenhouse Management**

Lec. 3 Lab. 0 Credit 3

Manage greenhouse air, water, soil, and light for most efficient use of resources. Pest management, plant rotation and scheduling for flower sales are included.

## **AGM Agriculture - Mechanics**

### **AGM-140 Farm Shop**

Lec. 0 Lab. 4 Credit 2

This course gives the student practical experience in designing and building equipment for the farm.

### **AGM-151 Farm Equipment Adjustment**

Lec. 0 Lab. 4 Credit 2

Students will utilize the operator's manual to find information concerning the operation, lubrication and adjustment sections. Combine operations will be addressed as follows: perform initial calibration settings for wheat, corn and soybeans; determine type and amount of losses of grain and make adjustments to minimize those losses; and utilize the GPS unit to create GIS referenced yield data.

### **AGM-155 Farm Equipment Management**

Lec. 2 Lab. 0 Credit 2

This course deals with fitting farm equipment to the farming unit and the repair of farm equipment.

### **AGM-200 Farm Welding**

Lec. .5 Lab. 2.5 Credit 1.7

A shop course dealing with welding.

## **AGN Agriculture – Natural Resources and Forestry**

### **AGN-130 Soil and Water Conservation**

Lec. 2 Lab. 2 Credit 3

Emphasis will be on environmental practices as they relate to conservation management of our natural resources. Students will discuss soil erosion, water quality, and soil and water management. Lab work required.

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## **AGP Agriculture - Precision Ag**

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### **AGP-329 Introduction to GPS**

Lec. 3 Lab. 0 Credit 3

An introduction to the use of GPS and VRT as it impacts agricultural producers. Students will use field mapping software and GPS systems as part of the class.

### **AGP-340 Foundations of GIS and GPS**

Lec. 2 Lab. 2 Credit 3

This course will enable the students to use and demonstrate the principles of GPS, GIS, remote sensing and precision application equipment. Soil sampling, farm mapping, combine yield monitoring, and developing Geographic Information System databases will be explored. Students will be exposed to computers and the use of precision agriculture software. Laboratory work will be used to increase the understanding of key concepts.

### **AGP-421 Applications of GIS**

Lec. 1 Lab. 2 Credit 2

This course will take students into advanced concepts in GIS and give hands on experience in the practical applications of a geographical information systems. Students will be enrolled in selected GIS short courses online and required to design a GIS project from scratch. They will setup the parameters for the project, collect the data, and format the final project. The project should be related to their career field.

### **AGP-456 Advanced Technology Applications**

Lec. 3 Lab. 0 Credit 3

This course is designed to teach the student advanced techniques in utilization of multi-spectral imagery in agricultural applications using several different types of software such as Erdas Imagery and SS Toolbox.

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## **AGS Agriculture - Animal Science**

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### **AGS-113 Survey of the Animal Industry**

Lec. 3 Lab. 0 Credit 3

Course studies ways domestic animals serve the basic needs of humans for food, shelter, protection, fuel and emotional well-being. Terminology, basic structures of the industries surrounding the production, care and marketing of domestic animals in the U.S. will also be studied.

### **AGS-225 Swine Science**

Lec. 2 Lab. 2 Credit 3

This course is designed around the life cycle concept of swine management. Each period will be discussed with respect to management of nutrition, disease control, housing and proper handling. Ethical production techniques will be stressed throughout the course. Laboratory work will be used to increase the understanding of key concepts.

### **AGS-228 Beef Cattle Science**

Lec. 5 Lab. 0 Credit 5

A course dealing with the retail beef industry, management decisions of the cow-calf and the yearling-stocker producers, major health problems and their prevention/treatment, ruminant nutrition balance rations and forage resource management.

### **AGS-242 Animal Health**

Lec. 3 Lab. 0 Credit 3

This course provides information about the cause, nature, prevention, and treatment of common health problems of farm animals. Topics include identifying animal behavior and developing a herd health program.

### **AGS-270 Foods of Animal Origin**

Lec. 3 Lab. 0 Credit 3

A general basic agri-food science course that deals with world food needs and available food supplies, types of food and nutritive value and use, and methods used and challenges involved in food production, transportation, preservation/processing, storage, distribution, marketing and consumption. The course covers both animal origin and non-animal origin food products.

### **AGS-319 Animal Nutrition**

Lec. 2 Lab. 2 Credit 3

A course in basic animal nutrition for swine and beef cattle. Feed utilization for maintenance/growth, reproduction and lactation is discussed. The formulation of rations on both a nutritional and economic basis as well as the substitution of ingredients will be covered. Laboratory work will be used to increase the understanding of key concepts.

### **AGS-330 Animal Reproduction**

Lec. 4 Lab. 0 Credit 4

This course will cover the principles of genetics and the physiology of male and female domesticated livestock.

### **AGS-331 Animal Reproduction**

Lec. 3 Lab. 0 Credit 3

A combined lecture and lab course, this course is presented with the agriculture

student in mind. The first unit, Physiology, addresses cellular digestion, reproduction, genetics and ecology. The second unit, Applications, teaches the practical application of animal science. The third unit instructs students in the interpretation of performance data for judging and evaluating livestock.

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## **AGT Agriculture - Technology**

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### **AGT-250 Food and Biosecurity Issues**

Lec. 1 Lab. 0 Credit 1

This course focuses on threats to food system biosecurity. Students will research and discuss contemporary issues regarding biosecurity, vulnerabilities of the food system from pre-harvest through post-processing, consumption and potential threats by class of agents.

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## **ANI Animation**

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### **ANI-100 Story Development for Animation**

Lec. 3 Lab. 0 Credit 3

The purpose of this course is to introduce students to screenplay and story development. The student will be introduced to the heroic myth, its story structure and learn to relate it to modern screenplay construction through watching and analyzing screenplays. Students will be provided with the opportunity to develop their own story ideas and learn the stages of a typical story development pipeline through application and lecture. Corequisite: ENG-105.

### **ANI-101 Animation Software I**

Lec. 2 Lab. 2 Credit 3

This course will introduce students to basic computer use & to the basic processes used in animation. Students will use industry standard software to develop art assets & will be exposed to topics such as mesh modeling, rigging/skinning, character animation, & texture mapping.

### **ANI-102 Animation Software II**

Lec. 2 Lab. 2 Credit 3

Students will learn more advanced modeling & rigging techniques to complete a low/hi-resolution character model. Students will also be introduced to basic lighting & compositing techniques. Prerequisites: ANI-101, ANI-116.

### **ANI-103 Animation Software III**

Lec. 2 Lab. 2 Credit 3

Students will gain an understanding of technical/character animation including motion capture & matchmoving techniques. They will create animations using cartoony & realistic styles. Students will also use 3D tracking to tie together all their elements into a single scene that matches real life footage. Students will gain advanced knowledge of lightening, rendering & compositing techniques. Prerequisite: ANI-102.

### **ANI-104 Animation Software IV**

Lec. 2 Lab. 2 Credit 3

This course will provide students with an understanding of the motion graphics workflow. Students will also learn basic design principles as well as the social impact capable with motion graphics. Students will also create realistic visual effects using various simulation tools such as texture effects & particles. Prerequisite: ANI-103.

### **ANI-105 Introduction to Animation**

Lec. 2 Lab. 2 Credit 3

The student will gain an understanding of the basics of all types of animation. They will use this understanding to create projects using traditional 2D, flash 2D, 3D, Stop Motion, and Experimental animation techniques. Upon completion of the course, the student will have a 30 second animation created using the technique of their choice. Prerequisite or Corequisite: CSC-110.

### **ANI-109 Animation Principles & Techniques**

Lec. 2 Lab. 6 Credit 5

This course will provide students with an applied knowledge of the 12 principles of animation, namely; squash/stretch, anticipation, staging, straight ahead/pose to pose, follow through/overlapping action, slow in/out, arcs, secondary action, timing, exaggeration, solid drawing, & appeal as well as a variety of techniques to help prepare them for animating in any medium. This course will also cover a history of animation. Prerequisites: ANI-101, ANI-116, ART-133.

### **ANI-110 Pre-Production**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with a good grasp on design as it applies to their forms and animation; identify good and bad composition & staging; identify and build an emotional impact using color, light, and camera perspective within a scene; create and use technical drawings to build models; create surfaces and lighting set-ups that strengthen

the overall project design; and lastly, create strong 3D, narrative illustrations and animation. Prerequisites: ANI-100, ANI-105, CSC-110, DRA-110, ENG-105.

### **ANI-111 Production Pipeline Studio I**

Lec. 2 Lab. 2 Credit 3

This course will introduce students to a typical story development pipeline. Students will analyze the heroic myth & screenplays in preparation for developing their own story ideas. This course is also designed to aid students in developing the materials & skills necessary to obtain & maintain employment. Upon completion of this course, students will have developed an individual story project through the animatic phase. Prerequisites: ANI-101, ANI-116, ART-133, DRA-110, ENG-105.

### **ANI-112 Production Pipeline Studio II**

Lec. 2 Lab. 2 Credit 3

Students will be introduced to a basic marketing theory & foundation in branding. This class is designed to improve: student's marketing skills, their understanding of specific branding topics, & their ability to enter the industry workforce. Students will use previously created pre-production work to guide their project(s) to completion. Students will edit their project(s) into a demo reel, portfolio, & website. Prerequisites: ANI-101, ANI-111.

### **ANI-113 Production Pipeline Studio III**

Lec. 2 Lab. 6 Credit 5

This course will provide the student with a good grasp on design as it applies to their forms and animation. Students will come to know the production process from setup through post by completing this animation production pipeline. This course is designed to aid students in developing the materials & skills necessary to obtain & maintain employment. Upon completion of the course, students will have begun the animation production phase of their final project. Prerequisites: ANI-102, ANI-112.

### **ANI-114 Production Pipeline Studio IV**

Lec. 2 Lab. 6 Credit 5

This course explores the various roles involved in the production of animation. Students will prepare regulatory materials for their final project, including: a proposal, bid, scope, budget, & schedule. This course is designed to aid students in developing the materials & skills necessary to obtain & maintain employment. Upon completion of the course, students will have completed the animation post-production phase of their

final project. Prerequisite: ANI-113.

### **ANI-116 Exploring Human Movement**

Lec. 2 Lab. 2 Credit 3

This course provides students with a simplified understanding of human anatomy for the animator. Students will participate in acting exercises to help them appreciate motivation & performance. The groundwork for figure drawing will also be established through a series of gesture studies.

### **ANI-120 Lighting & Rendering**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with knowledge of core and advanced lighting and rendering techniques being used in the industry. Emphasis will be placed on traditional lighting, understanding Maya Software rendering, developing Mental Ray knowledge and workflows, and exploring various other rendering engines currently on the market including their pros and cons. Students will use this knowledge to set up a single frame image to show the skills they've absorbed throughout the course. Prerequisites: ANI-105, CIS-148, CSC-110, DRA-110.

### **ANI-125 Advanced Modeling, Character Setup, & Scripting**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with the ability to completely model and rig a hi resolution and low resolution character model. They will learn the difference between hard surface and organic modeling, the importance of functional anatomy, the base techniques used to create character models, how to detail your models using ZBrush, creating height maps using Maya, how to build a rig using joints, blendshapes, constraints, and deformers, how to paint joint weights, and a basic overview of scripting inside of Maya. They will apply all these skills to a final project, creating a fully modeled, rigged, weighted, and posed model. Prerequisites: ANI-105, CIS-148, CSC-110.

### **ANI-130 Technical & Character Animation**

Lec. 2 Lab. 2 Credit 3

The student will gain an understanding of technical and character animation including motion capture and matchmoving techniques. They will use this understanding to create character animations using cartoon style, realistic style, and technical animation of a vehicle. They will then learn about matchmoving and use 3D tracking to tie together all their elements into a single scene

that matches real life footage. Prerequisites: ANI-105, ANI-116, CIS-148, CSC-110.

### **ANI-135 Stop Motion**

Lec. 2 Lab. 2 Credit 3

This course will facilitate an understanding of the stop motion process. They will learn how to fabricate characters, environments, set lights and cameras for stop motion. They will then learn how to animate using stop motion techniques and technology to create a walk cycle and a short animation. ANI-105, ANI-116, CSC-110.

### **ANI-136 Stop Motion/Video Production**

Lec. 2 Lab. 2 Credit 3

Students will be introduced to video equipment operation, techniques in video & stop motion production. Students will learn how to shoot and edit video. Students will also set lights & cameras for stop motion. Students will apply animation principles to arrive at their final product.

### **ANI-140 Producing for Animation**

Lec. 3 Lab. 0 Credit 3

This course explores the various roles and positions involved in the production of animation. Animation Production functions and practices will be studied, as well as performed. Throughout the course the student will study and prepare regulatory materials for their final project that include, however are not limited to a proposal, bid, scope, budget, and schedule. Students will come to know the production process from setup through post by completing this animation production pipeline. Prerequisites: ANI-100, ANI-105, ANI-110, CSC-110, DRA-110, ENG-105.

### **ANI-145 Particle Systems & Dynamics**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with the ability to create realistic visual effects. Students will learn and use texture effects, particles and nparticles, fluid containers, dynamic joint chains, ncloth, soft and rigid bodies, and hair and fur effects. Prerequisites: ANI-105, ANI-116, ANI-120, CIS-148, CSC-110.

### **ANI-150 Motion Graphics**

Lec. 2 Lab. 2 Credit 3

A course in motion graphics will provide the student with an understanding of the motion graphics workflow. Students will also learn basic design principles as well as the social impact capable with motion graphics. Students will be able to create motion using keyframes in both 2D and 3D space.

Additionally, students will learn a number of techniques in order to manipulate images and scripts using compositing tools and expressions. Students will be able to compile their work into a short motion graphics reel at the end of the course. Prerequisites: ANI-105, ANI-155, CSC-110, DRA-110. Corequisite: ANI-155.

### **ANI-155 Compositing**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with the ability to create digital media composites. They will first learn to identify the aspects of digital compositing, interpret visual elements, understand imagery at the data level, and perform basic image manipulation. After these core fundamentals are internalized, they will proceed to perform basic image compositing, understand the effect of temporal manipulations, set up 2D tracking and stabilization, internalize user interface interactions, understand the compositing pipeline, and apply the use of photographic elements. Prerequisites: ANI-105, ANI-120, CIS-148, CSC-110, DRA-110. Corequisite: ANI-150.

### **ANI-160 Post Production**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with an understanding of picture and dialogue editing, a comprehensive overview of film and video editing, as well as demonstrate sound editing and mixing. Prerequisites: ANI-105, CSC-110, DRA-110.

### **ANI-165 Capstone and Demo Reel for Animation**

Lec. 2 Lab. 6 Credit 5

Following successful completion of animation core coursework, this course will provide the student with a basic and broad familiarity in marketing theory and foundation in branding as it potentially revisits elements in Professional Development. This course however will differ, as it allows for more of an experienced-based approach in marketing the self through branding and final capstone project. From an applied point of view, students will come to know the evolution and significance of marketing, product and service positioning, distribution, pricing and strategies for marketing communication and promotion; as well as gain insights into how branding topics and “big picture” issues of how various aspects of marketing “fit together” from a brand equity perspective, in order to apply it to the final project. Once a brand strategy is determined, students

will help promote their ability to enter the industry workforce. They will use their previously created pre-production to guide their project(s) to completion. Once completed, the student will then edit together their project(s) into a demo reel to use after graduation. This course will integrate all facets of the animation course work. Prerequisites: Successful completion of 50 hours of animation core course work.

### **ANI-932 Animation Internship**

Lec. OJT 15 Credit 3.7

This course is designed to provide the student with a practical experience in computer animation prior to completion of the Associate of Applied Science degree. The internship is supervised by the program coordinator & should be taken during the student’s summer semester. Prerequisite: 48 hours completed towards the Computer Animation Program.

### **ANI-941 Animation Studio Practicum**

Lec. 2 Lab. 2 Credit 3

This course is designed to provide students with a practical experience in computer animation prior to completion of the Associate of Applied Science degree. This course is intended for non-interning students. Prerequisite: 48 hours completed towards the Computer Animation Program.

### **ANI-952 Topics-Animation**

Lec. 1 Lab. 2 Credit 2

The purpose of this course is to improve the marketability of students by affording them the opportunity to learn software programs specific to the companies where they are applying to work. Students will use previously gained software knowledge to make class presentations demonstrating the basics of newly attained industry standard software. Prerequisite: ANI-102.

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## **ARC Architectural**

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### **ARC-113 Architectural Drafting I**

Lec. 2 Lab. 4 Credit 4

A course designed to provide a knowledge of residential house construction and house plans. The students are required to draw architectural plans that include foundations, floor plans, electrical plans, elevations, details and perspectives. Prerequisite: CAD-172 or permission of instructor.



## **ARC-129 Residential/Light Commercial Drafting**

Lec. 2 Lab. 4 Credit 4

Designing and drawing a complete set of plans, including specifications, calculations, and rendering for multi-family or similar two story buildings. Emphasis will also be placed on designing an energy-efficient structure. Prerequisite: ARC-113 or permission of instructor.

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## **ART Art**

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### **ART-101 Art Appreciation**

Lec. 3 Lab. 0 Credit 3

A study of aesthetics as related to human expression, especially within the visual arts of painting, sculpture and architecture. This is a humanities-oriented course where art principles are examined as they relate to the production and interpretation of Western art in both historical and cultural contexts covering the Renaissance through post-modern periods. Lectures are illustrated with slides and video tapes. Students will form personal opinions about art by looking at art and evaluating art with methods taught in class.

### **ART-109 Non-Western Art**

Lec. 3 Lab. 0 Credit 3

A survey of art history from prehistoric to modern times of locations outside of Western civilization. Both period style and personal styles will be compared to the lifestyles of the area. Geographical emphases will be in Africa, Eastern and Southern Asia, Central and Native North America, South America and Australia. Class work will consist of discussion of art using slides, prints, videos, hands-on activities and field trips.

### **\*ART-120 2-D Design**

Lec. 2 Lab. 2 Credit 3

This beginning level course for either non-art or art majors allows the student to explore a variety of two dimensional media such as pencil, ink, pastel, watercolor, acrylics, etc. applied on paper and other types of surfaces. A variety of design styles and methods will be introduced using the various elements and principles of design.

### **\*ART-123 3-D Design**

Lec. 2 Lab. 2 Credit 3

This beginning level design course for non-art or art majors allows the student to explore a variety of three dimensional media making constructions such as relief designs, mobiles and sculpture using a variety of media such

as wood, metal, wire, paint, etc. and other media of the student's choice. A variety of design styles and methods will be introduced.

### **\*ART-133 Drawing**

Lec. 2 Lab. 2 Credit 3

A beginning drawing class in a variety of media using an assortment of subjects. The student will explore theories and concepts of drawing.

### **\*ART-134 Drawing II**

Lec. 2 Lab. 2 Credit 3

Development and techniques of a personal drawing style, a continuation of Drawing I with more emphasis on the student's individualized curriculum. Prerequisite: ART-133.

### **ART-138 Figure Drawing**

Lec. 2 Lab. 2 Credit 3

This course introduces the students to figurative drawing. We will focus on structure of the human figure and compositional representation through observation. An emphasis will be placed on refining skills of observation and proportioning of the picture plane. A dialogue on formal aspects covered in Drawing I will continue. Personal expression, approach and conceptual language will be covered through assignments and from a figurative historical perspective. Prerequisite: ART-133 or equivalent.

### **\*ART-143 Painting**

Lec. 2 Lab. 2 Credit 3

A beginning painting course for non-art or art majors in a variety of media. A variety of subjects, theories and concepts will be considered.

### **\*ART-144 Painting II**

Lec. 2 Lab. 2 Credit 3

Development and techniques of a personal painting style; a continuation of Painting I with emphasis on the student's individualized curriculum. Prerequisite: ART-143.

### **ART-154 Mixed Media**

Lec. 2 Lab. 2 Credit 3

This beginning level course allows students to explore art projects that combine a variety of media. The course emphasizes experimentation with conceptual approaches to art. Examples of projects include mixed media on paper, on canvas, handmade art books, assemblage, and found object sculpture.

### **ART-157 Printmaking**

Lec. 2 Lab. 2 Credit 3

Introductory printing course with emphasis in basic printmaking techniques and processes. Printing proficiency in relief, stencil and/or intaglio prints will be pursued.

### **ART-173 Ceramics**

Lec. 2 Lab. 2 Credit 3

A beginning level course for either non-art or art majors exploring hand built pottery techniques and use of the potter's wheel.

### **ART-174 Ceramics II**

Lec. 2 Lab. 2 Credit 3

Advanced hand building and/or throwing techniques; larger scale or more in depth goals; projects may be more sculptural or one of a kind. Prerequisite: ART-173.

### **ART-184 Photography**

Lec. 2 Lab. 2 Credit 3

This course introduces basic camera operations and equipment, processing, and photographic print production for both the traditional and digital cameras. Topics include contrast, depth-of-field, subject composition, density control, film selection, proper exposure, and aesthetics. Digital image scanning, current tools, technologies and software will be covered. Students will need to provide a non-automatic 35MM camera and photographic materials.

### **ART-203 Art History I**

Lec. 3 Lab. 0 Credit 3

A survey of art history from prehistory to the Renaissance. Both period style and personal styles will be compared to the lifestyles of the period. Emphasis will be on artists and art forms of Western cultures. Class work will consist of discussion of art using slides, prints and field trips.

### **ART-204 Art History II**

Lec. 3 Lab. 0 Credit 3

Continuation of ART-203 from Renaissance to post-modern.

### **ART-208 Introduction to Native American Art History**

Lec. 3 Lab. 0 Credit 3

This course would be a general introduction and overview of Native American Art History. It will cover the establishment and development of the visual art from earliest tribes to current tribes. It should also promote awareness of the American Indian in cross-cultural and cross-disciplinary perspectives by studying the arts. The course will be taught by lecture and presentation of

slides. Field trips to surrounding sites to view artifacts will be conducted when possible.

### **ART-295 Portfolio Preparation and Development**

Lec. 1 Lab. 0 Credit 1

This course is designed to cover portfolio preparation and presentation, both traditionally and verbally of their art work for academic and/or professional environment. No text required. Repeatable for a total of 2 credits. Prerequisite: A minimum of two (2) ART Studio courses are required.

### **ART-922 Field Studies**

Lec. 1-3 Lab. 0 Credit 1-3

Field tours to various nations and regions to study their art and art history. Many famous and culturally important original art works will be examined. Specific written credit and participation requirements are established in advance of the field study and according to the number of credit hours enrolled. Each hour of credit requires a minimum of 54 hours of supervised travel and living experience. May be repeated for up to 9 credit hours.

### **\*ART-928 Independent Study**

Lec. 0 Lab. 2-6 Credit 1-3

This course is intended to provide the students an opportunity to select a medium or concept and to explore it in greater depth than is possible in other art courses. Individual study projects will be determined by consultation between the student and the instructor. A minimum of 32 hours of laboratory effort is required for each semester hour of credit. Prerequisites: Any three of the following: ART-120, ART-123, ART-133, ART-143, ART-134, ART-144, ART-153, ART-173, ART-174 and permission of instructor.

May be repeated for up to nine (9) semester hours of credit.

**\* Note:** Students who expect to transfer art credit to a senior college or art school as part of an art major or minor should be aware that a portfolio of their work in drawing, painting, design and independent study courses must be maintained for presentation to the senior institution to which they transfer. The art instructor will help select and prepare the portfolio.

## **AUT Automotive Technology**

### **AUT-106 Introduction to Automotive Technology**

Lec. 1 Lab. 2 Credit 2

This course will serve as an introduction to the complete automotive field, including safety, ASE certification, employment potential, customer service, employer/employee relations and the parts and service industry.

### **AUT-126 Fundamentals of Automotive Servicing**

Lec. 1 Lab. 2 Credit 2

This course will familiarize students with basic scheduled maintenance. Proper usage of hand and power tools will be covered, as well as precision measuring systems and equipment. Prerequisite: A grade of C- or above in AUT-106.

### **AUT-166 Automotive Engine Repair**

Lec. 3 Lab. 6 Credit 6

This course will introduce the internal combustion engine and the variety of designs in popular usage today. It also offers a general introduction to engine diagnosis and testing. The engine will be explored piece by piece, and the description and function of each part explained.

### **AUT-190 Hybrid Fundamentals**

Lec. 1 Lab. 2 Credit 2

This course will familiarize students with general hybrid history and benefits, basic safety precautions, specific maintenance procedures, location and description of hybrid components for hybrid vehicles. Prerequisite: SCI-115

### **AUT-207 Automotive Transmissions and Transaxles**

Lec. 2 Lab. 8 Credit 6

This course discusses automatic transmission and transaxle theory, components, operation and service.

### **AUT-244 Manual Drivetrains I**

Lec. 1 Lab. 4 Credit 3

This course will introduce the student to the concepts of front- and rear-wheel drive, four-wheel and all-wheel drive vehicles. Clutches, CV joints, and universal joints will also be covered.

### **AUT-246 Manual Drivetrains II**

Lec. 1 Lab. 4 Credit 3

This course will provide the student with an understanding of differentials, as well as the major parts of a manual transmission.

Inspection, maintenance, lubrication, disassembly and reassembly will be emphasized. Prerequisite: AUT-244.

### **AUT-405 Automotive Suspension and Steering**

Lec. 2 Lab. 6 Credit 5

This course will look closely at automotive suspension systems, manual, power and four-wheel steering, and proper vehicle wheel alignment.

### **AUT-505 Automotive Brake Systems**

Lec. 2 Lab. 6 Credit 5

This course will explain and demonstrate the principles of friction and the components and operation of hydraulic brakes, including power and anti-lock brakes. C- or above in AUT-126.

### **AUT-610 Automotive Electrical I**

Lec. 2 Lab. 4 Credit 4

This course will introduce to the student the theory and operation of basic electrical and electronic principles as a science. How the basics are applied to automotive electrical circuits and the proper procedures to diagnose and repair are covered. Lab sessions are spent turning theory into "hands-on" practice with meters and basic circuits.

### **AUT-625 Automotive Electrical II**

Lec. 4 Lab. 8 Credit 8

This course will build on the electrical and electronic basics learned in AUT-610, Electrical I. The semi-conductor will be explained and the application used in the automobile will be explored. The students will learn digital logic and computer functions and operations, which make today's automobiles run. Prerequisite: AUT-610.

### **AUT-700 Automotive Heating and Air Conditioning**

Lec. 1 Lab. 3 Credit 2.5

This course will cover heating, venting, and air conditioning theory, components and operation. Alternative refrigerants, retrofitting, troubleshooting and service procedures will also be covered.

### **AUT-800 Engine Performance**

Lec. 4 Lab. 8 Credit 8

This course will study the fuel and ignition delivery systems that make the internal combustion engine perform. The course covers early carburetion through fuel injection and point type ignition to distributor-less ignition systems. The students will learn the diagnosis and repair techniques needed to repair the computer-controlled

automobiles of today.

### **AUT-911 Cooperative/Internship**

Lec. 0 Lab. 0 OJT 16 Credit 4

Supervised work experience with an approved auto technology employer. Individual student eligibility will be determined by the instructor. Placement will depend on the student's skill level and the availability of appropriate training sites.

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## **BCA Business Computer Applications**

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### **BCA-055 Developing Computer Literacy**

Lec. 0 Lab. 1 Credit .5

The purpose of this course is to provide hands-on experience while introducing students to computers and to develop computer literacy.

### **BCA-060 Word Processing**

Lec. 0 Lab. 4 Credit 2

This course is intended for students who have adequate basic keyboarding skills to provide a realistic view of information processing procedures. Major emphases are on formatting and text-editing concepts.

### **BCA-065 Spreadsheets for Clerical Workers**

Lec. 0 Lab. 4 Credit 2

This course provides students with hands-on experience using computers and a commercial application software program. This unit will provide students with a realistic view in designing and developing spreadsheets in relation to today's business environment. Topics covered include functions and formulas, worksheet formatting, and macros. Prerequisite: BCA-055 or equivalent.

### **BCA-067 Databases for Clerical Workers**

Lec. 0 Lab. 4 Credit 2

This course provides students with hands-on experience using computers and a commercial application software program. This unit will teach what constitutes a database and the associated terminology. The student will manipulate information in pre-developed databases and construct databases to help solve particular problems. Prerequisite: BCA-055 or equivalent.

### **BCA-116 Introduction to the Internet**

Lec. 3 Lab. 0 Credit 3

The course provides the student with an understanding of the history of the internet, internet terminology, and how to efficiently use the internet resources available. Topics covered are: communicating over the

internet, how to find information, how to create web pages, and how to use multimedia on the internet.

### **BCA-157 Intermediate Spreadsheets**

Lec. 2 Lab. 2 Credit 3

This advanced course in electronic spreadsheets emphasizes the use of advanced features of a leading electronic spreadsheet software package in a Microsoft Windows environment. Topics to be covered include spreadsheet editing, working with multiple worksheets, creating a Web page from a spreadsheet, developing spreadsheet applications, creating and using macros, using data tables and scenario management, importing data, and enhancing a spreadsheet with Visual Basic for Applications. Prerequisite: Grade of "C-" or higher in CSC-110, or CSC-140.

### **BCA-187 Computer Applications**

Lec. 1 Lab. 0 Credit 1

The student will become familiar with general computer concepts, terminology, and management using the Windows platform. File management and maintenance will be covered as well as using the Microsoft Word and Excel programs. Some Internet exposure will be covered with emphasis on bookmarking, downloading, and seeking upgrades to devices and/or software.

### **BCA-190 Computer Concepts**

Lec. 1.5 Lab. 0 Credit 1.5

This course introduces the practical application of computers and communication technology. The course is designed to provide students with a basic understanding of computer terminology and concepts which can be applied and extended to the realm of school and work.

### **BCA-765 Macromedia Flash**

Lec. 2 Lab. 2 Credit 3

This course will cover movies, layers, drawings, action buttons, frame animation, motion-tweened animation, and special effects. Students will also learn to import and modify graphics and build complex animation. Prerequisites: A passing grade in any computer applications, programming or operating systems course or a passing score on a computer-based file management test given on the first lab day.

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## **BIO Biology**

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### **BIO-105 Introductory Biology**

Lec. 3 Lab. 2 Credit 4

Introductory Biology is a lecture and lab course designed for non-science majors or as a refresher course of those wishing to take higher-level biology courses. Topics include chemistry of life, molecular and cellular biology, genetics, evolution, plant, animal, and fungi classification, and ecology.

### **BIO-112 General Biology I**

Lec. 3 Lab. 2 Credit 4

First semester of biology for majors. An intensive cellular and molecular approach to the study of biological principles with emphases on biomolecules, cellular biology, genetics, and evolution. Prerequisite: CHM-165.

### **BIO-113 General Biology II**

Lec. 3 Lab. 2 Credit 4

Second semester of biology for majors. Topics covered include: taxonomy and a survey of invertebrate and vertebrate organisms, fungi and plants. Prerequisite: BIO-112 with a minimum grade of C and CHM-165 with a minimum grade of C.

### **BIO-138 Field Ecology**

Lec. 2 Lab. 2 Credit 3

A study of ecology and conservation using various resources but including "A Sand County Almanac" by Aldo Leopold in conjunction with both field and lab work.

### **BIO-151 Nutrition**

Lec. 3 Lab. 0 Credit 3

This course explores nutrition as it relates to health, disease and stages of human development and life cycle. Emphasis is on essential nutrients, what they are and how they are used by the body. Food safety and food technology will be covered.

### **BIO-163 Essentials of Anatomy and Physiology**

Lec. 3 Lab. 2 Credit 4

This introductory course is designed for the student needing a one-semester combined anatomy and physiology course with laboratory. All systems will be covered with greater emphasis on the cardiovascular, respiratory, immune and urinary systems. This course also provides background for the more advanced course, BIO-177, Human Anatomy.

### **BIO-168 Human Anatomy and Physiology I**

Lec. 3 Lab. 2 Credit 4

The first of a two-semester sequence providing a comprehensive study of the anatomy and physiology of the human body for college transfer and/or allied health prerequisites. Topics include body organization; homeostasis; cytology; histology; and the integumentary, skeletal, muscular, nervous systems, and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Laboratory component includes anatomical studies using microscopy and dissection of selected organisms as well as the study of physiological concepts via experimentation. It is highly recommended that a student complete this series (BIO-168 and BIO-173) at SCC in order to maintain transferability to four-year institutions.

### **BIO-173 Human Anatomy and Physiology II**

Lec. 3 Lab. 2 Credit 4

Second of a two-semester sequence continuing the comprehensive study of the anatomy and physiology of the human body for college transfer and/or allied health prerequisites. Includes the study of the endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Laboratory component includes anatomical studies using microscopy and dissection of selected organisms as well as the study of physiological concepts via experimentation. Prerequisite: BIO-168 with a minimum grade of C.

### **BIO-180 Human Physiology**

Lec. 3 Lab. 2 Credit 4

Advanced structural and functional relationships of the human body with an emphasis on function. Prerequisites: BIO-177 with a minimum grade of C and BIO-252 with a minimum grade of C.

### **BIO-186 Microbiology**

Lec. 3 Lab. 2 Credit 4

A study of microbial populations and their relationships to the human in health and disease. Prerequisite: BIO-252 with a minimum grade of C or CHM-165 and BIO-112 with a minimum grade of C.

### **BIO-248 Introduction to Bioscience Technology**

Lec. 3 Lab. 2 Credit 4

An exploration of the expanding field of biotechnology and its impact on science and society. Fundamental biological, chemical, and mathematical principles as they apply to biotechnology are examined. Laboratory emphasizes essential methodologies employed in scientific inquiry and experimentation.

### **BIO-252 Biomolecular Processes**

Lec. 2 Lab. 2 Credit 3

This class is designed primarily for first-year students in various health-related programs. Emphasis is placed on descriptive aspects of inorganic chemistry, organic chemistry and biochemistry as applied to the human body.

### **BIO-277 Evolution**

Lec. 3 Lab. 0 Credit 3

The course is an introduction to evolution by natural selection. Topics include the origins of the Universe, Earth and life as well as Darwin and natural selection. Topics also include Mendel and genetics/DNA. The evidence for evolution is presented, as is an overview of the controversy over evolution in the United States.

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## **BUS Business**

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### **BUS-102 Introduction to Business**

Lec. 3 Lab. 0 Credit 3

An overview of contemporary business principles touching on all the major functional areas of business and trends that are shaping today's business environment. Understanding the fundamental pillars of the business environment – globalization, technology, and ethics – is a crucial component in this course.

### **BUS-121 Business Communications**

Lec. 3 Lab. 0 Credit 3

Designed to help the student develop effective communication techniques necessary for general business messages. The course emphasizes application of these techniques through the composition and keyboarding of letters, memos, reports and some oral presentations. Prerequisite: the ability to keyboard class assignments in mailable form.

### **BUS-140 Small Business Start-Up**

Lec. 2 Lab. 0 Credit 2

This course provides an introduction to the various aspects of starting a small business. There will be extensive coverage on how to create a business plan. The course will consist of various individual and group projects.

Students should be able to enter the business world with the knowledge it takes to build a foundation for success in their own business.

### **BUS-150 E-Commerce**

Lec. 3 Lab. 0 Credit 3

This course will introduce the student to the basic elements of electronic commerce as a market where commercial activities are conducted. It will focus on business concepts and how to apply technology in order to be successful. Topics include market trends, globalizing a company, vendor solutions, storefronts, advertising, resource requirements, and operational issues of launching a commercial presence in today's global electronic marketplace.

### **BUS-180 Business Ethics**

Lec. 3 Lab. 0 Credit 3

This course introduces philosophical ethical theory and its application to business decisions. It considers theories of economic justice, social responsibility of corporations, regulation, conflict of interest and obligations, ethics of advertising, product quality and safety, environmental responsibility, hiring practices and rights of employers and employees.

### **BUS-185 Business Law I**

Lec. 3 Lab. 0 Credit 3

The legal environment of business. The study of contract requirements, personal property and bailments, as time permits.

### **BUS-186 Business Law II**

Lec. 3 Lab. 0 Credit 3

A continuation of BUS-185 in the area of: sales, principal-agent relationships, commercial paper, creditor's rights and secured transactions, real property, and bankruptcy. Prerequisite: BUS-185.

### **BUS-203 Professional Development**

Lec. 2 Lab. 0 Credit 2

This course is designed to build student skills in setting goals, conversation, meetings, parliamentary procedure, business meals and travel, customer service, presentations, professional image, and writing cover letters and resumes. The course also requires attendance at leadership, civic and cultural events.

### **BUS-290 Employment Search and Workplace Success**

Lec. 1 Lab. 0 Credit 1

A discussion of field experience problems and study of new occupational information will be presented. An internship paper covering the experience will be submitted.

Corequisite: BUS-932.

### **BUS-932 Business Internship**

Lec. 0 Lab. 0 OJT 14 Credit 4

The Administrative Assistant degree options offer, at certain stages of their curriculum, cooperative programs in which students may gain practical business experience. When the student has reached a predetermined level of proficiency, each student is placed at a training station for a predetermined number of contact hours where practical experience can supplement the classroom skill building. Placement will depend on student's skill level and the availability of appropriate training firms. Students enrolled in the Administrative Assistant Program must have completed ADM-162 and ADM-119 before enrolling in BUS-932 and BUS-290. Corequisite: BUS-290.

### **BUS-936 Business Capstone**

Lec. 1 Lab. 0 Credit 1

This course is designed to serve as a capstone class for Business majors. Topics covered in the course will include resumes, interview skills, and professionalism. In addition, each student will complete a case study in his/her particular area of interest including but not limited to accounting, management, marketing, and economics. In lieu of a case study, a service learning or other project may be completed. A professional presentation of whichever activity is selected will be made. An end-of-program assessment will be taken as a part of this course. Prerequisite: Student must have completed at least 48 credit hours in the Accounting or Business Administration Degree or have program coordinator approval.

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## **CAD Computer Aided Drafting**

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### **CAD-101 Introduction to CAD**

Lec. 1 Lab. 4 Credit 3

An introduction to computer aided design and drafting. Actual hands-on experience in designing, drawing, and dimensioning using CAD micro-based CAD software. The course presents logical step-by-step instruction about the CAD commands, mode settings, drawing aids, shortcuts and other valuable characteristics of CAD. Finished copies of the students' work will be made on a printer or plotter.

### **CAD-140 Parametric Solid Modeling I**

Lec. 1 Lab. 4 Credit 3

This course covers the basics of creating

parts, modeling utilities, creating engineering drawings, and creating assemblies using solid modeling software. Prerequisites: CAD-101 and CAD-277.

### **CAD-175 Advanced CAD: AutoCAD**

Lec. 1 Lab. 2 Credit 2

A continuation of computer aided design (CAD) using AutoCAD software. The student will learn calculating strategy, making blocks, symbol library creation, bills of material, three dimensional drawings and customizing AutoCAD to fit individual needs. Prerequisite: CAD-172.

### **CAD-180 Introduction to Solidworks**

Lec. 1 Lab. 2 Credit 2

A continuation of computer aided design using Solidworks software. The student will be introduced to parametric solid modeling drafting concepts and part analysis with an emphasis on new trends and operations. Prerequisites: CAD-172 and CAD-175

### **CAD-230 Geometric Dimensioning & Tolerancing**

Lec. 1 Lab. 2 Credit 2

A course designed to acquaint students with the standards (ANSI Y14.5M) for Geometrical Dimensioning and Tolerancing, which is required for all government-related drawings and manufactured products. Prerequisite: DRF-113, CAD-172 or permission of instructor.

### **CAD-248 Parametric CAD II**

Lec. 1 Lab. 4 Credit 3

A continuation of computer aided design (CAD) using SolidWorks software. The student will learn to create and print parametric solids as well as how to use SolidWorks to analyze objects. Prerequisite: CAD-180.

### **CAD-277 3-D Dimensional (3-D) Modeling I**

Lec. 1 Lab. 4 Credit 3

This course teaches parametric solid model CAD basics. Three-dimensional parametric concepts with design intent and solid CAD models will be built and edited. This course builds on previous basic drafting skills and focuses on using parametric solid modeling design software to develop technical drawings. Topics include patterns of features, editing, adding dimensions and creating simple assemblies. Prerequisite: CAD-101.

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## **CFR Computer Forensics**

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### **CFR-100 Introduction to Computer Forensics**

Lec. 2 Lab. 2 Credit 3

This course deals with the preservation, identification, extraction, documentation and interpretation of computer data. Special computer skills and tools will be introduced. Legal concerns and ethical conduct will be emphasized. Prerequisites: NET-142, NET-314 and NET-442.

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## **CHM Chemistry**

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### **CHM-122 Introduction to General Chemistry**

Lec. 3 Lab. 2 Credit 4

This introductory course is intended for non-science majors or for science majors who need a background in chemistry before taking College Chemistry I. Topics covered include properties of matter, measurements, atomic structure, chemical bonding and stoichiometry. Prerequisite: One year high school algebra or MAT-062.

### **CHM-165 General Chemistry I**

Lec. 3 Lab. 2 Credit 4

The first semester of a traditional two semester sequence. General Chemistry I provides an in-depth and integrated study of chemical principles including terminology, measurements, unit conversions, atoms, elements, molecules, compounds, moles, stoichiometry, gases and gas laws, energy, electron configurations, periodicity and chemical bonding. Prerequisite: 1 year high school chemistry or CHM-122 or BIO-252; high school algebra or equivalent.

### **CHM-175 General Chemistry II**

Lec. 3 Lab. 2 Credit 4

The second semester of the traditional two semester sequence. College Chemistry II covers basic principles of intermolecular forces, colligative properties, reaction kinetics, chemical equilibrium, acids and bases, precipitation reactions, spontaneity and electrochemistry. Prerequisite: CHM-165.

### **CHM-263 Organic Chemistry I**

Lec. 4 Lab. 2 Credit 5

Fundamental principles of organic chemistry for pre-medical, pre-dental, pre-pharmacy, biochemistry, medical technology, forestry, and home economics students, as well as liberal arts students who have a special interest in the sciences. These general principles are illustrated by preparation

and study of typical representatives of the aliphatic and aromatic series including all common functional groups. Prerequisite: CHM-175.

### **CHM-273 Organic Chemistry II**

Lec. 4 Lab. 2 Credit 5

Continuation of Organic Chemistry I, with advanced synthesis, instrumental analysis, and emphasis on biochemistry. Prerequisite: CHM-263.

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## **CIS Computer Programming**

### **CIS-125 Introduction to Programming Logic w/Language**

Lec. 2 Lab. 2 Credit 3

Introduction to computer programming with structured program development and module designs emphasized. Write programs related to several areas, including input/output, numerical computation, iteration, recursion, data manipulation, and interactive procedures.

### **CIS-148 3D Modeling and Character Animation**

Lec. 2 Lab. 2 Credit 3

This course will give students a hands on, example-based introduction to modeling and animation process for use in 3D. Students will use industry standard software to develop their models and will be exposed to topics such as mesh modeling, rigging and skinning, character animation, texture and texture mapping.

### **CIS-161 C++1**

Lec. 3 Lab. 0 Credit 3

This course is designed to give students a basic understanding of the C++ language. Topics covered include the Visual C++. NET environment, variables, calculations, loop structures, decision structures, pointers, arrays, functions and function templates.

### **CIS-171 JAVA**

Lec. 3 Lab. 0 Credit 3

This course will introduce the object-oriented programming language JAVA. Console applications, Window applications, and JAVA applets which will be embedded in a web page will be covered. Prerequisite: CIS-609.

### **CIS-175 JAVA II**

Lec. 3 Lab. 0 Credit 3

This course is a continuation of CIS-171, JAVA, and will build on skills learned previously. Topics will include building Web applications, JavaBeans, Enterprise JavaBeans, Network Programming, J2EE features, and

security. Prerequisite: CIS-171.

### **CIS-207 Fundamentals of Web Programming**

Lec. 2 Lab. 2 Credit 3

This course provides students with an introduction to the concepts of developing a web site. This course is intended to be the first course taken in the web site development area. Students will gain familiarity with creating web sites using HTML, JavaScript and Cascading Style Sheets.

### **CIS-215 Server Side Web Programming**

Lec. 2 Lab. 2 Credit 3

This course is designed to provide the student with a basic understanding of Active Server pages. ASP provides the ability to deliver HTML, client-side scripts, web controls, and server-side processing. In addition, ASP can be used with ActiveX controls, JAVA applets, databases and many COM-based servers.

### **CIS-332 Database and SQL**

Lec. 2 Lab. 2 Credit 3

This course is an introduction to SQL as a database programming language to those already familiar with basic relational database concepts. Students will write executable SQL statements to create and maintain database objects.

### **CIS-504 Structural Systems Analysis**

Lec. 2 Lab. 2 Credit 3

Course will provide student knowledge in the complete process of systems analysis and design and the steps involved. Actual systems analysis and design lab practices will measure student's understanding. Concepts in Project Management will also be covered. Prerequisites: Fifteen hours of IT classes completed toward degree.

### **CIS-609 Visual Basic.Net**

Lec. 3 Lab. 2 Credit 4

This course is designed to be a beginning course in programming. Concepts presented will include the program planning and design; the objects, methods, controls and properties of Visual Basic; using control structures; and manipulating arrays. These will be presented using a hands-on approach. No previous programming experience is necessary.

### **CIS-810 Emerging Technologies Seminar**

Lec. 1 Lab. 0 Credit 1

This course will provide the student with the skills to research, evaluate and make recommendations about new products and emerging technologies. Students will explore

and research changing technologies and will make professional presentations of their findings. Prerequisite: Fifty hours completed toward Information Technology or Graphic Communications degree.

### **CIS-952 Topics**

Lec. 3 Lab. 4 Credit 5

This course will enable students to explore various programming technologies and determine how they may be integrated to form practical solutions in today's marketplace. Topics may vary from semester to semester, depending on current market trends.

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## **COM Communication**

### **COM-102 Communication Skills**

Lec. 3 Lab. 0 Credit 3

This course is structured to develop the fundamentals of acceptable communication and technical expression relevant to the students' career requirements: reading, writing, listening, and speaking. Prerequisites: Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-061, College Preparatory Writing II. No waivers.

### **COM-103 Communication Skills**

Lec. 2 Lab. 0 Credit 2

A course structured to develop the fundamentals of acceptable communication and technical expression relevant to the student's major field of study. Assignments emphasize the practical communication skills needed for the student's career requirements.

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## **CON Construction**

### **CON-108 Construction Safety**

Lec. 1 Lab. 0 Credit 1

The Construction Safety course will provide students with requirements and expectations required to work in the numerous facets of the construction industry. The course will introduce the national OSHA safety standards for General construction and upon their completion of this course will receive the OSHA 10 hour General Construction certification.

### **CON-109 Construction Safety**

Lec. 2 Lab. 0 Credit 2

A course dealing with occupational safety regulations and practices. Areas of emphasis will be the elements of an occupational

safety program, safe working environment, personnel protection and welfare, occupational health hazards, safety laws and legal aspects of safety.

### **CON-113 Construction Printreading**

Lec. 1 Lab. 2 Credit 2

Stresses principles of interpreting trade blueprints and reading of specifications basic to all aspects of the trades. Deals with types of line, development and arrangement of views, dimensioning practices, and invisible edges. Practical problems from prints suited to the particular trade will be incorporated.

### **CON-128 Construction Management Estimating**

Lec. 2 Lab. 2 Credit 3

Interpretation of construction drawings and specifications. Introduction to estimating quantities, cost of materials, and labor costs. Work methods, job planning, project scheduling and control, field administration and management procedures of contracting will be covered.

### **CON-139 Construction Techniques**

Lec. 2 Lab. 2 Credit 3

A course designed to enable students to develop basic skills and knowledge in the construction field. Included in the course is a study of construction techniques with emphasis on light construction involving job and site planning, materials framing techniques, electrical wiring, plumbing, and other areas related to the construction of small homes and buildings.

### **CON-147 Carpentry I**

Lec. 3 Lab. 6 Credit 6

A course designed to enable students to develop basic skills and knowledge in carpentry. Included in this course is the study of construction techniques with emphasis on basic safety, basic math, introduction to hand and power tools, basic rigging, fasteners, wood building materials, floor and wall systems, site preparation, concrete and reinforcement materials, concrete handling, and forming foundations and flatwork.

### **CON-148 Carpentry II**

Lec. 3 Lab. 6 Credit 6

A course designed to further enable students to develop carpentry skills with emphasis on special floor, wall and roof systems, reading plans and elevations, field engineering principles, forming, and water and damp proofing. Prerequisite: CON-147.

### **CON-149 Carpentry III**

Lec. 3 Lab. 6 Credit 6

A continuation of carpentry skills with emphasis on stair construction, reinforcing concrete, patented forms, interior finish: ceiling systems, exterior wall finishes, roofing applications and installation of cornices, gutters and downspouts. Prerequisite: CON-148.

### **CON-252 Construction Electricity**

Lec. 1 Lab. 4 Credit 3

This course introduces the requirements for and installation of residential and light commercial electrical systems. Emphasis will be placed on local and national Electrical Codes. Hands-on experience will include such activities as basic wiring of the service entrance, panel box, circuits, switches, receptacles, telephone and TV jacks, door chimes, smoke detectors and other similar electrical devices. This course is specifically designed for those students choosing a Construction or Design curriculum.

### **CON-262 Commercial Carpentry II**

Lec. 3 Lab. 6 Credit 6

A course of further carpentry emphasis on finished stairs, introduction to supervision, laser instruments, supplements to ceiling systems, metal studs and drywall, interior finish: doors and windows, wall and floor specialties and cabinetry. Prerequisite: CON-149.

### **CON-270 Mechanical Systems**

Lec. 1 Lab. 4 Credit 3

A course designed to introduce students to the requirements of residential and light commercial plumbing, heating, and ventilation systems. Emphasis will be placed on local and national code requirements. Study will include the building requirements to receive each system, determining the size of system components and the theory of size calculations. Hands-on experience will include such activities as working with DWV piping, water supply piping, plumbing fixtures, heat and vent ducting, heating controls, and ventilation components.

### **CON-332 Construction Materials and Resources**

Lec. 3 Lab. 0 Credit 3

This course is designed as a comprehensive overview of the construction industry and materials used in the profession. It is a conceptual treatment of the construction-personnel production system. Also included is a study of the materials of construction, their properties, manufactures, characteristics

and applications.

### **CON-340 Construction Surveying**

Lec. 2 Lab. 2 Credit 3

Leveling, topographic surveying, triangulation, horizontal and vertical angles, area, determination, and other basic construction applications. Includes the layout of buildings and road curvatures, care and use of instruments.

### **CON-345 Soils and Concrete**

Lec.3 Lab. 0 Credit 3

This course is a study of the characteristics of soil and concrete. Such components as design, core samples, grain structure, compaction and strength test, mixes, treatments, reinforcement, "slump test", etc., will be covered as well as various application and installation methods.

### **CON-350 Construction Management Internship**

Lec. 0 Lab. 0 OJT 8-20 Credit 5

Provide student with the opportunity to integrate classroom learning and experiences in a construction industry setting. Internship agreement must be completed before students may enroll. Prerequisite: At least two construction courses must be completed with a minimum of a "C" grade in each course.

### **CON-411 On-The-Job Training I**

Lec. 0 Lab. 0 OJT 8-16 Credit 2-4

Supervised work experience with an approved builder. Individual student eligibility will be determined by minimum placement standards for each program. Placement will depend on student's skill level and the availability of appropriate training sites.

### **CON-412 On-The-Job Training II**

Lec. 0 Lab. 0 OJT 8-16 Credit 2-4

Supervised work experience with an approved builder. Individual student eligibility will be determined by minimum placement standards for each program. Placement will depend on student's skill level and the availability of appropriate training sites.

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## **CPC Certified Professional Coder**

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### **CPC-120 Introduction to Medical Procedural Coding**

Lec. 3 Lab 3 Credit 4.5

This course prepares students for a career in medical coding in the medical office. Introduction to current procedural terminology (CPT) manual, ICD-9 with medical necessity, HCPCS, and medical



coding compliance and guidelines.

Corequisites: CPC-125 and CPC-129.

### **CPC-125 Diagnostic Coding**

Lec. 2 Lab 2 Credit 3

The course will prepare the student for application coding nuances and guidelines along with compliance as it is related to diagnostic coding. The student will be able to assign diagnostic codes reporting all applicable codes and sequence in accordance with the guidelines. Corequisites: CPC-120, CPC-129.

### **CPC-129 Introduction to Medical Insurance & Billing**

Lec 1 Lab 2 Credit 2

This course is designed to assist students in understanding the complexities of current insurance and billing procedures in the medical office or clinic setting. The student will obtain a sound foundation of the nuances, guidelines and requirements involved. The student will be familiarized with claims submission for major medical insurance/reimbursement programs.

Corequisites: CPC-120, CPC-125.

### **CPC-131 Medical Insurance & Billing II**

Lec 2 Lab 2 Credit 3

This course will discuss all aspects of insurance billing for today's health care plans. The latest information on HIPAA and OIG regulations, diagnostic and procedural coding, and office and insurance collection strategies will be covered, ensuring preparation for real-world situations. Also covered will be the importance of the medical insurance specialist's role in filing clean claims, solving problems that do occur and collecting overdue payments. Prerequisites: HSC-114, MAP-145, MAP-431, CPC-120, CPC-125 and CPC-129. Corequisites: CPC-160 and CPC-150.

### **CPC-150 Medical Procedural Coding**

Lec 3 Lab 0 Credit 3

This course will discuss the background of CPT, HCPCS coding, modifier assignment, CPT guidelines and the assignment of codes, ICD-9 selection, medical necessity regulations, documentation guidelines, HIPAA law, and how to read, interpret, and audit a chart or operative record. Prerequisites : HSC-114, MAP-145, MAP-431, CPC-120, MAP-105 and BIO-163. Corequisite: CPC-160.

### **CPC-160 Applications of Procedural Coding**

Lec 0 Lab 4 Credit 2

This course allows the student to apply knowledge of CPT, modifier assignment, HCPCS, ICD-9 selection, with medical necessity. Prerequisites: HSC-114, MAP-145, MAP-431, CPC-120, MAP-105 and BIO-163. Corequisite: CPC-150.

### **CPC-810 Medical Coding & Billing Externship**

Lec 0 Lab 0 OJT 10 Credit 2.5

The student will be placed in a predetermined medical office, clinic or related facility, and work under the supervision of an office manager or coding/billing supervisor, and the program coordinator for a 160 hour minimum required practicum. Prerequisites : HSC-114, MAP-145, MAP-431, CPC-129, CPC-120, CPC-150, CPC-131, CPC-160, MAP-401 and MAP-532. Corequisite : CPC-945.

### **CPC-945 Medical Coding & Billing Seminar**

Lec 1 Lab 0 Credit 1

This course prepares students for job readiness skills needed in their chosen career of medical coding and billing. The student will also be prepared to take a mock certification examination. Prerequisites : HSC-114, MAP-145, MAP-431, CPC-129, CPC-120, CPC-125, CPC-150, CPC-131, CPC-160, MAP-401 and MAP-532. Corequisite: CPC-810.

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## **CRJ Criminal Justice**

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### **CRJ-100 Introduction to Criminal Justice**

Lec. 3 Lab. 0 Credit 3

An introductory course in criminal justice designed to provide a philosophical and historical account of American criminal justice with emphasis on constitutional limitation.

### **CRJ-101 Ethics in Criminal Justice**

Lec. 3 Lab. 0 Credit 3

Focuses on philosophical and theoretical issues and analyzes research findings to determine their implications for future practice. The student will learn how to identify and confront difficult ethical decisions they are likely to face in their daily routines.

### **CRJ-109 Theories of Interviewing**

Lec. 3 Lab. 0 Credit 3

The process of gathering information from

others: the interviewee, the setting, the types of questions, nonverbal communication, deception and theories of communication. Corequisites: CRJ-141.

### **CRJ-111 Police and Society**

Lec. 3 Lab. 0 Credit 3

An examination of the role of the police and corrections in American society, and a discussion of prominent issues. The course will examine the various eras of policing and correctional agencies. the structure and style of various policing and correctional agencies will also be covered. Agency application of internal and ethical issues including use of force will be examined. Strategies and policies to improve policing and correctional work environment will also be discussed.

### **CRJ-120 Introduction To Corrections**

Lec. 3 Lab. 0 Credit 3

To trace the history of corrections and describe the various methods society has used to deal with people who violate its rules. The course will show the relationship of corrections and agencies to the overall criminal justice system.

### **CRJ-130 Criminal Law**

Lec. 3 Lab. 0 Credit 3

A study of the history, development and classification of substantive and procedural aspects of criminal law, defenses and criminal responsibility.

### **CRJ-132 Constitutional Law**

Lec. 3 Lab. 0 Credit 3

An analysis of the relationships between state legislations and the Bill of Rights. Includes the effect of the due process clause of the 14th Amendment on the application of the Bill of Rights to these states and Supreme Court decisions regarding the various state challenges. Prerequisite CRJ-100.

### **CRJ-141 Criminal Investigation**

Lec. 3 Lab. 0 Credit 3

Fundamental methods of investigation, crime scene search, recording, collection and preservation of evidence, interview and interrogation, and case follow-up. Corequisite: CRJ-109.

### **CRJ-222 Correctional Treatment Methods**

Lec. 3 Lab. 0 Credit 3

A criminal justice course designed to provide students the opportunity to examine and practice correctional treatment methods for diverse offender populations. Prerequisite: 48 Criminal Justice Program Credits.

### **CRJ-301 Introduction to Homeland Security**

Lec. 3 Lab. 0 Credit 3

The course is an examination of the role of government and, more specifically, first responders play in the current threat to our nation from terrorism. The course will examine the role, authority, and history of the government when faced with these threats. The structure, style, and current practices will be covered along with an attempt to discover best practices and cost effective solutions.

### **CRJ-932 Internship**

Lec. 0 Lab. 0 OJT 4-12 Credit 1-3

A practical work experience under professional supervision in a criminal justice agency. Prerequisite: Completion of Criminal Justice core or permission of instructor.

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## **CRR Collision Repair/Refinish**

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### **CRR-120 MIG (GMAW) Welding**

Lec. 1 Lab. 4 Credit 3

This course will serve as an introduction to metal inert gas welding or gas metal arc welding in collision repair. Students will learn how to identify and perform proper welding techniques to repair modern high strength steel cars/trucks and motorcycles.

### **CRR-201 Plastic Repair**

Lec. 1 Lab. 2 Credit 2

This course will serve as an introduction to identification and repair of the most commonly used plastics on modern cars and motorcycles as used in the automotive and wind power industry. Students will learn plastic welding and bonding techniques.

### **CRR-300 Preparation**

Lec. 1 Lab. 2 Credit 2

This course is an introductory course designed to help students identify safety hazards in the work area, safe vehicle lifting techniques and how to identify and handle hazardous materials. Students will learn how to inspect, remove and store trim, glass, metal and molding components; protect adjacent panels during repairs; remove corrosion materials and other protective coatings; review damage reports and analyze damage to determine proper method of overall repair; develop repair plan; use appropriate cleaners to remove contaminants from surfaces to be repaired; apply environmental practices associated with repair of cars/trucks and motorcycles. Prerequisite: Valid driver's license.

### **CRR-340 Metal Straightening**

Lec. 1 Lab. 4 Credit 3

This course will serve as an introduction to metal straightening and fabrication. Students will learn to manipulate and operate special equipment specifically designed to return metals back to their original shapes contours, and fabricate panels. Students will learn to heat shrink and cold shrink metals to obtain original contours within industry standards and will learn to mix, apply and shape polyester fillers to OE appearances.

### **CRR-400 Panel Replacement and Adjustment**

Lec. 2 Lab. 3 Credit 3.5

This course will serve as an introduction to replacement and adjustment of non-structural parts. Students will learn to determine extent of damage; remove bolted, bonded and welded parts; repair aluminum; align hoods, doors, deck lids and fenders; straighten and rough out contours to their original shapes; weld torn sheet metal; restore corrosion protection; replace door skins; repair wind, water and dust leaks.

### **CRR-410 Full or Partial Body Panel Replacement**

Lec. 1 Lab. 5 Credit 3.5

This course will serve as an introduction to the replacement of major structural and cosmetic weld on body panels on modern automobiles. Students will learn I-CAR based body panel and structural component sectioning techniques using metal inert gas welding and bonding materials.

### **CRR-454 Glass Replacement**

Lec. 1 Lab. 2 Credit 2

This course will serve as an introduction to replacement of broken tempered and laminated safety glass. Students will learn different types of installation techniques and how to identify and use proper adhesives for glass installation.

### **CRR-500 Damage Analysis**

Lec. 1 Lab. 2 Credit 2

This course will serve as an introduction to the evaluation of collision damage. Students will learn to identify primary and secondary damage and prepare a successful repair plan.

### **CRR-525 Straightening Structural Parts**

Lec. 2 Lab. 7 Credit 5.5

This course will serve as an introduction to the repair and realignment of modern Unibody and Body-over-frame constructed vehicles. Students will learn to apply corrective forces to reverse collision damage accurately and efficiently with all forms of

measuring equipment to restore vehicle to pre-accident condition.

### **CRR-575 Advanced Structural Repair**

Lec. 2 Lab. 8 Credit 6

This course will cover the proper sectioning techniques for structural components damaged in a collision. Techniques will focus on unibody and hydro extruded frame components.

### **CRR-580 Advanced Frame Straightening**

Lec. 2 Lab. 8 Credit 6

This course will explain new techniques in full-frame and unibody anchoring which are used to straighten to pre-collision specifications. The use of advanced measuring systems will be explained and utilized.

### **CRR-610 Steering and Suspension**

Lec. 1 Lab. 1 Credit 1.5

This course will serve as an introduction to wheel alignment and steering component and suspension repair. Students will learn suspension repair related to collision damage, how to measure, diagnose and realign steering components using modern state of the art equipment.

### **CRR-765 Computer Diagnosis for Auto Collision**

Lec. 2 Lab. 6 Credit 5

This course will study the safety-related components that are damaged in a collision. The topics to be covered are: anti-lock brakes, seat belts, supplemental inflatable restraints, and the computers that control them.

### **CRR-800 Introduction to Automotive Refinishing**

Lec. 1 Lab. 3 Credit 2.5

This course will serve as an introduction to the field of automotive refinishing and teach students to practice environmentally friendly application and disposal procedures. Students will learn to identify modern automotive refinishing products and reference related technical data for proper mixing and application.

### **CRR-812 Surface Preparation**

Lec. 2 Lab. 6 Credit 5

This course will serve as an introduction to applying modern automotive finishes and properly preparing substrates for refinishing. Students will learn to mix paint and identify and correct paint failures.

### **CRR-818 Introduction to Waterborne Finishes**

Lec. 1 Lab. 2 Credit 2

This course will serve as an introduction to

today's new automotive paint systems, and the techniques and equipment used to apply them.

### **CRR-845 Color Tinting and Matching**

Lec. 1 Lab. 3 Credit 2.5

This course will serve as an introduction to the evaluation of color matching and blending paint in automotive refinishing on modern automobiles and motorcycles. Students will learn to adjust tint, hue and chroma to obtain a blendable color match.

### **CRR-875 Advanced Refinishing Methods**

Lec. 2 Lab. 8 Credit 6

This course will focus on today's high-tech factory finishes and the techniques used to understand and repair finishes to factory quality. The course will also cover custom refinish techniques used for restoration and painted graphic design on cars/trucks and motorcycles.

### **CRR-932 Internship**

Lec. 0 Lab. 0 OJT 16 Credit 4

Supervised work experience with an approved auto collision repair employer. Individual student eligibility will be determined by the instructor. Placement will depend on the student's skill level and the availability of appropriate training sites. Prerequisite: Successfully complete all Auto Collision Repair Course work through 3rd semester.

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## **CSC Computer Science**

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### **CSC-110 Introduction to Computers**

Lec. 3 Lab. 0 Credit 3

This course provides an introduction to computer concepts. The student will use the Windows operating system, presentation software, electronic spreadsheet software, database management software and word processing software. Microcomputer hardware and software, as well as the processing concepts associated with each, will be discussed. The course will also include information on file management, the Internet, virus protection, and e-mail basics as applicable to the academic world as well as the business environment. Lab time outside class is required to complete projects.

### **CSC-140 Computer Fundamentals**

Lec. 3 Lab. 1 or 2 Credit 3.5 or 4

This course is an introduction to the microcomputer in both hardware and software. The terminology, internal structure, board identification and associated peripheral equipment will be introduced. The Microsoft

Office suite will be covered. The operating system will be covered along with structured programming in QBASIC.

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## **DRA Drama**

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### **DRA-101 Introduction to Theatre**

Lec. 3 Lab. 0 Credit 3

Orientation to the theatre, including a study of dramatic structure through selected play readings and through research in the basic theories of theatre.

### **DRA-110 Introduction to Film**

Lec. 3 Lab. 0 Credit 3

This course introduces students to the various language systems of film, including film-making techniques, creators, genres, narratives, ideology, and film theory/criticism. Students will explore the cultural importance of cinema as art by analyzing selected movies and clips which demonstrate artistic excellence.

### **DRA-130 Acting I**

Lec. 3 Lab. 0 Credit 3

Theory and practice of acting for beginners. The course provides training to help the student in developing a technique for utilizing creative resources to express personality and character. Technical elements of the stage and production for the actor are studied, and workshop performances are included. The course is designed to impart the fundamentals of the art of acting and its relationship to life and living theatre through theory, practice and performance. Prerequisite: SPC-112 or permission of instructor.

### **DRA-141 Theatre and Speech Participation I**

Lec. 0 Lab. 2 Credit 1

A concentrated laboratory course in specific areas of speech or theatre projects. Supervised participation involving the research, analysis and preparation of a specific speech or theatre project. Students will perform or demonstrate their skills at speech contests, community organization programs, or public performances sponsored by the College. The student must arrange for the area of participation prior to enrollment. May be repeated to a maximum of 4 semester hours.

### **DRA-142 Theatre and Speech Participation II**

Lec. 0 Lab. 4 Credit 2

A more extensive application of DRA-141. The student elects to participate in more than one area of speech or theatre programs, or

assumes a major role in assisting with speech or theatre performance. The student must arrange for the areas of participation prior to enrollment. May be repeated to a maximum of 4 semester hours.

### **DRA-145 Oral Interpretation**

Lec. 3 Lab. 0 Credit 3

A study in developing skills in reading aloud to convey the intellectual, emotional, and aesthetic values of literature. Prerequisite: SPC-112 or permission of instructor.

### **DRA-165 Stagecraft**

Lec. 2 Lab. 2 Credit 3

This hands-on course will introduce students to scenery, costume, and property construction along with lighting and sound design. Included are stage development, theater safety and basic techniques involved in producing a live performance. Participation outside of class on a current production (either for SCC or a community production) is required.

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## **DRF Drafting**

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### **DRF-113 Fundamentals of Technical Drafting**

Lec. 1 Lab. 4 Credit 3

Fundamentals of drawing techniques conveyed using freehand sketching. Emphasis is placed on the ability to visualize in three dimensions, neatness, accuracy, legibility, speed and use of computer graphics in the solution of graphic problems.

### **DRF-121 Fundamentals of Technical Drafting II**

Lec. 1 Lab. 4 Credit 3

Graphic communications emphasizing working drawings, detailing, dimensioning practices, tolerances, sectioning, auxiliaries, pictorials, fasteners, technical illustration and machine design. Prerequisites: DRF-113 and CAD-172.

### **DRF-161 Descriptive Geometry**

Lec. 0 Lab. 6 Credit 3

To provide the student with the ability to solve three dimensional space problems by the application of graphic methods. Problems studied will include points, line, intersections, piercing points, revolutions, developments and intersections of surfaces. The course is designed for pre-engineering students and other students desiring to specialize in drafting. Prerequisite: DRF-113 or permission of instructor.

### **DRF-805 Drafting Internship**

Lec. 0 Lab. 0 OJT 8-20 Credit 2-5

This course is designed to provide the student with a practical experience in the drafting and/or design field prior to the completion of their program. The practicum experience will be coordinated by the personnel of the drafting program. Prerequisite: Advanced standing and permission of instructor.

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## **ECE Early Childhood Education**

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### **ECE-133 Child Health, Safety, and Nutrition**

Lec. 3 Lab. 0 Credit 3

Health, Safety, and Nutrition helps students learn how to create and maintain a safe and healthy environment for young children. Proper nutrition for children and practices that contribute to the prevention of illness are examined. The course reviews state laws and established policies for licensed child care centers related to health, nutrition, safety and child abuse and neglect. Students also learn American Red Cross First Aid and CPR for infants and children.

### **ECE-290 Early Childhood Program Administration**

Lec. 3 Lab. 0 Credit 3

Addresses the child care needs of parents and children in conjunction with child care as a business. Child care as a business is influenced by such external components as needs of families, locations, and history while the internal components of planning space, purchasing equipment, program management, resources, time and personnel also impact the program.

### **ECE-932 Internship**

Lec. 0 Lab. 0 OJT 6 Credit 2

Early Childhood Education Internship provides students the opportunity to have a supervised work experience in an actual early childhood classroom setting. Cooperative sites could include area infant/toddler, preschool and K-1 programs in both public and private settings. Prerequisites: Certification in first aid, CPR and mandatory reports of child abuse and neglect.

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## **ECN Economics**

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### **ECN-110 Introduction to Economics**

Lec. 3 Lab. 0 Credit 3

An introductory economics course. Lessons will include both micro and macro economies. Competencies will

include supply, demand, market structures, unemployment and international trade.

### **ECN-120 Principles of Macro-Economics**

Lec. 3 Lab. 0 Credit 3

An introductory course in economics emphasizing macro-economic theory and policy. The major topics will include economic systems, national income, national output, fiscal and monetary policy, unemployment, inflation, and, as time permits, international trade.

### **ECN-130 Principles of Micro-Economics**

Lec. 3 Lab. 0 Credit 3

An introductory course in economics emphasizing micro-economic theory and contemporary problems. The major topics will include a description of the United States economy; demand and supply, price, output, and wage determination; domestic problems; international economics and the world economy.

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## **EDU Education**

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### **EDU-120 Communication, Ethics, and Confidentiality**

Lec. 2 Lab. 0 Credit 2

This is the first course in preparation for the Paraeducator Certificate. In this course, the student will develop skills and strategies to enhance communication and examine situations where professionalism, ethical standards, and confidentiality will guide correct course of action when working with colleagues, students, parents and others.

### **EDU-121 Behavior Improvement**

Lec. 2 Lab. 0 Credit 2

This is the third course in the Para-educator Certificate program. The student will gain knowledge, skills, and strategies to assist, support, and maintain the positive social, emotional, and behavioral development of children. Prerequisites: EDU-120 and EDU-122.

### **EDU-122 Roles and Responsibilities**

Lec. 2 Lab. 0 Credit 2

This is the second course in the Para-educator Certificate program. The student will develop skills and strategies to assist, support and maintain safe environments, educational activities, team interventions, and technology integration when working with colleagues, students, parents, and others. Prerequisite: EDU-120.

### **EDU-125 Making a Difference**

Lec. 3 Lab. 0 Credit 3

This course introduces careers related to working with people with disabilities. It includes an introduction to special education, residential services, vocational services, recreational services and other services for children and adults with disabilities. It includes an introduction to specific disabilities and human development. It covers communication skills and behavior management. This course requires completion of service learning projects. This course will meet one of the requirements for the Generalist Para-educator Certification issued by Department of Education.

### **EDU-126 Observation and Management of Behavior**

Lec. 3 Lab. 0 Credit 3

Through this course, students develop skills of observation and management of the behavior of others, individually and in groups. Students develop strategies for helping others manage their own behavior. This course will meet one of the requirements for the Generalist Para-educator Certification issued by Department of Education.

### **EDU-165 Early Childhood: Pre-K-G3**

Lec. 3 Lab. 0 Credit 3

This second level course will help participants gain knowledge, skills and strategies to assist, support and maintain the positive social, emotional and behavioral development of Pre K-3rd grade children. Prerequisites: EDU-120, EDU-121, EDU-122 or evidence of a valid Iowa Para-educator Level 1 certificate.

### **EDU-170 Special Needs, Pre-K-G12**

Lec. 3 Lab. 0 Credit 3

This second level course will allow participants to develop skills and strategies to understand and implement IEP goals and objectives, demonstrate understanding of special instructional strategies for students with various needs, rationale and use of data collection, and assistive technology to meet student's needs. This course may be used for recertification hours to renew Para-educator license. Prerequisites: EDU-120, EDU-121, EDU-122 or evidence of a valid Iowa Para-educator Level 1 certificate.

### **EDU-180 Library, Media and Technology**

Lec. 3 Lab. 0 Credit 3

This second level course will allow participants to develop skills and strategies in library, media and technology to support school library goals including literacy

development, information skills and technology integration. Participants will demonstrate understanding of the role of the paraprofessional in supporting the goals of the school library program and the school curriculum. Prerequisites: EDU-120, EDU-121, EDU-122 or evidence of a valid Iowa Para-educator Level 1 certificate.

### **EDU-210 Foundations of Education**

Lec. 3 Lab. 0 Credit 3

A survey course introducing prospective teachers to the American education system. Topics of study include the following: characteristics of teachers and learners; curriculum, classroom management, and assessment; foundations of education-history, philosophy, governance, and law; and schools response to social and educational challenges. Students will complete a lesson plan and present it to the class. Corequisite: EDU-920.

### **EDU-235 Children's Literature**

Lec. 3 Lab. 0 Credit 3

A survey of the history, critical issues, and characteristics of children's literature and an examination of both writing and illustration as the basis for evaluating and selecting children's literature for use in the pre-school and elementary classroom.

### **EDU-240 Educational Psychology**

Lec. 3 Lab. 0 Credit 3

This course examines the application of psychological principles, theories, and methodologies to issues of teaching and learning. Theory and research concerned with human learning, development, behavior, and motivation is reviewed with an emphasis on the cognitive, psychological, and social factors that relate to and influence learning in educational settings. Prerequisite: PSY-111.

### **EDU-247 Teaching Exceptional Learners**

Lec. 3 Lab. 1 Credit 3.5

A survey course introducing current and prospective teachers to the field of special education. Topics of study include the following: foundational knowledge, the new relationship between special and general education, legislation, characteristics of different types of exceptional learners, and research-based teaching strategies and accommodations.

### **EDU-920 Field Experience**

Lec. 0 Lab. 4 Credit 2

Field Experience provides the student an opportunity to observe a teacher in a local classroom and to work with the students in that classroom under direct supervision of the

cooperating teacher. The student will keep a reflective journal. Corequisite: EDU-210.

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## **EGT Engineering Technology**

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### **EGT-116 Continuous Quality Management**

Lec. 3 Lab. 0 Credit 3

This introductory course will lead the student into the world of quality and the quality process. Students will analyze the performance of a production process, formulate process adjustments or improvements, and carry out the strategies for process adjustment and/or improvement.

### **EGT-142 Fluid Power I (Hydraulics)**

Lec. 1 Lab. 2 Credit 2

This course discusses the fundamentals of hydraulic technology. Students will learn hydraulic circuits, pumps, actuators, valves, fluid, safety, maintenance, and troubleshooting. Students will also learn how to operate, install, analyze performance and design hydraulic systems.

### **EGT-143 Fluid Power II (Pneumatics)**

Lec. 1 Lab. 2 Credit 2

This course discusses the fundamentals of pneumatic technology. Students will learn specific skills needed to understand the principles of pneumatics including circuits with compressed air power, air processing, valves, safety, maintenance, and troubleshooting. Students will learn industry skills including how to operate, install, analyze and design pneumatic systems.

### **EGT-147 Hydraulic Power Systems & Troubleshooting**

Lec. .5 Lab. 1 Credit 1

This course will cover the operation, diagnosis and maintenance of basic and complex hydraulic systems. Prerequisites: EGT-142.

### **EGT-400 Introduction to Engineering Design**

Lec. 1 Lab. 4 Credit 3

This course uses a design development process while enriching technical and engineering problem-solving skills; students create and analyze models using specialized computer software (AutoCAD Inventor).

### **EGT-420 Digital Electronics**

Lec. 2 Lab. 2 Credit 3

This course is an introduction to fundamental digital circuits and systems is presented by study of integrated circuit logic modules.

Emphasis is placed on troubleshooting techniques and tools.

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## **ELE Electrical Technology**

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### **ELE-116 Blueprint Reading**

Lec. 1 Lab. 0 Credit 1

This course discusses the specific data that is drawn on a blueprint and explains how to read and interpret the drawing format. Students will learn orthographic and isometric drawings to understand shapes, sizes, and dimensions. Students will study building terms and construction features of carpentry, masonry, electrical, mechanical and plumbing trades.

### **ELE-127 Troubleshooting**

Lec. .5 Lab. 1 Credit 1

This course introduces students to the fundamental sequence of steps that can be applied when attempting to locate and repair problems in electrical and mechanical equipment. Students will learn how to use proper testing equipment to assist in finding faulty components. Students will learn how to plan a course of action for troubleshooting and repairs of equipment.

### **ELE-130 Home and Farm Electricity**

Lec. 1 Lab. 2 Credit 2

This course introduces the requirements for residential and farm electrical systems. Emphasis will be placed on local and national Electrical Codes. Hands-on experience will include such activities as basic wiring of the service entrance, circuits, switches, receptacles, lighting, special appliance circuits, and motor circuits. This course is specifically designed for students not choosing a construction curriculum.

### **ELE-195 Motor Controls**

Lec. 1 Lab. 4 Credit 3

This course discusses Motor Controls, components, operation and service. Students will learn electric relay control of AC and DC electric motors found in industrial applications. Students will also learn industry-relevant skills including how to operate, install, design, and troubleshoot AC and DC motor control circuits.

### **ELE-310 Industrial Electricity**

Lec. 1 Lab. 2 Credit 2

This course discusses important properties of electricity and the common electrical elements found in industrial settings. Students will learn how to install and wire electrical components. Students will also learn how to layout a project; estimate wiring

quantities, lengths, and sizes between panels and properly size and install conduit.

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## **ELT Electronics**

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### **ELT-116 Principles of Electronics**

Lec. 3 Lab. 4 Credit 2

This course analyzes the physical phenomenon of electricity in direct and alternating current circuits. Circuit analysis shall be through the application of various laws and theorems, and in the laboratory, through the use of typical test equipment. Prerequisite: placement test.

### **ELT-119 Applied Human Biology for Biomed Technicians**

Lec. 3 Lab. 0 Credit 3

This course presents the human biology, anatomy, physiology, and medical terminology essential for biomedical equipment technicians and the devices involved in patient care. Focus is on the vocabulary necessary for effective medical communication skills in the hospital environment as part of the health care team.

### **ELT-132 Motor Drives**

Lec. .5 Lab1 Credit 1

This course discusses the fundamentals of motor drive operation and setup. Students will learn industrial AC electronic motor drives, which are used to provide accurate control of speed, position, and acceleration of industrial motors. Students will also learn industrial skills on how to operate, install, tune, and troubleshoot various industrial drives. Prerequisite: ELE-195.

### **ELT-176 Instrumentation**

Lec. 1 Lab 4 Credit 3

This course introduces students to the basic principles and concepts of process control, calibration, replacement, repair adjustment, troubleshooting, and use of test equipment. Students will learn how to calibrate, adjust, install, operate, and connect process control systems. Students will also learn how to measure signals and connect devices in a wide variety of control configurations including: PID control on/off control, and manual control. Prerequisite: ELT-295.

### **ELT-232 PLC Applications**

Lec. 2 Lab. 4 Credit 4

This course provides a hands-on approach to develop fundamental knowledge of PLC (Programmable Logic Controller) principles by exposing the student to ladder logic circuits and their practical applications. Ancillary input and output devices used

with PLC systems are included as well as elementary electrical machines. While the laboratory utilizes Allen-Bradley PLC's, a generic design approach is stressed during the lectures. Design of practical working control circuits is included to enhance understanding. Also included are the various number systems, digital codes and program commands used in PLC's and integrated systems. Prerequisite: CSC-140 or equivalent.

### **ELT-250 Programmable Logic Controller**

Lec. 1 Lab. 4 Credit 3

This course introduces students to PLC tasks such as programming, wiring, troubleshooting, communications, and advanced programming. Students will learn industrial relevant skills on how to operate, interface, program and troubleshoot PLC systems. Students will learn how to set up software drivers, log onto networks, upload and download projects, and search for documentation.

### **ELT-262 Adv PLC & System Integration (Mechatronics)**

Lec. 2 Lab. 8 Credit 6

This course introduces advanced topics in programmable logic controllers using the Allen-Bradley ControlLogix and RSLogix 5000 programming software including programming input, output, bit, timer, counter, compare, move, and math instructions. Students will learn how to create and modify subroutines and configure devices. Students will learn industrial relevant skills on how to operate, program and troubleshoot PLC systems and learn system integration with, electrical, mechanical, pneumatic, and robotic devices.

### **ELT-295 AC/DC Fundamentals**

Lec. 1 Lab. 2 Credit 2

This course introduces students to the components used in most electronic circuits and how they are measured, tested and function. Students will learn the fundamentals of AC and DC electrical systems used for power and control in industrial applications. Students will learn how to operate, install, design and troubleshoot basic AC and DC electrical circuits.

### **ELT-329 Digital Electronics for ET**

Lec. 3 Lab. 2 Credit 4

An introduction to fundamental digital circuits and systems is presented by study of integrated circuit logic modules. Number

systems, coding and elemental Boolean principles are also covered. Emphasis is placed on trouble-shooting techniques and tools.

### **ELT-355 Electronic Circuits I**

Lec. 3 Lab. 4 Credit 5

Introduction to semiconductor circuit analysis. The operational characteristics and applications of diodes, bipolar and field-effect transistors, and linear integrated circuits will be examined. Troubleshooting methods and techniques will be discussed and applied in the laboratory. Prerequisite: ELT-116.

### **ELT-357 Electronic Circuits II**

Lec. 3 Lab. 4 Credit 5

An expansion on the material presented in Electronic Circuits I. This course will examine the op-amp further in its many linear and non-linear applications. Other related linear integrated circuits will be investigated and applied. Basic modulation and demodulation processes will be included. Prerequisite: ELT-355.

### **ELT-435 Telecommunications**

Lec. 4 Lab. 2 Credit 5

Examines electronic communications topics such as noise, frequency domain analysis, analog and digital modulation methods, transmitters, receivers, multiplexing, digital communications, telephony, transmission lines and wave guides, antennas, wave propagation, microwave and video. Prerequisite: ELT-355 or equivalent.

### **ELT-486 Electromechanical Technology**

Lec. 2 Lab. 2 Credit 3

Students will use their previous knowledge in electronics to understand and apply real world mechanical applications in the industrial setting. Concepts learned will include fixturing, gearing, motors, and linear motion. Prerequisite: ELT-355.

### **ELT-630 Microprocessor/ Interfacing**

Lec. 3 Lab. 4 Credit 5

This course is an introduction to techniques and equipment used for a variety of data acquisition requirements. The use of computers, test equipment, sensors and software for data acquisition in an industrial environment will be the main focus. Prerequisites: ELT-355 and ELT-329.

### **ELT-800 Biomedical Electronics Systems**

Lec. 3 Lab. 2 Credit 4

This course examines the use of electronics in health sciences and related fields by bringing together the student's understanding

of anatomy and physiology, chemistry and electronics to study the measurement of the body's electrical signals and other physiological measurements, to include cardiovascular, pulmonary, temperature, flow and pressures. This will include a hands-on study of medical equipment used in the hospital and other medical environments to diagnose and treat patients. Issues associated with patient and technician safety will be emphasized. This course will also explore applicable NFPA99, JCAHO, CLIA, FDA, and other regulatory agencies and their regulations governing medical equipment in the clinical environment. Prerequisites: ELT-119, ELT-357, ELT-630, BIO-252.

### **ELT-801 Medical Documentation and Compliance**

Lec. 3 Lab. 0 Credit 3

This course will teach the biomedical students to properly document their work when in the medical environment. This course will cover topics including HIPAA rights, NFPA99, AAMI, JC compliance, work order documentation, the use of SOP's and infection control. This course will also teach the students how to properly research these topics as regulations change frequently. Prerequisite: ELT-119.

### **ELT-932 Internship**

Lec. 0 Lab. 0 OJT 16 Credit 4

This internship is intended to be the clinical experience portion of the Biomedical Electronics Seminar. Students in this course will be assigned to a selected setting to apply principles and skills learned in previous courses. Graded on a Credit (P)/No Credit (Q) basis. Prerequisite: ELT-800.

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## **EMS Emergency Medical Services**

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### **EMS-114 Emergency Medical Responder**

Lec. 1 Lab. 2 Credit 2

This course emphasizes the development of student skills in emergency medical care procedures. Curriculum includes life threatening emergencies, injuries to various body parts, techniques of moving patients, CPR BLS, Mandatory Reporting, and blood borne pathogens. Successful completion of course requirements allows students to write certification examination for Emergency Medical Responder. Course meets preadmission requirements for all health occupations. Students must be 17 to enroll.

### **EMS-201 Emergency Medical Technician**

Lec. 5 Lab. 2 Clinical 3 Credit 7

This course is designed to instruct a student to the level of emergency medical technician who serves as a vital link in the chain of the health care team. Southeastern Community College's training program follows the National Highway Traffic Safety Administration's Department of Transportation (DOT) EMT curriculum. This course includes all skills necessary for the individual to provide emergency medical care at a basic life support level with an ambulance service or other specialized service. Southeastern Community College is approved by the Iowa State Department of Public Health (Bureau of EMS). Upon successful completion of this course the student will be eligible to take the National Registry's practical and written exam for EMT certification. Students must be 17 years old to enroll. Prerequisite: Current basic life support certification (health care providers module).

### **EMS-239 Advanced Emergency Medical Technician**

Lec. 5 Lab. 2 Clinical 3 Credit 7

This course will provide the student with roles and responsibilities of the EMS provider; well-being including injury prevention and infections disease; an overview of human systems; pharmacology; venous access; airway management; training for management of medical and trauma emergencies; special considerations of the obstetric; neonatal, pediatric, and geriatric patients; and focus on assessment-based management. This course will also provide the student the opportunity to apply past and current cognitive knowledge and psychomotor skills in a supervised clinical or field setting. Student must have current Iowa EMT certification. Prerequisites: Healthcare Provider CPR, Current EMT Certificate.

### **EMS-663 Paramedic I**

Lec. 12 Lab. 8 Credit 16

This course prepares the student in the knowledge and skills needed in the pre-hospital environment. National Standard Paramedic Curriculum topics covered include: Well-being of EMT, Illness and Injury Prevention, Ethics, EMS System, Roles & Responsibilities, Medical Legal Issues, Pathophysiology, Therapeutic Communications, Life Span Development, Airway Management and ventilation, Patient Assessment, Communications, Documentation, Medication Administration, Pharmacology and Cardiology. Lab skills

addressed include patient assessment, development of airway management skills, IV fluid management skills, communication skill development and cardiac monitoring skills. Prerequisite: Current Iowa EMT Certification.

### **EMS-664 Paramedic II**

Lec. 9 Lab. 8 Clinical 3 OJT 4 Credit 15

This course prepares the student in the knowledge and skills needed in the pre-hospital environment. National Standard Paramedic curriculum topics covered include: Medication Administration and Medical and Trauma Emergencies of various body systems. This course has a hospital clinical internship. This internship provides the opportunity to apply, in the clinical setting, the didactic knowledge and skills developed in the classroom and lab. It serves to assist the student to become an employable EMS provider. Clinical skills addressed include trauma management, patient assessment and evaluation; airway management skills, IV fluid management skills, communication skill development, and cardiac monitoring skills. Prerequisite: EMS-663.

### **EMS-665 Paramedic III**

Lec. 3 Lab. 2 OJT 12 Credit 7

This course prepares the student in the knowledge and skills needed in the pre-hospital environment. National Standard Paramedic Curriculum topics covered include: Review of previous course material, Pediatrics, Geriatric, Psychiatric disorders, and Patients with Special Challenges. This course also includes hospital clinical internship. This internship provides the opportunity to apply, in the clinical setting, the didactic knowledge and skills developed in the classroom and lab. It serves to assist the student to become an employable EMS provider. Clinical skills addressed include pediatric assessment and management, gynecological management, geriatric management, trauma management, patient assessment, airway management skills, IV fluid management skills, communication skill development, and cardiac monitoring skills. Prerequisite: EMS-664.

### **EMS-949 Special Topics**

Lec. 0 Lab 0 OJT 4-20 Credit 1-5

This course will provide the EMS student with additional clinical hours necessary to complete competencies required for State and National Certification as a Paramedic. The course is variable credit and the student shall register for the number of credit hours recommended by the faculty member in



order to complete the competencies of the Paramedic Program. This course will be offered in increments of 64 hours (1 credit). Prerequisites: EMS-212, EMS-660, EMS-661 and EMS-662.

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## **ENG English Composition**

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### **ENG-055 Basic English I**

Lec. 0 Lab. 4 Credit 2

This foundation English course is for students who need to improve skills in preparation for subsequent college writing courses. Emphasis is on grammar, punctuation and mechanics of basic writing within the context of producing effective sentences and paragraphs. This course is by independent study in the SuCCess Center. Prerequisites: Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart). No waivers.

### **ENG-060 College Preparatory Writing I**

Lec. 2 Lab. 2 Credit 3

This comprehensive English course concentrates on sentence structure and provides practice in writing complete sentences, editing and basic paragraph planning. This course includes the same material as ENG-055 but is more intensive. It is offered in the classroom and in the computer lab. Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-055, Basic English I. No waivers.

### **ENG-061 College Preparatory Writing II**

Lec. 2 Lab. 2 Credit 3

College Preparatory Writing II is a preparatory course for ENG-105, Composition I. Emphasis is on paragraph development in the rhetorical modes, basic grammar, and punctuation. Computer lab time is provided, as well as basic instruction in word processing. Prerequisites: Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-060, College Preparatory Writing I. No waivers.

### **ENG-067 Composition I Laboratory**

Lec. 0 Lab. 2 Credit 1

A basic writing skills laboratory to assist selected students while they are enrolled in English Composition I. Graded on a Pass(P)/No Pass(Q) basis. Prerequisites: Mandatory COMPASS or ACT test score and mandatory

eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-061, College Preparatory Writing II. No waivers.

### **ENG-105 Composition I**

Lec. 3 Lab. 0 Credit 3

A study of the principles of writing. Emphasis on rhetoric, mechanics, and development of expository patterns: narration, description, illustration, comparison/contrast, classification, process, and cause/effect. Required for AA and AS Degrees. Prerequisites: Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-061, College Preparatory Writing II. No waivers.

### **ENG-106 Composition II**

Lec. 3 Lab. 0 Credit 3

A continuation of study of the principles of writing begun in ENG-105. Emphasis is placed on persuasive writing as well as literary analysis and the MLA research paper. Time will also be spent exploring the research sources available from the library. Required for AA and AS Degrees. Prerequisite: C- or above in ENG-105.

### **ENG-111 Technical Writing**

Lec. 3 Lab. 0 Credit 3

Studies the rhetorical techniques specifically oriented to industrial requirements. Applies expository patterns as incorporated within the report apparatus, including such specialized formats as process analysis, progress/lab reports, feasibility study, and the proposal. Also includes correspondence and application of basic library research skills. Course designed to satisfy specified career program requirements. Prerequisites: Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-061, College Preparatory Writing II. No waivers.

### **ENG-112 Technical Writing II**

Lec. 3 Lab. 0 Credit 3

Continues and refines the development of technical writing skills with emphasis on the formal report. Stresses organizational strategies, descriptive analysis, and advanced research. Prerequisite: ENG-111.

### **ENG-131 Business English**

Lec. 3 Lab. 0 Credit 3

This course teaches the fundamentals of written communication with a focus on

the elements of effectively written business documents. The emphasis is on the development of writing skills through a) exercises in grammar, mechanics, usage, and spelling, and b) application of these skills in a variety of written business documents. Prerequisites: Mandatory COMPASS or ACT test score and mandatory eWrite score (per SCC Writing Scores & Mandatory Course Placement Chart), or a C- or above in ENG-061, College Preparatory Writing II. No waivers.

### **ENG-221 Creative Writing**

Lec. 3 Lab. 0 Credit 3

Instruction and practice in multiple genres of creative writing. Students study the art, craft, and discipline of creative writing by reading, discussing, and critiquing the work of prominent writers; by experimenting with various writing methods and techniques; and by reading, discussing, and critiquing student work. Instruction, practice, and workshops will address elements of creative writing such as content, structure, form, and style in particular and multiple genres. This course may be repeated for up to six credit hours. Prerequisite: C- or above in ENG-105.

### **ENG-929 Individualized Projects**

Lec. 1-3 Lab. 0 Credit 1-3

Extensive writing based on the interest and experience of the student. May receive 1 – 3 credits, based upon consultation with instructor. May be repeated for up to 4 credit hours.

ENV Environmental Science

### **ENV-111 Environmental Science**

Lec. 3 Lab. 2 Credit 4

An interdisciplinary approach to the problems of the environment. An examination and evaluation will be made of man's impact on the environment. Specific topics that may be covered include, but are not limited to: population issues, atmospheric issues, water issues, energy issues, resource issues, wildlife issues, and food issues. This course contains a lab component.

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## **ESI Intensive English as a Second Language**

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### **ESI-010 Phonetics and Pronunciation**

Lec. 3 Lab. 0 Credit 3

The study of English segments and intonation for non-native speakers. Emphasizes the use of phonetic alphabet. Prerequisites: ESL-013, 015, 018, or Compass ESL Level II placement.

# **ESL Non-Intensive English as a Second Language**

## **ESL-002 Cultural Orientation**

Lec. 0 Lab. 2 Credit 1

This course introduces new international students to American life, the educational system and the Burlington community. It covers such topics as culture shock, academic honesty, personal safety, driving in Iowa, etc. This course will be taken on a Pass/No Pass basis only.

## **ESL-013 ESL Listening/Speaking I**

Lec. 4 Lab. 0 Credit 4

Listening/Speaking course for non-native speakers of English. The course helps students develop basic speech competencies through integrated language skills. Students focus on language: pronunciation, word forms, word domains, idiomatic expressions, analogies using semantic context. It is recommended to take the course concurrently with ESL-015, Reading/Writing I, and ESL-018, Grammar I.

## **ESL-015 ESL Reading/Writing I**

Lec. 4 Lab. 0 Credit 4

Reading/Writing course for non-native speakers of English. A beginning course designed to develop reading and writing skills. Students work on expanding vocabulary, focus on word forms, prefixes, suffixes and phrases. Writing topics include paragraphs, letters and brief summaries. It is recommended to take the course concurrently with ESL-013, Listening/Speaking I and ESL-018, Grammar I.

## **ESL-018 ESL Grammar I**

Lec. 3 Lab. 0 Credit 3

Grammar course for non-native speakers of English. The course introduces students to the form, meaning, and usage of basic structures in English. It provides opportunities to practice through extensive and varied exercises leading to communicative activities. Concentration is on present and past tenses, copular be, nouns and pronouns. It is recommended to take the course concurrently with ESL-015, Reading/Writing I and ESL-013, Listening/Speaking I.

## **ESL-033 ESL Listening/Speaking II**

Lec. 3 Lab. 0 Credit 3

Listening/Speaking course for non-native speakers of English. This course further develops conversational skills in order to improve the ability to speak clearly and effectively. Authentic audio recordings, videotapes and listening to peers are used

to develop listening skills. Daily work on pronunciation targeted at achieving an understandable accent. It is recommended to take the course concurrently with ESL-035, Reading/Writing II, and ESL-038, Grammar II. Prerequisite: ESL-013, Listening/Speaking. COMPASS ESL Level II, TOEFL score 370.

## **ESL-035 ESL Reading/Writing II**

Lec. 3 Lab. 0 Credit 3

Reading/Writing course for non-native speakers of English. This course increases reading skills in comprehension, speed and fluency. It continue development of understanding and using English sentence patterns through written practice. It is recommended to take the course concurrently with ESL-033, Listening/Speaking II and ESL-038, Grammar II. Prerequisite: ESL-015, Reading/Writing I, COMPASS ESL Level II, TOEFL score 370

## **ESL-038 ESL Grammar II**

Lec. 3 Lab. 0 Credit 3

Grammar course for non-native speakers of English. The course introduces students to the form, meaning and usage of the English structures. Communicative approach provides students with the immediate applications of the knowledge gained in the class. Work on new grammar tenses, modal verbs, adjectives and adverbs. It is recommended to take the course concurrently with ESL-035, Reading/Writing II and ESL-033, Listening/Speaking II.

## **ESL-053 ESL Reading/Writing III**

Lec. 2 Lab. 0 Credit 2

Reading/Writing course for non-native speakers of English. This course provides the students with intensive practice in reading strategies acquisition. Emphasis on understanding of the content while building language skills, predicting and understanding main ideas and details, identifying parts of speech. Critical thinking skills are practiced throughout the course. The students learn the process of prewriting, organizing, revising, and editing while reviewing and expanding the acquired vocabulary. It is recommended to take the course concurrently with ESL-055, Listening/Speaking III and ESL-058, Grammar III. Prerequisite: TOEFL score 400 or ESL-035 and ESL-033. Corequisite: ESL-055.

## **ESL-055 ESL Listening/Speaking III**

Lec. 2 Lab. 0 Credit 2

Listening/Speaking course for non-native speakers of English. This course is designed

to develop fluency in English and to improve the listening and conversational skills needed for careers and academic study. Speaking focuses on stress, rhythm, and intonation. Theme-based pronunciation practice reinforces the vocabulary and content of the class. It is recommended to take the course concurrently with ESL-055, Reading/Writing III and ESL-058, Grammar III. Prerequisite: TOEFL score 400, COMPASS ESL Level III, ESL-033.

## **ESL-058 ESL Grammar III**

Lec. 2 Lab. 0 Credit 2

Grammar course for non-native speakers of English. The class studies the structures of English with particular focus on patterns in grammar that are especially troublesome for non-native speakers of English. Applications of these structures are performed through extensive speaking and writing, and a variety of exercises. It is recommended to take the course concurrently with ESL-053, Reading/Writing III and ESL-055, Listening/Speaking III.

## **ESL-073 ESL Reading/Writing IV**

Lec. 2 Lab. 0 Credit 2

Reading/Writing course for non-native speakers of English. Develops higher order comprehension skills such as distinguishing fact and opinion, mastering persuasion techniques. Emphasizes strategies and skills which will help increase reading speed and build vocabulary of words with multiple meanings and connotations. Leads students through the writing process by providing a wide variety of activities to help them master skills necessary for academic writing. It is recommended to take the course concurrently with ESL-075, Listening/Speaking IV and ESL-079, Grammar IV. Prerequisite: ESL-053, COMPASS ESL Level IV, TOEFL score 430.

## **ESL-075 ESL Listening/ Speaking IV**

Lec. 2 Lab. 0 Credit 2

Listening/Speaking course for non-native speakers of English. Strong emphasis on comprehension of oral language as spoken by native English speakers. Continues to practice pronunciation in factual discourse. Develops skills in utilizing idiomatic expressions, negotiations, reducing miscommunication. It is recommended to take the course concurrently with ESL-073, Reading/Writing IV and ESL-079, Grammar IV. Prerequisite: TOEFL score 430; COMPASS ESL Level IV; ESL-055.

### **ESL-079 ESL Grammar IV**

Lec. 2 Lab. 0 Credit 2

Advanced course in grammar for non-native speakers of English offering introduction to such structures as gerund, infinitive, different types of clauses, and conditional sentences. Students learn to apply the structures in the factual discourse in class, and in a variety of written tasks. It is recommended to take the course concurrently with ESL-073, Reading/Writing IV and ESL-075, Listening/Speaking IV.

### **ESL-080 ESL Reading/Writing V**

Lec. 1-2 Lab. 0 Credit 1-2

Reading/Writing course for non-native speakers of English. Provides an extensive review of the skills necessary for academic success. Explores contemporary themes to stimulate critical thinking while building language competence. It is recommended to take the course concurrently with ESL-081, Listening/Speaking V, and ESL-082, Grammar V.

### **ESL-081 ESL Listening/Speaking V**

Lec. 1-2 Lab. 0 Credit 1-2

Listening/Speaking course for non-native speakers of English. Listening to live and audio-taped, authentic lectures, taking notes and making oral presentations based on research utilizing visual aids and support. It is recommended to take the course concurrently with ESL-080, Reading/Writing V, and ESL-082, Grammar V.

### **ESL-082 ESL Grammar V**

Lec. 1-2 Lab. 0 Credit 1-2

Grammar course for non-native speakers of English. A survey of English grammar with emphasis on the production of more complex verb and sentence structures. Mastering the learned skills through the applications in a natural discourse, peer interaction, group discussions. It is recommended to take the course concurrently with ESL-080, Reading/Writing V, & ESL-081, Listening/Speaking V.

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## **FIN Finance**

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### **FIN-101 Principles of Banking**

Lec. 3 Lab. 0 Credit 3

This course will cover the three primary functions of banking and the relationship banks have with their customers and their communities. Discussions will cover the development of commercial banking in the United States and the federal legislation that shaped its development. Students will learn about the increasingly competitive

and regulated environment in which banks operate, including the creation of the Federal Reserve System, and the federal role as the agent of monetary policy and as a bank regulator.

### **FIN-110 Money and Banking**

Lec. 3 Lab. 0 Credit 3

This course will cover key concepts, theories, processes, and interrelationships that link money and banking to the workings of the U.S. economy. Students will learn to recognize the changes affecting the banking industry and thus better understand the strategies adopted by financial institutions for increasing profit, containing cost, and meeting the competition.

### **FIN-121 Personal Finance**

Lec. 3 Lab. 0 Credit 3

A study and evaluation of financial problems which individuals and families encounter within their personal affairs. The topics covered are: budgeting, saving, consumer credit, personal insurance, renting or owning a home, investments, transportation and taxes.

### **FIN-130 Principles of Finance**

Lec. 3 Lab. 0 Credit 3

An examination of the tools and techniques used in the world of finance. This course will introduce the student to basic financial concepts such as time value of money, asset valuation, risk analysis and return on investment. Evaluation and decision-making techniques will be used as they pertain to financial management in various business situations. Prerequisites: ACC-142, ACC-146 and ECN-120.

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## **FIR Fire Science**

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### **FIR-124 Building Construction for Fire Protection**

Lec. 3 Lab. 0 Credit 3

This course provides the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.

### **FIR-127 Fire Behavior and Combustion**

Lec. 3 Lab. 0 Credit 3

This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled.

### **FIR-130 Fire Prevention**

Lec. 3 Lab. 0 Credit 3

This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

### **FIR-139 Fire Fighter I**

Lec. 3 Lab. 2 Credit 4

This course shall ready the student at Level I for testing and certification as a Fire Fighter I as accredited by the International Fire Service Accreditation Congress.

### **FIR-143 Fire Fighter II**

Lec. 2 Lab. 2 0 Credit 3

This course shall ready the student at Level II for testing and certification as a Fire Fighter II as accredited by the International Fire Service Accreditation Congress. Prerequisite: FIR-139 or Certification as Fire Fighter I.

### **FIR-145 Strategy and Tactics**

Lec. 3 Lab. 0 Credit 3

This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

### **FIR-149 Fire Protection Hydraulics and Water Supply**

Lec. 3 Lab. 0 Credit 3

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

### **FIR-152 Fire Protection Systems**

Lec. 3 Lab. 0 Credit 3

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

### **FIR-180 Hazardous Materials Chemistry**

Lec. 3 Lab. 0 Credit 3

This course provides basic fire chemistry relating to the categories of hazardous materials including problems of recognition, reactivity, and health encountered by firefighters.

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**FIR-200 Occupational Safety and Health for Fire Service**

Lec. 3 Lab. 0 Credit 3

This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.

**FIR-213 Principles of Emergency Services**

Lec. 3 Lab. 0 Credit 3

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

**FIR-214 Legal Aspects of the Fire Service**

Lec. 3 Lab. 0 Credit 3

This course introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases.

**FIR-226 Fire Administration I**

Lec. 3 Lab. 0 Credit 3

This course introduces the student to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer.

**FIR-400 Fire & Emergency Services Safety & Survival**

Lec. 3 Lab. 0 Credit 3

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

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**FLF Foreign Language - French**

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**FLF-141 Elementary French I**

Lec. 3 Lab. 2 Credit 4

Introductory course for those with no prior background. Students become acquainted with the sounds and structure of French emphasizing useful vocabulary and development of basic conversational skills. Practice supplemented by regular lab activities.

**FLF-142 Elementary French II**

Lec. 3 Lab. 2 Credit 4

Progressive development of conversational skills with additional emphasis on reading. Prerequisite: FLF-141 or equivalent.

**FLF-241 Intermediate French I**

Lec. 4 Lab. 0 Credit 4

Thorough review of language structures with ongoing emphasis of the language skills of reading, writing, speaking and listening. Focus on cultural literacy with parallel vocabulary development. Prerequisite: FLF-142.

**FLF-242 Intermediate French II**

Lec. 4 Lab. 0 Credit 4

Continuing review of language structures with ongoing emphasis of the language skills of the four basic language skills. Reading focus on cultural subjects, current events and literature. Prerequisite: FLF-241 or permission of instructor.

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**FLG Foreign Language – German**

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**FLG-141 Elementary German I**

Lec. 3 Lab. 2 Credit 4

Introductory course for those with no prior background. Students become acquainted with the sounds and structure of German emphasizing useful vocabulary and development of basic conversational skills. Practice supplemented by regular lab activities.

**FLG-142 Elementary German II**

Lec. 3 Lab. 2 Credit 4

Progressive development of conversational skills with additional emphasis on reading. Prerequisite: FLG-141 or equivalent.

**FLG-231 Intermediate German I**

Lec. 3 Lab. 0 Credit 3

Active use of conversational German in class. Development and practice of reading, writing

and functional speaking skills. Introduction to German literature. Prerequisite: FLG-142 or equivalent.

**FLG-232 Intermediate German II**

Lec. 3 Lab. 0 Credit 3

Use of conversational German in class. Application of speaking, reading and writing skills to personal interest, German culture, or commercial interests. The individual should be able to assure responsibility for the learning of German on a continuing basis relating to specific needs. Prerequisite: FLG-231 or equivalent.

**FLG-922 Field Studies**

Lec. Arranged Credit 1-3 Clinical 3-9

Supervised travel and living experience in a German language speaking culture. Adequate preparation as judged by the instructor is required for credit participation. Specific written credit and participation requirements are established in advance of the field study. Each hour of credit requires a minimum of 54 hours of supervised travel and living experience.

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**FLS Foreign Language - Spanish**

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**Spanish for Professionals**

Lec. 2 Lab. 0 Credit 2

Continuation of FLS-127. Designed to improve oral-aural skills; emphasis is given to the specific needs of students in law enforcement, health occupations, social services and business. Does not satisfy the foreign language requirement. Prerequisite: FLS-127 or equivalent.

**FLS-110 Spanish for Professionals: Law Enforcement****FLS-111 Spanish for Professionals: Health Care****FLS-112 Spanish for Professionals: Business****FLS-113 Spanish for Professionals: Education****FLS-127 Conversational Spanish**

Lec. 2 Lab. 0 Credit 2

Basic conversational Spanish designed to meet the immediate needs of students whose professions require a working knowledge of Spanish or of travelers to Spanish-speaking countries. In addition, the sociocultural aspects of the Hispanic people are studied. Emphasis is on oral-aural proficiency. Does not satisfy the foreign language requirement.

### **FLS-129 Spanish Conversation and Cultural Topics**

Lec. 2 Lab. 0 Credit 2

Development of oral fluency and vocabulary enhancement in Spanish through role playing, pair and group discussions, oral presentations on cultural issues and current events. This course is not open to those students whose primary language is Spanish. It does not satisfy the foreign language requirement. Prerequisite: FLS-142 or permission of instructor.

### **FLS-141 Elementary Spanish I**

Lec. 3 Lab. 2 Credit 4

This is an introductory course for those with no prior background in Spanish. Student is introduced to language skills of understanding, speaking, reading and writing with emphasis given to the first two skills. Related lab activities.

### **FLS-142 Elementary Spanish II**

Lec. 3 Lab. 2 Credit 4

A continuation of FLS-141 emphasizing all four language skills with special attention to further development of conversational skills. Cultural readings and lab activities. Prerequisite: FLS-141 or C grade on Proficiency Test or permission of instructor.

### **FLS-231 Intermediate Spanish I**

Lec. 3 Lab. 0 Credit 3

A review of the fundamentals of grammar, emphasizes oral communication among students. It also aims at increasing students' reading comprehension, vocabulary and a better understanding of Hispanic culture. Prerequisite: FLS-142 or C grade on Proficiency Test or permission of instructor.

### **FLS-232 Intermediate Spanish II**

Lec. 3 Lab. 0 Credit 3

A continuation of Intermediate Spanish I, reviews the fundamentals of grammar while emphasizing oral communication among students. It also aims at increasing students' reading comprehension, vocabulary and a better understanding of Hispanic culture. Prerequisites: FLS-231 or C grade on Proficiency Test or permission of instructor.

### **FLS-922 Field Studies**

Arranged Credit 1-3 Clinical 3-9

Supervised travel and living experience in a Spanish language speaking culture. Adequate preparation as judged by the instructor is required for credit participation. Specific written credit and participation requirements are established in advance of the field study.

Each hour of credit requires a minimum of 54 hours of supervised travel and living experience.

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## **GEO Geography**

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### **GEO-121 World Regional Geography**

Lec. 3 Lab. 0 Credit 3

The study and analysis of the major physical and cultural elements of the world. Emphasis on processes of acquiring, treating, and evaluating related information. For those with little or no prior background in the study of geography.

### **GEO-141 Economic Geography**

Lec. 3 Lab. 0 Credit 3

The examination of the uneven and real distribution of production, exchange, and consumption, extractive industries, manufacturing, agriculture, transportation and services in relation to human techniques, resource potentials, demographics. Some prior background in geography helpful.

### **GEO-161 Regional Landscapes Of North America**

Lec. 3 Lab. 0 Credit 3

The examination of the physical and cultural features of the United States and Canada. Emphasis on influence of environment on patterns of settlement, agricultural and industrial development, urbanism, land use and planning. Some prior background in geography helpful.

### **GEO-922 Field Studies**

Lec. Arranged Credit 1-3 Clinical 3-9

This course is open to students who desire to participate in selected geographic field experiences designed around supervised observation and practice. The experience provides an opportunity to apply classroom learning in the field. Specific written credit and participation requirements are established in advance of the field study. Each hour of credit requires a minimum of 54 hours of supervised travel and living experience.

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## **GRA Graphic Communications**

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### **GRA-116 Digital Preflight Production**

Lec. 2 Lab. 2 Credit 3

The main focus of this course is in preflighting techniques and color control. Advanced graphic design, color management skills, and printing technologies will be used in complex projects. The importance of

communication between printer/ pressroom and the graphic designer is also emphasized. This course integrates all facets of the graphic communications coursework and should be taken during the student's final semester.

### **GRA-127 Illustrator I**

Lec. 2 Lab. 2 Credit 3

This course is designed to introduce the student to the application of rendering techniques. Emphasis is placed on controlling various media, methods, surfaces, design problems and the appropriate media selection process.

### **GRA-131 Digital Layout**

Lec. 2 Lab. 2 Credit 3

The student will gain familiarity with the document production cycle of graphic layout using prevalent industry pagination software. Emphasis will be placed on planning the publication, using page elements, working with graphics, preparing the publication page, and reproduction. Students will use this publishing package to create a variety of print media utilizing proper design principles. Prerequisite: GRA-137. Corequisite: GRA-275.

### **GRA-137 Digital Design**

Lec. 2 Lab. 2 Credit 3

The student will gain familiarity with the function of graphic layout using electronic pagination software. Emphasis will be placed on publication design, development, reproducibility, and utilization of proper design techniques. Students will use this publishing package to create a variety of print media.

### **GRA-140 Digital Imaging**

Lec. 2 Lab. 2 Credit 3

This course is designed to introduce the student to image manipulation software used in the electronic and print media industry. Emphasis will be placed on scanning, image editing techniques, using painting tool sets, color correction, ethics and digital photography techniques.

### **GRA-141 Digital Imaging II**

Lec. 2 Lab. 2 Credit 3

A continuation of GRA-140 in the area of image manipulation and will build on skills used previously for the multimedia and print industries. Emphasis will be placed on web graphics, alpha channels, masking, adjustment layers, color correction, and actions. Prerequisite: GRA-140.

### **GRA-158 Web Multimedia**

Lec. 2 Lab. 2 Credit 3

An introduction to the creation of multimedia for use with Web pages, kiosks, and CD/DVD. Video camcorders, digital cameras, digital recorders, touch screens, and iPods will be utilized in conjunction with computer hardware and software for media creation and manipulation. Media covered in the course will include podcasting, streaming video, streaming audio, live broadcasts, and presentations.

### **GRA-166 Web Animations**

Lec. 2 Lab. 2 Credit 3

Animation can be an important part of information transfer from a Web site to the viewer. Topics will include when animation is an appropriate tool to use, when animation should be avoided, what tools are the current standard for Web animation, and how animation can be used to present information. The class will be project-based, with the student solving animation-related problems based on real business situations.

### **GRA-173 Typography**

Lec. 3 Lab. 0 Credit 3

This course is designed to provide the student with an introduction to the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, identification, type aesthetics, communicative aspects and production problems. A working knowledge of type in relation to images will be emphasized.

### **GRA-175 Graphic Design Principles**

Lec. 3 Lab. 0 Credit 3

A beginning course in designing printed pieces. This course will provide the student with an introduction to some of the basic principles of design aesthetics for print and web media. A history of the desktop publishing process, basics of communication, basic document structure, typography, use of color and illustration will be covered.

### **GRA-190 Electronic Media Projects**

Lec. 1 Lab. 4 Credit 3

Students will interview originators to determine target audience, message, and time and cost constraints for a project. They will then use various pagination software and graphic design skills to produce finished, print-ready pieces. Prerequisites: GRA-137 and GRA-175.

### **GRA-275 Advanced Graphic Design**

Lec. 2 Lab. 2 Credit 3

This course is designed to continue to guide the student in proper design and layout aesthetics. Emphasis will be on utilization of design principles and techniques for both short and long documents, publication planning, budgeting, scheduling, finishing processes, and working with outside printing companies. Prerequisite: GRA-175.

### **GRA-299 Electronic Portfolio**

Lec. 2 Lab. 2 Credit 3

Electronic Portfolio will help prepare the student for the next step, whether that is moving into the work force or presenting to the teachers at a four-year institution. Skills taught in this class will include preparation of an electronic portfolio, career-advancement skills, resume writing, and interviewing. Prerequisites: GRA-140, GRA-158, GRA-166, WDV-101.

### **GRA-932 Internship**

Lec. 0 Lab. 0 OJT 15 Credit 3.7

This course is designed to provide the student with a practical experience in graphics communication prior to completion of the associate of science/career option degree. The internship is supervised by the program coordinator and should be taken during the student's final semester. Prerequisite: Fifty-five hours completed toward the graphic communications technology program.

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## **HEQ Heavy Equipment**

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### **HEQ-131 Safety and Introduction to Heavy Equipment**

Lec. 2 Lab. 2 Credit 3

This is an introduction to the equipment, jobs, working conditions, maintenance, and safety of equipment operation.

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## **HIS History**

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### **HIS-131 World Civilization I**

Lec. 3 Lab. 0 Credit 3

This course is an economic, social, political and cultural survey of world civilization from earliest times to 1300, as these areas relate to contemporary civilization. Areas covered include: history of primitive, ancient, medieval religions, government and law; far Eastern and ancient European philosophy; primitive and ancient medieval fine arts.

### **HIS-132 World Civilization II**

Lec. 3 Lab. 0 Credit 3

This course is an economic, social, political and cultural survey of development of world civilization from 1300 to the present. It is a continuation of HIS-131. However, students may enter during any semester.

### **HIS-151 United States History to 1877**

Lec. 3 Lab. 0 Credit 3

A survey of American social, political, economic and intellectual developments from the Colonial period to 1877.

### **HIS-152 United States History since 1877**

Lec. 3 Lab. 0 Credit 3

A survey of American social, political, economic and intellectual developments since 1877.

### **HIS-211 Modern Asian History**

Lec. 3 Lab. 0 Credit 3

An introduction to the three dominant societies of modern Asia; China, Japan and India. Emphasis will be given to the transformation of cultural, economic, intellectual and social patterns brought about by the military power and economic demands of contemporary Western societies.

### **HIS-231 Contemporary World Affairs**

Lec. 3 Lab. 0 Credit 3

This course deals with the immediate problems facing the world from 1945 to the present, efforts to establish peace, the decline of colonialism, developments in the Third World, the Cold War, conflicting ideologies of the twentieth century and their interpretation in conflicting international economics and power struggles.

### **HIS-251 United States History 1945 to Present**

Lec. 3 Lab. 0 Credit 3

An intensive study of the history of the United States since 1945, with an emphasis upon America's national and international problems during this period.

### **HIS-257 African American History**

Lec. 3 Lab. 0 Credit 3

A study of African American people from their African origins through the contemporary civil rights movement in the United States. This survey includes the study of slavery before the Civil War, the examination of the role of the African American during the war and Reconstruction period, growth of segregation, and the fight for civil rights culminating in the current

position of the African American in the United States.

### **HIS-266 The Civil War**

Lec. 3 Lab. 0 Credit 3

A study of the United States during the Civil War. A study of the political, social, economic, military, and diplomatic history of the United States from 1850 to 1877. A look at the causes of the Civil War, the War and its impact on US society, and the aftermath of the war.

### **HIS-268 American Experience in Vietnam**

Lec. 3 Lab. 0 Credit 3

A study of the United States' involvement in the Vietnam War. The course will survey the military policies, battles, tactics, and strategies of the Vietnam War, 1954 – 1975. The course will look at the origins of the war as well as at the effects of the war on domestic, social and political issues in the United States.

### **HIS-271 American Frontier History**

Lec. 3 Lab. 0 Credit 3

An intensive study of the westward movement in American history. Topics to be covered include: the Indians, the fur trade, the development of transportation, the government land policy, and the settlement of the Great Plains.

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## **HIT Health Information Technology**

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### **HIT-211 Basic Medical Insurance and Coding**

Lec. 2 Lab. 2 Credit 3

This course is designed to assist students in understanding the complexities of current insurance procedures encountered in today's medical facilities. The student will be familiarized with claims submission for programs such as Blue Cross/Blue Shield, Medicaid, Medicare, CHAMPUS/CHAMPVA, and Worker's Compensation. A comprehensive unit on CPT Procedural Coding as well as ICD-9-CM Diagnostic Coding is incorporated into the course. Managed health care is explored in depth. Prerequisite or Corequisite: HSC-114 and BIO-163.

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## **HSC Health Sciences**

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### **HSC-114 Medical Terminology**

Lec. 2 Lab. 2 Credit 3

This course is designed to study the basic

language related to medical science with emphasis on word analysis, construction, definitions, pronunciations, spelling and standard abbreviations.

### **HSC-133 First Aid/CPR**

Lec. .5 Lab. 0 Credit .5

This course follows the American Heart Association Basic Life Support (CPR) Heart Saver for the lay person program. Includes AED, Basic First Aid. This course is not for health care workers.

### **HSC-144 Pharmacology**

Lec. 2 Lab. 0 Credit 2

This course introduces essential concepts of pharmacology, including drug legislation, terminology, and pharmacology therapy in the clinical management of patient care. It also provides an overview of commonly prescribed drugs, their classifications, uses, and side effects. Concentration on spelling and pronunciation is emphasized. Prerequisites: HSC-114, BIO-163

### **HSC-163 Nutrition**

Lec. 3 Lab. 0 Credit 3

Nutrition concepts across the lifespan are presented. An emphasis on weight management, obesity avoidance and prevention of common diseases (diabetes, heart disease, cancer and hypertension) that are dietary-related are discussed. Proper nutrition, a critical component for optimal learning, growing, healing and quality of life is emphasized.

### **HSC-172 Nurse Aide (Direct Care Giver)**

Lec. 2 Lab. 1 Clinical 2 Credit 3

Emphasis of this course is on students gaining a basic level of knowledge and demonstrating skills to provide safe, effective resident care. This course meets the requirement of the Department of Inspections and Appeals requirements for direct care givers working in long-term care and skilled facilities. Upon completion, students are eligible to take the written/oral and skills performance competency tests to become a Direct Care Worker in the State of Iowa. NOTE: This course will NOT cover BLS and Mandatory Reporter requirements.

### **HSC-181 First Aid/CPR for Non-Health Care Workers**

Lec. 1 Lab. 1 Credit 1.5

This course follows the American Heart Association Basic Life Support (CPR) Heart Saver for the Lay Person. It includes AED and basic first aid. This course is not for health care workers.

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## **HSV Human Services**

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### **HSV-163 Helping Skills**

Lec. 3 Lab. 0 Credit 3

An introduction to skills useful in dealing with people who abuse alcohol and drugs by introducing the student to basic communication and helping skills appropriate to dealing with people suffering from alcohol and other drug abuse, giving the student working knowledge of and practical experience with those skills. Prerequisites: HSV-261, ENG-105.

### **HSV-220 Introduction to Counseling Theories**

Lec. 3 Lab. 0 Credit 3

A survey of differing philosophies and styles of counseling approaches and their practical application. Including but not limited to: Transactional Analysis, Client-Centered Therapy, Rational Emotive Theory, Reality Therapy, Gestalt, etc. Actual practice in standard means of facilitating the helping process and identification of personal counseling style is included. Prerequisites: HSV-261.

### **HSV-228 Group Counseling Techniques**

Lec. 2 Lab. 2 Credit 3

An overview of group counseling theories, methods and skills. Students will obtain the knowledge and skills necessary to facilitate counseling groups with chemically dependent clients. Students will practice and demonstrate competency in group facilitation skills. Students will also obtain experience as a group member through participation in a weekend training group lab and ongoing group lab in class. Prerequisites: HSV-261, ENG-105. Pre or Corequisite: HSV-163.

### **HSV-240 Special Issues Counseling Women**

Lec. 1 Lab. 0 Credit 1

This course explores selected concerns that women are likely to bring into a counseling situation. Topics include sex roles, gender and socialization, domestic violence and sexual abuse/rape issues and adapting chemical dependency treatment for women.

### **HSV-241 Special Issues Counseling Adolescents**

Lec. 1 Lab. 0 Credit 1

This course explores selected concerns that adolescents are likely to bring into a counseling situation. Topics include adolescent developmental tasks, causes of adolescent drug use, effects of drug use on adolescent development and treating



chemically dependent adolescents.

### **HSV-261 Intro to Chemical Dependency Counseling**

Lec. 3 Lab. 0 Credit 3

A survey of the use, abuse and addictive nature of ethyl alcohol and other mood altering chemicals, providing the student with a basic knowledge of its nature, scope and complexity and the wide range of current approaches to its treatment and prevention.

### **HSV-262 Working with Families of Alcohol and Drug Abuse**

Lec. 3 Lab. 0 Credit 3

This is a survey of various therapeutic philosophies and techniques for working with chemically dependent families.

This course provides an overview of the problems and symptoms commonly encountered in these families and a basic understanding of the therapy process. Prerequisites: HSV-220, HSV-261.

### **HSV-265 Substance Abuse Prevention**

Lec. 3 Lab. 0 Credit 3

This course will offer an introduction to the history of the field of substance abuse prevention and the various methodologies used. Students will acquire the knowledge and skills needed to perform the seven core functions of the prevention specialist as specified by the Iowa Board of Substance Abuse Certification. Prerequisite: HSV-220 and HSV-261.

### **HSV-270 Crisis Intervention**

Lec. 3 Lab. 0 Credit 3

This course is intended to develop an understanding of the dynamics of a crisis, the skills to assess the multidimensional aspects of a crisis and the ability to productively assist individuals who are experiencing a crisis. Prerequisites: HSV-261, HSV-163.

### **HSV-285 Case Management: Intake to Discharge**

Lec. 3 Lab. 0 Credit 3

The course will offer an overview of the twelve core functions recognized as necessary for certification (assessment, treatment, planning, recordkeeping, etc.). Students will learn the knowledge and skills needed to effectively perform each core function. Prerequisites: HSV-261, HSV-163, ENG-105.

### **HSV-920 Counseling Practicum**

Lec. 0 Lab. 0 OJT 40 Credit 11

Supervised experience in substance abuse counseling which emphasizes practical

application of the core functions.

Prerequisite: A student must receive a grade of "C" (2.0) or higher in each of the following courses: HSV-261, HSV-163, HSV-228, HSV-262, HSV-220 and HSV-285. Corequisite: HSV-925.

### **HSV-925 Counseling Practicum Seminar**

Lec. 1 Lab. 0 Credit 1

A class discussion and review of HSV-920 experience and the study of current issues in substance abuse. Prerequisites: HSV-261, HSV-163, HSV-228, HSV-262, HSV-220 and HSV-285.

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## **HUM Humanities**

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### **HUM-114 Multicultural Perspectives**

Lec. 3 Lab. 0 Credit 3

Selected readings from the critical perspectives of race, class and gender will provide the theoretical framework for class discussions. At the same time, films and works of literature from different cultural points of view will help students reach a new understanding of their own and other cultures and will open themselves up for a multicultural understanding of society.

### **HUM-145 Language and Society**

Lec. 3 Lab. 0 Credit 3

This course is an introduction to sociolinguistics exploring the relationship between social and linguistic behavior. Analyzes factors influencing the choice of sounds, grammatical elements, and vocabulary; it codes the social function of a language. Focuses on the history of the language, various dialects, jargon, slang and differences between male and female language.

### **HUM-287 Leadership Development Studies**

Lec. 3 Lab. 0 Credit 3

This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from the humanities, experiential exercises, films/videos and contemporary readings on leadership.

### **HUM-290 A Call to Lead**

Lec. 3 Lab. 0 Credit 3

This course is designed to put leadership into practice by exploring the concept of self-leadership and servant leadership. The curriculum of this class will improve and expand on current leadership skills

by building a strong foundation in values clarification, communication skills, group development, conflict management, and diversity education.

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## **IND Industrial Technology**

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### **IND-103 Machine Shop**

Lec. 1 Lab. 2 Credit 2

This course identifies the tools commonly used in a machine shop and their components as well as how each tool is used for a particular job. Students will learn how to use every day hand tools. Students will learn skills on various tools such as milling machines, drill presses, band saws, grinders, and precision instruments. They will learn how to select, size, and install a variety of different types of piping, fittings, and valves.

### **IND-104 Industrial Pumps**

Lec. .5 Lab. 1 Credit 1

This course discusses the principles and applications of centrifugal pumps. Students will learn centrifugal pump construction, uses, system properties, monitoring, and troubleshooting techniques. Students will also learn the skills they need to select, operate, install, maintain and repair the many different types of pumps used in industry.

### **IND-106 Machine Shop II**

Lec. 1 Lab. 2 Credit 2

This course introduces students to the basics of calculating cutting speeds and feeds for machining ferrous, non-ferrous, and plastics materials on the lathe. It also demonstrates the fundamentals of mounting a chuck on an engine lathe and truing a work piece in a chuck and introduces students to the three methods of facing work to length in a chuck. The course will show students how to straight turn a work-piece to two concentric diameters in a four-jaw independent chuck. Students will learn the correct procedures for taking both roughing and finishing cuts. They will also learn to turn between centers. Finally, students will learn the proper method of finishing one end of work to one diameter, reversing the work in the chuck, and finishing the other end to another diameter. It will demonstrate how to perform four internal machining operations on the engine lathe; drilling, boring, counter-boring, and reaming. Prerequisites: IND-103.

### **IND-107 Valves**

Lec. 1 Lab. 0 Credit 1

This course gives students a fundamental understanding of the various shutoff valve

constructions including wedge, ball, plug, globe, pinch, and diaphragm types, basic maintenance techniques, and the sources of many problems. From this foundation, students will be better able to develop maintenance skills through plant training programs or on-the-job experiences. The course also provides basic guidelines for installing various types of shutoff valves.

### **IND-141 Power Transmission**

Lec. 1 Lab. 2 Credit 2

This course discusses the fundamentals of mechanical transmission systems used in industry. Students will learn industrial skills on how to operate, install, analyze performance, and design basic mechanical transmission systems using chains, v-belts, spur gears, bearings, and couplings.

### **IND-163 OSHA & Plant Safety**

Lec. 2 Lab. 0 Credit 2

This course relates OSHA as it applies to employers & employees engaged in a variety of businesses. Students will learn how OSHA applies to employers and employees in such varied fields as manufacturing, construction, agriculture as well as other work environments.

### **IND-179 Boiler Operations and Control**

Lec. 1 Lab. 2 Credit 2

This course is designed to help students understand the evolution of the boiler system from the first century to modern day and understand the principles and applications of steam traps. This course will provide an overview of the operation of the boiler plate system, beginning with basic principles of steam energy and boiler plate design. This course will describe steam, steam trapping and different types of steam traps including sizing, installation and monitoring.

### **IND-180 Industrial Heating and Cooling**

Lec. 1 Lab. 2 Credit 2

This course is designed to help students understand the fundamentals of HVAC & R. The students will learn chiller, air handler, cooling tower, and condenser operations as well as how to perform basic preventative maintenance tasks. The course also shows how preventative maintenance practices can be used in troubleshooting common HVAC & R problems.

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## **JOU Journalism**

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### **JOU-120 Beginning Newswriting**

Lec. 3 Lab. 0 Credit 3

This course introduces students to the fundamentals of news judgment, reporting, and writing. Students will learn about professional standards and ethics, cultural awareness, current events and how to keep up with them, Associated Press and local style rules, and the use of the tools of the trade. Prerequisite: C- or above in ENG-106.

### **JOU-121 Newswriting and Reporting**

Lec. 3 Lab. 0 Credit 3

This course introduces students to writing in a professional environment and to the forms of writing for the mass media. These forms include news stories for print and broadcast, advertising copy for print and broadcast, and other types of writing for public relations. Prerequisite: C- or above in JOU-120.

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## **LIT Literature**

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### **LIT-101 Introduction to Literature**

Lec. 3 Lab. 0 Credit 3

Designed to promote an appreciation of excellence in literature through illustrative types of short fiction, poetry, and drama. Emphasis is placed on the reader's interpretive skills in examining an author's craft, intent, and format.

### **LIT-105 Children's Literature**

Lec. 3 Lab. 0 Credit 3

Study and selection of supplementary reading material for children in the preschool and elementary grades. Use of children's books for information, entertainment and relaxation is considered.

### **LIT-120 American Novel**

Lec. 3 Lab. 0 Clinical 0 Credit 3

A survey of the American novel with emphasis on 20th century works.

### **LIT-121 American Short Story**

Lec. 3 Lab. 0 Credit 3

A survey of the American short story from Edgar Allen Poe to the present.

### **LIT-122 American Fiction**

Lec. 3 Lab. 0 Credit 3

A survey of American short stories, novellas, and novels from the early part of the nineteenth century to the present.

### **LIT-125 American Poetry and Drama**

Lec. 3 Lab. 0 Credit 3

A survey of American poetry and drama with

emphasis on 20th century works.

### **LIT-131 Native American Literature**

Lec. 3 Lab. 0 Credit 3

A survey of literature of all genres, fiction and nonfiction, produced by Native Americans. Elements of study include the oral tradition influences, regional folklore, and autobiographical and historical materials created by contemporary and historical Native American authors. Off-campus visits to centers of Native American study will be conducted whenever possible.

### **LIT-150 World Literature I**

Lec. 3 Lab. 0 Credit 3

A survey of important works of literature from the ancient world through the Renaissance. This will include selections of prose, poetry, and drama that represent the spirit of the times in which they were written.

### **LIT-151 World Literature II**

Lec. 3 Lab. 0 Credit 3

A survey of important works of literature from the Renaissance to the present. This will include selections of prose, poetry, and drama that represent the spirit of the times in which they were written.

### **LIT-184 Young Adult Literature**

Lec. 3 Lab. 0 Credit 3

A discussion and evaluation of the literature written for adolescents. Types of literature for this age group and methods of utilizing this literature in school and home are addressed.

### **LIT-204 Forms of Literature: Nonfiction**

Lec. 3 Lab. 0 Credit 3

This course focuses on the genre of creative non-fiction literature and its sub-genres (including personal essays, memoirs, profiles, collages, nature essays, travel essays, criticisms, and "the short") and explores how creative non-fiction literature informs while using language in a creative manner. Prerequisites: C or better in ENG-105 or C or better in any college-level literature course or permission of the instructor.

### **LIT-209 Forms of Literature: Film Adaptation**

Lec. 3 Lab. 0 Credit 3

Focuses on the relationship between literary works (fiction, drama, nonfiction, poetry or graphic literature) and their adaptations to film. Students explore the adaptation of literature to film; how the elements of plot, character, setting, point of view, symbol, and theme are adapted or altered from literature to film; and how film adaptations influence

our understanding of both literature and film.  
Prerequisite: C- or above in ENG-105.

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## MAP Medical Assistant

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### MAP-121 Administrative Procedures I: Medical Office

Lec. 2 Lab. 4 Credit 4

This course is designed to acquaint students with the front-office administrative responsibilities of the medical assistant. The student will develop competency in written communication skills including editing practice, sentence revision, paragraph writing and exercises in grammar, mechanics and usage. Other competencies will include appointment scheduling, telephone techniques, recording and filing medical records, processing mail, billing and collection procedures, banking services, accounting methods and payroll preparation. The student will also be introduced to preparation of professional medical meetings, travel arrangements and development of professional reports. The content of the course is adapted to the 2003 approved standards of CAAHEP.

### MAP-122 Administrative Procedures II: Medical Office

Lec. 2 Lab. 2 Credit 3

This course introduces basic computer concepts and emphasizes the practical applications approach using simulated medical office management programs. The student is guided through a series of computer applications that highlight the most common aspects of the modern medical office including electronic claim filing. Resume development and job-seeking skills are also presented. Prerequisite: HSC-114, MAP-431, MAP-105, MAP-121, MAP-364, BIO-163.

### MAP-128 Introduction to Electronic Health Records

Lec. 1 Lab. 2 Credit 2

Introduction to Electronic Health Records involves the student in the management and application of health records. This includes the implementation and management of electronic schedule, creating patient medical record, management of immunization, electronic correspondence, laws and regulation of medical records. Prerequisite: 35 nwpm timed typing test score. Corequisite: MAP-121.

### MAP-145 Medical Records Management

Lec. 2 Lab. 2 Credit 3

This is a comprehensive introduction to the field of medical records, administrative procedures, documentation, automated information systems in health care delivery, and the management of health data. Students will learn the purpose, content, and ethical and legal principles of the medical record. Students will learn standards and regulations related to healthcare documentation as set by state and federal bodies. Confidentiality and compliance with HIPAA will be stressed. Corequisite: HSC-114.

### MAP-364 Clinical Procedures for Medical Office I

Lec. 3 Lab. 8 Credit 7

This course includes the numerous competencies required to assist the physician with patient examinations. Fundamental skills include: aseptic techniques and the sterilization of medical supplies; the psychological and physical preparation of the patient for a medical examination; preparation of surgical trays and assisting with minor surgeries; and the performance of routine urinalysis as ordered by the physician. Prerequisite: Acceptance into the program.

### MAP-369 Clinical Procedures for Medical Office II

Lec. 4 Lab. 6 Credit 7

This course is designed to acquaint the student with the knowledge and skills required in the preparation, administration and documentation of various forms of medication. Dosage calculations and the physiological actions of drugs on the human body are addressed. Students will gain knowledge of venipuncture and use of quality controls. The student will gain knowledge of blood chemistries, serology, microbiology and hematology. Student will gain knowledge regarding the electronic medical record and its application in the clinical setting. Prerequisite: Successful completion of all fall semester curriculum.

### MAP-370 Specialty Procedures

Lec. 2 Lab. 4 Credit 4

This course expands on basic clinical procedures with advanced theory, techniques and knowledge in specialty procedures and practice. Students will also focus on knowledge and skills to prepare and respond to emergency situations in a medical practice. Prerequisite: MAP-364. Corequisite: MAP-369.

### MAP-401 Medical Law and Ethics

Lec. 1 Lab. 0 Credit 1

This course is designed to expose the student to legal concepts of standard of care, scope of employment, criminal and civil acts, contract, negligence and ethical concepts.

### MAP-431 Human Relations

Lec. 1 Lab. 0 Credit 1

This course includes the study of the fundamental principles related to human relations, self-improvement, professional appearance and attitudes, limitations, and behaviors. Principles of individualized client care and etiquette of the medical practice are emphasized.

### MAP-532 Human Body: Health and Disease

Lec. 3 Lab. 0 Credit 3

This course is designed to acquaint the student with the basic concepts and characteristics of disease processes, to impart basic knowledge of the etiology of the disease and to enable the student to understand the relationship between clinical signs and the disease process. Diagnostic tests and common treatments will be discussed. Concepts of Health promotion and client education will be emphasized. Prerequisite: BIO-163.

### MAP-602 Clinical Experience Seminar

Lec. 1 Lab. 0 Credit 1

A discussion of job related problems and study of current medical office procedures. Prerequisites: All previous program classes and student must successfully complete and obtain the mandatory reporter certificate for adult and child abuse. Corequisite: MAP-615.

### MAP-615 Clinical Externship

Lec. 0 Lab. 0 OJT 20 Credit 5

Following successful completion of the academic hours, the student is placed in a selected physician's office for a two-month required clinical practicum, working directly under supervision. A balance of learning experiences in both the administrative and clinical areas of the medical facility will be provided for the student during this training period. Students do not receive monetary compensation for externship experience. Prerequisites: All previous program classes and student must successfully complete and obtain the mandatory reporter certificate for adult and child abuse. Corequisite: MAP-602.

# **MAT Mathematics**

## **MAT-052 Pre-Algebra**

Lec. 2 Lab. 2 Credit 3

Designed for students who have not mastered the basic skills of arithmetic or for students who need to review arithmetic. Topics studied include operations on whole numbers, fractions, decimals, percents, measurement, basic statistics, beginning geometry and beginning algebra. These topics are similar to those topics covered in Math Skills I and II with an emphasis on problem solving techniques. Prerequisites: COMPASS Pre-Algebra score of 22-49 or ACT Math score of 14-17 or math faculty approval.

## **MAT-062 Elementary Algebra**

Lec. 2 Lab. 2 Credit 3

This course is a beginning level course for students needing a start, or fresh start, in algebra. Topics covered include signed numbers, linear equations, polynomials, factoring, square roots, quadratic equations, and graphing. Prerequisites: Completion of MAT-052 with a grade of at least C- or Pre-Algebra COMPASS score of 50-99 or ACT Math score of 18-19 or math faculty approval.

## **MAT-079 Elementary Geometry**

Lec. 1 Lab. 2 Credit 2

This course is designed for college students who have completed an introductory algebra course but did not take high school geometry or took it so long ago they need a review. This will be equivalent to one year of high school geometry. Prerequisite: MAT-062 Elementary Algebra or its equivalent. Credit earned in this class will not count toward the A.A. or A.S. degree requirements.

## **MAT-080 Math Skills I**

Lec. 1 Lab. 0 Credit 1 (Face-to-Face) or Lec. 0 Lab. 2 Credit 1 (SuCCess Center)

This course is designed for students who have not mastered the basic skills of arithmetic or for students who need to review arithmetic or for students who are looking to improve their math score on standardized tests through studying arithmetic. Topics studied include arithmetic operations on whole numbers, fractions, decimals, percents, and integers.

## **MAT-081 Math Skills II**

Lec. 1 Lab. 0 Credit 1 (Face-to-Face) or Lec. 0 Lab. 2 Credit 1 (SuCCess Center)

This course is a continuation of MAT-080/MAT-084 and is designed for students who have a good background in arithmetic

and want an introduction to a variety of mathematical topics or for students who are looking to improve their math score on standardized tests through work with word problems. Topics studied include ration and proportion, measurement and conversions, geometry, statistics and probability, and algebra concepts. Prerequisite: Successful completion of MAT-080/MAT-084 or permission of instructor.

## **MAT-084 Math Skills I**

Lec 2 Lab. 0 Credit 2 (Face-to-Face) or Lec. 0 Lab. 4 Credit 2 (SuCCess Center)

This course is designed for students who have not mastered the basic skills of arithmetic or for students who need to review arithmetic or for students who are looking to improve their math score on standardized tests through studying arithmetic. Topics studied include arithmetic operations on whole numbers, fractions, decimals, percents, and integers.

## **MAT-085 Math Skills II**

Lec. 2 Lab. 0 Credit 2 (Face-to-Face) or Lec. 0 Lab. 4 Credit 2 (SuCCess Center)

This course is a continuation of MAT-080/MAT-084 and is designed for students who have a good background in arithmetic and want an introduction to a variety of mathematical topics or for students who are looking to improve their math score on standardized tests through work with word problems. Topics studied include ration and proportion, measurement and conversions, geometry, statistics and probability, and algebra concepts. Prerequisite: Successful completion of MAT-080/MAT-084 or permission of instructor.

## **MAT-092 Intermediate Algebra**

Lec. 3 Lab. 2 Credit 4

This course is designed as an intermediate level algebra course recommended for students with at least one year of high school algebra or equivalent. It serves as a foundation for many other math, science, and business courses. Computer assisted tutorials and/or graphing calculator instruction may be covered in the lab portion of this course. Students will learn to apply algebraic models and standard solution methods to applied and theoretical problems, using technology when appropriate. Topics include sets, linear equations and inequalities, systems of linear equations, exponents, polynomials, rational equations, radical equations, quadratic functions, graphing transformations, and logarithmic equations. Prerequisites: MAT-062 with a grade of at least C- or equivalent or COMPASS Algebra

score of 20 or higher or ACT Math score of 20-21 or math faculty approval.

## **MAT-094 Independent Study - Math**

Lec. 0 Lab. 2 Credit 1

This course is designed to provide the student with an opportunity to select a specific mathematical area to explore in greater depth than is possible in other available courses. Independent Study topics will be determined by consultation between the student and instructor. Typical topics could include geometry, trigonometry, estimating, carpentry/mechanical/electrical preparation, etc. Credit earned in this course will not count toward the A.A., A.S., or A.A.S. degree requirements.

## **MAT-110 Math for Liberal Arts**

Lec. 3 Lab. 0 Credit 3

Math for Liberal Arts is a survey course for students who have little background in mathematics. Topics include survey of sets, numbers, algebra, geometry, probability, and statistics. This course is not intended for Mathematics and Science majors. Prerequisites: MAT-062 with a grade of at least C- or equivalent or COMPASS Algebra score of 20 or higher or ACT Math score of 20-21 or math faculty approval.

## **MAT-112 Math for Elementary Teachers I**

Lec. 3 Lab. 0 Credit 3

Math for Elementary Teachers I is the first of two mathematics courses for students who want to pursue a major in elementary education. This course will use a variety of problem-solving skills while exploring many aspects of the real number system. Algebraic and concrete mathematical models will be incorporated in strategies used to solve problems. Prerequisite: One year of algebra.

## **MAT-113 Math for Elementary Teachers II**

Lec. 3 Lab. 0 Credit 3

Mathematics for Elementary Teachers II is a second mathematics course for students who want to pursue a major in elementary education. The course will use a variety of problem-solving skills while exploring the many aspects of geometry and data analysis. Applications using concrete and pictorial models will be incorporated in strategies used to solve problems. Prerequisite: C- or above in MAT-112.

## **MAT-127 College Algebra and Trigonometry**

Lec. 5 Lab. 0 Credit 5

The study of rational, exponential,

logarithmic, and polynomial functions and relations, their graphs and related equalities. The study of the circular functions, graphs, and applications. Vectors, trigonometric properties, equations, identities and complex numbers are treated extensively. Prerequisite: MAT-092 with a grade of at least C- or equivalent or COMPASS Algebra score of 73-92 or ACT Math score of at least 25 or math faculty approval.

### **MAT-128 Precalculus**

Lec. 4 Lab. 0 Credit 4

This course encompasses an in-depth review of mathematical concepts necessary in preparing students for the calculus. Problem solving is emphasized. Topics from algebra, trigonometry, and analytic geometry essential in the calculus are covered in this course. Topics include: properties of lines and quadratics, absolute value equations and inequalities, functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, analytic trigonometry, vectors, conics in both the rectangular and polar coordinate systems, parametric equations, systems of equations and inequalities, matrices, three-dimensional coordinate geometry, partial fractions, sequences and mathematical induction. Prerequisite: MAT-127 or equivalent.

### **MAT-140 Finite Math**

Lec. 3 Lab. 0 Credit 3

This course is designed for Business and Social Science majors. It introduces them to matrix solutions, to linear equations, linear programming, matrix algebra, mathematics of finance, computer applications, value of slope of a line, and exponential/logarithmic functions. Application problems are taken from Business Management and Social Science areas. Prerequisite: 3 years of high school college prep math AND an ACT score of at least 23 or COMPASS Algebra score of 73-92 or MAT- 092 with a grade of at least C-.

### **MAT-149 Linear Algebra**

Lec. 3 Lab. 0 Credit 3

This course will include the study of systems of equations, matrices, determinants, vector spaces, inner product spaces, linear transformations, eigenvalues and eigenvectors. Applications relating to these topics will be investigated. Prerequisite: MAT-216 or math faculty approval.

### **MAT-156 Statistics**

Lec. 3 Lab. 0 Credit 3

This course is an applied course in statistics, designed to introduce students to some of the concepts, symbols, procedures, and vocabulary used in the field of statistics. Topics covered in this course include: organizing and graphing data, descriptive statistics, probability, various distributions, the sampling distribution of the mean, estimating a population mean, confidence intervals, inferential statistics (hypothesis testing), comparing two population parameters, analysis of variance, correlation, simple linear and multiple regression, contingency tables, and nonparametric statistics (time permitting). Prerequisite: MAT- 092 with a grade of at least C- or COMPASS Algebra score of 55 (or higher) or ACT score of 22 or above or math faculty approval.

### **MAT-165 Business Calculus**

Lec. 3 Lab. 0 Credit 3

This course is a continuation of finite Math, intended for Business Management and social Science majors. It introduces them to theorems for finding derivatives, applications to maximum and minimum, related rates, graphing of functions, marginal cost and revenue, supply and demand, partial derivatives, antiderivatives, definite integral, tests for increasing and decreasing functions, concavity, maximum and minimum of functions of more than one variable, area under a curve, separable differential equations, growth and decay, and applications of the above to Business Management and Social Sciences. Prerequisite: 3 years of high school college prep math AND an ACT score of at least 25 or COMPASS Algebra score of 73-92 OR MAT-127 with a grade of at least C OR MAT-140 with a grade of at least C.

### **MAT-170 Calculus for the Life Sciences**

Lec. 4 Lab. 0 Credit 4

This course is designed primarily for students who are (or will be) pursuing degrees in the life sciences, such as biology, medicine, pharmacy, or other related biomedical areas. This course exposes students to numerous differentiation and integration techniques, including some techniques for solving differential equations, with an emphasis on applications to the life sciences, (If time permits, students will be introduced to additional calculus concepts and techniques.) This course is designed primarily for life science students who need only one terminal calculus course. For students who need a

more comprehensive or traditional calculus sequence, it is recommended that MAT-210 and MAT-216 be taken. Prerequisite: MAT-127 and/or MAT-128 or equivalent.

### **MAT-210 Calculus I**

Lec. 4 Lab. 0 Credit 4

This course includes the study of limits and continuity, derivatives and differentiation, differentials, maximum and minimum function values and techniques of graphing, applications, and an introduction to integration. Prerequisite: MAT-127 or MAT-128 with a grade of at least C- or COMPASS Algebra score of 93-99 (or higher) or ACT score of 29 or above or math faculty approval.

### **MAT-216 Calculus II**

Lec. 4 Lab. 0 Credit 4

The study of integration, techniques of integration, applications and accompanying mathematical structure. Prerequisite: MAT-210 or math faculty approval.

### **MAT-219 Calculus III**

Lec. 4 Lab. 0 Credit 4

Multivariable calculus is to cover topics from the functions of several variable and vector valued functions. The course includes directional derivative, gradients, the curl, the divergence, multiple integrals over regions and volumes. Line and surface integrals will be covered. Double integral in the polar coordinates will be done. Prerequisite: MAT-216 or math faculty approval.

### **MAT-227 Differential Equations with Laplace**

Lec. 4 Lab. 0 Credit 4

The study of elementary theory and applications of ordinary differential equations. Course includes first and second order differential equations. Prerequisite: MAT-216 or math faculty approval.

### **MAT-702 Introduction to Math Applications**

Lec. 2 Lab. 2 Credit 3

This course is offered to students who can profit from an applied course in mathematics and will prepare students who need to develop skills for MAT-704. It is designed as an introductory level algebra course recommended for students with one year of high school algebra. Emphasis is on the building of basic algebra skills and the application of these mathematical techniques. The course studies the relationship of geometry and algebra as they apply to various fields. This course will also cover whole numbers/decimals, integers, fractions/

percents, direct measurement, basic geometric concepts/relationships, linear equations, and right-triangle trigonometry. Prerequisite: MAT-052 or Pre-Algebra COMPASS score of 50-99 or ACT Math score of 18-19 or math faculty approval.

### **MAT-704 Math Applications**

Lec. 5 Lab. 0 Credit 5

This course is offered to technical and other students who can profit from an applied course in mathematics. It is designed as an intermediate level algebra course recommended for students with at least one year of high school algebra. Emphasis is on the application of mathematical techniques. Students will study the relationship of geometry and algebra as they apply to electronics and mechanical technology problems. Algebraic manipulation of formulas, equations, radicals, exponents, logarithms, polynomials, rational expressions, systems of linear equations, plane trigonometry, vectors, and graphs of equations are studied. Prerequisite: MAT-062 or MAT-702 or COMPASS Algebra score of 20 or higher or ACT Math score of 20-21 or math faculty approval.

### **MAT-726 Machine Shop Mathematics I**

Lec. 4 Lab. 0 Credit 4

Review of basic arithmetic operations, practical algebra, geometry, and trigonometry. The application of these math functions for the machine shop will be stressed.

### **MAT-730 Machine Shop Mathematics II**

Lec. 3 Lab. 0 Credit 3

Oblique triangle laws are introduced with emphasis placed on practical and more difficult shop related problems. Prerequisite: MAT-726.

### **MAT-772 Applied Math**

Lec. 3 Lab. 0 Credit 3

This course is designed to acquaint the student with the mathematics necessary to function within technical careers and to become a more aware consumer. Topics include: review of arithmetic operations; measurement; metric system; fundamentals of geometry; introductory statistics and probability; graphs; and elementary algebra concepts with emphasis on applications.

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## **MFG Manufacturing**

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### **MFG-105 Machine Shop Measuring**

Lec. 1 Lab. 4 Credit 3

This course covers a variety of precision measurement devices that are used in

manufacturing processes. Emphasis will be placed on how the student will accurately use these devices in the laboratory situation.

### **MFG-156 Introduction to CNC**

#### **Machining**

Lec. 1 Lab. 4 Credit 3

Introduces basic operations of a CNC turret press. Covers basic and advanced tooling, programming using G & M code and CAM software. Emphasizes teamwork, critical thinking and problem solving through hands-on experience and practical applications.

### **MFG-165 Engineering Materials**

Lec. 3 Lab. 0 Credit 3

A study of materials, their production, properties and uses in engineering design. Ferrous and nonferrous metals, polymeric and ceramic materials are covered. Methods of selecting acceptable materials based on their costs, availability and properties are discussed. Prerequisites or Corequisites: PHY-106 or PHY-160 and MFG-212.

### **MFG-206 Manufacturing Processes I**

Lec. 1 Lab. 4 Credit 3

Basic course in measurements related to manufacturing, material removal, hard mold casting, powder metallurgy, plastics and rubber, material shearing, material forming, the use and manufacture of screw threads, abrasive removal methods, automation and introduction to numerical control. Lab sections demonstrate and give hands-on experiences in reading simple blue prints, layout, measurements and machining on tool room quality machine tools. Prerequisite: MAT-702.

### **MFG-209 Machine Shop Practices**

Lec. 1 Lab. 4 Credit 3

Classroom and hands on training will be provided in machine shop safety and the use of machine shop tools and machines. Training will include proper use of hand tools, measuring tools, milling machines, grinders, lathes, drills and saws.

### **MFG-212 Basic Machine Theory**

Lec. 1 Lab. 4 Credit 3

Introduction to basic machining processes involving drill press, lathe, mills, drills, saws, bench tools, measuring tools, and grinders. Classes will cover safety, tooling, metal removal methods, and different various pieces of equipment.

### **MFG-228 Machine Operations II**

Lec. 2 Lab. 4 Credit 4

Covers advanced setup and operation of lathes, mills and grinders using different

materials and cutters. Productivity and safe operation are emphasized. Prerequisite: MFG-237.

### **MFG-237 Introduction to Machine Trades**

Lec. 1 Lab. 4 Credit 3

Explores basics of machining, raw materials, use of hand tools, safety and maintenance. Includes measurement techniques, materials, safety, machine tool math, quality control and maintenance. Emphasizes teamwork, critical thinking and problem solving through hands-on experience and practical applications. Corequisite: MAT-702.

### **MFG-303 Advanced CNC Programming**

Lec. 3 Lab. 6 Credit 6

Continuation of MFG-156, Introduction to CNC Machining adding canned cycles, looping, sub-routines and interpretation of programs written by others. Internal machining on the lathes is covered. More complex parts and production of multiple parts will be undertaken. Prerequisite: MFG-156.

### **MFG-323 MasterCam Design**

Lec. 1 Lab. 2 Credit 2

This course provides an introduction to computer aided design and drafting. Actual hands-on experience in designing, drawing, and dimensioning, surface and solid modeling using Mastercam Design software will be provided. The course presents logical step-by-step instruction about the Mastercam commands, drawing aids, shortcuts and other valuable characteristics of Mastercam. This course will also feature 2D geometry and dimensioning, creating 3D surface geometry and 3D solids geometry and using Mastercam Software to create Solid models using wireframe geometry.

Finished copies of the students' work will be made on a printer or plotter.

### **MFG-511 Lean Quality Manufacturing**

Lec. 3 Lab. 2 Credit 4

This course introduces the student to the basic principles of lean manufacturing and quality control inspection tools.

### **MFG-520 Predictive Maintenance**

Lec. 1 Lab. 2 Credit 2

This course discusses the principles of machinery oil analysis, thermography, ultrasonics and machine vibration. Students will learn how to properly diagnose an equipment failure. Students will also learn steps to prevent equipment failures and keep equipment running efficiently.

### **MFG-546 Statics/Strength of Materials**

Lec. 4 Lab. 2 Credit 5

Study of the internal stresses and deformation of elastic bodies resulting from the action of external forces. Emphasis is given to analysis of simple and combined stresses and the properties of materials to meet the functional requirements in design. Prerequisite: MAT-704 or equivalent, PHY-106 or PHY-160, or permission of instructor.

### **MFG-805 Teamwork and Project Management**

Lec. 2 Lab. 2 Clinical 0 Credit 3

This capstone course provides a structured approach to problem solving by interdisciplinary teams. Emphasis is placed on the techniques and methodologies of project management and interpersonal relationships with the team. Professional ethical issues are presented in examples. Prerequisites: CAD-172, completion of 40 semester hours within technology programs.

### **MFG-932 Internship**

Lec. 0 Lab. 0 OJT 16 Credit 4

Designed to provide students with practical, supervised work experience in their chosen manufacturing field prior to the completion of the AAS degree. The internship is approved and supervised by the program faculty and should be taken during or after the student's last semester of the AAS degree. Prerequisite: Completion of 53 Welding Program credits.

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## **MGT Management**

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### **MGT-101 Principles of Management**

Lec. 3 Lab. 0 Credit 3

This course provides an intensive examination of the basic fundamentals of organization and management underlying the solution to management problems.

### **MGT-130 Principles of Supervision**

Lec. 3 Lab. 0 Credit 3

This course provides an overview of the principles involved in supervision, including planning, organizing, motivating, staffing and appraising. Also covered are interpersonal skills including communication, decision making, conflict and team work.

### **MGT-170 Human Resources Management**

Lec. 3 Lab. 0 Credit 3

This course provides an overview of the principles involved in human resources management including strategy, legal environment, EEO, and job analysis and job

design. Also covered are acquiring human resources, training and developing employees, compensation issues, and labor relations.

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## **MKT Marketing**

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### **MKT-110 Principles of Marketing**

Lec. 3 Lab. 0 Credit 3

This introductory class uses the managerial approach to study a market-directed system of marketing. The emphasis is on market strategy planning from the viewpoint of the marketing manager. The "4 P's"—product, place, price, and promotion—provide the structure underlying the organization of this course.

### **MKT-121 Digital Marketing**

Lec. 2 Lab. 2 Credit 3

A complete overview of how to promote a business online, this course covers the basics of traditional marketing before going on to explore how these core concepts can be specifically applied to digital media. Students will learn the role that websites, social media, search engine placement, email and mobile marketing play in their overall marketing strategy and how best to take advantage of each.

### **MKT-140 Principles of Selling**

Lec. 3 Lab. 0 Credit 3

Fundamental terminology, principles and techniques of direct and indirect selling as well as promotional methods. Emphasis on human behavior and the motivation, rewards, duties, and qualifications of a person in sales. This course is designed for an individual preparing for initial or improved employment.

### **MKT-150 Principles of Advertising**

Lec. 3 Lab. 0 Credit 3

A detailed look into the study and practice of advertising with special emphasis placed on allowing students to plan and think more strategically, evaluate alternative courses of action, develop more creative solutions to problems, analyze why people behave the way they do, express themselves and their ideas, and persuade others to their point of view by using advertising terms, concepts, and procedures. Prerequisite: MKT-110 or MKT-121.

### **MKT-154 Visual Merchandising**

Lec 2 Lab. 0 Credit 2

A study of the fundamentals of retail display, including window and point-of-purchase display. Includes the relationship of display to the total promotional program, the role

of the display manager, elements of display design, merchandise selection, construction materials, and the actual display construction. Prerequisite: MKT-110.

### **MKT-160 Principles of Retailing**

Lec. 3 Lab. 0 Credit 3

Retailing organization, buying, selling, promotion, inventory control, pricing, location and layout.

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## **MMS Mass Media Studies**

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### **MMS-111 Video Production**

Lec. 1 Lab. 4 Credit 3

Video Production introduces video equipment operation, techniques in video production, and specific production skills, including proper use of the non-linear editing systems, microphones, cameras, lighting equipment and tripods. For approximately 50 percent of the course, students experience hands-on application of material covered in lecture. Students produce both short and long format programs.

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## **MUA Music - Applied**

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### **Applied Music**

Private instrumental and vocal instruction is available through SCC's music department. Students will be expected to perform in a public recital at the end of the term. Credit is granted for the specific area studied, based on the amount of work, time and involvement as specified by the music faculty before enrollment. An additional fee is charged for each applied music area selected.

### **MUA-101 Applied Voice**

Lec. 1 Lab. 0 Credit 1

### **MUA-104 Applied Voice**

Lec. 2 Lab. 0 Credit 2

### **MUA-120 Applied Piano**

Lec. 1 Lab. 0 Credit 1

### **MUA-121 Applied Piano**

Lec. 2 Lab. 0 Credit 2

### **MUA-122 Applied Organ**

Lec. 1 Lab. 0 0 Credit 1

### **MUA-123 Applied Organ**

Lec. 2 Lab. 0 Credit 2

### **MUA-124 Applied Guitar**

Lec. 1 Lab. 0 Credit 1

### **MUA-125 Applied Guitar**

Lec. 2 Lab. 0 Credit 2



**MUA-126 Applied Strings**

Lec. 1 Lab. 0 Credit 1

**MUA-127 Applied Strings**

Lec. 2 Lab. 0 Credit 2

**MUA-143 Applied Brass**

Lec. 1 Lab. 0 Credit 1

**MUA-146 Applied Brass**

Lec. 2 Lab. 0 Credit 2

**MUA-170 Applied Woodwinds**

Lec. 1 Lab. 0 Credit 1

**MUA-173 Applied Woodwinds**

Lec. 2 Lab. 0 Credit 2

**MUA-180 Applied Percussion**

Lec. 1 Lab. 0 Credit 1

**MUA-183 Applied Percussion**

Lec. 2 Lab. 0 Credit 2

**MUA-106 Class Voice**

Lec. 0 Lab. 2 Credit 1

Class study in voice. Fundamentals of techniques of vocal production: resonance, phonation, respiration, and performance. Basic harmony. Maximum of 4 semester hours may be earned. Prerequisite: consent of voice faculty.

**MUA-108 Italian/Latin/English Diction for Singers**

Lec. 2 Lab. 0 Credit 2

Italian/Latin/English is the first of a two-semester two-credit hour course for singers. The course is required for vocal majors at Southeastern Community College and is also open to interested singers of all ages. Students will be introduced to the International Phonetic Alphabet and its application in fostering correct pronunciation when singing. Application of concepts through singing and written exams is an aspect of the course.

**MUA-109 German/French Diction for Singers**

Lec. 2 Lab. 0 Credit 2

German/French Diction is the second of a two-semester course for singers. All aspects of MUA-108 are similar with the exception of language. Like MUA-108, singing and written exams make up the assessment of the success of the student.

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**MUS General Music**

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**MUS-100 Music Appreciation**

Lec. 3 Lab. 0 Credit 3

This is a general overview course which

includes basic music concepts and elements of the art, a general historical look, and critical approach. Music as it has evolved from the beginning to present-day is studied. This involves listening to musical examples.

**MUS-102 Music Fundamentals**

Lec. 3 Lab. 0 Credit 3

This course is designed for students who wish to learn how to read music for either further study as a major or for personal reasons. It is open to all students and is recommended for elementary education majors.

**MUS-120 Music Theory I**

Lec. 3 Lab. 0 Credit 3

This course is offered to students who wish to increase their musicianship through better understanding of the materials and structure of music and to those who plan to major or minor in music. The general purpose of the course is to help the student gain the necessary basic concepts of music fundamentals and harmony which will support more advanced theoretical instruction. Prerequisite: MUS-102 or permission of instructor. Corequisite: MUS-135.

**MUS-121 Music Theory II**

Lec. 3 Lab. 0 Credit 3

This course is a continuation of Music Theory I. Requires attendance at music programs as specified by the music faculty. Prerequisite: MUS-120. Corequisite: MUS-136.

**MUS-135 Music Theory Lab I**

Lec. 0 Lab. 2 Credit 1

This course is for development of skills in reading and hearing pitch, rhythm, melodic and harmonic sounds of music. The course is based on the principal that a qualified musician must develop reading, singing and notation skills in order to achieve acuity of aural perception and make this acuity effective in the use of these skills. Corequisite: MUS-120.

**MUS-136 Music Theory Lab II**

Lec. 0 Lab. 2 Credit 1

A continuation of MUS-135. Prerequisite: MUS-135. Corequisite: MUS-121.

**MUS-140 Concert Choir**

Lec. 0 Lab. 2 Credit 1

Open to all college students who enjoy the aesthetic experience of choral singing. The choir is a performing group which meets regularly and performs a wide variety of choral literature. The choir presents programs throughout the college area and participates

in state community college music activities. Maximum of 4 semester hours may be earned.

**MUS-150 Chamber Ensemble**

Lec. 0 Lab. 2 Credit 1

Chamber chorale is a select ensemble that numbers between 12 and 20 and is the traveling group representing the college. Eligibility: should have advanced musical ability and a strong desire to perform. Membership in concert choir is required before auditioning for chamber chorale. Final membership and number are determined by the director. A maximum of 4 semester hours may be earned. Corequisite: MUS-140.

**MUS-162 Instrumental Ensembles**

Lec. 0 Lab. 2 Credit 1

This course is open to students who seek creative expression through ensemble performance. Credit is granted to those who meet requirements for rehearsals and performances through participation in the Southeast Iowa Symphony Orchestra, the Southeast Iowa Concert Band or an established instrumental ensemble at Southeastern Community College. A maximum of 4 semester hours may be earned.

**MUS-204 History of Rock and Roll**

Lec. 3 Lab. 0 Credit 3

This introductory course traces the history of rock and roll from its inception as a fusion of African-American and white music traditions amidst the youth culture of post WWII era in America to its present state as an internationally known musical style. This course will develop listening skills and incorporate extensive exposure to recorded music.

**MUS-220 Music Theory III**

Lec. 3 Lab. 0 Credit 3

This course is to acquaint the students with the standard forms of tonal music and equip them with the necessary techniques in form and analysis of music. It is designed to help the students approach a piece of music unencumbered by a prior notion as to what characteristics it should not have and to strengthen their ability to discover for themselves the structure of music. Prerequisite: MUS-121. Corequisite: MUS-235.

**MUS-221 Music Theory IV**

Lec. 3 Lab. 0 Credit 3

A continuation of MUS-220. Prerequisite: MUS-220. Corequisite: MUS-236.

### **MUS-235 Music Theory Lab III**

Lec. 0 Lab. 2 Credit 1

A continuation of MUS-136. Prerequisite: MUS-136. Corequisite: MUS-220.

### **MUS-236 Music Theory Lab IV**

Lec. 0 Lab. 2 Credit 1

A continuation of MUS-235. Prerequisite: MUS-235. Corequisite: MUS-221.

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## **NET Computer Networking**

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### **NET-118 Basic Computer Networking/ Hardware**

Lec. 2 Lab. 2 Credit 3

This course is an introductory course about basic computer networking concepts and computer hardware. It will provide a foundation for anyone needing basic computer knowledge. It covers network and hardware terminology, hardware devices, network protocols, topologies and connections. The student will get hands-on experience adding and replacing hardware and network components.

### **NET-122 Computer Hardware Basics**

Lec. 2 Lab. 2 Credit 3

This course is designed to improve the student's understanding of computer hardware and peripherals. The student shall gain an ability to determine the source of elementary equipment problems and the ability to isolate problems relating to software and hardware. Through hands-on labs, the student will obtain and demonstrate knowledge of installation, configuration, and repair.

### **NET-142 Network Essentials**

Lec. 3 Lab. 0 Credit 3

This course is designed to provide students with the background necessary to understand the local area networking information in Microsoft courses on workstations and networking. This course provides students with the information needed to build a foundation in current networking technology for local area networks, wide area networks and the Internet. Corequisite: CSC-110.

### **NET-153 Advanced Networking**

Lec. 2 Lab. 4 Credit 4

This course will allow the student to take knowledge from previous networking courses and apply it in a hands-on environment. The Microsoft network operation system will be emphasized. The student will also receive exposures to other advanced technologies. These technologies may include: switch/router configuration, computer forensics,

computer ethics and cryptography.

Prerequisites: NET-122, NET-142, NET-310, NET-314.

### **NET-310 Virtual Machines**

Lec. 2 Lab. 2 Credit 3

This course will cover the concepts of virtualization including hardware and software. Topics will include benefits vs. risks analysis, installation and configuration, operation and maintenance and disaster recovery using server and workstation virtualization techniques. Creation and administration of Virtual Desktop environments will also be covered. Prerequisites: NET-142, NET-442.

### **NET-314 Windows Server**

Lec.2 Lab. 4 Credit 4

Windows Server covers the issues of setting up a client/server environment using Windows Server software. The course begins with file server basics. Determining the cost of a network and choosing appropriate network hardware are included. Students will receive hands-on experience in preparing client computers, installing Windows Server software and setting up a complete client/server environment. They will learn how to configure a domain environment with DNS, DHCP, and remote access. There will be hands-on troubleshooting in the labs. Prerequisite NET-122 and NET-142.

### **NET-442 Linux Operating System**

Lec. 2 Lab. 2 Credit 3

This course will cover the essentials of installing, configuring, maintaining, administering and troubleshooting the Linux operating system.

### **NET-637 Network Intrusion Investigation**

Lec. 2 Lab. 2 Credit 3

This course enables students to use penetration-testing tools and techniques that ethical hackers and security testers utilize to protect computer networks. Skills and techniques include foot printing, social engineering, port scanning, enumeration, and cryptography. This course incorporates a lab component in which students practice skills designed to secure network connections and prevent attacks. Prerequisites: NET-142, NET-314, NET-442.

### **NET-716 Database Admin/Service App**

Lec. 2 Lab. 2 Credit 3

Database Administration/Service Application will provide the student with experience installing, configuring, maintaining, and

administering SQL Server and SharePoint. The key concepts of Structured Query Language are studied, including the basic structure of relational databases, how to read and write simple and complex SQL statements and advanced data manipulation techniques.

### **NET-717 Email Applications**

Lec. 2 Lab. 2 Credit 3

This course will provide the student with experience installing, configuring, maintaining, and administering Exchange Server, as well as, an Exchange hybrid environment, where part of the mailboxes can be hosted in the cloud. Prerequisites: NET-314.

### **NET-820 Network Internship**

Lec. 0 Lab. 0 OJT 15 Credit 3.7

This course is designed to provide the Network Administration & Cyber Security student with a practical experience in information technology prior to completion of the Associate of Applied Science degree. The internship is supervised by the program coordinator and should be taken during the student's last spring or fall semester on campus. Prerequisite: Fifty hours completed towards IT degree as a Network Administration & Cyber Security, including CIS-504.

### **NET-825 Internet/Web Internship**

Lec. 0 Lab. 0 OJT 15 Credit 3.7

This course is designed to provide the Web Design and Administration student with a practical experience in information technology prior to completion of the Associate of Applied Science degree. The internship is supervised by the program coordinator and should be taken during the student's last spring or fall semester on campus. Prerequisite: Fifty hours completed towards IT degree as a Web Design and Administration, including CIS-504.

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## **PEA Physical Education Activities**

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### **Physical Education Activities**

Lec. 0 Lab. 2 Credit 1

Participation emphasizing physical conditioning, personal habits conducive to physical fitness, individual and team games and hygienic practices with a view toward carry-over values in future leisure time activities. A maximum of 4 semester hours may be earned in each PE course.

**PEA-117 Physical Education Activity – Bowling**

An additional equipment fee is charged for each student.

**PEA-160 Physical Education Activity - Soccer**

**PEA-174 Physical Education Activity – \*Tennis**

**PEA-176 Physical Education Activity - \*Volleyball**

**PEA-187 Physical Education Activity – Weight Training**

\*Courses are scheduled for 5 weeks during the semester.

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## **PEC Coaching/Officiating**

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**PEC-101 Introduction to Coaching**

Lec. 3 Lab. 0 Credit 3

Introduction to Coaching consists of a four-part course that includes coaching theory, sports medicine, sports psychology, and sports physiology. It leads to coaching authorization for the State of Iowa as a junior high or senior high coach.

**PEC-116 Athletic Development and Human Growth**

Lec. 2 Lab. 0 Credit 2

A study of the physical, cognitive, and psychosocial stages of development during middle childhood and adolescence and how these stages impact the coaching profession. This is one of the four courses leading to the coaching and authorization issued by the Iowa department of Education as a head coach or assistant coach of any interscholastic athletic activity.

**PEC-120 Body Structure and Function**

Lec. 2 Lab. 0 Credit 2

An introduction to the physiological processes and anatomical features of the human body which are related to and affected by physical activity and training. This is one of the four courses leading to the coaching and authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activity.

**PEC-148 Theory of Coaching Basketball**

Lec. 2 Lab. 0 Credit 2

A study of the methods and techniques of coaching basketball. Discussion of pre-season, in-season and post-season program; practice organization; scouting; and game preparation.

**PEC-185 Sports Officiating, Basketball, Volleyball**

Lec. 2 Lab. 0 Credit 2

An integration of rules, knowledge and floor responsibilities through actual participation in basketball and volleyball officiating.

Students are required to provide designated equipment for officiating purposes.

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## **PEH General Physical Ed and Health**

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**PEH-102 Health**

Lec. 3 Lab. 0 Credit 3

A survey of individual problems and community health problems. Aspects of mental illnesses; communicable, infectious, congenital, degenerative and vitamin deficiency diseases; hormone imbalance and harmful effects of narcotic drugs and alcohol are stressed. Measures involving the preventing, controlling and promoting of better mental health and physical health in general are emphasized. Designed to stimulate the formation of desirable attitudes toward the health of the individual and the community.

**PEH-161 Introduction to Physical Education**

Lec. 2 Lab. 0 Credit 2

Orientation and exploration in the physical education field, career opportunities, responsibilities to the profession, ethical sports practices, historical background and social forces that act upon organized as well as informal sports.

**PEH-169 Principles of Weight Training**

Lec. 0 Lab. 4 Credit 2

Principles of Weight Training identifies the anatomical and physiological processes of muscle development and the effects of weight training on those processes. It focuses on the basic principles of weight training and the mastery of techniques which apply to professional development and to coaching applications.

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## **PET Physical Education Training**

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**PET-105 Basic Athletic Training**

Lec. 3 Lab. 0 Credit 3

This course serves as an introduction to the profession of athletic training. Students will be instructed in basic skills and theories of the profession including: measurement of vital signs, taping, wrapping, and

immobilization. Students will become familiar with the roles, functions, and professional preparation of an athletic trainer as well as the history of the profession and its governing structures.

**PET-140 Athletic Training Practicum I**

Lec. 0 Lab. 2 Credit 1

Athletic training skills instruction for the beginning student athletic trainer. Practical examinations cover material taught during scheduled meeting times and observation hours. Observation of athletic training skills and techniques used concurrent with athletic events. The purpose of this class is to provide students with clinical rotations during their freshman year. The rotation will be at multiple sites and sports with supervision from the Certified Athletic Trainer. Students will be expected to attend practices and games as assigned. At this time they will practice and demonstrate skills taught in the classroom. They will be in charge of a daily journal of activities and hours. Prerequisite: PET-105.

**PET-230 Care and Prevention of Athletic Injuries**

Lec. 2 Lab. 2 Credit 3

This course will introduce the student to athletic injuries, assessment, and treatment. This course includes laboratory instruction in athletic taping and basic athletic training skills. The course also involves a directed observation requirement. Prerequisite: PET-105.

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## **PEV Intercollegiate Physical Education**

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**Varsity Sports Participation**

Lec. 0 Lab. Arr. 0 Credit 1

A course designed to give credit for knowledge and skills gained through varsity sports participation. Maximum of 4 semester hours may be earned.

**PEV-115 Varsity Baseball**

**PEV-121 Varsity Basketball, Men**

**PEV-122 Varsity Basketball, Women**

**PEV-140 Varsity Golf**

**PEV-160 Varsity Softball**

**PEV-170 Varsity Volleyball**

**PEV-190 Varsity Spirit Squad**

Lec. 0 Lab. Arr. Credit 1

A course designed to give credit for knowledge and skills gained through varsity cheerleading participation. Maximum of 4

semester hours may be earned.

### **PEV-195 Sports Management**

Lec. 0 Lab. 0 Clinical 4 Credit 1

This course is designed to provide practical experience in various operations of an athletic program. Topics to be covered include, but may not be limited to: event and facility management, promotions and marketing, eligibility and compliance, budgeting, and public relations. Maximum of 2 semester hours may be earned. Prerequisite: permission of instructor.

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## **PHI Philosophy**

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### **PHI-101 Introduction to Philosophy**

Lec. 3 Lab. 0 Credit 3

A topical introduction to the major areas of philosophical inquiry.

### **PHI-105 Introduction to Ethics**

Lec. 3 Lab. 0 Credit 3

A survey of the major ethical emphases from ancient to modern times with pertinent reading in the works of representative philosophers.

### **PHI-110 Introduction to Logic**

Lec. 3 Lab. 0 Credit 3

This course is designed to give students an overview of the study of logic including informal and formal logic and to increase their ability to use logical statements and arguments in academic and nonacademic applications.

### **PHI-122 Philosophy of Contemporary Issues**

Lec. 3 Lab. 0 Credit 3

An introductory course treating the philosophical nature of contemporary social, moral, legal, political, and religious issues and problems. Examples of such issues and problems would be abortion, capital punishment, euthanasia, war, terrorism, justice, discrimination and sexual morality.

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## **PHS Physical Science**

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### **PHS-120 Exploring Physical Science**

Lec. 3 Lab. 2 Credit 4

This is combined lecture and lab course where lab/lecture are directly integrated. Topics covered come from physics, astronomy, chemistry, geology, and meteorology. Course intended for non-science majors. Prospective elementary and middle school teachers may find this course especially helpful. MAT-062 or High School Algebra recommended.

### **PHS-151 Introduction to Astronomy**

Lec. 2 Lab. 2 Credit 3

A survey of astronomy including historical considerations, the solar system, the universe and several topics. Topics may include the laws, the methods, and current research. Each planet will be studied as well as major stars and galaxies. Special topics include: cosmology, cosmogony, nova, pulsars, quasars, relativity, space travel, black holes, and other space mysteries. Lab to include: experiments, observations, slides and movies.

### **PHS-165 Introduction to Meteorology**

Lec. 3 Lab. 0 Credit 3

Introduction to atmospheric sciences and meteorology. Includes physical elements and process of weather, climatic types and regions, forecasting and associated activity.

### **PHS-185 Introduction to Earth Science**

Lec. 3 Lab. 0 Credit 3

An introduction to geologic processes that have generated and continue to alter the surface of the earth. Covers: major types of rocks and the rock cycle; rock deformation, weathering, transport and deposition by fluid agents; plate tectonics, volcanoes, earthquakes, orogeny; absolute and relative time and the geologic column. Includes segment on the history of geology.

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## **PHY Physics**

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### **PHY-106 Survey of Physics**

Lec. 3 Lab. 2 Credit 4

This class is designed as an introduction to the basic concepts of physics. Measurement, the scientific method, motion, forces, work and energy, simple machines, temperature and heat plus electricity and magnetism will be covered. Lab will be an integral part with activities augmenting the lecture concepts.

### **PHY-160 General Physics I**

Lec. 4 Lab. 2 Credit 5

This course is designed to provide a working knowledge of physics for those who need physics but do not need the rigor of a calculus-based physics course. The topics covered will include motion, force, energy, work, power, torque, linear momentum, rotational motion, angular momentum and selected topics from thermodynamics. The conservation laws will be stressed. Topics in modern physics are covered as time permits. Solving practical problems will be a major emphasis. Prerequisite: Student must be familiar with algebra and simple trigonometry.

### **PHY-161 General Physics II**

Lec. 4 Lab. 2 Credit 5

This course is a continuation of General Physics I. The major topics to be covered will include selected topics from thermodynamics, vibrations, wave motion, electricity, and magnetism. Topics in modern physics are covered as time permits. Solving practical problems will be a major emphasis. Prerequisite: PHY-160.

### **PHY-212 Classical Physics I**

Lec. 4 Lab. 2 Credit 5

College Physics introduces the students to the classical topics of motion in one, two and three dimensions (kinematics and dynamics), gravitation, work and energy, relativistic dynamics, rotational and oscillatory motion and thermodynamics. This physics course depends very much on the calculus of reals and vector integral calculus. Pre or Corequisite: MAT-210.

### **PHY-222 Classical Physics II**

Lec. 4 Lab. 2 Credit 5

College Physics continues in the second semester with emphasis on the theory of electricity and magnetism. The concept of a field is applied to the electrostatic charge. The laws of Coulomb and Gauss are to be developed and applied to various types of charge distribution. Electric current and magnetic force are to be discussed in connection with their application to electromagnetic induction. Prerequisite: PHY-212.

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## **PNN Practical Nursing**

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### **PNN-160 Introduction to Nursing Practice**

Lec. 2 Lab. 0 Credit 2

This course provides the student with an introduction to nursing concepts and principles. From a historical perspective, the student will explore the roles and challenges of the nurse in the health care continuum. The curriculum strand of the nursing process is introduced and serves as the foundation for the development of critical thinking skills. Other curriculum strands introduced include communication, stress and adaptation, wellness, professional accountability, information technology, time management and priority setting. Prerequisite: Certification in Iowa CNA 75 clock hrs. Corequisite: PNN-220.

**PNN-220 Pharmacology for Nursing I**

Lec. 2 Lab. 0 Credit 2

This course introduces the student to the basics of pharmacology. Principles of drug administration, including dosage calculation and routes and techniques of administration are presented. Legal/ethical considerations, as related to drug therapy, are discussed. An overview of drug classifications, drug actions, common adverse reactions, and nursing interventions are included. Emphasis is placed on nursing responsibilities in drug therapy, including safe administration of all drugs. Corequisite: PNN-160.

**PNN-311 PN Issues and Trends**

Lec. 1 Lab. 0 Credit 1

This course is an overview of the role of the licensed practical nurse. Ethical and legal responsibilities of the nurse are identified. Levels of practice, licensure, career opportunities, and job-seeking skills are addressed. Opportunities for professional growth are explored. Prerequisite: PNN-534. Corequisite: BIO-186.

**PNN-534 Medical-Surgical Nursing I**

Lec. 8 Lab. 1 Clinical 12 Credit 12.5

This course builds on concepts and strands previously presented in the curriculum. A systematic approach is utilized in providing nursing care to individuals across the lifespan (pediatrics, adult and geriatrics). The course emphasizes selected common and chronic alterations in health. The curriculum strands that are introduced include psychosocial, cultural and spiritual concepts, nutrition, safety and infection control. An opportunity is provided for students to apply theoretical knowledge, to utilize the nursing process, and to practice nursing techniques in clinical settings. Prerequisites: PNN-160, PNN-220 and BIO-177.

**PNN-535 Medical-Surgical Nursing II**

Lec. 8 Lab. 0 Clinical 12 Credit 12

This course continues to incorporate concepts and strands previously presented in the curriculum. A systematic approach is utilized in providing nursing care to individuals and families across the lifespan (pediatrics, adult and geriatrics). This course emphasizes selected common and chronic alterations in health and includes essential content related to maternity care. An opportunity is provided for students to apply theoretical knowledge, to utilize the nursing process, and to practice nursing techniques in clinical settings. Prerequisites: PNN-534. Corequisite: PNN-311.

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**POL Political Science**

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**POL-110 Introduction to Political Science**

Lec. 3 Lab. 0 Credit 3

An introduction to the field of political science by illustrating the kind of contemporary issues political scientists deal with, the diversity of approaches they make and the significant results they hope to achieve. It will also acquaint students with the complex and vitally important subject of contemporary government and politics.

**POL-111 American National Government**

Lec. 3 Lab. 0 Credit 3

A survey of the American federal system of government which includes a description and analysis of interest groups, political parties, public opinion, the presidency, the Congress, the court system and foreign policy making.

**POL-112 American State and Local Government**

Lec. 3 Lab. 0 Credit 3

A survey of state and local government in the United States which includes an analysis of state constitutions, state and local legislative, executive and judicial systems, rural and urban problems and their possible political solutions.

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**PSY Psychology**

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**PSY-102 Human and Work Relations**

Lec. 3 Lab. 0 Credit 3

This is a course that includes the understanding of the applications of psychological principles, theory, and research related to the work setting.

**PSY-111 Introduction to Psychology**

Lec. 3 Lab. 0 Credit 3

A basic course in the understanding of behavior, designed to give the student a scientific background in the fundamental problems and techniques covered in the field of psychology.

**PSY-121 Developmental Psychology**

Lec. 3 Lab. 0 Credit 3

A systematic study of life-span development. Individual differences in behavior as well as cultural norms are considered in relation to heredity and environment.

**PSY-211 Psychology of Adjustment**

Lec. 3 Lab. 0 Credit 3

A study of the adjusting/coping behavior of the individual in various aspects of life

situations. Prerequisite: PSY-111.

**PSY-226 Psychology of Aging**

Lec. 3 Lab. 0 Credit 3

This course will examine the physical, cognitive, social, and psychological changes that occur across the adult years and the factors influencing development in each area. Individual differences in the aging process will be emphasized with attention to the factors contributing to individual differences and the relevance of individual differences in addressing aging issues. The influence of society and societal attitudes toward older adults and the aging process will also be addressed. Additional learning opportunities will include interactions with older adults in various situations including those in nursing homes, assisted living homes, retirement homes, and living independently in the community.

**PSY-227 Introduction to Gerontology**

Lec. 3 Lab. 0 Credit 3

This course will introduce students to the field of gerontology and to the role of society and members of society in addressing aging-related issues. The course will address a number of topics including care of the elderly, living arrangements among older adults, mental health issues in old age, public policy related to aging, the economic and social impact of an aging society, the history of ageism in the United States, and more. Students will also conduct an analysis of the local community with respect to community services, attitudes, and/or practices geared toward older adults and their families.

**PSY-228 Death and Dying**

Lec. 3 Lab. 0 Credit 3

This course will introduce students to the study of death and dying and the cultural, social, biological, and psychological aspects of death and dying. Topics to be covered include the reality and definition of death, the grief process, care of the dying, cultural customs related to death and dying, views and attitudes toward death and dying, and the scientific, legal, and ethical issues surrounding death and dying. Exploration of one's own views and attitudes concerning death and dying will be encouraged. In addition, opportunities to visit death-related industries such as funeral homes and cemeteries and to interact with professionals in the field such as hospice workers, grief counselors, and funeral directors will be provided.

### **PSY-241 Abnormal Psychology**

Lec. 3 Lab. 0 Credit 3

A survey of the history of mental illness including a study of normal and abnormal behavior as related to various cultures. Personality development, individual adjustment, and description of the various clinical entities and their relevance to present day life will be covered. Character disorders and personality structures which cause maladjustment are reviewed. A review of the theories of personality is included. Prerequisite: PSY-111.

### **PSY-251 Social Psychology**

Lec. 3 Lab. 0 Credit 3

The study of interpersonal relations, social attitudes, group dynamics, intergroup relations, class and cultural influences in a psychological context. Prerequisite: PSY-111.

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## **RCP Respiratory Care**

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### **RCP-230 Introduction to Respiratory Care**

Lec. 3 Lab.4 Credit 5

This course is an introduction to Respiratory Care, including basic equipment and therapeutic modalities for entry-level practice. Emphasis will be placed on preparing the student for patient encounters and the skills needed to provide competent entry-level care in the clinical setting. Prerequisite: Admission to program.

### **RCP-330 Respiratory Care II**

Lec. 4 Lab. 2 Credit 5

This course is a continuation of RCP-230 and will build on the equipment and therapeutic modalities essential to clinical practice. Major topics include electrocardiograms, airway management and airway clearance techniques, arterial blood gases, assessment of respiratory failure and methods of non-invasive ventilation. Prerequisites: BIO-163, RCP-230. Corequisites: RCP-350, RCP-751.

### **RCP-350 Pulmonary Pathology**

Lec. 3 Lab. 0 Credit 3

This course presents an overview of acute and chronic diseases affecting the pulmonary system. Diagnosis, assessment, treatment and management of the disease will be discussed. Prerequisite: RCP-230. Corequisite: RCP-330, RCP-751.

### **RCP-440 Cardio/Pulmonary Diagnostics**

Lec. 2 Lab. 0 Credit 2

This course will present various cardiopulmonary diagnostic tests and the role

of the respiratory care practitioner. Contents included: pulmonary function testing, cardiopulmonary exercise testing, specialized test regimens and quality assurance in the pulmonary function laboratory. Prerequisite: RCP-524, RCP-757. Corequisite: RCP-450, RCP-620, RCP-761.

### **RCP-450 Respiratory Care IV**

Lec. 2.5 Lab. 1 Credit 3

This course will focus on advanced equipment and therapeutic modalities used in the practice of Respiratory Care. Major topics include ECGs, hemodynamic monitoring, cardiac pharmacology, polysomnography and pulmonary rehabilitation. Prerequisite: RCP-524. Corequisites: RCP-440 and RCP-620.

### **RCP-524 Respiratory Care III**

Lec. 4.5 Lab. 1 Credit 5

This course introduces the concepts of mechanical ventilation used in the respiratory support of the critically ill patient, with emphasis on indications for ventilation, parameters monitored during ventilation, function, and clinical applications. Prerequisite: RCP-330. Corequisite: RCP-757.

### **RCP-620 Neonatal/Pediatric Respiratory Care**

Lec. 4 Lab. 2 Credit 5

This course will cover the assessment of the newborn and pediatric patient. Fetal circulation, congenital anomalies, respiratory disorders of the newborn, ventilation of the newborn, surfactant replacement, oxygen and aerosol therapy of the newborn and pediatric patient, as well as child development will be discussed. Prerequisite: RCP-524, RCP-757. Corequisite: RCP-440, RCP-450, RCP-761.

### **RCP-751 Respiratory Care Clinic I**

Lec. 0 Lab. 0 Clinical 15 Credit 5

Learners are assigned to various clinical experiences within a health care setting to apply principles learned in the respiratory curriculum. Prerequisite: RCP-230. Corequisites: RCP-330, RCP-350.

### **RCP-757 Respiratory Care Clinic II**

Lec. 1 Lab. 0 Clinical 4.5 Credit 2.5

Learners are assigned to various clinical experiences within a health care setting to apply principles learned in the respiratory curriculum. Prerequisites: RCP-330, RCP-350, RCP-450, RCP-751. Corequisite: RCP-524.

### **RCP-761 Respiratory Care Clinic III**

Lec. 0 Lab.0 Clinical 15 Credit 5

Learners are assigned to various clinical experiences within a health care setting to apply principles learned in the respiratory curriculum. Prerequisites: RCP-524, RCP-757. Corequisites: RCP-440, 450, 620.

### **RCP-766 Respiratory Care Clinic IV**

Lec. 0 Lab.0 Clinical 21 Credit 7

Learners are assigned to various clinical experiences within a health care setting to apply principles learned in the respiratory curriculum. Prerequisites: RCP-440, RCP-450, RCP-620, RCP-761. Corequisites: RCP-810, RCP-880.

### **RCP-810 Respiratory Care Professional**

Lec. 2 Lab. 0 Credit 2

The purpose of this course is to assist second year respiratory care students in preparing for autonomous professional practice. The Role of the Professional: duties to client, employer and public; professional responsibilities; involvement in continuing education and professional career development will be explored. Prerequisites: RCP-450, RCP-761. Corequisites: RCP-766 and RCP-880.

### **RCP-880 Respiratory Care V**

Lec. 4 Lab. 2 Credit 5

This course will involve discussions of patient case studies and modifications in therapy based on patient response. Students will learn how to make recommendations and interact with other health care team members to provide appropriate treatment. Mock CRTT and RRT simulations will be taken and discussed. Prerequisite: RCP-450, RCP-761. Corequisite: RCP-766, RCP-810.

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## **RDG Reading**

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### **RDG-033 Introduction to College Reading**

Lec. 2 Lab. 2 Credit 3

This course is designed to further build reading skills, most specifically reading techniques to gain the most from college textbooks such as: applying, comparing, inferring, concluding and judging. Vocabulary skill building will also be stressed. Students will work on vocabulary at the appropriate level as determined by a pretest.

### **RDG-045 Keys to Reading**

Lec. 2 Lab. 2 Credit 3

A beginning course designed to build basic reading skills: identifying topics and main ideas, identifying supporting details, making inferences and recognizing patterns in paragraphs. A pretest will determine the student's appropriate level for vocabulary skill building, and students will work on vocabulary development at the appropriate level.

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## **REL Religion**

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### **REL-101 Survey of World Religions**

Lec. 3 Lab. 0 Credit 3

A survey of the major religions of the eastern and western world. Each religion is placed in its historical context, and its major tenets are explored. This course includes a general understanding of the various religions studied, some specific insights into each religion's belief structures and discussion of the general function of religion in human experience.

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## **SCI Science**

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### **SCI-006 Basic Science I**

Lec. 0 Lab. 2 Credit 1

Basic Science I is designed for students interested in learning basic scientific facts. Emphasis is placed on the fundamentals and understanding of earth or life science. Specific topics will be selected based upon student needs. Credit earned in this course will not count toward the AA, AS, AAS degree science requirements.

### **SCI-007 Basic Science II**

Lec. 0 Lab. 2 Credit 1

Basic Science II is a continuation of Basic Science I. Specific topics will be selected based upon student needs. Credit earned in this course will not count toward the AA, AS or AAS degree science requirements. Prerequisite: SCI-006.

### **SCI-115 Basic Electricity**

Lec. 1 Lab. 2 Credit 2

An introduction to basic electricity and magnetism. A study of the relationship between voltage, current, and resistance. Power generation, power transfer and their applications. A basic understanding of the applied electrical circuits.

### **SCI-123 Forensic Science**

Lec. 3 Lab. 2 Credit 4

Explores forensic science and its impact on science, society and the criminal justice system. Focuses on basic concepts in selected areas of chemistry, biochemistry, cell and molecular biology, and anatomy and physiology. This course is designed to educate liberal arts students about basic sciences, and the realities and limitations of scientific methods when applied specifically to criminal investigation.

### **SCI-922 Field Studies**

Lec. 0-3 Lab. 0-6 Credit 1-3

Field tours to various biomes, museums, and science research facilities to enhance the study of scientific concepts. Collections and displays of scientific importance, diverse ecological conditions, and/or laboratory facilities of interest will be examined. Specific written credit and participation requirements are established in advance of the field study and according to the number of credit hours enrolled.

### **SCI-928 Independent Study**

Clinical 0 Credit 1-3

Individual study in a science area determined by consultation between the student and the department instructional staff. Study to be based on interest of student and capabilities of college facilities. Prerequisite: 12 hours of science work.

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## **SDV Student Development**

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### **SDV-104 College Overview: Preparation Experiences**

Lec. 1 Lab. 0 Credit 1

This course is an overview of college study and reading skills with an emphasis on time management, principles of memory and learning, note taking, test-taking strategies, and general library/campus orientation.

### **SDV-123 (E.D.G.E.) Eight Dimensions to a Great Education**

Lec. 2 Lab. 0 Credit 2

This credit seminar requires students to master the essential skills necessary for the academic rigor of college. These skills include, but are not limited to, reading, studying and test taking strategies, computer literacy, information literacy, and critical thinking. The seminar will also emphasize academic responsibility. Other SCC services will be introduced that can aid in a successful first-year college experience.

### **SDV-124 CLUE: Core Learning for Undergraduate Education**

Lec. 1 Lab. 0 Credit 1

This workshop is designed for new students to improve skills essential for the academic rigor of college. Emphasis will be on study strategies and test taking skills, academic responsibility, and technological activities specific to college course work and effective research. Other SCC services will be introduced that can aid in a successful first-year college experience.

### **SDV-125 Workplace Readiness**

Lec. 1 Lab. 0 Credit 1

This course is designed to assist students in obtaining and maintaining employment. Topics include making career decisions, using labor market information, developing a portfolio and demonstrating positive attitudes and behaviors in the workplace.

### **SDV-128 The College Experience - STEM**

Lec. 1 Lab. 0 Credit 1

This class meets once a week for the entire semester to discuss issues important to college students, develop tools for academic success, act as a cohort support group, and provide insight into how to ensure success at college. Students will participate in visits to local businesses and nearby four year colleges. It is limited to students participating in SCC's 'Success in STEM' scholarship program.

### **SDV-130 Career Exploration**

Lec. 1 Lab. 0 Credit 1

This course is designed for students in developing an awareness of and skillfulness in career development process emphasizing self-assessment, occupational exploration and job placement.

### **SDV-134 S-STEM Cohort II**

Lec. 1 Lab. 0 Credit 1

This class meets once a week for the entire semester to discuss issues important to college students pursuing careers or further study in the fields of engineering and technology, act as a cohort support group, and provide insight into how to ensure success at college and in the workplace. Students will also participate in visits to local businesses and nearby four-year colleges. It is limited to students participating in SCC's (Success in STEM) scholarship program.

### **SDV-138 S-STEM Cohort III**

Lec. 1 Lab. 0 Credit 1

This class meets once a week for the entire semester to discuss issues important to college students preparing to enter the workplace



or transfer to four-year institutions, act as a cohort support group, and provide opportunities to mentor and inform students pursuing (or interested in pursuing) technical careers. Students will also participate in visits to local businesses and nearby four-year colleges. It is limited to students participating in SCC's (Success in STEM) scholarship program.

### **SDV-139 S-STEM Cohort IV**

Lec. 1 Lab. 0 Credit 1

This class meets once a week for the entire semester to discuss issues important to college students preparing to enter the workplace or transfer to four-year institutions, act as a cohort support group, guide students in preparing resumes and/or portfolios, and provide opportunities for students to hone their interview skills. It is limited to students participating in SCC's 'Success in STEM' scholarship program.

### **SDV-141 Launch: A College Success Seminar**

Lec. 3 Lab. 0 Credit 3

This seminar is designed to enhance students' academic success. It will guide first-time college students to develop and utilize skills essential for facing the challenges and academic rigor of college. Emphasis will be on learning strategies, classroom performance, and navigating the college culture. Prerequisite: First Semester only.

### **SDV-153 Pre Employment Strategies**

Lec. 2 Lab. 0 Credit 2

This course is designed to aid students in developing the materials and skills necessary to obtain and maintain employment. Topics include character development associated with job success, job seeking skills, the application & hiring process, communication, teamwork skills and leadership skills.

### **SDV-812 Experiential Credits**

Lec 0 Lab 0 OJT 12-24-36 Credit 3-6-9

This supervised internship is designed to provide participation in a living and learning experience through an approved business establishment. This course may not be substituted for program specific internships. The course can be repeated up to a total of 9 credits.

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## **SMM Social Media and Marketing**

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### **SMM-108 Social Media Engagement**

Lec. 2 Lab. 2 Credit 3

This course explores the history of social networks and introduces students to social media for organizations. It provides students opportunities to implement the use of social media tools as part of a marketing strategy and work with social media analytic tools.

### **SMM-220 Navigating the Media Minefield**

Lec. 3 Lab. 0 Credit 3

This course explores the legal and regulatory issues surrounding social media platforms. Students will learn how to avoid common legal pitfalls and anticipate situations that may have potential legal consequences. Course content includes defamation, privacy issues, copyright and trademark, commercial speech, cyberbullying, and free speech boundaries.

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## **SOC Sociology**

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### **SOC-110 Introduction to Sociology**

Lec. 3 Lab. 0 Credit 3

An analysis of social organization (or the social order). This course deals with the nature of sociology as a science, the original nature of man, the socialization of the individual, the development of groups and group behavior, the nature of culture and culture patterns, the organization of institutions, the nature of social order, the organization of human stratification and examination of major social processes. Special emphasis is placed upon the American cultural patterns.

### **SOC-114 Conflict Resolution in the Workplace**

Lec. 3 Lab. 0 Credit 3

Conflict Resolution in the Workplace will study conflict resolution theories and applications in the workplace. The course will provide students with the opportunity to develop their own effective interpersonal conflict resolution skills as well as skills needed to help employees resolve their conflicts with one another and the skills needed to negotiate contracts. Students will also be introduced to theories and skills needed to apply culturally sensitive principles to conflict resolution.

### **SOC-115 Social Problems**

Lec. 3 Lab. 0 Credit 3

An investigation into a selection of social problems involving alternative solutions. Topics may include drug and alcohol abuse, crime, violence, prejudice and discrimination, and human sexuality.

### **SOC-120 Marriage and Family**

Lec. 3 Lab. 0 Credit 3

A critical approach to the problems of the modern family with some information given to the historical perspective. Such topics as courtship and marriage, marital adjustment, the achievement of family unity, minority family types, parent-child relationships, economic and social changes in family organizations and family control will be covered.

### **SOC-136 Foundations of Conflict Resolution**

Lec. 3 Lab. 0 Credit 3

This course is designed to study the theories of conflict and conflict transformation. The course will provide students with the opportunity to develop conflict resolution skills as well as to examine their own comfort with conflict. The course will also introduce students to various forms of conflict resolution and transformation, including mediation, structured dialogue, circle processes, restorative justice and strategic peacebuilding.

### **SOC-160 Introduction to Social Work**

Lec. 3 Lab. 0 Credit 3

The introductory course in social welfare systems and social work practice surveys the historical development of the social work profession in conjunction with the development of social welfare services in the United States; social welfare system responses to a variety of current social problems; generalist social work as a distinct profession; and specific settings and methods of social work practice.

### **SOC-161 Introduction to Social Work Lab**

Lec. 0 Lab.0 OJT 4 Credit 1

Students will complete 72 hours of volunteer service in a social service setting. They will complete a paper analyzing the agency and evaluating their work in the agency. Corequisite: SOC-160.

### **SOC-186 Contemporary Global Issues**

Lec. 3 Lab. 0 Credit 3

This course examines major global social issues and applies the sociological perspectives in understanding the contemporary global

social problems such as race and ethnic conflict, war, public health, poverty, population and environmental issues. Topics in this course will include: global inequalities, conflict and violence; population dynamics and issues of sustainability.

### **SOC-207 Introduction to Anthropology**

Lec. 3 Lab. 0 Credit 3

This course is a basic survey of general anthropology for students who have little acquaintance with the subject. The goal is to provide knowledge of basic concepts and approaches of anthropology so the student can have a scientific understanding of people. The study of human evolution, emergence of human culture, evolution of language, kinship and descent, and cultural diversity today are covered.

### **SOC-212 Diversity**

Lec. 3 Lab. 0 Credit 3

This course studies gender, race, class, sexuality and other issues of diversity. The curriculum highlights the duality of oppression and privilege and the ways in which race, gender, class and sexuality shape daily life. Special focus is on learning how to demonstrate course concepts as social action. Social justice is practiced as students become educated in these concepts of diversity and engage in diversity conscious social action.

### **SOC-220 Sociology of Aging**

Lec. 3 Lab. 0 Credit 3

This course will provide an overview of the major issues of aging in society. The main goal of this class is to understand human aging in a broad social context including the intersections of race, ethnicity, gender, socioeconomic status, culture, and other factors as they impact the life course and the aging experience. Social issues of aging both in the United States and internationally will be discussed. The course will combine service-learning experiences with lecture and discussion on theories of and social responses to the aging process.

### **SOC-221 Sociology of health, Illness and Health Care**

Lec. 3 Lab. 0 Credit 3

This course examines the interaction between society and health. Theoretical perspectives relative to health and illness will be presented. Additionally, the course will focus on contemporary U.S. healthcare system and will compare cross culturally with other systems. Social issues relative to health and illness and access to health care will be explored.

### **SOC-230 Juvenile Delinquency**

Lec. 3 Lab. 0 Credit 3

A study of juvenile delinquency as an individual and social problem. This course includes theories of delinquency causations, law enforcement procedures, methods of corrections and prevention of juvenile delinquency.

### **SOC-240 Criminology**

Lec. 3 Lab. 0 Credit 3

A general survey of the history, nature and causes of crime, criminal investigation and prosecution, punishment, correctional treatment and crime prevention. Prerequisite: CRJ-100.

### **SOC-270 Social and Behavioral Research Methods**

Lec. 3 Lab. 0 Credit 3

This course introduces the major concepts and strategies involved in the undertaking of empirical research. Students will learn the meaning of such terms as reliability, validity, variance and hypothesis. The major research methods included are the true experiment, field research, secondary analysis, and surveys. Students will assess sampling techniques and table construction.

### **SOC-851 Study Abroad in Peace Studies and Conflict Resolution-Costa Rica**

Lec. 3 Lab. 0 Credit 3

This course examines the political, socioeconomic, and historical factors contributing to a culture of peace and nonviolence in Costa Rica as well as the contemporary challenges in maintaining that culture. Students will meet with decision makers and practitioners in the fields of government, business, education, religion, security, foreign policy, environment and the media. Basic language and cultural instruction will be included along with excursions to areas of interest in Costa Rica. Recommended preparatory classes: SOC-136, Foundations of Conflict Resolution and FLS-121, Conversational Spanish.

### **SOC-922 Field Studies**

Lec. 1-3 Lab. 0 Clinical 3-9 Credit 1-3

Supervised travel and living experience in a selected sociological culture experience. Adequate preparation as judged by instructor is required for credit participation. Specific written credit and participation requirements are established in advance of the field study. Each hour of credit requires a minimum of 54 hours of supervised travel and living experience.

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## **SPC Speech**

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### **SPC-101 Fundamentals of Oral Communication**

Lec. 3 Lab. 0 Credit 3

Explores communication in a variety of contexts including interpersonal relationships, the workplace, small groups, and public speaking. Emphasis on the application and practice of communication theories and skills, particularly public speaking.

### **SPC-112 Public Speaking**

Lec. 3 Lab. 0 Credit 3

This course examines both the theoretical and practical basis of speech communication, particularly public speaking. Emphasis is on speech preparation, organization, support, delivery, and audience analysis. Required for AA and AS degrees.

### **SPC-115 Advanced Public Speaking**

Lec. 3 Lab. 0 Credit 3

A continuation of SPC-112. This course presents advance theories and techniques used in public speaking. After dinner speaking, persuasive presentations and campaigns, and lecture and training may be covered in this course; however, the course shall be designed to meet the students' need. Prerequisite: SPC-112.

### **SPC-122 Interpersonal Communication**

Lec. 3 Lab. 0 Credit 3

The study of communication in relationships. Areas covered include the process of communication, language, nonverbal communication, listening, self-concept, emotions, conflict, and the influence of social media on relationships.

### **SPC-132 Group Communication**

Lec. 3 Lab. 0 Credit 3

Group Communication emphasizes the development and application of small group communication theories designed to enhance communication skills needed in the work place and in various social environments. Competencies in the areas of effective communication, adaptability, conveying information, managing conflict, organized thinking, and problem-solving are addresses. Prerequisites: SPC-101 or SPC-112.

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## **WDV Web Development**

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### **WDV-101 Intro HTML and CSS**

Lec. 2 Lab. 2 Credit 3

Introduces current standards of HTML, XHTML and CSS. Students will code

HTML and CSS web pages, test them in browser and publish them to a web server. Page layouts will use various CSS techniques. Tables and forms will be used as well. A current version of Dreamweaver will be used to build more complex pages.

### **WDV-110 Internet Fundamentals**

Lec. 2 Lab. 2 Credit 3

Students will learn about internet connection methods and protocols. Web browser functionality, configuration and use. The use of web services, including advanced searching, email and social networking. How to use web based tools for research and collaboration as well as software development. Web security, including identification of risks, how to limit exposure and measures that can be taken to keep a computer system and personal information secure. Students will also cover the fundamental elements of project management and the importance this plays in the workplace.

### **WDV-120 Interface Design**

Lec. 2 Lab. 2 Credit 3

This course covers the design, prototyping, and evaluation of user interfaces to computers which is often called Human-Computer Interaction (HCI). Students will gain a strong understanding of user interface design. This covers references, user experience (UX), and usability principles. Topics include psychological and interaction principles, requirements analysis, designing for different screens (web, TVs and mobile devices), design standards, style guides, techniques and visual design principles. Prerequisites: GRA-175.

### **WDV-132 Mobile Application Development**

Lec. 2 Lab. 2 Credit 3

This course will introduce students to the skills required for building both web based and native mobile applications (apps). Students will explore when and why an app makes sense over a mobile web site and develop a range of small apps that take advantage of native device functionality. The differences between mobile OS will be explored along with the various distribution methods and publishing requirements currently available. Prerequisites: CIS-125, WDV-101.

### **WDV-341 Intro PHP**

Lec. 2 Lab. 2 Credit 3

This course will introduce PHP as a server side scripting language. It will introduce the MySQL database and the SQL language for

use with PHP. Students will embed PHP and SQL code into html pages and publish them to a PHP enabled server. Students will create a web application that will allow for user login pages, as well as add, delete and updates of database content to web pages. Prerequisites: WDV-101, CIS-125 and CIS-332.

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## **WEL Welding**

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### **WEL-111 Welding Blueprint Reading**

Lec. 2 Lab. 2 Credit 3

A course concerned with basic fundamentals of interpreting drafting as applied in the welding trade. Emphasis is placed on developing the ability to interpret blueprints from which the welder must work. A thorough coverage of welding symbols is integrated within the course.

### **WEL-130 Oxyacetylene Welding**

Lec. 1 Lab. 2 Credit 2

To provide a thorough technical understanding of metallurgy, oxyacetylene welding, flame cutting and brazing fundamentals and to develop skills necessary to produce high quality fillet and square groove welds in 3/16" plate and schedule 50 carbon steel pipe. Students develop understanding of weld hazards and safety procedures throughout the course.

### **WEL-159 Submerged Welding**

Lec. 1 Lab. 2 Credit 2

To develop technical understanding of submerged arc joint designs and procedures, fluxes, electrodes, and welding variables. Emphasis is on developing the ability to set up and operate submerged arc equipment and to manually produce high quality welds in the flat and horizontal positions on 1/8" to 1" carbon steel. Prerequisites: WEL-186 and/or WEL-182.

### **WEL-160 Arc Welding (SMAW)**

Lec. 2 Lab. 6 Credit 5

Provides a thorough technical understanding of shielded metal arc welding fundamentals, weld hazards and weld safety, power sources and electrode selection. Provides ample time and direction to develop skills necessary to make high quality welds on 16 gauge to 1/4" mild steel in all positions.

### **WEL-164 Arc Welding II (SMAW)**

Lec. 1 Lab. 6 Credit 4

An advanced course designed to develop skills, integrity, and confidence necessary to pass skill tests on pre-qualified joints on plate and structural steel as required of

code welding by the American Society of Mechanical Engineers and American Welding Society. Prerequisite: WEL-160 or equivalent.

### **WEL-172 Advanced Shielded Metal Arc Welding II**

Lec. 1 Lab. 6 Credit 4

Provides understanding and skill development necessary to produce high quality welds on 3/8" to 1" mild steel in all positions. Includes information relating to air-arc cutting and gouging, procedures and welder qualifications, testing of welds and metals identification. Prerequisite: WEL-160 or equivalent.

### **WEL-182 FCAW**

Lec. 1 Lab. 2 Credit 2

Provides thorough technical understanding of the flux cored arc welding process including adjustment and operation of power source, types of arc shielding, and safe operating procedure. Quality welds are produced on 3/8" to 1" carbon steel in all positions. Prerequisite: WEL-186.

### **WEL-186 GMAW**

Lec. 2 Lab. 4 Credit 4

Provides a technical understanding of the gas metal arc welding process, power sources and adjustment, metal transfer, shielding gases and weld safety. Develops skills necessary to produce high quality welds of 1/16" at 3/8" mild steel in all positions. Students will develop skills necessary to produce and bend-test single vee groove welds on 3/8" carbon steel in all positions according to American Welding Society code requirements.

### **WEL-192 Gas Tungsten Arc Welding**

Lec. 2 Lab. 4 Credit 4

Provides a thorough technical understanding of the TIG (Heliarc) process including metal characteristics, electrode, filter metals, and shielding gases with emphasis on weld safety and procedures. Prerequisite: completion of WEL-130 or equivalent.

### **WEL-197 Gas Tungsten Arc Welding—Tube**

Lec. 1 Lab. 4 Credit 3

Develops skills necessary for making high quality all position welds on schedule 10 to schedule 40 carbon steel pipe; preparation and testing of pipe is included. Prerequisite: WEL-192.

**WEL-198 Advanced Gas Metal Arc Welding – Aluminum**

Lec. 1 Lab. 2 Credit 2

An advanced gas metal arc welding course designed for the student who wishes to develop skills necessary to weld 0.050" to 0.250" aluminum in all positions. Prerequisite: WEL-186 or equivalent.

**WEL-220 Thermoplastic Welding**

Lec. 1 Lab. 2 Credit 2

To gain understanding of the types and characteristics of the basic thermoplastics used by the automotive, chemical and related industries. Student will develop basic skills necessary to produce sound welds on various plastics including polyvinyl chloride.

**WEL-235 Layout & Fabrication**

Lec. 0 Lab. 8 Credit 4

Teaches layout & fitting skills applicable to an industrial welding shop, including reading prints, estimating & ordering materials, performing layout & cutting work, and welding procedures applicable to fabricating a finished product. Emphasizes problem solving & cooperation within an industrial-like environment. Safety, accuracy and a commitment to excellence is emphasized. Prerequisite: Completion of first 3 semesters of welding program curriculum or approval of instructor.

**WEL-292 Pipe Welding/SMAW–Uphill**

Lec. 1 Lab. 6 Credit 4

Provides thorough technical understanding of uphill pipe welding procedures and application. Students produce welds using schedule 40 and 60 carbon steel pipe in 1G, 2G, 4G and 6G positions with a degree of skill necessary to meet American Society of Mechanical Engineer's code requirements. Prerequisites: WEL-160 and WEL-172 or successfully passing vertical and overhead guided bend-test on single vee open butt weld on 3/8" carbon steel according to American Welding Society code requirements.

**WEL-295 Pipe Welding/GTAW**

Lec. 2 Lab. 8 Credit 6

Covers procedure, joint preparation and fit-up, and develops skill for welding 6" carbon steel pipe in the horizontal, vertical and 45 degree fixed position. Alloy steel, stainless steel, and non-ferrous pipe may be included if prepared work pieces are furnished by student. Prerequisites: WEL-192 and WEL-292.

**WEL-306 Pipe Welding/GMAW**

Lec. 1 Lab. 4 Credit 3

Provides training to develop manual skills necessary to produce high quality groove welds on 6" diameter schedule 40 steel pipe in the 2G, 5G, and 6G positions. Prerequisite: WEL-186.

**WEL-331 Welding Fundamentals**

Lec. 1 Lab. 2 Credit 2

To develop understanding of weld hazards and safety, correct equipment set-up and usage and to develop basic skills to produce welds in the flat position using the oxyacetylene and shielded metal arc process.

**WEL-720 Introduction to Robotic Arc Welding**

Lec. 1 Lab. 2 Credit 2

This course is an overview of robots used in the welding industry. Basic mechanisms, hydraulics, and pneumatics are covered. Students receive hands-on experience in programming a robot to weld fixture parts using the GMAW process. Prerequisite: WEL-186.

**WEL-947 Special Projects**

Lec. 0 Lab. 3 Credit 1.5

To develop creativity and confidence by designing and fabricating by welding, a personal object having functional or ornamental value. Prerequisite: first semester welding curriculum.

