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The information in this catalog applies to Clinton, Muscatine and Scott Community Colleges for the 2008-2010 academic years and is current as of the date of publication. The District reserves the right to change any of the programs without prior notice, but will make reasonable efforts to notify students of changes. Please consult the Admissions Office or your advisor before making academic decisions.

Eastern Iowa Community College District endorses the principal of equal educational opportunities for all people, regardless of race, color, creed, marital status, national origin, sex, sexual orientation, religion, ancestry, age or handicap or disability in the educational programs or activities it operates. Inquiries concerning the colleges' compliance with Title VI, Title IX, Section 504, the Americans With Disabilities Act and the Age Discrimination Act should be directed to the Dean of Student Development at the appropriate college or the District Affirmative Action Officer at 306 West River Drive, Davenport, IA 52801, 563-336-3000.

ACADEMIC CALENDAR

Fall Semester 2008

August 11	Fall Tuition and Fees Due
August 25	Fall Classes Begin
August 29	Fall 2008 Graduation Applications Due
August 29	Last Day for 75% Tuition Refund/To Add Fall Classes
September 1	Labor Day (College Closed)
September 8	Last Day for 50% Tuition Refund/For Book Exchange or Return
October 10	Last Day to Withdraw from First Eight-Week Classes
October 17	Mid-Term
October 17	First Eight-Week Classes End
October 20	Second Eight-Week Classes Begin
October 21	Last Day for 75% Tuition Refund for Second Eight-Week Classes
October 24	Last Day for 50% Tuition Refund for Second Eight-Week Classes
November 11	Advising Day
November 24	Last Day to Withdraw from 16-Week Classes
November 27, 28	Thanksgiving
December 9	Last Day to Withdraw from Second Eight-Week Classes
December 11, 12 & 15	Final Exams
December 16	Fall Term Ends
December 16	Grades Due by 5 p.m.

Spring Semester 2009

January 5	Spring Tuition and Fees Due
January 14	Spring Classes Begin
January 19	Martin Luther King Day (College Closed)
January 21	Spring/Summer 2009 Graduation Apps. Due
January 21	Last Day for 75% Tuition Refund/To Add Spring Classes
January 28	Last Day for 50% Tuition Refund/For Book Exchange or Return
March 6	Last Day to Withdraw from First Eight-Week Classes
March 13	Mid-Term
March 13	First Eight-Week Classes End
March 16 - 20	Spring Break
March 20	College Closed
March 23	Second Eight-Week Classes Begin
March 24	Last Day for 75% Tuition Refund for Second Eight-Week Classes
March 27	Last Day for 50% Tuition Refund for Second Eight-Week Classes
April 14	Advising Day
April 27	Last Day to Withdraw from 16-Week Classes
May 8	Last Day to Withdraw from Second Eight-Week Classes
May 12, 13 & 14	Final Exams
May 13	Commencement-Muscatine Community College 8:00 p.m.
May 14	Commencement-Clinton Community College 6:00 p.m.
May 14	Commencement-Scott Community College 8:00 p.m.
May 15	Spring Term Ends
May 15	Grades Due by 5 p.m.

Summer Term 2009

May 18	Summer Tuition and Fees Due
3-Week Session	
May 18	Classes Begin
May 19	Last Day to add 3-Week Session Class
May 19	Last Day for 75% Tuition Refund
May 22	Last Day for 50% Tuition Refund/For Book Exchange or Return
May 25	Memorial Day College Closed
May 29	Last Day to Withdraw from 3-Week Session
June 5	3-Week Session Ends
June 8	Grades Due by 5 p.m.
First Session	
June 8	Summer Session I Classes Begin
June 9	Last Day for 75% Tuition Refund/To Add Summer Session I Classes
June 12	Last Day for 50% Tuition Refund/For Book Exchange or Return
July 2	Last Day to Withdraw from Five-Week Classes
July 3	College Closed
July 10	First Session Five-Week Classes End
July 21	Last Day to Withdraw from Seven-Week Classes
July 28	First Session Seven-Week Classes End
Second Session	
July 13	Second Session Five-Week Classes Begin
July 14	Last Day for 75% Tuition Refund/To Add Summer Term II Five-Week Classes
July 17	Last Day for 50% Tuition Refund/For Book Exchange or Return
August 7	Last Day to Withdraw from Summer Session II and 10-Week Classes
August 14	Summer Session II and 10-Week Classes End

Fall Semester 2009

August 13	Fall Tuition and Fees Due
August 27	Fall Classes Begin
September 2	Fall 2009 Graduation Applications Due
September 2	Last Day for 75% Tuition Refund/To Add Fall Classes
September 7	Labor Day (College Closed)
September 10	Last Day for 50% Tuition Refund/For Book Exchange or Return
October 16	Last Day to Withdraw from First Eight-Week Classes
October 23	Mid-Term
October 23	First Eight-Week Classes End
October 26	Second Eight-Week Classes Begin
October 27	Last Day for 75% Tuition Refund for Second Eight-Week Classes
October 30	Last Day for 50% Tuition Refund for Second Eight-Week Classes
November 10	Advising Day
November 26, 27	Thanksgiving
November 30	Last Day to Withdraw from 16-Week Classes
December 11	Last Day to Withdraw from Second 8-Week
December 15, 16 & 17	Final Exams
December 18	Fall Term Ends
December 18	Grades Due by 5 p.m.

Spring Semester 2010

January 5	Spring Tuition and Fees Due
January 13	Spring Classes Begin
January 18	Martin Luther King Day (College Closed)
January 20	Spring/Summer 2010 Graduation Apps. Due
January 20	Last Day for 75% Tuition Refund/To Add Spring Classes
January 27	Last Day for 50% Tuition Refund/For Book Exchange or Return
March 5	Last Day to Withdraw from First Eight-Week Classes
March 12	Mid-Term
March 12	First Eight-Week Classes End
March 15 - 19	Spring Break
March 22	Second Eight-Week Classes Begin
March 23	Last Day for 75% Tuition Refund for Second Eight-Week Classes
March 26	Last Day for 50% Tuition Refund for Second Eight-Week Classes
April 2	College Closed
April 13	Advising Day
April 26	Last Day to Withdraw from 16-Week Classes
May 7	Last Day to Withdraw from Second 8-Week Classes
May 11, 12 & 13	Final Exams
May 12	Commencement-Clinton Community College 6:00 p.m.
May 12	Commencement-Scott Community College 8:00 p.m.
May 13	Commencement-Muscatine Community College 8:00 p.m.
May 14	Spring Term Ends
May 14	Grades Due by 5 p.m.

Summer Term 2010

May 17	Summer Tuition and Fees Due
3-Week Session	
May 17	Classes Begin
May 18	Last Day to add 3-Week Session Class
May 18	Last Day for 75% Tuition Refund
May 21	Last Day for 50% Tuition Refund
May 21	Last Day for Book Exchange/Refund
May 27	Last Day to Withdraw from 3-Week Session
May 31	Memorial Day College Closed
June 4	3-Week Session Ends
June 7	Grades Due by 5 p.m.
First Session	
June 7	Summer Session I Classes Begin
June 8	Last Day for 75% Tuition Refund/To Add Summer Session I Classes
June 11	Last Day for 50% Tuition Refund/For Book Exchange or Return
July 1	Last Day to Withdraw from Five-Week Classes
July 9	First Session Five-Week Classes End
July 16	Last Day to Withdraw from Seven-Week Classes
July 23	First Session Seven-Week Classes End
Second Session	
July 12	Second Session Five-Week Classes Begin
July 13	Last Day for 75% Tuition Refund/To Add Summer Term II Five-Week Classes
July 16	Last Day for 50% Tuition Refund/For Book Exchange or Return
August 6	Last Day to Withdraw from Summer Session II and 10-Week Classes
August 13	Summer Session II and 10-Week Classes End

MAIN CAMPUSES

Clinton Community College
1000 Lincoln Boulevard • Clinton, IA 52732
*1-800-637-0559 • 563-244-7001

Muscatine Community College
152 Colorado Street • Muscatine, IA 52761
1-800-351-4669 • 563-288-6001

Scott Community College
500 Belmont Road • Bettendorf, IA 52722
1-800-895-0811 • 563-441-4001

ATTENDANCE SITES

Columbus Center
108 E. Walnut
Columbus Junction, IA 52738
563-728-8505

Maquoketa Center
714 W. Platt
Maquoketa, IA 52060
563-652-5000

Graphic Arts Technology Center
1951 Manufacturing Drive
Clinton, IA 52732
*1-800-967-8324
563-244-7010

John T. Blong Technology Center
8500 Hillandale Road
Davenport, IA 52804
563-441-4360

**Scott Community College/
Kahl Educational Center**
326 West Third Street
Davenport, IA 52801
1-800-895-0811
563-336-5200

**Scott Community College/
Career Assistance Center**
627 West Second Street
Davenport, IA 52801
1-800-895-0811
563-326-5319

**EICCD Administrative Offices/
Scott Community College
Urban Center**
306 West River Drive
Davenport, IA 52801
1-800-462-3255
563-336-3300

**New student information
toll free (from anywhere):
1-888-336-3907**

* Toll free for calls made within area code 563

WELCOME TO YOUR COMMUNITY COLLEGE

Mission Statement

Eastern Iowa Community College District strives to provide accessible quality educational programs and services which anticipate and respond to personal and community needs and expectations. These efforts will reflect an active commitment to excellence, to lifelong learning and to cooperation with all segments of the community.

Quality Vision

EICCD is committed to meeting or exceeding customer needs and expectations through Continuous Quality Improvement.

Accreditation

EICCD is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. The HLC address is 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504. Phone: (800)621-7440 / (312) 263-0456
FAX: (312) 263-7462

EICCD is an Academic Quality Improvement Program (AQIP) college. Accreditation means our programs meet or exceed the standards for academic excellence set for every public and private college in the 19-state North Central region. The colleges are approved by the Iowa Department of Education and the Board of Regents. Individual programs are accredited by associations within their respective fields.



A Message from the Chancellor

Welcome to Clinton, Muscatine and Scott Community Colleges - the Eastern Iowa Community College District. As your community college, we want to be your source for lifelong learning. Whether you want an affordable start to your four-year degree, specialized training to prepare for a career, skills upgrade or refresher courses, or are simply interested in learning something new, your community college is the place to Fuel Your Mind.

We serve more than 7,000 students in our degree, certificate and diploma programs each year, as well as more than 50,000 students in our continuing education classes. These students choose us for our variety of programs, exceptional teachers, convenient schedules and the lowest tuition in Iowa. Our faculty and staff are committed to your success, and we'll go the extra mile to help you meet your goals.

We encourage you to explore all the programs and services available to you at Clinton, Muscatine and Scott Community Colleges.

Patricia A. Keir, Ed. D.
Chancellor



FUEL your mind.



Student Information

CLINTON ♦ MUSCATINE ♦ SCOTT
COMMUNITY COLLEGES
EASTERN IOWA COMMUNITY COLLEGE DISTRICT



STUDENT INFORMATION

ADMISSIONS

General Policy

Eastern Iowa Community College District believes in equal educational opportunities for all qualified individuals, regardless of race, color, creed, sex, marital status, religion, ancestry, national origin, sexual orientation, age or handicap or disability in the educational programs and activities it operates. The colleges reserve the right to deny admission, re-admission or re-enrollment to anyone who may pose a risk to the best interests of the college community.

Clinton, Muscatine and Scott Community Colleges have an open admissions policy, which means that anyone over 16 years of age may apply, even without a high school diploma. Admission to the college does not automatically guarantee admission to all programs of study; you will need to meet the specific requirements for your chosen program. The colleges reserve the right to guide your placement based on assessment, interviews and past academic experience.

You may take up to six credit hours without providing transcripts from high school or other colleges you have attended, submitting ACT scores or taking the COMPASS Test. But to be officially admitted to a degree or certificate program, you must meet the total admission requirements of the college and the program.

Concurrent Enrollments

You may enroll in classes at more than one of our colleges or at one of our colleges and any other institution. If you are receiving financial aid, you must notify the financial aid officers at all institutions in which you are enrolled.

High school students may enroll in both high school and college courses at the same time, with permission from high school officials.

Application Procedures

To apply for admission to Clinton, Muscatine or Scott Community College, you will need to:

1. Submit an application for admission. If you are applying to more than one EICCD college, you only need to submit one application.
2. Send official transcripts from any other college you have attended, if you have previous college credit. Direct your requests for evaluation of transfer credit to the College Registrar.
3. Provide assessment scores from ACT, or COMPASS (computerized testing) taken within the last five years.

Please contact the Admissions Office for more information.

International Student Admissions

International students will need to supply the information above plus:

1. A TOEFL (Test of English as a Foreign Language) score of 500 or above, or demonstrated competency.
2. A complete Statement of Financial Support. Forms are available from the Admissions Office.

If you do not qualify for admission as an international student under these requirements, contact the Admissions Office. You may be admitted to ESL (English as a Second Language) classes for credit.

Re-enrollment

If you are a former Clinton, Muscatine or Scott Community College student, call the Admissions Office to see if your file can be re-activated. To be re-admitted, you must meet all applicable admission requirements. You may be re-admitted to a vocational-technical program subject to availability of space in the program and an evaluation of your previous progress.

Transfer Credit

From Other Colleges to EICCD

We accept transfer credit from colleges and universities accredited by the North Central Association of Schools or its regional affiliates. Credit for equivalent courses will be accepted to satisfy specific course requirements for graduation. The transfer credit you receive may vary depending on the academic program you choose, and college registrars will decide on elective credit or course substitutions on an individual basis. Transfer credit will be recorded on your EICCD transcript after you have requested a transcript evaluation. Transfer grades are not used in your EICCD grade point average.

From Vocational-Technical to Arts and Sciences Programs

If you earn credit in vocational-technical courses at EICCD or other accredited institutions, a maximum of 16 hours of that credit may be accepted as elective credit for an Arts and Sciences degree. See the College Registrar for complete details.

We reserve the right to refuse credit earned more than 10 years before your proposed program completion date. All credit you earn at one of our colleges will transfer to another EICCD college, with the limitations outlined above.

Admission on Restricted Status

If you have been dismissed from another institution or were not in good standing when you left, you still may be admitted on restricted status. The college may limit your class load and course selection if you want to enroll for more than six credits while you are on restricted status. We may also require supplemental assessment, counseling and other forms of assistance to help promote your academic success.

Special Student Admission

Veterans

All of our programs are approved by the Iowa Department of Education for veterans benefits for students eligible under the GI Bill. If you are a veteran of the Armed Forces, National Guard or Reserve, contact the College Registrar early in the application process to certify your status and benefits. If you have earned credit through civilian or military education, the College Registrar may evaluate that credit for transfer evaluation.

To receive educational assistance from the Veterans Administration, you must meet "pursuit of education and academic standards" established by the VA and college policy. You are responsible for knowing and following policies that apply to you as a veteran. For information about these policies, including pursuit of education, satisfactory progress, verification, benefit and other questions about veteran students, see the College Registrar.

If you are the widow, widower or child of a veteran, you may also be eligible for educational benefits. The College Registrar can help answer your questions.

Military Personnel

We are a Servicemembers Opportunity College (SOC) and participate in the Concurrent Admissions Program (ConAP). This program allows enlistees to enroll in college at the same time they are serving in the military.

Senior Citizens

If you are 62 years or older and live in our service area, you may register for credit courses on a space available basis at a cost of \$10.00 per credit hour plus fees. Special registration for seniors is the first five days of classes.

Audit or CEU

You may choose to audit a credit course if space is available in the class. To audit a class, register as usual; tuition and fees will be the same as if you were taking the course for credit. You won't receive credit for the course, but your transcript will reflect the audit with an "N" grade. Participation in class activities is expected, but you won't have to take exams. Some credit courses may also be taken for non-credit Continuing Education Units (CEUs). You cannot receive financial aid if you choose to audit a class.

REGISTRATION

Registration Procedures

To enroll in classes you may meet with an advisor and complete the appropriate forms, or log on to www.eicc.edu and follow the ebridge link to enroll online. Students may enroll in a maximum of 11 hours before meeting with an advisor.

Early Registration

Early registration allows you to choose courses and establish your schedule for the next term if your tuition and fees are paid by the designated due date. For some programs, a non-refundable fee (which will be applied toward tuition) may be required when you register or are admitted.

Late Registration

You will have a better selection of courses and class times if you register early. Late registration is during the first week of class for 16-week sessions if you complete the assessment process and get permission from the instructor of each class for which you register. Late registration for summer or shortened sessions is during the first two class meetings.

Changing Your Registration

Adding a Class

To add a class you may meet with an advisor and complete the appropriate form or log on to eicc.edu and follow the ebridge link to add the class. Classes may be added during the first week of classes for a full semester class. Summer or short term sessions have two days to add a class.

Dropping a Class

To drop a class you may meet with an advisor and complete the appropriate form or log on to www.eicc.edu and follow the ebridge link to drop the class. You may drop a class with a grade of "W" until two weeks prior to the first day of final examinations for a full semester class. You have one week prior to the end of the term during the summer or short term sessions. This process may also be done via the web within the last dates to withdraw for the course. Failure to follow the above procedures will result in an "F" for the course.

Withdrawing from College

You may meet with an advisor and complete the appropriate form or log on to www.eicc.edu and follow the ebridge link to withdraw from all of your classes. NOTE: Check the Tuition and Fees Refund policy for a possible refund.

Course Repeats

The grade and credits earned in the most recent course repeat will be used to calculate your grade point average and will be applied to your degree or program requirements. Once a degree is awarded a course used in the degree cannot be repeated for a new grade. Both grades will be calculated in your GPA. Courses must be taken within EICCD to be considered repeat courses.

Academic Load

A full-time academic load is 12-18 credit hours per term. You are considered a part-time student if you take 11 or fewer credit hours.

If you'd like to take more than 18 credits in the fall or spring terms or more than 12 credits during the summer term, you'll need permission from the Dean of Student Development. Usually the Dean will grant permission only to students who maintain a 3.0 cumulative GPA and plan to carry no more than 21 credit hours. If you are enrolled in a program that requires more than 18 credit hours per term, you may register without special permission.

Class Attendance

Faculty members determine attendance requirements for their classes. As a student, you are responsible for knowing and following class attendance guidelines.

Graduation

Applications for graduation are due by the fifth day of classes of the semester in which you plan to graduate. For summer graduates, the applications are due by the fifth day of classes of the spring semester.

You are responsible for making sure that all of your financial obligations to the college are paid before you can graduate.

STUDENT INFORMATION

EDUCATIONAL COSTS

We work hard to provide the highest quality instruction at the lowest possible cost. Costs at Clinton, Muscatine or Scott Community College will vary based on your state of residence, fees, books and materials for your program. All costs are subject to change. Please contact the Business Office for a current tuition and fee schedule.

Tuition

Tuition is based on residence and class load. For non-Iowa residents, tuition is 1.5 times the rate for Iowa residents.

Books and Supplies

Your costs will vary depending on the program you choose, but you should expect this to be a significant expense. Vocational-technical programs may also require tools or uniforms. Contact the college bookstore or the Admissions Office for more detailed information.

Transcript Recording Fees

The college charges \$9 per credit hour to record credit you have earned through tests and other types of non-traditional credit. For example, if you take a CLEP test and earn three hours of credit in English, you would pay \$27 to have that credit recorded on your transcript.

Early Registration Fee

Early registration is required for many vocational-technical programs. A non-refundable fee, which will be applied to your tuition, may be required to guarantee your registration.

Tuition Refunds

If you withdraw from the college, be sure to complete the necessary withdrawal forms to make sure you do not jeopardize your academic standing. If you are eligible for a refund, tuition dollars will be refunded according to the following scale:

Courses that are 16 weeks in length:	
100%	Prior to the beginning of the term
75%	First week of term
50%	Second week of term

Courses that meet for one week or less:
100% Prior to the official start date of the course*
No refund after the course has begun

For all other courses:
100% Prior to official start date of the session*
75% During the first two days of the session*
50% During the third through fifth day of the session*

*See Registration Center for specific course dates.

If classes are cancelled by the college, tuition and fees will be refunded.

The same refund policy applies to official withdrawal from individual courses. Your refund will be the appropriate percentage between the tuition for your new load and the tuition for your original load. If you are officially enrolled and receiving Title IV funds (federal financial aid such as SEOG, Pell Grant, Stafford and/or PLUS loans), your refund will be determined using the return of Title IV Funds calculation. Contact the Financial Aid Office for details. Contact the Business Office or College Registrar for refund deadlines for short-term programs.

RESIDENCY

You are considered an Iowa resident for tuition purposes if your legal residence is in Iowa and you have lived in the state for no less than 90 days immediately before the first day of classes of the term for which you have enrolled. You are responsible for proving your in-state status. If you would like to apply to be reclassified from non-resident to resident status, fill out a Request for Residency Status form in the College Registrar's office and provide the following support documents: rent receipts, or evidence of ownership of property in Iowa, and two of the following documents: Iowa income tax return, Iowa vehicle registration, Iowa driver's license, Iowa voter registration card. The request for residency status must be filed prior to the end of the first week of classes during the fall and spring terms; by the second day of the summer and shortened class sessions.

If you are reclassified as a resident, that reclassification becomes effective immediately and does not cover any term for which you previously have been enrolled. International students cannot establish residency while studying in this country on a temporary student visa. Contact the Admissions Office or College Registrar for more information.

STUDENT HEALTH INSURANCE

We encourage you to have health/accident insurance, and optional insurance coverage is available. If you choose to buy student health insurance, see the Dean of Student Development for the form. Any medical costs for treatment of illness or accident which are not covered by personal insurance are your responsibility.

FINANCIAL AID

Your college education is an investment in your future. We are pleased to provide financial assistance to students who might otherwise not be able to attend college. If you are in need of financial assistance to attend school, please contact the Financial Aid Office. No student should ever withdraw from school for financial reasons without first talking to our financial aid staff to see if help is available.

Financial aid programs are constantly being reviewed by the state and federal government. The outline below is meant to be a general overview. Please contact the Financial Aid Office for more information.

General Policy

If you previously attended, or are currently attending, another institution you must notify the Financial Aid Office. You cannot receive financial aid from two institutions during the same semester. For specific information about satisfactory academic progress or other financial aid policies, see the current student handbook or contact the Financial Aid Office.

To apply for federal and state financial aid, all students must complete a Free Application for Federal Student Aid (FAFSA). You are encouraged to file electronically at www.fafsa.ed.gov.

Federal Assistance

Federal Pell Grant - a federally funded program based on financial need and enrollment status. Students must not have a bachelor's degree.

Academic Competitiveness Grant - a federally funded program available to Pell Grant recipients who have also completed a rigorous high school curriculum. Recipients must also be U.S. citizens enrolled full-time and pursuing a two-year associate's degree. Students must not have a bachelor's degree.

Federal Supplemental Educational Opportunity Grant - a federally funded program administered by the colleges; priority must be given to Pell Grant recipients with the lowest family contribution. Students must not have a bachelor's degree. Funding is limited.

Federal College Work Study - Federally funded part-time employment opportunities that allow students to work at an EICCD site or at designated off campus locations. Students working at off campus locations will have the opportunity to work in community service positions or at elementary schools through the America Reads/America Counts programs. The amount a student may earn is based on financial need. Funding is limited.

Federal Family Educational Loan Program - long-term, low interest loans available to students and parents. These are also known as Federal Stafford Loans (Subsidized and Unsubsidized) and Federal Parent Loans for Undergraduate Students (PLUS). To apply, complete a Free Application for Federal Student Aid (FAFSA), a Master Promissory Note (MPN), a Loan Authorization Form (LAF), and an Entrance Counseling Form. These applications are available in the Financial Aid Office.

State Assistance

Iowa Vocational - Technical Tuition Grant - a state-funded grant for Iowa residents enrolled in Iowa community college vocational-technical programs who show financial need and meet the state's priority deadline.

State College Work Study - State funded part-time employment opportunities that allow students to work at any EICCD site. The amount a student may earn is based on financial need. Funding is limited.

Iowa Grant - grants to Iowa residents who attend Iowa colleges and universities and who demonstrate exceptional financial need. Funding is limited.

Veterans Educational Benefits - financial assistance for veterans of the Armed Forces, National Guard or Reserves, or widows, widowers and children of disabled or deceased veterans. Contact your Commanding Officer or the College Registrar for eligibility and application information.

EICCD Programs

EICCD Tuition Grant - funded by EICCD, assists students who meet certain criteria. Funding is limited.

College Foundation Scholarships - each college provides scholarships from local resources. Contact the Financial Aid or Foundation Office for information.

Other Forms of Assistance - many employers or area organizations (civic, ethnic, religious, etc.) offer financial assistance. Contact the organization or your employer for more information.

GRADUATION AND GENERAL EDUCATION REQUIREMENTS

At Clinton, Muscatine and Scott Community Colleges, you can earn a degree, diploma or certificate. The Associate in Arts and Associate in Science degrees are designed for transfer to four-year colleges and universities, while the Associate in Applied Science degree will prepare you to enter a specific occupational field.

Associate in Arts (A.A.) and Associate in Science (A.S.) Degrees

To earn an Associate in Arts or Associate in Science degree, you must complete at least 62 credit hours with a 2.0 GPA or better. The minimum general education requirements for the Associate in Arts and Associate in Science degrees are listed below. Additionally, the Associate in Science degree requires nine more credits of designated math, engineering and science courses in addition to the A.A. requirements in math or science; these credits will reduce the number of elective credits required for graduation.

Area	Credits
Communications	
Written Composition	6
Speech	3
Arts and Humanities	
Literature	3
Humanities	3
Arts	3
Cultural/Historical Perspectives	
Western Perspectives	3
International Perspectives & Language	3
Social Science	
Economics or Political Science	3
Psychology or Sociology	3
Natural Sciences	
Life Sciences	4
Physical Sciences	4
Mathematics	3
Computer Skills ⁽¹⁾	3
Concentration Courses and Electives ^(2,3,4)	18
TOTAL	62

Courses that satisfy requirements for each concentration area are listed on pages 27-45.

1. You may choose to demonstrate proficiency in computer skills.
2. A maximum of 16 credit hours of vocational-technical credit may be accepted as electives.
3. A maximum of four credit hours of Human Development courses may be counted toward the A.A. or A.S. degree.
4. All course work for the A.A. or A.S. degrees must be numbered at the 100 level or higher.

STUDENT INFORMATION

Associate in Applied Science (A.A.S.) Degree

To earn an Associate in Applied Science (A.A.S.) degree, you will complete the general educational and technical competency requirements of a two-year technical program with a GPA of 2.0 or better in your award major. These programs are designed to prepare you for skilled employment in your chosen area; they are not designed for transfer to a four-year college or university. A.A.S. degree requirements include a minimum of 12 credit hours of general education, including one course each in Communications, Humanities or Social Sciences and Math or Science. A.A.S. degrees vary by program in the number of credit hours required for completion.

Diploma Programs

Diplomas are awarded to students who successfully complete a program with fewer than 64 but more than 31 credit hours and maintain a GPA of 2.0 or better in your award major. These programs will prepare you for entry-level employment in a specific field. Diploma programs emphasize technical skills and related general education courses that will give you the skills necessary to succeed in the working world.

Minimum general education requirements for a diploma include three credit hours in Communications and three credit hours from Social Sciences, Humanities, Math or Science. All course work must be at the 100 level or above. See specific requirements listed for your program later in this catalog.

Certificate Programs

When you successfully complete a designated program with fewer than 32 credit hours with a GPA of 2.0 or better in your award major, you will earn a Certificate of Completion. The Certificate means you have the minimum competence in your chosen area. All course work must be at the 100 level or above. See specific requirements listed for your program later in this catalog.

ACADEMIC REQUIREMENTS

Academic Standing

At the end of each term your instructors will assign grades to assess your performance and encourage you to do your best work. The college will determine term and cumulative grade point averages (GPA) and record those on a grade record you may access online. GPA is determined using this formula:

- A 4.00 x number of credit hours of A credit received
- A- 3.67 x number of credit hours of A- credit received
- B+ 3.33 x number of credit hours of B+ credit received
- B 3.00 x number of credit hours of B credit received
- B- 2.67 x number of credit hours of B- credit received
- C+ 2.33 x number of credit hours of C+ credit received
- C 2.00 x number of credit hours of C credit received
- C- 1.67 x number of credit hours of C- credit received
- D+ 1.33 x number of credit hours of D+ credit received
- D 1.00 x number of credit hours of D credit received
- D- 0.67 x number of credit hours of D- credit received
- F 0.00 x number of credit hours of F credit received

To determine the GPA, divide your total grade points by the number of your total credit hours. A cumulative GPA of 2.0 in your award major is required to earn any degree, diploma or certificate.

If you're receiving Veterans Educational Benefits or other types of financial aid, you must meet any academic progress and attendance requirements determined by college policy and the agency that has granted your financial assistance.

Grading and Transcript Designations

Our grades and transcript designations conform to the Iowa Department of Education's "Common Master List of Grade Symbols and Definitions for Merged Area Schools."

Marking System

- A** excellent performance
- B** above average performance
- C** average performance
- D** below average performance
- F** failure, no credit granted or grade points awarded, but credits attempted are figured into GPA as zeroes. "F" grades are given for poor performance, poor attendance, failure to officially withdraw or failure to meet makeup requirements for an Incomplete grade.
- I** failure to complete required work due to justifiable extenuating circumstances. An "I" grade means you have asked for and received permission from your instructor to complete the required course work no later than mid-term of the following academic term, not including summer sessions. Failure to complete the work in that time frame will result in an "F" grade.
- W** official withdrawal from a course. To qualify for a "W" grade, you must complete the withdrawal form two weeks prior to the first day of final exams. Contact the College Registrar for summer and short-term withdrawal dates. If you leave a course without officially withdrawing, you will receive an "F" or the grade that reflects your course performance.
- N** audit. Audit is a "no credit/no pass" grade that you can use for several purposes: you may choose it during registration instead of a course grade or in place of withdrawal with instructor permission if you are already enrolled in a course; OR the college may award the "N" grade to students in developmental courses who do not make sufficient progress to move into credit courses. When you audit a course, you and your instructor will agree on your attendance and participation in class activities. The audit option is offered only on a space-available basis. You must complete the audit form by the end of the 10th day prior to the first day of final exams.
- P** given when you pass a course and earn credit without grade points being awarded. Courses transferred into EICCD with a "P" grade are considered to be credit without being calculated into your GPA.
- X** course has been repeated.

- O Fresh Start grade
- R Course has been repeated. This notation will be listed in the column to the right of the grade. The term GPA will not reflect a course repeat. This will be reflected in the cumulative GPA.

Prerequisite Course Grade Recommendation

Faculty members recommend a minimum grade of C in all prerequisite courses. Please consult your advisor or department chair if you receive a D in a prerequisite course.

Satisfactory Progress

We encourage you to maintain satisfactory academic progress while a student at EICCD. The minimum satisfactory academic progress is a cumulative grade point average of 2.000. At any point in your career that your cumulative grade point average falls below 2.000, you may be placed on academic probation. A counselor or academic advisor will help you develop a plan of action to improve your grades. That plan may include a restriction on the number of credit hours you may take, additional assistance and other developmental requirements.

If you are an official full-time student after the Add-Drop period and on financial aid, you must successfully complete at least eight credit hours of credit. If you are enrolled for six to eleven credit hours, you will need to successfully complete at least six credit hours. You may be placed on academic probation if you do not meet these requirements.

When the requirements of your program are higher than the minimum standards listed here, your program requirements will apply. It is your responsibility to know and follow your program requirements.

If, at the end of your probationary term, you are unable to meet the minimum standards, we may recommend additional corrective steps or academic suspension. After a one-term absence for academic suspension (not including the summer session), you may be re-admitted on probation.

Types of Credit

Any credit you receive in an Arts and Sciences course with a course number of 100 or above is considered transferable. Credit received in vocational-technical courses with course numbers 100 or above is generally not transferable, although some four-year colleges and universities may choose to award credit. Credit from courses numbered below 100 is generally not transferable, nor is credit for continuing education contact hours or continuing education units (CEUs).

Credit Transfer

Clinton, Muscatine and Scott Community Colleges are accredited by the Higher Learning Commission of the North Central Association, the same organization that accredits the major colleges and universities in the United States, so your Arts and Sciences credits from here will normally transfer to any of these institutions. Your A.A. degree from an EICCD college will satisfy the general education requirements at many four-year institutions.

Articulation

We have articulation agreements with local high schools and regional four-year colleges and universities so that you are assured of being prepared to transfer successfully. If you are planning to transfer to a four-year institution, talk to your academic advisor and the transfer admissions office of the college you plan to attend to make sure you meet all the requirements for transferring your course work from EICCD.

Transfer Guarantee

Our Transfer Guarantee is a written contract completed at the beginning of your academic career at Clinton, Muscatine or Scott Community College. It outlines your plan of transfer and provides a tuition refund for any credits in your Associate in Arts degree that will not transfer to any of eight participating colleges and universities. These institutions are Iowa State University, Iowa Wesleyan College, Ashford University, St. Ambrose University, University of Iowa, University of Northern Iowa, Upper Iowa University and Western Illinois University. Talk to the Dean of Student Development for more details.

Joint Admission

EICCD has signed Joint Admission Agreements with the University of Iowa, St. Ambrose University, Ashford University, Iowa Wesleyan College, Palmer College of Chiropractic and Trinity College of Nursing and Health Sciences. By applying for joint admission, you may be admitted to both EICCD and the transfer institution at the same time. Advisors from both colleges will help you plan your course work to ensure a smooth transfer process. For more information, see the Dean of Student Development.

Class Standing

Freshmen are students who have completed no more than 29 credit hours; students with 30 to 62 credits are classified as sophomores.

Academic Honors

Each term we recognize students who have achieved outstanding academic success. If you complete six or more credit hours during a term with a 4.0 GPA, you'll be named to the President's List; the Dean's List includes students with a 3.5 or better GPA for six or more credit hours during a term. Incomplete or blank grades at the time lists are calculated will disqualify you from the list.

Honor Graduates

Honor Graduates are those with a final cumulative GPA of 3.5 or better for all course work completed toward graduation.

Incomplete Grades

Incomplete grades (I) are given for work that is not completed during an academic term due to justifiable extenuating circumstances. To qualify for an "I" grade, you will need to sign an Incomplete Contract Agreement with the class instructor and submit it to the College Registrar. Work must be completed and turned in to the instructor no later than mid-term of the following semester (not including summer sessions). Courses not completed by that time will receive an "F."

STUDENT INFORMATION

Withdrawal from College

If you need to withdraw from the college for any reason, please see the Student Services office for the appropriate paperwork. Deadlines and conditions for withdrawal are the same as those for withdrawal from an individual course (see Addition of and Withdrawal from Courses section).

Be sure to follow the proper procedures when withdrawing or you may forfeit your rights to any refund to which you may be entitled and receive grades of "F" in your courses.

Catalog Requirements

You may choose to graduate under the requirements of any EICCD catalog from the preceding five years as long as you were enrolled under that catalog and have been continuously enrolled in the college. (Continuous enrollment means you have earned credit during each academic year.) However, it is best to graduate under the most current catalog requirements, especially if you plan to transfer to a four-year college or you are enrolled in a program requiring specialized accreditation.

Fresh Start

If you are a student returning to EICCD to pursue a degree or diploma after an absence of three or more consecutive years, you may request permission to remove one or more entire academic terms from future degree and GPA considerations. Contact the Dean of Student Development for additional information.

Graduation GPA and Residency Requirements

You are considered a candidate for graduation when you have completed specific course requirements for an A.A. or A.S. degree with a minimum cumulative GPA of 2.0 or better. You are considered a candidate for graduation when you have completed specific course requirements for an A.A.S. degree, diploma or certificate with a minimum GPA of 2.0 in the award major. Sixteen of your final 32 credit hours or half of the final 50 percent of credit hours - whichever is the lesser number - must be taken at Clinton, Muscatine or Scott Community College.

Credit for Prior Learning

You may have gained knowledge from work, military or life experiences that could be considered for college credit. Contact the college's Prior Learning Coordinator for more information concerning Credit for Prior Learning.

Alternative Delivery

Clinton, Muscatine and Scott Community Colleges offer many options for course delivery. Visit www.eicc.edu.

Our colleges also offer opportunities for study abroad. Please contact the student services department or your advisor for more information.

Student Learning Assessment

In addition to traditional classroom assessments such as grades, you may be asked to participate in program assessments throughout your college experience. While faculty use classroom assessment to determine an individual student's progress in a course, the District uses other tools to measure the effectiveness of its programs. Examples of program assessment include the Collegiate Assessment of Academic Proficiency (CAAP) and vocational-technical program pre- and post-tests of critical employment skills. You will receive your academic testing results.

You may also be surveyed regarding your satisfaction level with college programs and services through the Student Satisfaction Inventory (SSI), Student Perception of Teaching (SPOT) surveys and graduate/alumni surveys. These assessments help the District target areas to improve student services and also ensure the colleges comply with state and Higher Learning Commission/AQIP accreditation requirements.

CONFIDENTIALITY OF STUDENT RECORDS

Our faculty and staff use records to meet the needs of individual students and help develop ways to improve programs, services and academic success. Student records are regarded as confidential. EICCD will not provide names and addresses to outside agencies for commercial use or any information about academic records without your written consent or under specific guidelines set out in the Family Educational Rights and Privacy Act of 1974.

The college may release the following types of information to the public as the college sees fit, keeping in mind the privacy of the student and the totality of the surrounding circumstances: name, address, telephone listing, e-mail address, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, academic honor rolls, degrees and awards received, full-time/part-time status, most recent previous school or institution attended by the student and photograph and likeness, artwork, or writing.

Any student objecting to the public release of such information must file a written objection with the Registrar's Office within 30 calendar days of the beginning of the term in which he or she first enrolls during that year. It is necessary for the student to renew his or her objection at the beginning of each school year.

A student wishing to review the entire district policy on student rights may request the district policy from the Dean of Student Development.

Please consult your current Student Handbook for more detailed information about confidentiality of student records.

FUEL your mind.

Colleges



CLINTON ♦ MUSCATINE ♦ SCOTT
COMMUNITY COLLEGES
EASTERN IOWA COMMUNITY COLLEGE DISTRICT

CLINTON COMMUNITY COLLEGE

THE COMMUNITY

Clinton is located in the extreme eastern part of Iowa, 157 miles west of Chicago. The picturesque Mississippi River town was originally called New York, but was renamed in 1885 after DeWitt Clinton, a former governor of New York.

Clinton offers many recreational facilities including five beautiful parks, swimming pools, beaches along the river and nearby lakes. It also has many softball diamonds and tennis courts, two golf courses and a modern baseball park. Clinton is home to the Class A professional baseball Clinton Lumber Kings.

The community's public library offers services via two community locations, and the fine arts are well-represented through the Clinton Community Concert Association, the Clinton Symphony Orchestra Association, the Clinton Showboat professional theatre, Gateway Contemporary Ballet and the Clinton Art Association.

THE COLLEGE

Clinton Community College offers many college transfer programs and career technology options. The college's faculty offer quality, personalized education with a student-instructor ratio of just 20 to 1. Over ninety percent of the college's arts and sciences faculty have earned either their master's or doctorate degree.

Approximately half of Clinton Community College students are enrolled on a part-time basis, and the college has a large number of both traditional and non-traditional students. The average age of the student body is 27.

CCC Alumni Association

Clinton Community College maintains a strong Alumni Association. Almost 80 percent of the college's graduates continue to live in Iowa, with an additional 10 percent living in nearby Illinois communities such as Fulton, Savanna, Thomson and Morrison.

The Alumni Association is an active supporter of the college and hosts many annual events such as the Student Leader Luncheon and the Outstanding Awards that highlight those that give outstanding support to CCC. In addition, the Alumni

Association supports four different scholarships for CCC students ranging from \$200 to a full-time Alumni Honor Scholarship.

To become a member of the CCC Alumni Association, or for more information, visit the website at www.eicc.edu/ccc/sharar/alumni/index.html

STUDENT PROGRAMS

Intercollegiate and Intramural Athletics

Clinton Community College is a member of the National Junior College Athletic Association (NJCAA). The college has men's basketball and women's volleyball teams. Competition and eligibility are governed by the Iowa College Conference Athletic Codes and the NJCAA. To participate, a student must be doing passing work at all times in at least 12 credit hours of course work, must have passed 12 credits of course work in the previous semester of college attendance and maintain a minimum 2.0 GPA. To be eligible for a second session of competition, a student must pass 24 credit hours with a minimum 2.0 GPA. Contact the Athletic Director with questions.

The college also offers student intramural programs throughout the year.

Clubs and Organizations

Students are invited to join the many clubs and organizations at Clinton Community College. Club information is available in the Student Development office.

Phi Theta Kappa

Phi Theta Kappa is the international honor society for two-year college students. Phi Theta Kappa recognizes and encourages the academic achievement of community college students and provides opportunities for individual growth and development through participation in honors, leadership, service and fellowship programming. Students invited to join must have accumulated a minimum of 12 credit hours and have a cumulative 3.5 or higher GPA.

Student Senate

The Student Senate plans the yearly social calendar and all college activities. Organizations chartered by the Student Senate are journalism, nursing, drafting, printing, computers, Phi Theta Kappa, and fine arts/drama. The Senate also supports a tutoring program that provides academic assistance to students through one-on-one tutoring.

Student Newspaper

The Gallery is published throughout the academic year and includes college news as well as community and national news. Students are invited to become a part of this publication. Activities include newswriting, photography, layout, editing and advertising.

STUDENT SERVICES

Housing

A list of community housing is available in the Admissions Office.

Library

The Clinton Community College library provides access to quality information sources in traditional and electronic formats to support the information needs of students, staff and community patrons. Through the college's participation in PrairieCat, library patrons have access to 9 million items available in the greater Quad City and Northern Illinois academic and public libraries. The library website is www.eicc.edu/library and our phone number is 563-244-7046.

Career Planning and Placement

The college's placement staff offers interest assessments, career counseling, help in setting educational and career goals, assistance in preparing for a job search and help in finding a job. Advisors are also available to help students identify concerns, make important educational decisions, adjust to college, improve personal relationships and set goals.

Skills Shop

The Skills Shop provides resources for students who need individual assistance to brush up, catch up or accelerate their skills to achieve college success. Peer tutoring is available free of charge for registered students in reading, grammar, basic math, writing skills and current college courses. Computers with internet and other audio/visual equipment are available for student use.

Student Success

CCC offers classes to help students learn time management and study skills and to achieve their maximum potential. Check the schedule or ask your advisor for more information.

Internet

Internet access, including the World Wide Web, is available to students, staff and faculty at several campus computer lab locations. The college's web site includes an online credit class schedule database, general college information and links to other EICCD sites. The address is: www.eicc.edu.

PAUL B. SHARAR FOUNDATION

The Paul B. Sharar Foundation supports the students, programs, faculty and staff of Clinton Community College. The 28-member board is responsible for encouraging, receiving and administering all contributions.

Each year the Sharar Foundation awards scholarships to deserving Clinton Community College students. These scholarships are awarded to recent high school graduates as well as non-traditional-age students who are returning to college after being away from school for a number of years. All students are urged to apply for scholarships by contacting the Financial Aid office or the Sharar Foundation office.

The Sharar Foundation also places priority on supporting college programs through equipment purchases and funding for staff development. In addition, a Sharar Foundation grant program helps make it possible for faculty and staff to further their own education.

The Paul B. Sharar Foundation office is located on the college campus. For more information, visit the web site at www.eicc.edu/ccc/sharar/index.html

THE COMMUNITY

With its long history and Mississippi River traditions, Muscatine enjoys a new spirit of progress that makes it a thriving modern community of more than 23,000 in the heart of agricultural/industrial mid-America. Early French explorers established the first settlement in 1832. In 1849 the original name, Bloomington, was changed to Muscatine after the Musquitine Indians living along the river.

Muscatine is home to 96 diversified industries, including two Fortune 500 companies. The area boasts numerous recreational activities, including water sports on the Mississippi and nearby Cedar and Iowa rivers, and a park system offering swimming, picnic areas, baseball, tennis, cycling, horseshoes and golf. Many entertainment opportunities are available, as well as cultural enrichment through the Musser Museum and Art Gallery.

THE COLLEGE

Muscatine Community College offers an arts and sciences transfer program and numerous career technology curricula. The college has an annual enrollment of more than 1,500 full- and part-time students in credit programs. An additional 10,000 people are served by continuing education programs. Although many students attending Muscatine Community College enroll directly out of high school, the average age of students is 28, with more than 50 percent of students attending part-time.

Alumni association records show that almost 80 percent of Muscatine Community College graduates remain in Iowa, with others finding employment opportunities in every state and several foreign countries.

Well-qualified, experienced and dedicated instructors guide the educational experiences of students in small, personalized classes. Almost all faculty members have master's degrees, and all are specialists in their fields.

STUDENT PROGRAMS

Clubs and Organizations

Muscatine Community College offers many student clubs, organizations and activities ranging from special interest groups to campus-wide picnics and outings. Music, drama, athletics and numerous other activities are available to all interested students. The Student Services division also sponsors a series of special activities designed to appeal to older students and their families.

Phi Theta Kappa

Phi Theta Kappa is a national honorary scholastic organization for community, junior and technical colleges. Students invited to join must have accumulated 12 credit hours and have a 3.5 or better GPA.

Honors Colloquium

Muscatine Community College's Honors Colloquium, EXCEL, offers academically advanced students opportunities for enrichment through cross-curricular and extracurricular activities with stimulating speakers, off-campus functions and special projects.

Student Government

The Student Senate, elected annually by the general student body, is open to all students. In addition to planning college activities, the Senate manages the student activities budget, recommends policy and provides a forum for student issues and concerns.

Intercollegiate and Intramural Athletics

Muscatine Community College is a member of the Iowa Community College Athletic Conference and offers intercollegiate competition in men's baseball and women's softball. Regular season games are free to students with valid student ID cards.

The college also offers a variety of intramural activities ranging from volleyball and basketball to pool, table tennis and table games.

Student Newspaper

The award-winning *Calumet* is published throughout the academic year and includes college, community and national news and features. All students are invited to join the staff as writers, photographers, editors or advertising and layout specialists.

College/Community Activities

Activities sponsored jointly with community and service organizations provide students with an opportunity to hear nationally known speakers. The college also has an excellent Visiting Artist Series, co-sponsored by Quad City Arts.

STUDENT SERVICES

Skills Center

The Skills Center provides an individualized environment for students in need of personal assistance in areas such as study skills, reading, grammar, basic math, writing skills and general classwork. Through the tutoring program, students requesting a tutor can be matched to an individual tutor at no charge. In addition, make-up testing is given upon instructor request. Special testing such as CLEP, COMPASS, online, eCollege and other forms of testing are also given by appointment.

Special Needs

The Special Needs program helps students with difficulties due to physical or learning disabilities, limited English skills or reading, math, spelling and writing problems. The program is also a resource for students who need help in academic classes. Students learn strategies for note taking, study and listening skills, reading, time management, math, spelling and writing. Taped textbooks, test alternatives, taped class lectures, and vocational and transitional services are also available.

Housing

Spacious four-bedroom apartments are available on campus, just minutes from classrooms and offices. Information is available from the MCC Registration or Admissions Office.

Advising Center

Students may select their own counselors; appointments are encouraged but not required. Counselors are listeners who can help students make educational decisions, solve personal problems, adjust to college, improve personal relationships, set goals and change career goals. The Advising Center offers human development courses to help students deal with typical student concerns. Counselors can also interpret test results, analyze academic records, give interest inventories, provide information about careers, educational programs and schools, and help with job placement after graduation.

Study Skills

Muscatine Community College offers classes designed to help students learn time management and study skills and to achieve their maximum potential. Check the class schedule or see your advisor for more information.

Career Assistance

Career assistance is available to people of all ages through the Advising Center. Career exploration opportunities are provided by a variety of resources, including a career information library, the Occupational Outlooks handbook, governmental publications and MCC's own Graduate Survey. Other resources available are the SIGI PLUS computerized career exploration program and Cooperative Education work experience placements.

Child Care

The Learning Tree Preschool is an on-campus, licensed facility providing quality child care and educational experiences for the three- to six-year-old children of college students, faculty and the general public. The program includes preschool education, creative play, field trips, art activities, hot noon meals and morning and afternoon snacks. The Learning Tree Preschool also serves as a laboratory for the college's early childhood education students.

The preschool is staffed by a supervisor, teachers, aides and a cook. A parent advisory group helps formulate policies, plans special activities and publishes a parent newsletter. Contact the head teacher for more information.

Library

The library is a place to get help finding information through books, magazines, newspapers, videos, DVD's and computers. Electronic resources are available 24/7 and include: PrairieCat search engine, accessing 198 libraries across Iowa and Illinois, EBSCO, a database which reads and prints articles from 6000 magazines and journals, 285 newspapers and thousands of books. There is also a computer lab for student use.

Lounge

The Muscatine Community College lounge, featuring wireless Internet access, is a place to relax, watch TV, play pool or table tennis and enjoy time with friends. The lounge is open during all school hours and offers a food area for a quick lunch or snack between classes.

Internet

Internet access, including the World Wide Web, is available to students, staff and faculty at several campus computer lab locations. The college's web site includes an online credit class schedule database, general college information and links to other EICCD sites. The address is: www.eicc.edu

MUSCATINE COMMUNITY COLLEGE FOUNDATION

Founded in 1961 as a non-profit steward of gifts to the college, the Foundation strives to provide a "margin of excellence" in the college's programs and facilities. The Foundation supports educational programs, student and staff development, facilities improvement and alumni development, but the emphasis is on student scholarships and loans. More than \$280,000 is awarded annually to deserving Muscatine Community College students for tuition, fees and books. Scholarship applications are due April 1.

**For more information, write:
Muscatine Community
College Foundation,
Billie DeKeyrel,
scholarship coordinator,
152 Colorado Street,
Muscatine, IA 52761.
(563)288-6003
bdekeyrel@eicc.edu**

THE COMMUNITY

Scott Community College has campuses in Bettendorf and Davenport, Iowa. These two cities make up a major portion of a metropolitan area called the "Quad Cities." The Quad Cities, comprised of towns located on the Iowa and Illinois banks of the Mississippi, is home to several major industries including Alcoa, Inc. (Aluminum Company of America) and Deere & Company. Another major employer is the Rock Island Arsenal.

The area has many parks, and the Mississippi River offers ideal recreational opportunities. A rich cultural environment has been created through the Quad City Symphony, Visiting Artist Series, Figge Art Museum, Putnam Museum of Natural History and the Family Museum of Arts and Science. Each July, Davenport is host to thousands of runners and music enthusiasts who come from all over the United States and the world to participate in the annual Bix Beiderbeck Jazz Festival and the Bix 7 mile run. The area is home to the John Deere Golf Classic PGA Tournament, Class A Quad Cities River Bandits baseball team, the AHL Quad City Flames hockey team, and the Arena Football League 2 Quad City Steamwheelers.

THE COLLEGE

Scott Community College has grown from 240 students in 1966 to more than 6,300 students. The campus was built in 1968 on 181 acres of land donated by Alcoa, Inc. The main campus is in Bettendorf. In downtown Davenport is the Kahl Educational Center, which houses the community college's business programs and graduate-level courses through the Quad Cities Graduate Center, and also features the historic Capitol Theatre. Also downtown are the Career Assistance Center, where English as a Second Language, Adult Basic Education and GED preparatory courses are taught; and the Urban Center, which houses the district's administrative offices and short-term training labs. In August 2001, the John T. Blong Technology Center in northwest Davenport opened its doors, providing a state-of-the-art training facility for short-term, certificate, diploma and degree programs in manufacturing-related areas.

Scott Community College serves approximately 6,300 students in college transfer and career technology programs, and another 30,000 people in continuing education each year. The college also enrolls a number of international students who come to participate in credit English as a Second Language courses or international exchange programs.

STUDENT PROGRAMS

Student Government

All students are eligible to be elected or appointed to the Student Government. The group allocates student activities funds, assists with campus improvements and acts as a student voice on policies and issues.

Clubs and Organizations

Students are invited to join the many clubs and organizations at Scott Community College. More information is available in the Student Life Center.

Phi Theta Kappa

Phi Theta Kappa is a national honorary scholastic organization for community, junior and technical college students. Students invited to join must have accumulated 12 credit hours and have a 3.5 or better G.P.A.

Honors Program

Scott Community College has an Honors program for qualifying students. The program consists of meetings, activities and projects to be completed for credit. Students in Arts and Sciences or Applied Technologies programs are invited to participate.

Athletics

Students can participate in these intercollegiate sports at Scott Community College: women's soccer, men's soccer, women's golf and men's golf. More information is available in the Campus Activities Office.

STUDENT SERVICES

Disability Accommodations

Scott Community College is committed to making its services, programs and activities accessible to students with disabilities. A Learning Skills Specialist provides assistance in the form of accommodations such as note-taking assistance, readers, test accommodations, computer-assistive technology, text taping resources, adaptive equipment and sign language interpreters. Appropriate accommodations are identified on an individual basis. It is the student's responsibility to self identify and to provide documentation of their disability. Persons with disabilities are encouraged to complete this first step as early as possible before the start of the semester by calling 563-441-4027.

Housing

A list of community housing is available from the office of the Dean of Student Development.

Guidance

Student Services staff can help students with educational, personal and career-related concerns. SIGI PLUS, a computerized career guidance system, and other career guidance inventories are available by appointment; staff members are available to help students use these resources. The staff is committed to student success and can help set realistic academic and personal goals. For more information, call 441-4010 or go to room 2204.

Advising

Faculty and professional staff advise students on appropriate courses for their educational programs. Contact the Student Services Offices, room 2204, for more information.

Student Success

Scott Community College offers classes designed to help students learn time management and study skills and to achieve their maximum potential. We strongly encourage students to take either SDV:114 "Strategies for Academic Success" or SDV:108 "The College Experience" which address these issues in-depth. Check the class schedule or ask your adviser for more information.

Additionally, Scott Community College provides tutoring assistance for a variety of courses, at no cost to students, through a Writing Center, a Math Center and a Student Success Center. Students may access NovaNet at the Student Success Center to further develop their reading, writing and math skills.

TRIO Student Support Services, a federally funded program, offers intensive academic support services to students with the goals of earning an associate degree and transferring to a four-year school. To participate in the program, students must meet eligibility requirements, such as being first generation college students, having limited income and/or being disabled. Services provided to students include academic advising, coaching in study and learning strategies, career exploration and decision-making, progress monitoring, one-on-one-tutoring with tutorial specialists, financial awards to

supplement the Pell Grant and visits to four-year schools. For more information or to apply to participate in this program, students may call 563-441-4074.

Career Planning/ Transfer Center

The Career Planning/Transfer Center (room 2312) maintains an occupational resources library including information on specific careers, resume development and job search techniques. The office periodically offers workshops in resume writing and interviewing skills, and also compiles on-campus and off-campus job listings. Students looking for employment should register for job placement services at the office.

Library Services

The SCC Library provides access to quality information sources in traditional and electronic formats that support the information needs of students, faculty and staff. A major component of the library staff's responsibilities is to help patrons learn how to use these resources. Through SCC's participation in QuadLINC, library patrons have access to 2.5 million items available in the greater Quad City area academic and public libraries and to over 61 million items from outside our local area. The library web site is www.eicc.edu/library and the phone number is 563-441-4150.

Events Publications

Calendars are published monthly by the Campus Activities Office. Forms for activity approval and publication are available in the Student Life Center.

Class Schedules

Summer, fall and spring semester schedules are available on campus soon after mid-term and prior to the college's scheduled Advising Day for current students. Contact the Admissions Office or the Registration Center for more information.

College Bookstore

Textbooks and course materials are available in the college bookstore, along with a variety of Scott Community College items, including sweatshirts, t-shirts, shorts, etc. Students can buy their books online through the bookstore's web site at www.eicc.edu/bookstore

Internet

Internet access, including the World Wide Web, is available to students, staff and faculty at several campus computer lab locations. The college's website includes an online credit class schedule database, general college information and links to other EICCD sites. The address is: www.eicc.edu

SCOTT COMMUNITY COLLEGE FOUNDATION

The Scott Community College Foundation is an important link in the life of the college. Through gifts from faculty, staff, alumni, organizations and friends, the Foundation is able to provide scholarships, emergency grants and classroom equipment to assist students with their studies. The Foundation also supports faculty and staff through the Distinguished Teacher and Outstanding Staff Awards.

The Scott Community College Foundation is committed to supporting the college with the development of its programs and services. This commitment is best demonstrated by the college's faculty and staff who have contributed more than \$175,000 to support the Foundation's projects and the community that has made it possible to remodel a downtown landmark building into the multi-million dollar Kahl Educational Center.

For more information, contact the Foundation office at 563-441-4063.

CONTINUING EDUCATION

Eastern Iowa Community College District's Continuing Education division offers a wide array of personal and professional lifelong learning opportunities. Our training professionals develop and implement programs at the three colleges, community sites and workplaces for more than 55,000 people each year.

EICCD Continuing Education also plays an active role in economic development by responding to employer needs and developing customized training and retraining opportunities. The colleges are pleased to design courses or workshops for groups or businesses interested in a particular subject.

For more information about the programs and services available through Continuing Education, call Iowa toll-free 1-888-336-3907 or one of the numbers below:

Continuing Education District Office
563-336-3444

Clinton Community College
563-244-7100

Muscatine Community College
563-288-6100

Scott Community College
563-441-4100

Business and Industry Center

Davenport	563-441-4360
Clinton	563-244-7020
Muscatine	563-288-6162
Small Business Development Center	563-336-3401

COSTS

Continuing education tuition and fees are determined for each activity to assure quality programs at the lowest possible cost to the participants. Program fees are published with each activity announcement. Fees must be paid in full at the time of registration and will be refunded if notification of cancellation is received seven calendar days prior to the scheduled class date. Employers may contact the college to arrange billing for employee training.

ADMISSION

Although there may be specific admission requirements for a few programs, generally anyone 16 years of age or older who is not enrolled as a full-time high school student may enroll in classes designed for adults. High school students 16 or older may enroll with written permission from their guidance counselor or principal. For those special classes designed for youth, age is not a consideration for enrollment.

Because admissions procedures differ by program, consult the college Continuing Education Office for specific information.

REGISTRATION

Advanced registration is taken for all classes. You may enroll by phone, fax or mail. Registration phone and fax numbers and a registration form are included in Continuing Education class schedules.

Cancelled Classes

Classes without sufficient registration may be cancelled, in which case we will refund fees already collected.

Late Enrollment

You may not enroll in a continuing education class after the second class meeting or after the second week of classes for those activities that meet more than once a week.

Class Limits

Class limits help us ensure quality instruction. We will keep a waiting list with individuals listed in order of the date of their contact with the college, and this list will be used to fill classes after the first meeting. If pre-registration is sufficient and an instructor is available, a second class may be organized.

ACCREDITATION AND MEMBERSHIPS

Eastern Iowa Community College District Continuing Education programs are accredited, certified and approved when necessary to meet appropriate agency and licensure requirements within the respective professional disciplines. Additionally, the District holds memberships in several organizations including the American Society for Training and Development (ASTD), the National Council of Continuing Education and Training (NCCET), the Iowa Association of Lifelong Learning (IALL), the National Coalition of Advanced Technology Centers (NCATC), and the National Council for Workforce Education (NCWE).

PROGRAMS

Professional Development

The Continuing Education staff designs, develops and delivers education and training programs, with the primary focus on short-term, flexible skill training. Content areas include:

Microcomputers - Novice to advanced classes in Windows, Word, Excel, Access, PowerPoint, Internet and many others. Enrollments are limited to enable everyone to have hands-on training. We also offer a series of online classes.

Management and Supervision - Programs include Frontline Leadership/Leadership 2000 from AchieveGlobal, the Vital Learning Supervision Series, as well as online management courses.

Professional Relicensure/Certification -

Professional continuing education is available to those professionals requiring Continuing Education Units (CEUs). EICCD Continuing Education offers CEUs in a myriad of areas, including but not limited to dietitians, nurses, emergency medical service personnel, counselors, social workers, child care providers, morticians, real estate professionals, insurance personnel and many more.

Sales Training - highly interactive basic and advanced sales programs for people entering the sales profession and for those wanting to polish their selling skills.

Technical Training - Emphasis is on new skill development and/or retraining. The district's two advanced manufacturing technology centers - in Davenport and Muscatine - provide state-of-the-art, hands-on training in such areas as welding, statistical process control, robotics, basic and advanced electricity, boiler operations, air conditioning, programmable logic control, basic and advanced CNC, industrial math and measurement, and hazardous materials/industrial safety. Individualized classes are available, offering learning at a flexible and convenient pace.

Customized Training

EICCD's Continuing Education division works with companies of all sizes to deliver training specifically designed to meet their individual educational needs. Training can be offered at the college or on-site at the employer's facility. Customized training is available in many areas, including computers, business, sales and marketing, administration, management and supervision, industrial and technical fields, quality and productivity, lean business practices, and environmental and industrial safety. Online classes are also available.

Short-Term Skills Training

We offer short-term training in preparation for various occupations, including Nurse Aide, Homemaker/Home Health Aide, Medication Manager, Activity Director, Child Development Associate, institutional food service and many more.

ABE/HSC/ESL

At no cost, Adult Basic Education (ABE) provides programs and learning experiences in reading, writing, math and other basic skills. Regardless of level, small classes and personalized attention let you progress at your own rate to meet your goals.

The High School Completion (HSC) program prepares individuals to pass the General Education Development Test (GED) and serves as a brush-up prior to entering college or the job market. Regular high school credit classes are also available in selected school districts.

English as a Second Language (ESL) is a program to help refugees and immigrants with limited English skills learn to live and function in the United States.

ACT Center

Our ACT Center makes available more than 3,500 online courses to meet individual learning needs. The Center is located at the John T. Blong Technology Center in northwest Davenport.

General Interest

General interest courses and activities provide the opportunity to explore subjects that enhance quality of life. Topic areas include community resource development, environmental education and leisure time activities.

Mandatory Programs

The State of Iowa requires EICCD to offer certain courses they deem in the best interest of citizenry. Some are court mandated or court referred and may be offered in conjunction with other public service entities.

Satellite Conferences

An interactive, instructional resource, satellite conferencing allows the District to downlink national and international video teleconferences and bring hundreds of programs on a variety of technical and managerial topics to our communities.

Continuing Education Unit (CEU)

Approved Continuing Education programs offer classes to prepare for and maintain license or certification in professional areas. Classes are approved by appropriate governing agencies and transcripts are maintained. Some areas approved include health, emergency medical services, insurance, real estate, cosmetology and food services.

CEUs will be made available for selected courses in accordance with the guidelines established by the licensing board for the specific profession.

BUSINESS AND INDUSTRY CENTER

Established by EICCD in 1987, the Business and Industry Center provides companies with a one-stop shop for the colleges' programs and services. The Business and Industry Center offers expert assessment of training needs and delivers a customized, hands-on, state-of-the-art program tailored to an organization's unique needs. Both non-credit and credit programs in a variety of fields are available, in addition to on-site training and flexible scheduling to make efficient use of equipment and employees' time.

The Business and Industry Center offices are located at Clinton and Muscatine Community Colleges and at the John T. Blong Technology Center in northwest Davenport.

Small Business Development Center

The Small Business Development Center (SBDC) provides confidential counseling for owners and would-be owners of small businesses in a wide range of areas, including how to start a business, accounting and record-keeping, seeking financing, marketing and advertising, organization and management, computers and software, and any other areas appropriate for small business needs.

The SBDC is jointly sponsored by EICCD, the State of Iowa and the U.S. Small Business Administration. There are 16 centers throughout Iowa.

CONTINUING EDUCATION

ECONOMIC DEVELOPMENT

EICCD's economic development department provides a wide variety of assistance to business and industry throughout the eastern Iowa region. The Iowa New Jobs Training Program and the Iowa Jobs Training Program have provided training incentives to almost 300 area companies and more than 30,000 employees have participated in the training.

The Iowa Waste Reduction Center is a partnership program between EICCD, the Iowa Department of Economic Development and the Iowa Department of Natural Resources. The local representative of the program is located at EICCD and assists companies in reducing their waste stream by finding other companies that can use these wastes in their manufacturing processes.

The Graphic Arts Training and Consulting Group has developed a national reputation for providing expert training and consulting services to printing firms throughout the Midwest. The training professionals each have expertise in certain areas of the graphic arts process and deliver customized training programs at company locations.

Eastern Iowa Career Link Essentials is a partnership of EICCD and leading area manufacturers to deliver a pre-employment training program to meet the needs of partner companies to create a pool of trained applicants for their workforce needs. This 56-hour program is delivered over a four-week time period in the evenings.

Eastern Iowa Job Training

The Eastern Iow@Work offices, in partnership with the Iowa Workforce Development Centers, are administered by the Eastern Iowa Community College District. The program was designed by Congress as a cooperative venture between business and government to offer training to help people enter or re-enter the workforce. Eastern Iow@Work also helps businesses with the costs of hiring and training new employees. Services are available to residents and businesses in Clinton, Jackson, Muscatine and Scott Counties.

For more information:

Clinton County Workforce Development - 563-243-9060

Jackson County Workforce Development - 563-652-5000

Muscatine County Workforce Development - 563-262-8050

Scott County Workforce Development - 563-336-3499

FUEL your mind.



Arts & Sciences

CLINTON ♦ MUSCATINE ♦ SCOTT
COMMUNITY COLLEGES
EASTERN IOWA COMMUNITY COLLEGE DISTRICT

ARTS AND SCIENCES CONCENTRATION AREAS

Arts and Sciences Concentration Areas	Award	College(s)
Agriculture	.AA Degree	.MCC
Aviation	.AA Degree	.CCC,MCC,SCC
Banking	.AA Degree	.CCC,MCC,SCC
Biology	.AA/AS Degree	.CCC,MCC,SCC
Business Administration/Accounting	.AA Degree	.CCC,MCC,SCC
Chemistry	.AA/AS Degree	.CCC,MCC,SCC
Computer Science-Business	.AA/AS Degree	.CCC,MCC,SCC
Computer Science-Scientific	.AA/AS Degree	.CCC,MCC,SCC
Conservation	.AA/AS Degree	.MCC
Criminal Justice	.AA Degree	.CCC,SCC
Education	.AA Degree	.CCC,MCC,SCC
English	.AA Degree	.CCC,MCC,SCC
Fine Arts-Art	.AA Degree	.CCC,MCC,SCC
Fine Arts-Drama	.AA Degree	.MCC
Fine Arts-Music	.AA Degree	.MCC
Health Services Administration	.AA Degree	.MCC,SCC
History	.AA Degree	.CCC,MCC,SCC
Journalism/Communication	.AA Degree	.CCC,MCC
Liberal Arts	.AA Degree	.CCC,MCC,SCC
Management and Supervision	.AA Degree, Certificate	.CCC,MCC,SCC
Marketing/Sales/Retailing	.AA Degree, Certificate	.CCC,MCC,SCC
Mathematics	.AA/AS Degree	.CCC,MCC,SCC
Physical Education/Recreation	.AA Degree	.CCC,MCC,SCC
Physics	.AA/AS Degree	.CCC,MCC,SCC
Political Science	.AA Degree	.CCC,MCC,SCC
Pre-Chiropractic	.AA/AS Degree	.CCC,MCC,SCC
Pre-Engineering	.AA/AS Degree	.CCC,MCC,SCC
Pre-Health Professional	.AA/AS Degree	.CCC,MCC,SCC
Pre-Bachelor of Science in Nursing	.AA/AS Degree	.CCC,MCC,SCC
Pre-Dentistry	.AA/AS Degree	.CCC,MCC,SCC
Pre-Dental Hygiene	.AA/AS Degree	.CCC,MCC,SCC
Pre-Medical Technology	.AA/AS Degree	.CCC,MCC,SCC
Pre-Medical	.AA/AS Degree	.CCC,MCC,SCC
Pre-Mortuary Science	.AA/AS Degree	.CCC,MCC,SCC
Pre-Nursing-Trinity	.AA Degree	.CCC,MCC,SCC
Pre-Pharmacy	.AA/AS Degree	.CCC,MCC,SCC
Pre-Physical Therapy	.AA/AS Degree	.CCC,MCC,SCC
Pre-Veterinary	.AA/AS Degree	.CCC,MCC,SCC
Pre-Law	.AA Degree	.CCC,MCC,SCC
Psychology	.AA Degree	.CCC,MCC,SCC
Small Business Management	.Certificate	.MCC,SCC
Sociology	.AA Degree	.CCC,MCC,SCC
Social Work	.AA Degree	.CCC,MCC,SCC
Speech	.AA Degree	.CCC,MCC

Note: If your area of interest is not listed in the Concentration Areas, the Liberal Arts Concentration Area provides a solid foundation for successful transfer to four-year educational institutions. If you are undecided about a program of study, an academic advisor or counselor can assist you in your decision.

Study Abroad

Clinton, Muscatine and Scott Community Colleges offer a number of opportunities for study abroad, through a variety of consortia. Credit may be given toward a Liberal Arts degree and may be transferred to other colleges and universities. Students should inquire about current study abroad opportunities at each college's academic advising office.

GENERAL EDUCATION REQUIREMENTS

Clinton, Muscatine & Scott Community Colleges

A.A./A.S.

All students pursuing an A.A. or A.S. degree must fulfill general education requirements as outlined on page 9. The courses that will fulfill these requirements are listed below.

Communications (9 credits required)

	Credits
Select one of these courses:	
ENG:111 Technical Writing	3
ENG:105 Composition I	3
Select one of these courses:	
ENG:106 Composition II	3
ENG:108 Composition II: Technical Writing	3
Select one of these courses:	
SPC:112 Public Speaking	3
SPC:170 Professional Communication	3

Arts and Humanities (9 credits required)

Select one Literature course:	
LIT:101 Introduction to Literature	3
LIT:183 Masterpieces: Neoclassical to Modern	3
LIT:111 American Literature Since Mid-1800's	3
LIT:185 Contemporary Literature	3
Select one Humanities course:	
DRA:110* Introduction to Film	3
HUM:110 Changes and Choices	3
HUM:183 Living with Space, Time and Technology	3
PHI:101 Introduction to Philosophy	3
PHI:110 Introduction to Logic	3
REL:101 Survey of World Religions	3
PHI:105 Introduction to Ethics	3
Select one course in the Fine Arts:	
ART:101 Art Appreciation	3
DRA:101 Introduction to Theatre	3
DRA:110* Introduction to Film	3
DRA:105 History of the Theatre	3
HUM:135 Humanities of the Early World	3
HUM:136 Humanities of the Renaissance	3
HUM:137 Humanities of the Modern Age	3
MUS:100 Music Appreciation	3

*DRA:110 may be counted as either Humanities or Fine Arts, but not both.

Cultural/Historical Perspectives (6 credits required)

Select one course from the Western perspective:

HIS:151 United States History to 1877	3
HIS:152 United States History After 1877	3
HIS:112 Western Civilization: Ancient to Early Modern	4
HIS:113 Western Civilization: Early Modern to Present Day	4
HIS:117 Western Civilization: Ancient and Medieval	3
HIS:118 Western Civilization II: Early Modern	3
HIS:119 Western Civilization III: The Modern Period	3

Select one course from an International perspective or language:

ANT:105 Cultural Anthropology	3
XX:XXX One Semester of an International Language	3/4
GEO:121 World Regional Geography	3
HIS:211 Modern Asia	3
HIS:231 Contemporary World Affairs	3
CLS:150 Latin American Culture and Values	3
CLS:120 Non-Western Culture and Values	3
GSL:100 Contemporary World Issues	3
GSL:150 East Asia: People, Society and Culture	3

Social Sciences (6 credits required)

Select one Economics or Political Science course:

ECN:120 Introduction to Macroeconomics	3
ECN:130 Introduction to Microeconomics	3
POL:111 American National Government	3

Select one Psychology or Sociology course:

PSY:111 Introduction to Psychology	3
SOC:110 Introduction to Sociology	3

Note: Requirements continue on next page

GENERAL EDUCATION REQUIREMENTS

Clinton, Muscatine & Scott Community Colleges

A.A./A.S.

Natural Sciences (8 credits required)***

Select one course in the Life Sciences:

BIO:105	Introductory Biology	4
BIO:114	General Biology IA	4
BIO:163	Essentials of Anatomy and Physiology	4
BIO:157	Human Biology	4
BIO:168	Human Anatomy and Physiology I	4
BIO:131	Animal Biology	5
BIO:125	Plant Biology	4
ENV:111*	Environmental Science	4
ENV:145	Conservation Biology	4

Select one course in the Physical Sciences:

CHM:122	Introduction to General Chemistry	4
CHM:165/166	General Chemistry I	4-5
CHM:179	Principles of General Chemistry	6
PHY:110	Survey of Physics I	4
PHY:162	College Physics I	4
PHY:212	Classical Physics I	5
PHS:120	Exploring Physical Science	4
PHS:152	Astronomy	4
PHS:172	Physical Geology	4
PHS:166	Meteorology: Weather and Climate	4
ENV:111*	Environmental Science	4
ENV:139	Energy and the Environment	4

*ENV:111 may be counted as either Life Sciences or Physical Sciences, but not both.

Mathematics (3 credits required)***

MAT:110	Math for Liberal Arts	3
MAT:121	College Algebra	4
MAT:128	PreCalculus	4
MAT:210	Calculus	4
MAT:156	Statistics	3

Computer Skills (3 credits or demonstrated proficiency required)

CIS:110	Introduction to Computers	3
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Electives (19 credits required)

Students may choose electives according to their needs and interests and the requirements of their intended transfer colleges. While electives generally are chosen from any Arts and Science course numbered above 100, a maximum of 16 credit hours will be applied toward an A.A. or A.S.

*** The Associate in Science degree requires nine additional credits of designated math, engineering and science courses in addition to the A.A. requirements in math and science; these credits will reduce the number of elective credits required for graduation to 62.

Concentration Electives

To complete an Associate Degree within a specific concentration, choose electives from at or above the 100 level courses in one of the following areas: Agriculture; Aviation; Banking; Biology; Business; Chemistry; Computer Science; Conservation; Criminal Justice; Education; Engineering; English; Fine Arts - Art, Drama and Music; Health Services Administration; History; Journalism; Management and Supervision; Marketing/Sales/Retailing; Mathematics; Physical Education/Recreation; Physics; Political Science; Pre-Chiropractic; Pre-Engineering; Pre-Health Professional; Pre-Law; Psychology; Social Work; Sociology; Speech.

Muscatine Community College

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
SPC:112 Public Speaking	3
Social Sciences:	
ECN:130 Principles of Microeconomics	3
Natural Sciences:	
BIO:114 General Biology IA	4
CHM:122 Introduction to General Chemistry	4
Mathematics:	
MAT:121 College Algebra	4

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Additional courses may be available; consult with the agriculture department for specific course selections.

Strongly Recommended Electives

AGA:351 Soil Science	1
AGA:881 Grain Science	1.25
AGA:285 Crop Protection	2.5
AGS:881 Feeds	1.25
AGS:120 Livestock Management	2
AGA:370 Crop Management	1.25
AGA:350 Fertilizers	1
AGS:400 Swine Production I	2
AGB:121 Futures and Options	1
AGS:410 Swine Production II	1
AGS:554 Beef Production	2
AGS:315 Principles of Animal Nutrition	2
AGS:180 Sheep Production	1
AGB:232 Livestock and Grain Marketing	2

AVIATION

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
SPC:112 Public Speaking	3
Social Sciences:	
ECN:130 Principles of Microeconomics	3
Natural Sciences:	
PHY:162 College Physics I	4
PHS:166 Meteorology, Weather and Climate	4
ENV:111 Environmental Science	4

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

AVI:130 Private Pilot Ground School	3
AVI:172 Private Pilot Flight Training	2
AVI:210 Instrument Ground School	2
AVI:235 Instrument Flight Training	2
AVI:260 Commercial Pilot Ground School	2
AVI:244 Commercial Pilot Flight Training	2
AVI:305 Advanced Rating Ground School	4
AVI:306 Advanced Rating Flight Training	1

BANKING

Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Social Sciences:	
ECN:120 Principles of Macroeconomics	3
ECN:130 Principles of Microeconomics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

ACC:142	Financial Accounting	3
ACC:146	Managerial Accounting	3
ACC:221	Cost Accounting	3
BUS:102	Introduction to Business	3
BUS:185	Business Law I	3
ECN:120	Principles of Macroeconomics	3
ECN:130	Principles of Microeconomics	3

BIOLOGY

Clinton, Muscatine & Scott Community Colleges

(A.A./A.S.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
BIO:114 General Biology IA	4
OR	
CHM:122 Introduction to General Chemistry	4
CHM:165/166 General Chemistry I	4-5
Mathematics:	
MAT:121 College Algebra	4

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. It is important to plan your course selection carefully with both an EICCD advisor and your intended transfer institution. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

BIO:115	General Biology IIA	4
BIO:125	Plant Botany	4
CHM:132	Introduction to Organic and Bio-Chemistry	4
CHM:175/176	General Chemistry II	4-5
MAT:128	PreCalculus	4
MAT:210	Calculus I	4
PHY:162	College Physics I	4
PHY:172	College Physics II	4
CHM:261/262	Organic Chemistry I	4-5
CHM:271/273	Organic Chemistry II	4-5

BUSINESS ADMINISTRATION/ACCOUNTING

Clinton, Muscatine & Scott Community Colleges

(A.A.)

***It is important to plan your course selection carefully with both an Eastern Iowa Community College District advisor and your intended transfer institution.**

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Mathematics:	
MAT:156* Statistics	3
Social Sciences:	
ECN:120* Principles of Macroeconomics	3
ECN:130* Principles of Microeconomics	3

* Consult with an academic advisor of your intended transfer institution for math requirement.

*Both economics classes are needed for entrance into transfer institutions' schools of business.

Concentration Electives

Business requirements vary depending on the transfer institution you select. It is important to plan your course selection carefully with both an EICCD advisor and your intended transfer institution. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

ACC:142	Financial Accounting	3
ACC:146	Managerial Accounting	3
ACC:221	Cost Accounting	3
BUS:102	Introduction to Business	3
BUS:210	Business Statistics	3
OR		
MAT:156	Statistics	3
BUS:185	Business Law I	3

CHEMISTRY

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
BIO:114 General Biology IA	4
CHM:165 General Chemistry I	4
Mathematics:	
MAT:210 Calculus I	4

Concentration Electives

To complete an Associate's Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

CHM:175/176	General Chemistry II	4-5
CHM:261/262	Organic Chemistry I	4-5
CHM:271/273	Organic Chemistry II	4-5
CIS:450	FORTTRAN Programming	2-3
PHY:212	Classical Physics I	5
PHY:222	Classical Physics II	5
MAT:216	Calculus II	4

COMPUTER SCIENCE - BUSINESS

Clinton, Muscatine & Scott Community Colleges

(A.A./A.S.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Mathematics:	
MAT:210 Calculus I	4
MAT:156 Statistics	3
Computer:	
CIS:110 Introduction to Computers	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

CIS:440	Computer Programming with BASIC	3
CIS:445	Computer Programming with PASCAL	3-4
CIS:803	Computer Projects in C++	1

COMPUTER SCIENCE - SCIENTIFIC

Clinton, Muscatine & Scott Community Colleges

(A.A./A.S.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Mathematics:	
MAT:210 Calculus I	4
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

CIS:440	Computer Programming with BASIC	3
CIS:445	Computer Programming with PASCAL	3-4
CIS:803	Computer Projects in C++	1

Muscatine Community College

(A.A./A.S.)

This program is especially designed to prepare the student either for transfer to a four-year college or university or for entry-level employment in the conservation field.

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
BIO:114 General Biology IA	4
Mathematics:	
MAT:121 College Algebra	4

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

BIO:115	General Biology IIA	4
BIO:921	Field Biology	1-4
BIO:136/139	Field Ecology	1-4
CNS:150	Conservation Occupations	1
CNS:105	Conservation	2
CNS:131	Wildlife Habitat Management	2
CNS:901	Wilderness Experience	2
CNS:132	Wildlife Management	2
CNS:137	Fisheries Management	2
ENV:115/111	Environmental Science	3-4

CRIMINAL JUSTICE

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:152 United States History After 1877	3
Social Sciences:	
POL:111 American National Government	3
SOC:110 Introduction to Sociology	3
Mathematics:	
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

CRJ:100	Introduction to Criminal Justice	3
CRJ:120	Introduction to Corrections	3
CRJ:118	Law Enforcement	3
CRJ:130	Criminal Law	3
CRJ:141	Criminal Investigation	3
CRJ:142	Criminalistics	3
CRJ:230	Evidence	3
CRJ:201	Juvenile Delinquency	3
CRJ:200	Criminology	3
CRJ:295	Contemporary Issues in Criminal Justice	3
SOC:115	Social Problems	3

EDUCATION

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
SPC:112 Public Speaking	3
Cultural/Historical Perspectives:	
HIS:151 United States History to 1877	3
OR	
HIS:152 United States History After 1877	3
Social Sciences:	
POL:111 American National Government	3
PSY:111 Introduction to Psychology	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives		
EDU:212	Educational Foundations	3
EDU:110	Exploring Teaching	3
PSY:121	Developmental Psychology	3
PSY:222	Child Psychology	3
PSY:224	Adolescence Psychology	3
PSY:281	Educational Psychology	3
HIS:113	Western Civilization: Early Modern to Present Day	4
OR		
HIS:119	Western Civilization III: The Modern Period	3
MAT:110	Math for Liberal Arts	3

ENGLISH

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
ENG:105 Composition I	3
ENG:106 Composition II	3
SPC:112 Public Speaking	3
Arts and Humanities:	
DRA:105 History of the Theatre	3
LIT:101 Introduction to Literature	3
PHI:101 Introduction to Philosophy	3
Cultural/Historical Perspectives:	
HIS:112 Western Civilization: Ancient to Early Modern	4
OR	
HIS:113 Western Civilization: Early Modern to Present Day	4
OR	
HIS:117 Western Civilization: Ancient and Medieval	3
OR	

HIS:118	Western Civilization II: Early Modern	3
OR		
HIS:119	Western Civilization III: The Modern Period	3

Computer Skills:		
CIS:110	Introduction to Computers	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives		
Choose a minimum of three courses		
ENG:221	Creative Writing	3
ENG:230	Creative Writing: Fiction	3
ENG:238	Creative Writing: Non-Fiction	3
LIT:183	Masterpieces: Neoclassical to Modern	3
LIT:111	American Literature Since Mid-1800's	3
LIT:185	Contemporary Literature	3
LIT:110	American Literature to Mid-1800's	3
LIT:182	Literary Classics: Ancient	3
LIT:200	Studies in Literary Form	3
LIT:220	Studies in Literary Theme	3
	Foreign Language	8

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Arts and Humanities:	
ART:101 Art Appreciation	3
PHI:101 Introduction to Philosophy	3
Cultural/Historical Perspectives:	
HIS:112 Western Civilization: Ancient to Early Modern	4
OR	
HIS:113 Western Civilization: Early Modern to Present Day	4
OR	
HIS:117 Western Civilization: Ancient and Medieval	3
OR	

HIS:118	Western Civilization II: Early Modern	3
	OR	
HIS:119	Western Civilization III: The Modern Period	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

ART:120	2-D Design	3
ART:133	Drawing	3
ART:143	Painting	3
ART:157	Printmaking	3
ART:163	Sculpture	3
ART:173	Ceramics	3
ART:203	Art History I	3
ART:204	Art History II	3

FINE ARTS - DRAMA

Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
SPC:112 Public Speaking	3
Arts and Humanities:	
PHI:101 Introduction to Philosophy	3
ART:101 Art Appreciation	3
DRA:101 Introduction to Theatre	3
OR	
DRA:105 History of the Theatre	3
Cultural/Historical Perspectives:	
HIS:112 Western Civilization: Ancient to Early Modern	4
OR	
HIS:113 Western Civilization: Early Modern to Present Day	4
CLS:120 Non-Western Culture and Values	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

DRA:161	Technical Theatre	2
DRA:130	Acting I	3
DRA:131/132	Acting II, III	2-3
DRA:136/137	Rehearsal and Performance	1-2
DRA:237	Acting Lessons	1
DRA:250	Directing	3
DRA:172/173	Theatre Practicum	1-2
SPC:122	Interpersonal Communication	3

FINE ARTS - MUSIC

Muscatine Community College

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Arts and Humanities:	
PHI:101 Introduction to Philosophy	3
MUS:100 Music Appreciation	3
Cultural/Historical Perspectives:	
HIS:112 Western Civilization: Ancient to Early Modern	4
OR	
HIS:113 Western Civilization: Early Modern to Present Day	4
CLS:120 Non-Western Culture and Values	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives		
MUS:115	Pop Singers	1
MUS:102	Music Fundamentals	3
MUS:122	Music Theory I	4
MUS:123	Music Theory II	4
MUS:222	Music Theory III	4
MUS:154	Chorus	1
MUS:165	Brass Ensemble/Jazz Combo	1
MUS:101	Applied Voice	1
MUS:147	Applied Instrumental	1
MUS:120	Applied Piano I	1

HEALTH SERVICES ADMINISTRATION

Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communication:	
ENG:105 Composition I	3
ENG:108 Composition II: Technical Writing	3
Arts and Humanities:	
PHI:105 Introduction to Ethics	3
Cultural/Historical Perspectives:	
ANT:105 Cultural Anthropology	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives		
ACC:146	Managerial Accounting	3
BUS:185	Business Law I	3
MGT:101	Principles of Management	3

This is a cooperative program with Kirkwood Community College and Mt. Mercy College. Students will take the majority of their course work at SCC or MCC; three additional classes will be taken via the ICN through Kirkwood Community College. Students will then transfer to Mt. Mercy College to pursue their Bachelor of Science degree.

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:151 United States History to 1877	3
Social Sciences:	
POL:111 American National Government	3
SOC:110 Introduction to Sociology	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

	Foreign Language	8
ECN:110	Introduction to Macroeconomics	3
HIS:152	United States History After 1877	3
HIS:112	Western Civilization: Ancient to Early Modern	4
HIS:113	Western Civilization: Early Modern to Present Day	4
HIS:117	Western Civilization: Ancient and Medieval	3
HIS:118	Western Civilization II: Early Modern	3
HIS:119	Western Civilization III: The Modern Period	3

JOURNALISM/COMMUNICATION

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
SPC:112 Public Speaking	3
Social Sciences:	
POL:111 American National Government	3
PSY:111 Introduction to Psychology	3
SOC:110 Introduction to Sociology	3
Computer:	
CIS:110 Introduction to Computers	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

COM:140	Introduction to Mass Media	3
JOU:120	Beginning Newswriting	3
JOU:123	Intermediate Newswriting	3
JOU:171	Introduction to Photography	3
JOU:129	News Processing	3
JOU:941	Practicum in Communication	1-3

LIBERAL ARTS

Clinton, Muscatine & Scott Community Colleges

(A.A.)

The Liberal Arts Concentration Area provides a solid foundation for successful transfer to four-year educational institutions. If you are undecided about a program of study, an academic advisor or counselor can assist you in your decision.

General Education Requirements

Choose from the General Education Curriculum listed below according to your goals and interests and the requirements of your intended transfer institution.

Communications (9 credits required)

Select one of these courses:

	Credits
ENG:111 Technical Writing	3
ENG:105 Composition I	3

Select one of these courses:

ENG:106 Composition II	3
ENG:108 Composition II: Technical Writing	3

Select one of these courses:

SPC:112 Public Speaking	3
SPC:170 Professional Communication	3

Arts and Humanities (9 credits required)

Select one Literature course:

LIT:101 Introduction to Literature	3
LIT:183 Masterpieces: Neoclassical to Modern	3
LIT:111 American Literature Since Mid-1800's	3
LIT:185 Contemporary Literature	3

Select one Humanities course:

DRA:110* Introduction to Film	3
HUM:110 Changes and Choices	3
HUM:183 Living with Space, Time and Technology	3
PHI:101 Introduction to Philosophy	3
PHI:110 Introduction to Logic	3
REL:101 Survey of World Religions	3
PHI:105 Introduction to Ethics	3

Select one course in the Fine Arts:

ART:101 Art Appreciation	3
DRA:101 Introduction to Theatre	3
DRA:110* Introduction to Film	3
DRA:105 History of the Theatre	3
HUM:135 Humanities of the Early World	3
HUM:136 Humanities of the Renaissance	3
HUM:137 Humanities of the Modern Age	3
MUS:100 Music Appreciation	3

*DRA:110 may be counted as either Humanities or Fine Arts, but not both.

Cultural/Historical Perspectives (6 credits required)

Select one course from the Western perspective:

HIS:151 United States History to 1877	3
HIS:152 United States History After 1877	3
HIS112 Western Civilization: Ancient to Early Modern	4
HIS:113 Western Civilization: Early Modern to Present Day	4
HIS:117 Western Civilization: Ancient and Medieval	3
HIS:118 Western Civilization II: Early Modern	3
HIS:119 Western Civilization III: The Modern Period	3

Select one course from an International perspective or language:

ANT:105 Cultural Anthropology	3
XX:XXX One Semester of an International Language	3/4
GEO:121 World Regional Geography	3
HIS:211 Modern Asia	3
HIS:231 Contemporary World Affairs	3
CLS:150 Latin American Culture and Values	3
CLS:120 Non-Western Culture and Values	3
GSL:100 Contemporary World Issues	3
GSL:150 East Asia: People, Society and Culture	3

Social Sciences (6 credits required)

Select one Economics or Political Science course:

ECN:120 Introduction to Macroeconomics	3
ECN:130 Introduction to Microeconomics	3
POL:111 American National Government	3

Select one Psychology or Sociology course:

PSY:111 Introduction to Psychology	3
SOC:110 Introduction to Sociology	3

Note: Requirements continue on next page

Natural Sciences (8 credits required)**Select one course in the Life Sciences:**

BIO:105	Introductory Biology	4
BIO:114	General Biology IA	4
BIO:163	Essentials of Anatomy and Physiology	4
BIO:157	Human Biology	4
BIO:168	Human Anatomy and Physiology I	4
BIO:131	Animal Biology	5
BIO:125	Plant Biology	4
ENV:111*	Environmental Science	4
ENV:145	Conservation Biology	4

Select one course in the Physical Sciences:

CHM:122	Introduction to General Chemistry	4
CHM:165/166	General Chemistry I	4-5
CHM:179	Principles of General Chemistry	6
PHY:110	Survey of Physics I	4
PHY:162	College Physics I	4
PHY:212	Classical Physics I	5
PHS:120	Exploring Physical Science	4
PHS:152	Astronomy	4
PHS:172	Physical Geology	4
PHS:166	Meteorology, Weather and Climate	4
ENV:111*	Environmental Science	4
ENV:139	Energy and the Environment	4

* ENV:111 may be counted as either Life Sciences or Physical Sciences, but not both.

Mathematics (3 credits required)***

MAT:110	Math for Liberal Arts	3
MAT:121	College Algebra	4
MAT:128	PreCalculus	4
MAT:210	Calculus	4-5
MAT:156	Statistics	3

Computer Skills (3 credits or demonstrated proficiency required)

CSC:110	Introduction to Computers	3
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Concentration Electives

To complete an Associate Degree with this concentration, choose electives from at or above the 100 level courses in the following areas: Agriculture; Aviation; Banking; Biology; Business; Chemistry; Computer Science; Conservation; Criminal Justice; Education; Engineering; English; Fine Arts - Art, Drama and Music; Health Services Administration; History; Journalism; Management and Supervision; Marketing/Sales/Retailing; Mathematics; Physical Education/Recreation; Physics; Political Science; Pre-Chiropractic; Pre-Engineering; Pre-Health Professional; Pre-Law; Psychology; Social Work; Sociology; Speech.

MANAGEMENT AND SUPERVISION

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

Social Sciences:

	Credits
ECN:120 Principles of Macroeconomics	3
ECN:130 Principles of Microeconomics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Strongly Recommended Electives

ACC:142	Financial Accounting	3
ACC:146	Managerial Accounting	3
ACC:221	Cost Accounting	3
BUS:102	Introduction to Business	3
BUS:185	Business Law I	3

MARKETING/SALES/RETAILING

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

Social Sciences:

	Credits
ECN:120 Principles of Macroeconomics	3
ECN:130 Principles of Microeconomics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Strongly Recommended Electives

ACC:142	Financial Accounting	3
ACC:146	Managerial Accounting	3
ACC:221	Cost Accounting	3
BUS:102	Introduction to Business	3
BUS:185	Business Law I	3

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
PHY:212 Classical Physics I	5
Mathematics:	
MAT:210 Calculus I	4
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives		
MAT:216	Calculus II	4
MAT:219	Calculus III	4
MAT:227	Differential Equations	4

PHYSICAL EDUCATION/RECREATION

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:151 United States History to1877	3
Social Sciences:	
POL:111 American National Government	3
PSY:111 Introduction to Psychology	3
Natural Sciences:	
BIO:168 Human Anatomy and Physiology I w/Lab	4

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives		
EDU:212	Educational Foundations	3
EDU:110	Exploring Teaching	3
PSY:281	Educational Psychology	3

PHYSICS

Clinton, Muscatine & Scott Community Colleges

(A.A./A.S.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
BIO:114 General Biology IA	4
PHY:212 Classical Physics I	5
Mathematics:	
MAT:210 Calculus I	4
Computer Skills:	
CIS:110 Introduction to Computers	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives	
CHM:165/166 General Chemistry I	4-5
CHM:175/176 General Chemistry II	4-5
MAT:216 Calculus II	4
MAT:219 Calculus III	4
PHY:222 Classical Physics II	5
Computer Programming Language Courses	
CIS:440 Computer Programming with BASIC	3
CIS:445 Computer Programming with PASCAL	3-4
CIS:167 Programming in C	3
CIS:450 FORTRAN Programming	2-3

POLITICAL SCIENCE

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:152 United States History to 1877	3
Social Sciences:	
POL:111 American National Government	3
SOC:110 Introduction to Sociology	3
Mathematics:	
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives	
HIS:151 United States History to 1877	3
POL:112 American State and Local Government	3
HIS:112 Western Civilization: Ancient to Early Modern	4
HIS:113 Western Civilization: Early Modern to Present Day	4
HIS:117 Western Civilization: Ancient and Medieval	3
HIS:118 Western Civilization II: Early Modern	3
HIS:119 Western Civilization III: The Modern Period	3
ECN:120 Principles of Macroeconomics	3
PSY:111 Introduction to Psychology	3

PRE-CHIROPRACTIC

Clinton, Muscatine & Scott Community Colleges

(A.A./A.S.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
BIO:114 General Biology IA	4
CHM:165/166 General Chemistry I	4-5
OR	
CHM:179 Principles of General Chemistry	6
Mathematics:	
MAT:121 College Algebra	4

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

BIO:163	Essentials of Anatomy and Physiology	4
BIO:168	Human Anatomy and Physiology I w/Lab	4
BIO:173	Human Anatomy and Physiology II w/Lab	4
CHM:175/176	General Chemistry II (if not CHM:179)	4-5
CHM:279	Principles of Organic Chemistry	6
OR		
CHM:261/263	Organic Chemistry I	4-5
AND		
CHM:271/273	Organic Chemistry II	4-5
BIO:255	Neuroanatomy	3
PHY:162	College Physics I	4
AND		
PHY:172	College Physics II	4
OR		
PHY:110	Survey of Physics I	3
AND		
PHY:111	Survey of Physics II	3

PRE-ENGINEERING

Clinton, Muscatine & Scott Community Colleges

(A.S.)

Concentration Electives

Engineering requirements vary considerably, depending on both the specialty and the transfer institution you select. Most programs have very little room for electives, so it is important to plan your course selection carefully in consultation with both an EICCD academic advisor and your intended transfer institution. The courses below have been recommended in conversations with Engineering Schools at the University of Iowa and Iowa State University.

FIRST SEMESTER

ENG:105	English Composition I	3
MAT:210	Calculus I	4
CHM:165/166	General Chemistry I w/Lab	4-5
EGR:295	Engineering Problems I	
OR		
	Other Engineering Elective	3
	Humanities/Social Science	<u>3</u>
		17-18

SECOND SEMESTER

ENG:106	English Composition II	3
MAT:216	Calculus II	4
	Humanities/Social Science Choice	3
	Engineering Elective	3
	Elective	<u>3</u>
		16

THIRD SEMESTER

SPC:112	Public Speaking	3
MAT:227	Differential Equations	4
PHY:212	Classical Physics I	5
	Humanities/Social Science	<u>3</u>
		15

FOURTH SEMESTER

MAT:219	Calculus III	4
PHY:222	Classical Physics II	5
EGR:180	Engineering Statics OR other Engineering Elective	3
	Humanities/Social Science Choice	<u>3</u>
		15

PRE-HEALTH PROFESSIONAL

Clinton, Muscatine & Scott Community Colleges

(A.A./A.S.)

(Pre-Bachelor of Science in Nursing, Pre-Dental Hygiene, Pre-Dentistry, Pre-Medical Technology, Pre-Medical, Pre-Mortuary Science, Pre-Pharmacy, Pre-Physical Therapy, Pre-Veterinary)

General Education Requirements

Choose from the General Education Requirements listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Natural Sciences:	
BIO:114 General Biology IA	4
CHM:165/166 General Chemistry I	4-5
Mathematics:	
MAT:121 College Algebra	4
OR	
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. It is important to plan your course selection carefully with both an Eastern Iowa Community College District advisor and your intended transfer institution. Your area of specialty will dictate which concentration electives you choose. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

BIO:115	General Biology IIA	4
BIO:151	Nutrition	3
BIO:168	Human Anatomy and Physiology I w/Lab	4
BIO:173	Human Anatomy and Physiology II w/Lab	4
CHM:175/176	General Chemistry II	4-5
CHM:261/263	Organic Chemistry I	4-5
CHM:271/273	Organic Chemistry II	4-5
BIO:186	Microbiology	4
MAT:156	Statistics	3
PHY:162	College Physics I	4
PHY:172	College Physics II	4

PRE-LAW

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:151 United States History to 1877	3
Social Sciences:	
POL:111 American National Government	3
SOC:110 Introduction to Sociology	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

ECN:120	Introduction to Macroeconomics	3
HIS:152	United States History to 1877	3
PSY:111	Introduction to Psychology	3
HIS:112	Western Civilization: Ancient to Early Modern	4
HIS:113	Western Civilization: Early Modern to Present Day	4
HIS:117	Western Civilization: Ancient and Medieval	3
HIS:118	Western Civilization II: Early Modern	3
HIS:119	Western Civilization III: The Modern Period	3

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Social Sciences:	
PSY:111 Introduction to Psychology	3
Natural Sciences:	
BIO:114 General Biology IA	
OR	
BIO:105 Introduction to Biology	4
Mathematics:	
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

PSY:121	Developmental Psychology	3
SOC:110	Introduction to Sociology	3
BIO:157	Human Biology	4
OR		
BIO:114	General Biology	4
Other Psychology or Sociology electives as recommended by advisors.		

SOCIAL WORK

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:112 Western Civilization: Ancient to Early Modern	4
HIS:117 Western Civilization: Ancient and Medieval	3
OR	
ANT:105 Cultural Anthropology	3
Social Sciences:	
POL:111 American National Government	3
SOC:110 Introduction to Sociology	3
Mathematics:	
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

ECN:120	Introduction to Macroeconomics	3
HIS:152	United States History After 1877	3
PSY:111	Introduction to Psychology	3
SOC:115	Social Problems	3
HIS:113	Western Civilization: Early Modern to Present Day	4
HIS:118	Western Civilization II: Early Modern	3
HIS:119	Western Civilization III: The Modern Period	3
SOC:160	Introduction to Social Work	3
SOC:140	Human Behavior in the Social Environment	3

SOCIOLOGY

Clinton, Muscatine & Scott Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Cultural/Historical Perspectives:	
HIS:112 Western Civilization: Ancient to Early Modern	4
HIS:117 Western Civilization I: Ancient and Medieval OR	3
ANT:105 Cultural Anthropology	3
Social Sciences:	
POL:111 American National Government	3
SOC:110 Introduction to Sociology	3
Mathematics:	
MAT:156 Statistics	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of Electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

ECN:120	Introduction to Macroeconomics	3
HIS:152	United States History After 1877	3
PSY:111	Introduction to Psychology	3
SOC:115	Social Problems	3
HIS:113	Western Civilization: Early Modern to Present Day	4
HIS:118	Western Civilization II: Early Modern	3
HIS:119	Western Civilization III: The Modern Period	3

SPEECH

Clinton & Muscatine Community Colleges

(A.A.)

General Education Requirements

Choose from the General Education Curriculum listed on pages 25-26 according to your goals and interests and the requirements of your intended transfer institution. The recommended General Education courses for this concentration include the following:

	Credits
Communications:	
SPC:112 Public Speaking	3
Arts and Humanities:	
PHI:101 Introduction to Philosophy OR	3
PHI:110 Introduction to Logic OR	3
REL:101 Survey of World Religions	3
Cultural/Historical Perspectives:	
CLS:150 Latin American History and Culture OR	3
GLS:150 East Asia: People, Society and Culture	3
Social Sciences:	
POL:111 American National Government	3

Concentration Electives

To complete an Associate Degree with this concentration, choose courses from the list of electives below for a minimum of 62 credit hours. Consult with an academic advisor to determine the best selection of courses.

Recommended Electives

DRA:101	Introduction to Theatre	3
SPC:122	Interpersonal Communication	3
SPC:114	Advanced Public Speaking	2
SPC:170	Professional Communication	3

ARTS & SCIENCES - COURSE DESCRIPTIONS

Arts & Sciences Course Descriptions

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This section is a common course bank for Clinton, Muscatine and Scott Community Colleges. Here is an example to help you understand the course description designations:

- 1) EGR: 2) 180
- 3) Statics 4) 3 cr.
- 5) A study of objects at rest or in uniform motion. Includes units, force vectors, equivalent force systems, rigid bodies, structural analysis, internal forces, friction, center of gravity, moments and products of inertia, and virtual work. Primarily for Pre-engineering students.
- 6) (59.4 Lec. Hrs.)
- 7) Prerequisite: MAT:210.
- 8) Co-requisite: MAT:216.

- 1) Academic area prefixes: Example: EGR and EGT are Engineering.
- 2) Course number:
 - a. If the number is below 100, the course is for internal college credit only. The course cannot be used for transfer credit or graduation credit.
- 3) Course title.
- 4) Number of credits the course is worth.
- 5) Description of the course content.
- 6) Designates the number of contact hours per semester spent in lecture (Lec. Hrs.) and/or laboratory setting (Lab Hrs.) or cooperative setting (Coop Hrs.).
- 7) **Prerequisites** are courses that must be successfully completed or other qualifications that must be met prior to enrolling in the listed course.
- 8) **Co-requisites** are courses that must be taken before or at the same time as the listed course.

Not all courses are available on all campuses each semester.

ACCOUNTING

ACC:142 Financial Accounting 3 cr.

An introduction to the use of accounting in the decision making process. Information will be presented with a bias toward user orientation as opposed to preparer orientation. Course competencies will be developed in the areas of identifying the role of accounting in society, basic accounting and business terminology, concepts behind financial information, accepted accounting practices, analysis and interpretation of financial statements of sole proprietorships and corporations. (59.4 Lec. Hrs.)

ACC:146 Managerial Accounting 3 cr.

A continuation of Financial Accounting, this course emphasizes financial statement analysis, including the reporting of cash flows, and managerial accounting as it relates to decision-making and to the manufacturing environment. This course serves as a foundation for other accounting courses for students planning careers in accounting, as well as providing for the needs for students in business administration. (59.4 Lec. Hrs.)

Prerequisite: ACC:142 or equivalent course.

ACC:311 Computer Accounting 3 cr.

Transfers manual accounting skills to a microcomputer operation. In addition to learning computer operation procedures, accounting units covered are the general ledger, special journals, vouchers, financial statement analysis, depreciation, inventory, payroll and Lotus 1-2-3. Simulations of business activities are processed through an entire accounting cycle and various reports are generated. Student will also learn to create an entire computerized accounting system. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ACC:142 or equivalent preferred.

ARTS & SCIENCES - COURSE DESCRIPTIONS

ACC:211 Intermediate Accounting I 3 cr.

The study of financial accounting theory and practices. Topics covered include financial statements, inventories, current assets and current liabilities. (59.4 Lec. Hrs.)

Prerequisite: ACC:146 or permission of the instructor.

ACC:221 Cost Accounting 3 cr.

A study of basic cost accounting concepts and product cost accumulation procedures emphasizing differences between job order, process and standard costing. Emphasis is placed on the managerial accounting activities of controlling costs, cost analysis and decision making. (59.4 Lec. Hrs.)

Prerequisite: ACC:146.

ACC:269 Taxation 3 cr.

Covers (1) taxable income, exclusions, inclusions, recognition of gain or loss, dividends; (2) deductions, expenses, interest, taxes, depreciation, depletion, losses; (3) filing returns; (4) social security, estate and gift taxes; and (5) state income tax. (59.4 Lec. Hrs.)

ANTHROPOLOGY

ANT:105 Cultural Anthropology 3 cr.

A comparative study of culture and social organization and the study of the effect and influence of language.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.

(59.4 Lec. Hrs.)

ANT:943 Readings in Anthropology 1-2 cr.

Provides the student with additional reading in anthropology, allowing the student to obtain a greater understanding in various problem areas in the discipline. The student has the opportunity to earn one or two credits. (39.6-79.2 Lab Hrs.)

ART

ART:101 Art Appreciation 3 cr.

Introduction to the world of paintings, sculpture and architecture. Emphasis is on the appreciation of well-known works of art in a variety of media. The artist and the creative process are explored. *This course satisfies a general education requirement in the Arts and Humanities Area.* (59.4 Lec. Hrs.)

ART:120 Basic 2D Design 3 cr.

An introduction to the principles and procedures which guide the way images and objects are created. Provides a valuable basis for other subsequent fine art studio pursuits as well as for those who wish to progress into commercial applications of graphic and product design. (39.6 Lec. Hrs./39.6 Lab Hrs.)

ART:123 Three-Dimensional Design 3 cr.

This course will develop skills in design and control of three-dimensional space. A variety of mediums will be used. (39.6 Lec. Hrs./79.2)

ART:133 Fundamentals of Drawing 3 cr.

An introductory drawing course investigating traditional drawing techniques and materials. This class focuses on the realistic depiction of observed forms and objects. Using basic drawing materials, students will concentrate on the construction of still life objects, landscape, and the human figure. Perspective, line, value and composition will be examined. (39.6 Lec. Hrs./39.6 Lab Hrs.)

ART:143 Painting 3 cr.

A study of artistic principles in the various major paint media. Includes the selection, preparation and use of various surfaces. Designed to stress proper selection, usage and maintenance of tools, brushes and palettes. Exercises teach the student the principles of art, good technical habits and special effects in the paint media. (59.4 Lec. Hrs./19.8 Lab Hrs.)

ART:157 Printmaking 3 cr.

Introductory printing course with emphasis in basic printmaking techniques and processes. Printing proficiency in wood block serigraph and/or intaglio prints will be pursued. Students will be expected to print a minimum of one hour per week outside the class. (59.4 Lec. Hrs.)

ART:158 Printmaking II 3 cr.

A course designed to provide the advanced art student opportunity to explore in greater depth the processes and techniques of traditional printmaking. The general goals of Printmaking II are: to generate the artistic vision and growth of each student as he/she discovers a uniquely personal mode of expression in the medium; strengthen the quality of his/her portfolio; enable the student to gain more self-esteem. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: ART:157.

ART:163 Sculpture 3 cr.

This studio course explores traditional and contemporary sculpture materials and processes. Emphasis is on both additive and subtractive methods of working. Goals include acquiring technical skills, understanding the physical and expressive possibilities of diverse materials, and learning safe, appropriate use of tools and materials. (39.6 Lec. Hrs./39.6 Lab Hrs.)

ART:173 Ceramics 3 cr.

Introductory ceramics course with emphasis on ceramics as a creative art. The student will work with the basic elements of forming, glazing and firing clay. Awareness of three-dimensional qualities and the effects of glaze, color and texture will be stressed. (39.6 Lec. Hrs./79.2 Lab Hrs.)

ART:203 Art History I 3 cr.

Investigates the visual arts from earliest prehistoric times through the Middle Ages and the thinking of the people responsible for creating the art. Emphasis in lecture and class discussion will focus on the world's visual creative development from the caves of France through the Middle Ages. (59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

ART:204 Art History II 3 cr.

Studies the significant works of art from the late Gothic period to the present and the thinking of the people responsible for creating the art. Emphasis in lecture and class discussion will focus on the world's visual creative development.
(59.4 Lec. Hrs.)

ART:134 Drawing II 3 cr.

Structured around concepts that emphasize perceptual drawing experience with the environment. Analysis of form, structure and functional/spatial relationships is achieved through two- and three-dimensional drawings. Extensive study of the human figure and organic forms.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ART:133 or equivalent.

ART:144 Painting II 3 cr.

Permits individual experiences with any of the various painting media. The student is encouraged to pursue independent painting problems in depth, as well as assigned research areas. An expanded, in-depth study of color theory problems is presented.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ART:143 or equivalent.

ART:174 Ceramics II 3 cr.

A continuation of the basic elements of forming, glazing and firing clay. Awareness of three-dimensional qualities and the effects of glaze, color and texture will be stressed.
(39.6 Lec.Hrs./79.2 Lab Hrs.)

Prerequisite: ART:173 or equivalent.

AVIATION

AVI:130 Private Pilot Ground School 3 cr.

A comprehensive study of the aeronautical subjects necessary to support flight training for the FAA examination for the Private Pilot Certificate. Subjects covered include FAA regulations; the rules of the National Transportation Safety Board pertaining to accident reporting; the use of pilotage, dead reckoning and radio aids; recognition of critical weather situations and the use of weather reports; and safe and efficient operations principles of airplanes.
(59.4 Lec. Hrs.)

Prerequisite: Second Class Physical.

Co-requisite: AVI:172

AVI:172 Private Pilot Flight Training 2 cr.

Dual and supervised solo flight instruction necessary to qualify for the FAA Private Pilot Certificate. Areas covered in flight training include preflight operations, flight maneuvering by reference to ground objects, flight at critically slow air speeds and recover from stalls, takeoffs and landings, control and maneuvering an aircraft, cross-country flying, night flying and emergency operation.
(79.2 Lab Hrs.)

Prerequisites: Second Class Physical; completion of or concurrent registration in AVI:130.

AVI:210 Instrument Ground School 2 cr.

A comprehensive study of the aeronautical subjects necessary for the FAA Instrument Pilot Examination. Subjects covered include FAA regulations related to IFR conditions; the IFR air traffic system and procedures; the provisions of the Airman's Information Manual pertinent to IFR flight; dead reckoning appropriate to IFR navigation; IFR navigation by radio aids using the VOR, ADF and ILS systems; the use of IFR charts and instrument approach procedures charts; the procurement and use of weather information; and the function, use and limitations of flight instruments.
(39.6 Lec. Hrs.)

Prerequisites: Second Class Physical; FAA Private Pilot Certification.

AVI:235 Instrument Flight Training 2 cr.

Instrument flight instruction necessary to qualify for the FAA Instrument Rating Exam. Areas covered include control and maneuvering of aircraft by reference to flight instruments; IFR navigation by the use of VOR and ADF systems; cross-country flying in IFR conditions; and emergency procedures appropriate to the maneuvering of an airplane solely by reference to flight instruments.
(79.2 Lab Hrs.)

Prerequisites: Second Class Physical; FAA Private Pilot Certification; completion of or concurrent registration in AVI:210.

AVI:260 Commercial Pilot Ground School 2 cr.

A comprehensive study of the aeronautical subjects necessary to qualify for the Commercial Pilot Certificate. Subjects covered include FAA regulations; basic aerodynamics; safety operations; high altitude operations and physiological considerations; loading computations; airplane performance speeds; runway and obstacle clearance; and cruise control.
(39.6 Lec. Hrs.)

Prerequisites: Second Class Physical; FAA Instrument Rating.

AVI:244 Commercial Pilot Flight Training 2 cr.

Dual and supervised solo flight instruction necessary to qualify for the FAA Commercial Pilot Certificate. Areas covered include flying an aircraft with retractable gear, flaps, controllable propeller and engine powered by at least 180 horsepower; night flying; take-offs and landings; and emergency procedures appropriate to VFR and IFR flight and the operation of complex airplane systems.
(79.2 Lab Hrs.)

Prerequisites: Second Class Physical; FAA Instrument Rating; completion of or concurrent registration in AVI:260.

AVI:305 Advanced Rating Ground School 4 cr.

A comprehensive study of the aeronautical subjects necessary for the FAA Certified Flight Instructor Examination. Subjects covered include FAA regulations; instructional management and teaching techniques; aerodynamics; aeromedical information; multi-engine rating; integrated method of flight instruction; flight training syllabus; flight training maneuvers and procedures; weather information; engine and flight instrument operation; and safety principles.
(79.2 Lec. Hrs.)

Prerequisites: Second Class Physical; FAA Commercial Pilot Certificate.

ARTS & SCIENCES - COURSE DESCRIPTIONS

AVI:306 Advanced Rating Flight Training 1 cr.

Flight instruction necessary to qualify for the FAA Certified Flight Instructor Examination and multi-engine rating. Areas covered include practice in the explanation, analysis and demonstration of flight procedures and maneuvers; multi-engine operations and in-flight application of teaching methods. (39.6 Lab. Hrs.)

Prerequisites: Second Class Physical; FAA Commercial Pilot certificate; completion of or concurrent registration in AVI:305.

BIOLOGY

BIO:105 Introductory Biology 4 cr.

An introduction to the science of biology. Topics include scientific method, ecology, basic chemistry, cells (structure, function, energy and reproduction), genetics, DNA applications, classification and characteristics of organisms, and evolution. This course is designed for students who are not majoring in biology or health-related fields. *This course satisfies a general education requirement in the Natural Sciences Area.*

This course is not intended to replace or substitute for BIO:114 or BIO:115. (59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:114 General Biology IA 4 cr.

Introduction to basic principles of biology. Topics include chemical applications in biology, cellular biology, bioenergetics, cell division and genetics. *This course satisfies a general education requirement in the Natural Sciences Area.* (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: RDG 032, MAT 041 and MAT 047. Recommended: Successful completion of CHM:122 or one year high school chemistry. (59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:115 General Biology IIA 4 cr.

Continuation of BIO:114. Topics include evolution, survey of organisms and ecology. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: BIO:114.

BIO:125 Plant Botany 4 cr.

An introduction to the study of plants, emphasizing structure, function, reproduction and diversity. Topics include basic plant anatomy and physiology and the evolution of plant diversity. *This course satisfies a general education requirement in the Natural Sciences Area.* (59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:133 Ecology 3 cr.

Introduction to ecological concepts: interdependence of organisms, the totality and patterns of relations between organisms and their environment. (59.4 Lec. Hrs.)

BIO:136-139 Field Ecology 1-4 cr.

A survey of the flora and fauna of various habitats including classification, life history data and ecology. Emphasis is on field observations and techniques useful in analysis of natural populations. (19.8-39.6 Lec. Hrs./0-79.2 Lab Hrs.)

BIO:151 Nutrition 3 cr.

Surveys the normal nutritional needs for all individuals. Emphasizes identifying the various essential nutrients and their functions. Diets and their components are discussed as well as food protection and preservation. American and international food patterns are discussed and evaluated. (59.4 Lec. Hrs.)

Prerequisite: BIO:114 or BIO:168 or permission of the instructor is strongly recommended.

BIO:157 Human Biology 4 cr.

Human Biology is an introductory course in biological science that focuses on the general concepts of life as demonstrated by the human body through its chemistry, organization and continuity. This course will introduce the structure and function of the human body. Students will study major systems of the human body - with applications to health, disease, genetics, nutrition and wellness. This course is not equivalent to or intended to replace BIO:114 or BIO:168.

This course satisfies a general education requirement in the Natural Sciences Area. (59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:163 Essentials of Anatomy and Physiology 4 cr.

A one-semester course covering the fundamentals of human anatomy and physiology. Units of study include cell chemistry and structure and systems of the body (integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, urinary, reproductive and sensory). This course is not equivalent to or intended to replace BIO:168 and/or BIO:173.

This course satisfies a general education requirement in the Natural Sciences Area. (59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:168 Human Anatomy and Physiology I with Lab 4 cr.

A study of the structure and function of the human body. This course is the first course of a two-semester sequence. The study begins at the cellular level and proceeds through selected organ systems. *This course satisfies a general education requirement in the Natural Sciences Area.* (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: BIO:114 or one year of high school biology within the last five years and CHM:110, 122, 165, 179 or one year of high school chemistry within the last five years.

BIO:173 Human Anatomy and Physiology II with Lab 4 cr.

The second course in a two-semester sequence. The content includes the completion of the study of the organ systems.

(59.4 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: BIO:168.

BIO:186 Microbiology 4 cr.

An in-depth examination of the microbial world with emphasis on bacterial structure, growth, genetics, metabolism, immune system and infectious diseases. Laboratory exercises will be directed toward learning the basic skills used by microbiologists. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: Successful completion of BIO:114 or BIO:168.

ARTS & SCIENCES - COURSE DESCRIPTIONS

BIO:255 Neuroanatomy 3 cr.

The gross anatomy of the brain and spinal cord will be discussed. Emphasis will be placed on clinical applications of the functional anatomy of the nervous system. Topics will include the structure and function of the sensory and motor pathways, basal ganglia, cranial nerves, ventricular system, vascular system and peripheral nervous system.

Prerequisites: BIO:168 and BIO:173.

BIO:280/281 Biology Projects 1-2 cr.

Study of special problems and research into a specific area of biology.
(39.6-79.2 Lab Hrs.)

Prerequisite: Consent of instructor.

BIO:282 Biology Projects II 1 cr.

A continuation of BIO:280/281.
(39.6 Lab Hrs.)

Prerequisite: Consent of instructor.

BIO:912 Current Topics 2 cr.

Provides a detailed study of areas of particular current interest: cloning of organisms, DNA transcription, ethology (animal behavior), space biology and new genetic strains. Topics vary with each offering.

(39.6 Lec. Hrs.)

BIO:921 Field Biology 1-4 cr.

Study of organismic interactions with biotic and abiotic components of the environment. Includes observation, collection, identification and preservation of local flora and fauna.

(19.8-59.4 Lec. Hrs./19.8-59.4 Lab Hrs.)

Prerequisite: BIO:114 or permission of the instructor is strongly recommended.

BUSINESS

BUS:102 Introduction to Business 3 cr.

Introduces the student to American contemporary business, its nature and environment. A survey course providing exposure to social responsibilities of business, management, production, human resources, marketing, finance, quantitative methods, world business and business law.

(59.4 Lec. Hrs.)

BUS:161 Human Relations 3 cr.

Provides a foundation of accepted personal and business behavior in professional working relationships. Personality characteristics with relation to fellow employees and business associates are an integral part of the course. Topics include motivation of individuals and groups, contribution to a desirable working atmosphere, adjustment to the job, stress management techniques and other areas of human relations.
(59.4 Lec. Hrs.)

BUS:180 Business Ethics 3 cr.

Study of ethical principles and the application of ethical principles to situations relevant to decision-making in the professional and business world.
(59.4 Lec. Hrs.)

BUS:185 Business Law I 3 cr.

Provides the student with a basic understanding of business law. Topics may include an introduction to the legal environment (including ethics, criminal tort and computer law); contracts; sales; employer/employee relations; consumer protection and product liability; property and wills.
(59.4 Lec. Hrs.)

BUS:186 Business Law II 3 cr.

Continuation of BUS:185. Topics may include personal property and bailments, criminal procedure, partnerships, authority of partners, duties, rights and remedies, corporations, real properties, estates and bankruptcy, labor and environmental law, landlord/tenant relationships and other selected topics.
(59.4 Lec. Hrs.)

Prerequisite: BUS:185.

BUS:210 Business Statistics 3 cr.

This course will provide a case study and problem-solving approach to the fundamentals of descriptive and inferential statistics. Students will be presented with practical problems which can only be solved by data sampling, data description and data analysis. This course also will expand the tools and techniques of statistical analysis that are applicable to the business environment.

(59.4 Lec. Hrs.)

Prerequisite: MAT:156.

CHEMISTRY

CHM:110 Introduction to Chemistry 3 cr.

Designed for the student with no high school chemistry background. A study of chemistry in our lives and chemical principles preparatory to CHM:122 or CHM:165/166. An introduction to the composition and properties of matter, bond types, acids and bases, pH and a description of the major branches of chemistry.

(59.4 Lec. Hrs.)

Prerequisite: MAT:041

CHM:122 Introduction to General Chemistry 4 cr.

The first course in a sequence of two basic chemistry courses. An elementary approach to chemical principles and laboratory practices. Emphasizes the nature of matter, bonding, nomenclature, equations, acids and bases and chemistry as applied to everyday life. Intended primarily to fulfill laboratory science requirements and to fulfill chemistry requirements for nursing, dental hygiene, and some home economics and agricultural programs.

This course satisfies a general education requirement in the Natural Sciences Area.
(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MAT:041 or ability to register for MAT:063.

CHM:132 Introductions to Organic and Biochemistry 4 cr.

A continuation of CHM:122. Study of aliphatic and aromatic compounds, their chemistry and uses in consumer products such as polymers, drugs and foods. Attention is also given to biologically important compounds: proteins, nucleic acids, carbohydrates and lipids and the chemistry of these molecules in the living organism.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CHM:122 or CHM:165/166 or permission of instructor.

ARTS & SCIENCES - COURSE DESCRIPTIONS

CHM:165/166 General Chemistry I 4-5 cr.

The first course in a sequence of two general chemistry courses for students in pre-med, pre-chiro, pre-vet, pre-dental, pre-pharmacy, pre-engineering, other physical or biological sciences, or liberal arts. Topics include calculation methods, stoichiometry, thermochemistry, gases, atomic structure and periodicity, solutions and chemical bonding. The five credit hour course also covers nuclear chemistry. *This course satisfies a general education requirement in the Natural Sciences Area.* (59.4-79.2 Lec. Hrs./39.6-59.4 Lab Hrs.)
Prerequisite: CHM:110 or CHM:122 or high school chemistry, and MAT:073 or two years of high school algebra or permission of instructor.

CHM:175/176 General Chemistry II 4-5 cr.

A continuation of CHM:165/166. Topics include kinetics, equilibrium, acid-base, thermochemistry, thermodynamics, electrochemistry and solubility equilibrium. The five credit hour course also covers organic chemistry, descriptive chemistry and qualitative analysis. These three topics as well as nuclear chemistry may be covered as enrichment topics (in the four credit hour course.) A project may be included in the 5-credit course. (59.4 Lec. Hrs./39.6-79.2 Lab Hrs.)
Prerequisite: CHM:165/166 or permission of instructor. MAT:121 is recommended.

CHM:179 Principles of General Chemistry 6 cr.

Presents the structure of the atom and how different elements combine, mathematical relationships involving chemical equations, chemical bonding, the gas laws, solutions, chemical equilibria, acid-base solutions, chemical kinetics, thermodynamics and electrochemistry.
This course satisfies a general education requirement in the Natural Sciences Area. (79.2 Lec. Hrs./79.2 Lab Hrs.)
Prerequisite: CHM:110 or CHM:121 or high school chemistry, and MAT:073 or two years of high school algebra or permission of instructor.

CHM:261/263 Organic Chemistry I 4-5 cr.

Study includes the classes of organic compounds: aliphatic hydrocarbons, (aromatic hydrocarbons) alcohols, and alkyl halides (phenols). Attention to methods of instrumental analysis including IR, NMR and mass spectrometry. A functional group approach with emphasis on nomenclature, structure and bonding, physical properties, basic synthetic reactions and mechanism. (59.4 Lec. Hrs./39.6-79.2 Lab Hrs.)
Prerequisite: CHM:175/176 or CHM:179 or permission of instructor.

CHM:271/273 Organic Chemistry II 4-5 cr.

A continuation of CHM:261/263. Covers topics on (alkyl halides) aromatic hydrocarbons, phenols, ketones and aldehydes, ethers, carboxylic acids, amines and other selected topics in biochemistry. (59.4 Lec. Hrs./39.6-79.2 Lab Hrs.)
Prerequisite: CHM:279 or CHM:261/263 or permission of instructor.

CHM:279 Principles of Organic Chemistry 6 cr.

A one-semester lecture and laboratory course organized by a functional group approach. Nomenclature, structure, reactions and mechanisms of several functional groups are covered. The groups covered include aliphatic, aromatic hydrocarbons, alcohols, phenols, ethers, halogen derivatives, aldehydes, ketones, carboxylic acids and amines. (79.2 Lec. Hrs./79.2 Lab Hrs.)
Prerequisite: CHM:175/176 or CHM:179 or permission of instructor.

CHM:280 Quantitative Analysis 4 cr.

Study of the theory and practice of gravimetric and volumetric analysis and evaluation of results. Laboratory work stresses use of common instruments and techniques in analyzing laboratory samples. (39.6 Lec. Hrs./79.2 Lab Hrs.)
Prerequisites: CHM:165/166 and CHM:175/176.

CHM:281-282 Chemistry Projects 1-2 cr.

An individual chemical project, laboratory-oriented, with a written report required at end of semester unless taken as a year-long project. May be used to supplement CHM:165/166 or CHM:261/263. (39.6-79.2 Lab Hrs.)

CHM:291 Biochemistry 3 cr.

Involves the study of proteins, enzymes, metabolic pathways, lipids, genetic replication and a look at viruses. (39.6 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: CHM:271/273 or permission of instructor.

COMMUNICATIONS

COM:102 Communication Skills 3 cr.

The purpose of this course is to prepare the student to communicate effectively in business and professional situations. The major emphasis is on improving interpersonal skills, on using standard English in writing and speaking, on gaining proficiency in listening, and on composing specific types of business communications. (59.4 Lec. Hrs.)
Prerequisite: Appropriate placement based on assessment or successful completion of or ENG:013.

COM:140 Introduction to Mass Media 3 cr.

Introductory course examining the history, evolution and relationships of the media in and the effects on our society. Course includes both the print and electronic media as well as ethics, advertising and public relations. Recommended for students majoring in communication, journalism or U.S. culture. (59.4 Lec. Hrs.)

COM:142 Writing for Media 3 cr.

This course addresses the variety of writing styles used in the media. Through regular assignments students will compare, contrast, and practice the writing styles of print journalism, advertising copy, public relations, and broadcast copy. The circumstances for the use of objective and subjective voice will be emphasized. (59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

COMPUTER SCIENCE

CSC:110 Introduction to Computers 3 cr.

An introduction to computers including operating systems, word processing, spreadsheets/worksheets, database, presentation programs, email, the internet and certain related computer concepts. It will include student computer projects. This course satisfies the general education requirement for computer literacy. (39.6 Lec. Hrs./39.6 Lab Hrs.)

CIS:130 Computer Programming 3 cr.

Students will learn microcomputer operations and programming. Introduces the BASIC programming language in solving both business and scientific problems. The student will run class problems on a microcomputer using spreadsheets, word processing and database programs. (59.4 Lec. Hrs.)

CIS:167 Programming in C 3 cr.

Presents the basic concepts essential to write useful and efficient programs in the C programming language. The emphasis is on the design and implementation of business applications utilizing the C language and structured methodologies. (39.6 Lec. Hrs./39.6 Lab. Hrs.)

CIS:251 Computer Projects in FORTRAN 1-2 cr.

Independent study allowing the student to prepare and complete a unique self-study project to advance his/her computer skills in FORTRAN. (39.6-79.2 Lab. Hrs.)

Prerequisite: CIS:450.

CIS:440 Computer Programming with BASIC 3 cr.

Presents problem solving using QuickBASIC Language on a microcomputer. Designed for business, science, mathematics, engineering, computer science majors and those students who wish to acquire a fundamental knowledge of programming. (39.6 Lec. Hrs./39.6 Lab Hrs.)

CIS:445 Computer Programming with PASCAL 3-4 cr.

Introduces structured programming using the PASCAL language. Emphasis is on program design, programming style, algorithm development and on the writing, running and testing of programs. (29.7-59.4 Lec. Hrs./39.6-79.2 Lab Hrs.)

CIS:450 FORTRAN Programming 2-3 cr.

Introduces the student to problem solving using the FORTRAN language, a science and engineering oriented computer language. Applications involve mathematics, science, engineering and business problems. (19.8-39.6 Lec. Hrs./39.6-79.2 Lab. Hrs.)

CIS:803 Computer Projects in C++ 1 cr.

This course will introduce students to computer programming using the C++ language. (19.8 Lec. Hrs.)

CIS:806 Computer Projects in PASCAL 1 cr.

Independent study allowing the student to prepare and complete unique self-study projects to advance his/her computer skills in PASCAL. A continuation of CIS:445 involving additional features of the language. (39.6 Lab. Hrs.)

Prerequisite: CIS:445.

CONSERVATION

CNS:105 Conservation 2 cr.

Presents the historical and biological basis of conservation and management of natural resources. (39.6 Lec. Hrs.)

CNS:131 Wildlife Habitat Management 2 cr.

Study of managing communities which provide habitat for wildlife. Primary emphasis is placed on manipulating vegetation to increase wildlife population. (39.6 Lec. Hrs.)

CNS:132 Wildlife Management 2 cr.

Study of the application of wildlife biology, management techniques and application of management principles, censusing, capture and marking of wildlife, habitat evaluation, Iowa game laws, life history studies and the application of wildlife management principles related to important recreational resources. (39.6 Lec. Hrs.)

Prerequisite: BIO:114 and BIO:115 or consent of instructor.

CNS:137 Fisheries Management 2 cr.

Study of the application of fish management principles. Topics include fish identification, population estimation techniques, age and growth studies, watershed evaluation and management, fish life history features and fish hatchery procedures. (39.6 Lec. Hrs.)

Prerequisite: BIO:114 and BIO:115 or consent of instructor.

CNS:150 Conservation Occupations 1 cr.

A survey of the variety of occupations in the conservation field. (19.8 Lec. Hrs.)

CNS:901 Wilderness Experience 2 cr.

Provides the student with a living laboratory experience in a natural wilderness area to study biology, ecology, geology and related environmental conservation problems. The student will develop an appreciation of the wilderness environment and some basic skills of canoeing, water safety, camping, fishing, wilderness survival, map reading and the use of a compass. Additional fee will be charged. (79.2 Lab. Hrs.)

CNS:930 Employment Experience 1-4 cr.

Provides on-the-job training in the student's chosen area. (79.2-316.8 Coop. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

CRIMINAL JUSTICE

CRJ:100 Introduction to Criminal Justice 3 cr.

An introduction to the criminal justice system: police, courts, corrections, the role of the criminal justice system in society and recommendations for reform. Discussion will include career opportunities. (59.4 Lec. Hrs.)

CRJ:118 Law Enforcement 3 cr.

A survey course about the historical development of law enforcement, the functions of local, state and federal law enforcement agencies, police subculture, the function of patrol and other issues important to the field of policing. The use of police authority, police discretion, police violence and police corruption will be introduced. (59.4 Lec. Hrs.)

CRJ:120 Introduction to Corrections 3 cr.

The development of corrections, the correctional process, correctional client, alternatives to incarceration, effects of institutionalization, correctional administration and future of corrections. (59.4 Lec. Hrs.)

CRJ:130 Criminal Law I 3 cr.

A study of the substantive criminal law, its historical background and development, and the basic elements of criminal law, including criminal intent and criminal capacity. (59.4 Lec. Hrs.)

CRJ:141 Criminal Investigation 3 cr.

An introduction to the art of criminal investigation and case preparation. Topics include interrogation, gathering of information and evidence, informants, homicide investigation, fingerprinting and other selected evidence. (59.4 Lec. Hrs.)

CRJ:142 Criminalistics 3 cr.

Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence, scientific aids, modus operandi, sources of information, interviews and interrogation, follow up and case preparation. (59.4 Lec. Hrs.)

CRJ:200 Criminology 3 cr.

The study of human behavior and crime, the development of corrections and criminology with sociological and cultural approaches to crime and the career criminal. Same as SOC:240. (59.4 Lec. Hrs.)

CRJ:201 Juvenile Delinquency 3 cr.

Introduces the causes of delinquency and the modification of such behavior by corrective institutions and individual therapy. Emphasis is placed on the study of the development of individual personality through inter-family relationships, antisocial aggressive acts from early abnormal family and social situations. Same as SOC:230. (59.4 Lec. Hrs.)

CRJ:208 Introduction to Private Security 3 cr.

This course considers the history, principles and management of private security, procedural security, personal protection, fire prevention and the prevention of losses due to natural and man-made disasters as applied in industrial, retail and institutional settings. (59.4 Lec. Hrs.)

CRJ:209 Vice and Drug Control 3 cr.

This course will deal with the history and causes of drug abuse, gambling and prostitution. Additionally, the course will show how to plan the raid, deal with the intelligence function and investigate each of the above mentioned crimes. We will deal with preventive programs by law enforcement and also with employee assistance programs in the business community. (59.4 Lec. Hrs.)

CRJ:230 Law of Evidence 3 cr.

This course traces the nature and development of evidence law and its role in the criminal justice system. The student will be introduced to concepts such as direct and circumstantial evidence, relevancy, hearsay, character evidence and the various privileges that exist in evidence law. In addition, the student will learn how to present evidence in a courtroom both from a lawyer's examination and a witness' testimony. (59.4 Lec. Hrs.)

CRJ:295 Contemporary Issues in Criminal Justice 3 cr.

Devoted to exploration and analysis of contemporary issues in criminal justice. Class discussions, lectures and reading in conjunction with an individual research paper. Guest speakers and field trips when appropriate. (59.4 Lec. Hrs.)

Prerequisite: CRJ:200.

CRJ:928 Independent Study in Criminal Justice 3 cr.

Provides the student with an opportunity to explore an area(s) of individual interest within the criminal justice system. Individual readings and research paper required. (118.8 Lab Hrs.)

Prerequisite: Minimum of 6 credits in Criminal Justice.

CRJ:941 Practicum in Criminal Justice 3 cr.

This course will provide practical experience in an area of criminal justice. This may include law enforcement, corrections, courts, juvenile justice, juvenile delinquency, juvenile corrections or some other substantive area of criminal justice. A term paper or research paper may be a requirement of the course. May be repeated for up to 6 hours credit. (237.6 Field/Clinical Hrs.)

Prerequisite: Permission of instructor.

CULTURAL STUDIES

CLS:120 Non-Western Culture and Values 3 cr.

This course is an integrated humanities course which introduces students to cultures and values of the non-western world: the Pacific Rim, South Asia, East Asia and Africa. Each unit first surveys the geographic and cultural background of the region. Attention is then focused on issues which impact the world and on cultural forms which are revealing of the society.

This course satisfies a general education requirement in the Perspectives Area. (59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

CLS:150 Latin American History and Culture 3 cr.

This course is designed to introduce Latin America--specifically Mexico, Central and South America. Emphases are placed on cultural, historical and geographical perspectives to promote study in the humanities of this part of the world. Attention is also focused on current issues and art forms which shape the culture today.

This course satisfies a general education requirement in the Perspectives Area.
(59.4 Lec. Hrs.)

Prerequisite: Prior courses in history and literature (high school or above) strongly recommended.

DRAMA

DRA:101 Introduction to Theatre 3 cr.

A survey of the elements of the theatre. The course covers units on audience/performer relationships, dramatic forms, dramatic literature, history of the theatre, dramatic theory and criticism, and technical theatre.

This course satisfies a general education requirement in the Arts and Humanities Area.
(59.4 Lec. Hrs.)

DRA:105 History of the Theatre 3 cr.

Designed to expose the student to the development of the theatre from the Greeks to the modern period. Examples of each phase of the theatre's development are read and analyzed. Emphasis is placed on major theatre developments, dramatists and their work as applied to each period.

This course satisfies a general education requirement in the Arts and Humanities Area.
(59.4 Lec. Hrs.)

DRA:110 Introduction to Film 3 cr.

Designed to introduce the student to the history, evolution, philosophic, artistic and economic aspects of motion pictures and the filmmaking industry. Students will have the opportunity to examine the various genres of the movie industry - drama, film noir, western, fantasy, documentary, romantic comedy, horror, musicals, silent films, etc. Utilizing film excerpts and entire movies as tools, students will hone skills in film analysis, beginning with recognition. *This course satisfies a general education requirement in the Humanities or Fine Arts, but not both.*

(59.4 Lec. Hrs.)

DRA:130 Acting I 3 cr.

A fundamental course in the physical, vocal and imaginative techniques in the art of acting.

(59.4 Lec. Hrs.)

DRA:131/132 Acting II, III 2-3 cr.

A continuation of DRA:130, exploring the techniques in the art of acting with special emphasis on movement and dramatic interpretation. (39.6 Lec. Hrs./0-39.6 Lab Hrs.)

Prerequisite: DRA:130 or permission of instructor.

DRA:136/137 Rehearsal and Performance 1-2 cr.

Preparation for participation in a major play production. Late registration permitted. May be repeated up to a total of four hours of credit.

(39.6-79.2 Lab Hrs.)

Prerequisite: Permission of instructor.

DRA:161 Technical Theatre 2 cr.

Designed to allow the student experience focusing on the principles and theories of design and the application to the stage in scenery, properties, costumes, lighting, sound and makeup.

(39.6 Lec. Hrs.)

DRA:172/173 Theatre Practicum 1-2 cr.

Practical experience in all aspects of technical theatre while working on college productions. May be repeated for up to eight credits.

(39.6-79.2 Lab Hrs.)

DRA:237 Acting Lessons 1 cr.

Concentrated private coaching for the advanced acting student to strengthen and broaden skills as an all-around performer. May be repeated for up to three credits.

(9.9 Lec. Hrs.)

DRA:250 Directing 3 cr.

Designed to assist the student with practical experience in analyzing the audiences to be reached, planning the season and preparing the play. Class projects include directing experience and the preparation of production books.

(59.4 Lec. Hrs.)

DRA:952 Topics in Theatre 2-3 cr.

Designed to offer students an experience in a community theater. Students focus on the principles and theories of theatre and their application to the stage in scenery, properties, costumes, lighting, sound and makeup.

(19.8 Lec. Hrs./39.6-59.4 Lab Hrs.)

EARLY CHILDHOOD EDUCATION

ECE:103 Introduction to Early Childhood Education 3 cr.

Introductory study of education for young children. This course is intended to equip beginning teachers of young children and those students interested in early childhood education with a working knowledge of educational methods and principles in dealing with young children through a developmental curriculum.

(59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

ECONOMICS

ECN:110 Introduction to Economics 3 cr.

A one-semester presentation of the basic economic problem of scarcity. The course is a survey of micro-economics dealing with market behavior and macro-economics dealing with government stabilization policies in the U.S., including international trade. This course is not recommended for students who anticipate a bachelor's degree requiring a two-term sequence in economics. (59.4 Lec. Hrs.)

ECN:120 Principles of Macroeconomics 3 cr.

Discusses issues confronting society as a result of economic scarcity. Examines the systematic approach to these issues as it has developed in the U.S., where markets and government combine to determine the economic decision-making process. Emphasis is placed on the fiscal and monetary policies of government, undertaken to modify the instability that occurs in the private sectors. Includes the importance of international trade for U.S. well-being. *This course satisfies a general education requirement in the Social Sciences Area.* (59.4 Lec. Hrs.)

ECN:130 Principles of Microeconomics 3 cr.

Examines how the market system resolves the economic problems of scarcity. Topics explored are supply and demand theory, the varying degrees of competition found in the market, consumer choice, production cost and output in the short and long term, and the pricing and employment of resources. The impact of international trade on the above topics may also be discussed (instructor discretion). *This course satisfies a general education requirement in the Social Sciences Area.* (59.4 Lec. Hrs.)

ECN:943 Readings in Economics 1-2 cr.

Designed to provide additional readings in economics, allowing the student to obtain a greater understanding of the various problem areas of this discipline. (39.6-79.2 Lab Hrs.)

Prerequisite: ECN:120 or ECN:130.

EDUCATION

EDU:110 Exploring Teaching 3 cr.

Designed to provide guided observation and teacher-aide services in school classrooms. Emphasis is placed on the education theory taught in other teacher-training subjects. Local school systems provide a learning experience to the education/teaching student. Students qualifying for the program will be assigned to selected elementary and secondary schools for practical classroom experience. (19.8 Lec/80.0 Observation Hrs.)

Prerequisite: EDU:212 or permission of Department Coordinator.

EDU:125 Making a Difference 3 cr.

The emphasis of this course is introducing the student to the careers related to education, particularly teacher and paraeducator as professionals. The course includes: human and legal rights of children with disabilities; introduction to human development; introduction to the classroom instruction process; discussion of instructional interventions as well as teaching strategies; and health and safety procedures in the classroom. (59.4 Lec. Hrs.)

EDU:212 Educational Foundations 3 cr.

Study of the structure of American education, what is required for proper schooling and consideration of the role of the teacher. A broad foundation prepares the student for making career choices in school level and subject field. (59.4 Lec. Hrs.)

EDU:220 Human Relations for the Classroom Teacher 3 cr.

Includes interpersonal and intergroup relations and contributes to the development of sensitivity to and understanding of the values, beliefs, lifestyles and attitudes of individuals and the diverse groups found in a pluralistic society. The course is designed to emphasize development of one's self-concept, review and development of one's values and attitudes toward ethnic groups of our society and involvement of class members in activities designed to improve communications and intergroup relations. (59.4 Lec. Hrs.)

EDU:245 Exceptional Learner 3 cr.

An introductory course designed to provide the student with an overview of the field of special education and the policies and programs established for the education of exceptional students. It includes an analysis of the nature, incidence and characteristics of the students with physical and mental handicaps, the behavior disordered, the talented and gifted and the learning disabled. This course is required for teacher certification in Iowa and Illinois. (59.4 Lec. Hrs.)

ENGINEERING

EGR:101 Introduction to Engineering 2 cr.

This is the basic introductory course in engineering. It provides the student with an overview of the several disciplines of engineering, i.e., chemical, civil, electrical, industrial/management, mechanical, nuclear, petroleum, etc., and enumerates career opportunities. As an adjunct to the material, the student utilizes a pocket calculator to solve representative engineering problems. (39.6 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

EGR:110 Basics of Engineering Drawing 3 cr.

An introductory course in engineering drawing dealing with geometric constructions, lettering, freehand sketching, sectional views, auxiliary views, orthographic projections, basic dimensioning and working drawings. Satisfies requirements for Industrial Technology. Recommended for students entering into engineering drawing without a drawing background.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

EGR:112 Engineering Drawing I 3 cr.

This course deals with the integration of freehand sketching and computer drawing of orthographic projection; theory of pictorial drawing, basic dimensioning and working drawings; the analysis and synthesis of theoretical and practical problems involving the size, shape and/or relative position of common geometric magnitudes as points, lines and planes.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

EGR:113 Engineering Drawing II 3 cr.

Continuation of EGR:112. Includes basic working drawings completed with AutoCAD software. AutoCAD problems are similar to the conventional problems from EGR:112. Key elements of engineering geometry, intersection and developments, engineering dimensioning, limits and fits, design drawings.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: EGR:112 or the equivalent.

EGR:140 Engineering Economics 3 cr.

An introductory course in engineering and economics. Intended for students who have little or no background in economics, accounting or statistics. Introduces such concepts as time value of money, economy studies, selections among alternatives, replacement studies, capital budgeting and new operations research/systems analysis techniques to maximize return on investment.
(59.4 Lec. Hrs.)

EGR:180 Engineering Statics 3 cr.

Study of objects at rest or in uniform motion. Includes units, force vectors, equivalent force systems, rigid bodies, structural analysis, internal forces, friction, center of gravity, moments and products of inertia, and virtual work. Primarily for pre-engineering students.
(59.4 Lec. Hrs.)

Prerequisite: MAT:210.

Co-requisite: MAT:216.

EGR:280 Dynamics 3 cr.

Dynamics considers kinematics and kinetics. Kinematics considers the motion of particles, lines and bodies without regard to the forces required to produce or maintain the motion. Kinetics considers unbalanced force systems that produce acceleration motion of bodies, change the internal properties of the bodies and influence the resultant motion. Together statics and dynamics comprise the body of knowledge called engineering mechanics.
(59.4 Lec. Hrs.)

Prerequisite: EGR:180.

EGR:283 Elements of Electrical Engineering 3 cr.

This is an introductory course in the study of electrical engineering. This course builds on the concepts introduced in physics and mathematics and expands the student's knowledge of electricity and magnetic forces, circuit theory and electromechanical energy conversion, basic electronics and electric fields, and power generation.
(59.4 Lec. Hrs.)

Prerequisite: EGR:101.

EGR:295 Engineering Problems 2 cr.

Designed to aid engineering students in the solving of problems. Emphasis on orderly solution methods. Some problems will involve programming and non-programmable calculators and others will involve programming with the FORTRAN language.
(39.6 Lec. Hrs.)

Prerequisite: MAT:121.

Co-requisite: CIS:450.

ENGINEERING TECHNOLOGY

EGT:197 Design I 4 cr.

The student is introduced to the design process utilized in the engineering approach to problem solving. Students participate in design projects which require research, creativity, analysis and synthesis for a solution.
(79.2 Lec. Hrs.)

EGT:198 Design II 4 cr.

A continuation of EGT:197, utilizing the team approach to the solution of semester-long engineering design projects/problems, using input data which is adapted from real world problems. Additional conceptual data introduces the student to modeling simulation, economics of engineering, patents, planning and human factors.
(79.2 Lec. Hrs.)

Prerequisite: EGT:197.

ENGLISH

ENG:013 Basic Writing 3 cr.

Introductory course designed to help the student who has difficulty in expressing thoughts clearly and effectively in written communication. Emphasis is on improving writing skills by constant practice. Grammar, sentence structures and paragraph structures are studied in the context of writing. This course is recommended for students whose diagnostic or assessment scores indicate a need for preparatory work in composition.
(59.4 Lec. Hrs.)

ENG:064 Language Skills 1-3 cr.

Introductory course designed to assist students in gaining language/reading skills and knowledge necessary to express thoughts clearly and effectively in written communication and to build the necessary foundation for higher levels of language development. Grammar, sentence structure, punctuation, and paragraph development are always studied in the context of writing. This course is recommended for students whose assessment scores indicate a need for supplemental work in composition.
(18.9-59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

ENG:105 Composition I 3 cr.

A writing and reading course designed to prepare the student for the types of written communication and thought essential to the academic and working world. The general goals of Composition I are to have students gain more confidence in their writing abilities and improve their proficiency in critical reading, exposition and persuasion. *This course satisfies a general education requirement in the Communications Area.* (59.4 Lec. Hrs.)

Prerequisite: Appropriate placement on assessment or successful completion of ENG:013.

ENG:106 Composition II 3 cr.

An advanced writing and reading course dealing with logic in thought and communication. Emphasis is on reasoning and argument, research skills and sophistication of style in writing. *This course satisfies a general education requirement in the Communications Area.* (59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107.

ENG:107 Composition I 3 cr.

A writing, speaking and reading course to prepare students for the types of communication and thought essential to the working world. The general goals of Technical Communication are that students gain more confidence in their writing abilities and improve their proficiency in critical reading and problem-solving, applied to practical situations. Students will also present material orally and visually, with assignments related to their content areas. Emphasis is on the writing process and learning the forms appropriate for technical communication purposes and audiences. This course is an alternative to ENG:105 and is recommended for students in technical, business and science programs.

This course satisfies a general education requirement in the Communications Area. (59.4 Lec. Hrs.)

Prerequisite: Appropriate placement on assessment or successful completion of ENG:013.

ENG:108 Composition II: Technical Writing 3 cr.

An advanced course in technical writing for students in technical, business or science programs. Because students in technical fields need to become familiar with the complexities and constraints of on-the-job communication, this course offers practice in the kinds of technical writing, reading and oral communication encountered in the world of work. Students will analyze, evaluate and research complex communication situations and apply what they've learned, using collaborative, interpersonal and problem-solving skills and the essentials of style, formatting, documentation and graphics. Designed to help students acquire the rhetorical skills needed to respond to a variety of audiences in authoritative and convincing ways. *This course satisfies a general education requirement in the Communications Area.* (59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107.

ENG:221 Creative Writing 3 cr.

Advanced writing workshop designed for the student who likes to write. Emphasis is placed on self-expression, audience reaction, craftsmanship and the importance of meeting deadlines. Assignments will range from short sketches and poems to full-length short stories and essays. The learning experience is enhanced through class discussion and critical analysis of individual works. (59.4 Lec. Hrs.)

Recommended Prerequisites: ENG:105 and one of the general education Literature courses.

ENG:230 Creative Writing: Fiction 3 cr.

The study and practice of fiction. Emphasis is on writing the short story with practice and study of the proper elements of writing. These elements are also applicable to the writing of the novel. (59.4 Lec. Hrs.)

Prerequisites: ENG:105 and ENG:106 or ENG:107 and ENG:108.

ENG:238 Creative Writing: Non-Fiction 3 cr.

The practice of creating non-fiction prose. Emphasis is on the magazine article and the feature story. (59.4 Lec. Hrs.)

Prerequisites: ENG:105 and ENG:106 or ENG:107 and ENG:108.

ENGLISH AS A SECOND LANGUAGE

ESL:113 Basic ESL Grammar 2 cr.

This is an entry-level course in the acquisition of basic grammatical rules and structures necessary for using English as a second language. Emphasis is placed on practicing structure in context and developing communicative competence. This course is designed to be taken with Listening Comprehension, Speaking, Reading and Writing as part of an intensive English program for non-native speakers. Course placement approval requires permission of program manager. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Co-requisites: ESL:121, 122, 123, 124 are recommended.

ESL:121 Basic ESL Writing 1 cr.

This is an entry-level course in the acquisition of basic writing skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Reading as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:113, 122, 123, 124 are recommended.

ESL:122 Basic ESL Listening Comprehension 1 cr.

This is an entry-level course in the acquisition of basic aural skills in English for non-native speakers. This course is designed to be taken with Grammar, Speaking, Reading and Writing as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:113, 121, 123, 124 are recommended.

ARTS & SCIENCES - COURSE DESCRIPTIONS

ESL:123 Basic ESL Speaking 1 cr.

This is an entry-level course in the acquisition of basic oral skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Writing and Reading as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:113, 121, 122, 124 are recommended.

ESL:124 Basic ESL Reading 1 cr.

This is an entry-level course in the acquisition of basic reading skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Writing as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:113, 121, 122, 123 are recommended.

ESL:125 Low Intermediate ESL Grammar 2 cr.

This is a course in continuing the acquisition of basic grammatical rules and structures necessary for using English as a second language. Emphasis is placed on practicing structure in context and developing communicative competence. This course is designed to be taken with Listening Comprehension, Speaking, Reading and Writing as part of an intensive English program for non-native speakers. Course placement approval requires permission of program manager. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Co-requisites: ESL:129, 126, 127, 128 are recommended.

ESL:126 Low Intermediate ESL Listening Comprehension 1 cr.

This is a course in continuing the acquisition of basic aural skills in English for non-native speakers. This course is designed to be taken with Grammar, Speaking, Reading and Writing as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:120, 129, 127, 128 are recommended.

ESL:127 Low Intermediate ESL Speaking 1 cr.

This is a course in continuing the acquisition of basic oral skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Writing and Reading as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:125, 129, 126, 128 are recommended.

ESL:128 Low Intermediate ESL Reading 1 cr.

This is a course in continuing the acquisition of basic reading skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Writing as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:125, 129, 126, 127 are recommended.

ESL:129 Low Intermediate ESL Writing 1 cr.

This is a course in continuing the acquisition of basic writing skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Reading as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:125, 126, 127, 128 are recommended.

ESL:130 Intermediate ESL Grammar 2 cr.

This is a course in continuing the acquisition of grammatical rules and structures necessary for using English as a second language. Emphasis is placed on practicing structure in context and developing communicative competence. This course is designed to be taken with Listening Comprehension, Speaking, Reading and Writing as part of an intensive English program for non-native speakers. Course placement approval requires permission of program manager. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Co-requisites: ESL:134, 136, 137, 138 are recommended.

ESL:134 Intermediate ESL Writing 1 cr.

This is a course in continuing the acquisition of writing skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Reading as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:130, 136, 137, 138 are recommended.

ESL:136 Intermediate ESL Listening Comprehension 1 cr.

This is a course in continuing the acquisition of aural skills in English for non-native speakers. This course is designed to be taken with Grammar, Speaking, Reading and Writing as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:130, 134, 137, 138 are recommended.

ESL:137 Intermediate ESL Speaking 1 cr.

This is a course in continuing the acquisition of oral skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Writing and Reading as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:130, 134, 136, 138 are recommended.

ESL:138 Intermediate ESL Reading 1 cr.

This is a course in continuing the acquisition of reading skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Writing as part of an intensive English program. Course placement approval requires permission of program manager. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:130, 134, 136, 137 are recommended.

ARTS & SCIENCES - COURSE DESCRIPTIONS

ESL:140 High Intermediate ESL Grammar 2 cr.

This is a course in continuing the acquisition of grammatical rules and structures necessary for using English as a second language. Emphasis is placed on practicing structure in context and developing communicative competence. This course is designed to be taken with Listening Comprehension, Speaking, Reading and Writing as part of an intensive English program. Course placement approval requires permission of program manager.

(19.8 Lec. Hrs./39.6 Lab Hrs.)

Co-requisites: ESL:144, 146, 147, 148 are recommended.

ESL:144 High Intermediate ESL Writing 1 cr.

This is a course in continuing the acquisition of writing skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Reading as part of an intensive English program. Course placement approval requires permission of program manager.

(9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:140, 146, 147, 148 are recommended.

ESL:146 High Intermediate ESL Listening Comprehension 1 cr.

This is a course in continuing the acquisition of aural skills in English for non-native speakers. This course is designed to be taken with Grammar, Speaking, Reading and Writing as part of an intensive English program. Course placement approval requires permission of program manager.

(9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:140, 144, 147, 148 are recommended.

ESL:147 High Intermediate ESL Speaking 1 cr.

This is a course in continuing the acquisition of oral skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Writing and Reading as part of an intensive English program. Course placement approval requires permission of program manager.

(9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:140, 144, 146, 148 are recommended.

ESL:148 High Intermediate ESL Reading 1 cr.

This is a course in continuing the acquisition of reading skills in English for non-native speakers. This course is designed to be taken with Grammar, Listening Comprehension, Speaking and Writing as part of an intensive English program. Course placement approval requires permission of program manager.

(9.9 Lec. Hrs./19.8 Lab Hrs.)

Co-requisites: ESL:140, 144, 146, 147 are recommended.

ESL:240/241/242/243 Low Advanced ESL Communicative Competence 1-4 cr.

This is a course for non-native speakers to improve advanced language skills in academic reading, listening and speaking. This course is designed so a student could concurrently enroll in selected non-ESL courses. Course placement approval requires permission of program manager.

(9.9-79.2 Lec. Hrs./19.8-118.8 Lab Hrs.)

ESL:244 Low Advanced ESL Grammar/Writing 3 cr.

This is a course for non-native speakers in the acquisition of advanced grammatical structures and writing skills necessary for academic English. Emphasis is placed on practicing structure in context and writing fluently. This course is designed so a student could concurrently enroll in selected non-ESL courses. Course placement approval requires permission of program manager.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

ESL:249 Advanced ESL Grammar/Writing 3 cr.

This is a course for non-native speakers to review and refine advanced grammatical structures and writing skills necessary for academic English. Emphasis is placed on practicing structure in context and writing fluently. This course is designed so a student could concurrently enroll in selected non-ESL courses. Course placement approval requires permission of program manager.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

ESL:254/255/256/257 Advanced ESL Communicative Competence 1-4 cr.

This is a course for non-native speakers to refine advanced language skills in academic reading, listening and speaking. This course is designed so a student could concurrently enroll in selected non-ESL courses. Course placement approval requires permission of program manager.

(9.9-79.2 Lec. Hrs./19.8-118.8 Lab Hrs.)

Co-requisite: ESL:253 is recommended.

ESL:260 High Advanced ESL Grammar/Writing 3 cr.

This is a course for non-native speakers wishing to attain mastery of the most advanced grammatical structures and writing skills necessary for academic English. The writing component will include a research paper. Course placement approval requires permission of program manager.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Co-requisite: ESL:261 or ESL:928 is recommended.

ESL:261/262/263/264 High Advanced ESL Communicative Competence 1-4 cr.

This is a course for non-native speakers wishing to attain mastery of the most advanced language skills in academic reading, listening and speaking. Course placement approval requires permission of program manager.

(9.9-79.2 Lec. Hrs./19.8-118.8 Lab Hrs.)

Co-requisite: ESL:260 or ESL:928 is recommended.

ESL:928 ESL Independent Study 1-3 cr.

This course is an independent study lab for non-native speakers which will focus attention on specific areas of English as a Second Language through the use of individualized texts and other materials. This course can be taken for varied credit depending on need. Course placement approval requires permission of program manager.

(39.6-118.8 Lab Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

ENVIRONMENTAL SCIENCE

ENV:115/111 Environmental Science 3-4 cr.

In this course common environmental problems will be surveyed, with discussion as to their possible causes, consequences and remedies. An emphasis will be placed on objective analysis of issues and arguments related to environmental concerns.

The four-credit-hour course with lab satisfies a general education requirement in the Natural Sciences Area. It may be counted as either Life Science or Physical Science, but not both.
(59.4 Lec. Hrs./0-39.6 Lab Hrs.)

ENV:137/138 Studies in Energy and the Environment 1-2 cr.

Independent study of problems concerning pollution and energy. The student will review a minimum of three books or investigate and write a paper on any energy or pollution problem of current interest, to receive one credit. Two credits will be earned for the three book reviews and the paper.
(19.8-39.6 Lec. Hrs.)

ENV:145 Conservation Biology 4 cr.

This course examines the ecological principles used in the preservation of biological diversity. Some topics explored are population dynamics, conservation genetics, island biogeography, mathematical modeling of ecological systems, disturbance ecology, Geographic Information Systems (GIS), reserve theory and wildlife corridors. Laboratories will involve fieldwork, data analysis, computer work and research.
This course satisfies a general education requirement in the Natural Sciences area.
(59.4 Lec. Hrs./39.6 Lab Hrs.)
Prerequisites: ENV:111

FINANCE

FIN:106 AIB Principles of Banking 3 cr.

Provides a comprehensive introduction to the diversified services offered by the banking industry today. It includes new material on bank accounting, pricing and profitability, and expands the discussion on the personnel and security functions of the bank.
(59.4 Lec. Hrs.)

FIN:111 AIB Money and Banking 3 cr.

Presents basic economic principles related to banking. Provides the essential understanding necessary to further banking study.
(59.4 Lec. Hrs.)

FIN:121 Personal Finance 3 cr.

Presents a general background in finance for successful applications in personal business decisions: money management, insurance, stocks and bonds, mutual funds, real estate, where to invest for safety, growth or income. Concludes with a tax session.
(59.4 Lec. Hrs.)

FRENCH

FLF:141 Elementary French I 4 cr.

A foundation course which covers the fundamentals of French language and culture. The course is designed for the student with no knowledge of the language. The communication skills of reading, writing and speaking will be developed to aid the student in oral proficiency. Each unit will deal with specific aspects of French culture.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.
(79.2 Lec. Hrs.)

FLF:142 Elementary French II 4 cr.

Designed for the student who has some knowledge of French language and culture. Oral communication is stressed with further emphasis on grammar and selected readings in the history, literature and culture of France.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.
(79.2 Lec. Hrs.)

Prerequisite: FLF:141 or equivalent.

FLF:231 Intermediate French I 3 cr.

Provides a thorough review of the patterns of basic French grammar with emphasis on the development of speaking, writing and understanding the French language, literature and culture.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.
(59.4 Lec. Hrs.)

Prerequisite: FLF:142 or 2-3 years of high school French.

FLF:232 Intermediate French II 3 cr.

Provides a reinforcement of basic skills with emphasis on conversation, composition, literary readings, French culture and review of grammar as needed.
This course satisfies a general education requirement in the Perspectives Area.
(59.4 Lec. Hrs.)

Prerequisite: FLF:231 or 3-4 years of high school French.

GEOGRAPHY

GEO:121 World Regional Geography 3 cr.

A survey course of basic geographical knowledge. Students will be introduced to geographical principles and ways of thinking thus providing them with the tools to study both physical and human geography.

This course satisfies a general education requirement in the Perspectives Area.
(59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

GERMAN

FLG:141 German I 4 cr.

Introduces the basic grammar and pronunciation of the German language. This is a course for students with little or no knowledge of the German language. *This course satisfies a general education requirement in the Cultural/Historical Perspectives area.*
(79.2 Lec. Hrs.)

FLG:142 German II 4 cr.

A continuation of German I. Review of basic material and pronunciation plus introduction of new grammatical structures. *This course satisfies a general education requirement in the Perspectives area.*
(79.2 Lec. Hrs.)
Prerequisite: FLG:141 or 1-2 years of high school German.

GLOBAL STUDIES

GLS:100 Contemporary World Issues 3 cr.

An interdisciplinary approach to the study of issues affecting life in the modern world. Identifies topical areas to study as background to major contemporary issues. Typical areas of discussion will be ecology, world economy, resource utilization and comparative cultures. Instruction will be primarily discussion and will utilize guest lectures, outside reading and projects and limited lecture. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.*
(59.4 Lec. Hrs.)

GLS:128 Studies in a Non-Western Culture (*specified culture*) 3 cr.

This interdisciplinary course introduces students to cultures and societies of a specified world region, such as Africa, South Asia, East Asia, Latin America or Native North America. Emphasis will be placed on understanding the commonality of human needs and the diversity of approaches to satisfy those needs. Topics integrated into the course will include (but not be limited to) history, religion, politics, sociology, the arts, physical and human geography and current events.
(59.4 Lec. Hrs.)

GLS:150 East Asia: People, Society and Culture 3 cr.

The focus is East Asia: China and Japan today in the context of a global and changing world. This course will examine the ways of thinking of Eastern peoples and the complexities of the growing interdependencies between East and West. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.*
(59.4 Lec. Hrs.)

GLS:166 Study Abroad: British Life and Culture 3 cr.

An introduction to British society and civilization by various lectures and field trips offered by the Cambridge/London program sponsored by the Iowa Community College Consortium for Study Abroad. The course takes a social, historical and cultural look at contemporary British society. Required for enrollees in the Cambridge/London, England, semester.
(59.4 Lec. Hrs.)

GLS:170 History of Cambridge, England 3 cr.

This course is designed to orient students to the history, life and culture of Cambridge, England. Students will review the history of the city from its roots in East Anglia, Roman and Anglo-Saxon period to present time. An introduction to the geography of the area will also be given. Students will learn about other aspects of the city, education, American links to Cambridge, culture and the arts, religion, sport, economy, architecture, museums and notable alumni of Cambridge University. This course is required for students who will be participating in the semester study abroad program for England.
(59.4 Lec. Hrs.)

HEALTH

MSC:106 Contemporary Health Issues 3 cr.

Exploration of areas of human health. Topics include emotional health, chemical alteration of behavior, human sexuality, personal health care, disease and health in society.
(59.4 Lec. Hrs.)

HSC:113 Medical Terminology 2 cr.

This course will enable the student to recognize and define medical terminology as well as identify medical words from Greek and Latin prefixes, suffixes, word roots and combining forms.
(79.2 Lab. Hrs.)

HISTORY

HIS:112 Western Civilization: Ancient to Early Modern 4 cr.

A survey course in Western Civilization from ancient history into the age of absolutism. The components of religion, philosophy, literature, art and architecture are integrated into the political and social history of Europe, from our Mesopotamian and Egyptian origins to about the eve of the French Revolution. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.*
(79.2 Lec. Hrs.)
Prerequisite: Ability to register for ENG:105.

HIS:113 Western Civilization: Early Modern to Present Day 4 cr.

A survey course in Western Civilization from the age of absolutism to the nuclear age. The components of religion, philosophy, literature, art and architecture are integrated into the political and social history of Europe and its impact on the modern world. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.*
(79.2 Lec. Hrs.)
Prerequisite: Ability to register for ENG:105.

HIS:117 Western Civilization: Ancient and Medieval 3 cr.

This is a survey course in Western Civilization from ancient history to the Renaissance. The civilizational components of religion, philosophy, literature, art and architecture are integrated into the political and social history of Europe, from our Mesopotamian and Egyptian origins to about 1450. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.*
(59.4 Lec. Hrs.)
Prerequisite: Ability to register for ENG: 105.

ARTS & SCIENCES - COURSE DESCRIPTIONS

HIS:118 Western Civilization II: Early Modern 3 cr.

This is a survey course in Western Civilization from the Renaissance through the Age of Democratic Revolutions. The civilizational components of religion, philosophy, literature, art and architecture are integrated into the political and social history of Europe, from about 1450 to the end of the eighteenth century.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.
(59.4 Lec. Hrs.)

Prerequisite: Ability to register for ENG: 105.

HIS:119 Western Civilization III: The Modern Period 3 cr.

This is a survey course in Western Civilization in the Modern Age, from the Age of Democratic Revolutions through the present day. The civilizational components of religion, philosophy, literature, art and architecture integrated into the political and social history of Europe and its impact on the modern world.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.
(59.4 Lec. Hrs.)

Prerequisite: Ability to register for ENG: 105.

HIS:120 Readings in Western Civilization 1-2 cr.

Designed to provide the student with additional reading in Western Civilization, allowing the student to obtain a greater understanding of the various problem areas in this discipline than can be attained by normal course work.
(39.6-79.2 Lab. Hrs.)

Prerequisite: HIS:112 or HIS:113.

HIS:151 United States History to 1877 3 cr.

The study of political, cultural and economic developments in North American colonies and the United States from discovery through Reconstruction. Historical perspective and critical analysis are emphasized.

This course satisfies a general education requirement in the Perspectives Area.
(59.4 Lec. Hrs.)

HIS:152 United States History After 1877 3 cr.

The study of political, cultural, social and economic developments from 1877 to the present. Historical perspective and critical analysis are emphasized.

This course satisfies a general education requirement in the Perspectives area.
(59.4 Lec. Hrs.)

HIS:211 Modern Asian History 3 cr.

Designed to assist the student in analyzing developments in the modern history of China, India and Japan. Emphasis is placed on the historical changes and continuity in the three major cultures of Asia including the impact of the West and methods of modernization.

This course satisfies a general education requirement in the Perspectives Area.
(59.4 Lec. Hrs.)

HIS:224 Nazi Germany 3 cr.

Designed to assist the student in understanding the origins and development of the Nazi Party in Germany in the twentieth century. Topics include the nineteenth century roots of Nazism, reasons for the success of Hitler's Nazi party, life in Germany under the Third Reich and Germany's role in World War II.

(59.4 Lec. Hrs.)

HIS:231 Contemporary World Affairs 3 cr.

This course is designed to be a study of current events viewed in their historical context. Emphasis is placed on global politics, domestic issues, and cultural developments.

(59.4 Lec. Hrs.)

HIS:269 The 1960s and the Vietnam War 3 cr.

This course introduces students to perspectives on the turbulent social and cultural changes of the 1960s and the meaning of the causes and consequences of the Vietnam Conflict.

(59.4 Lec. Hrs.)

HIS:271 American Frontier History 3 cr.

A study of the migration to America beginning with the early settlements on the Atlantic seaboard. Emphasis is given to ethnic, religious and economic factors. Comparative study is explored on the patterns of frontier culture in the Ohio Valley and Mississippi Valley.
(59.4 Lec. Hrs.)

HIS:272 Readings in United States History 1-2 cr.

Designed to provide the student with additional readings in United States history, allowing the student to obtain a greater understanding of the various problem areas of this discipline.
(39.6-79.2 Lab. Hrs.)

Prerequisite: HIS:151 or HIS:152.

HUMANITIES

HUM:105 Making a Living/ Making a Life 3 cr.

A humanities course which has as its theme the interplay of work and the individual. It focuses on technological society and how the humanities can interpret and reflect upon that society.
(59.4 Lec. Hrs.)

HUM:110 Changes and Choices 3 cr.

Changes and Choices offers students an opportunity to explore ways in which the humanities can contribute to their personal and work lives, especially as they face change and make decisions.
This course satisfies a general education requirement in the Arts and Humanities Area.
(59.4 Lec. Hrs.)

HUM:135 Humanities of the Early World 3 cr.

This course is an integrated humanities course that surveys the major cultural achievements and ideas of Western civilization from Ancient Greece through the Middle Ages. Art, architecture, music and drama are presented as they reflect the society and world view of the eras studied.

This course fulfills a general education requirement in the Arts and Humanities.
(59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

HUM:136 Humanities of the Renaissance 3 cr.

This is an integrated humanities course which surveys the major cultural achievements and ideas of Western civilization from the Renaissance through the 18th Century. Art, architecture, music and drama are presented as they reflect the society and the world view of the eras studied.
This course fulfills a general education requirement in the Arts and Humanities.
(59.4 Lec. Hrs.)

HUM:137 Humanities of the Modern Age 3 cr.

This is an integrated humanities course that surveys the major cultural achievements and ideas of Western civilization from the 19th century through the early 21st century. Art, architecture, music and drama are presented as they reflect the society and world view of the eras studied.
This course fulfills a general education requirement in the Arts and Humanities.
(59.4 Lec. Hrs.)

HUM:180 Mississippi River History 3 cr.

A survey course in the humanities centering on the history of the Upper Mississippi River during the steamboating of the nineteenth century. The historical periods of the French voyageurs, the reconnaissance of Lt. Zebulon Pike, the economic development of the mining frontier, steamboating's heyday and the growth of river towns are integrated into a regional perspective.
(59.4 Lec. Hrs.)

HUM:181 Mississippi River Literature 3 cr.

A survey course in humanities which studies regional literature in the Upper Mississippi River. The primary focus is on Mark Twain's writing in the nineteenth century reflecting his childhood in Hannibal and career as a pilot on steamboats. Another writer of the twentieth century, Richard Bissell, reflects on his early life in Dubuque and career as a towboat pilot in the 1940s.
(59.4 Lec. Hrs.)

HUM:183 Living with Space, Time and Technology 3 cr.

Explores an understanding of human values and individual beliefs within a constantly changing environment, community relationships, technological networks, the ethical dimensions of work and a meaningful personal lifestyle.
This course satisfies a general education requirement in the Arts and Humanities Area.
(59.4 Lec. Hrs.)

HUM:287 Leadership Development 3 cr.

The central focus of this course is the development of leadership skills. The course is designed to provide a basic understanding of leadership and group dynamics theory and to assist the student in developing a personal philosophy of leadership, an awareness of the moral and ethical responsibilities of leadership, and an awareness of one's own style of leadership. The course will integrate readings from the humanities, classic works of literature, and experiential learning exercises.
Same as SDV:288.
(59.4 Lec. Hrs.)

Prerequisite: Permission of instructor.

HONORS

HUM:924 Honors Service Project 1 cr.

This course is designed to integrate academic study and community service. By volunteering at least 32 hours at a non-profit service organization, students will have an opportunity to exercise civic responsibility and deepen their understanding of the content in their majors. Students will learn and develop through active participation in organized service experiences that meet our community's needs.
(39.6 Lab. Hrs.)

Prerequisite: Successful completion of HUM:926 or HUM:927.

HUM:926 Honors Seminar 3 cr.

This course is topical and the subject will vary from semester to semester. It is designed to explore critically and creatively selected issues related to the universal themes that inform the human condition. It can be interdisciplinary and community oriented, and will include a special project applicable to the requirements of the Honors Program.
(59.4 Lec. Hrs.)

Prerequisite: Acceptance in the Honors Program or a 3.5 cumulative grade point average.

HUM:927 Honors Independent Study 1 cr.

This course is designed to provide the student with the opportunity to obtain a greater understanding of a topic in this subject. The student will go beyond what is covered and expected in other classes of this discipline. The student will plan and complete an honors project or research paper for the course. The specifics of the honors project or paper will be contracted with the instructor and the Honors Committee at the beginning of the semester.
(39.6 Lab. Hrs.)

JOURNALISM

JOU:120 Beginning Newswriting 3 cr.

Presents the fundamentals of newswriting: copy editing, newspaper style, spelling and vocabulary, writing leads, basic news stories, speeches, editorials and the handling of press releases.
(59.4 Lec. Hrs.)

JOU:123 Intermediate Newswriting 3 cr.

Refines newswriting skills through an introduction to more complex newswriting experiences such as interviews, feature stories, sportswriting and interpretive writing.
(59.4 Lec. Hrs.)

Prerequisite: JOU:120.

ARTS & SCIENCES - COURSE DESCRIPTIONS

JOU:129 News Processing 3 cr.

Reviews the basics of copy editing for printed publications. Emphasis is placed on spelling and vocabulary when story rewriting is necessary. Headline writing, elementary typography, design, lay-out and paste-up of pages is covered, along with consideration of photographic design and advertisement placement and design. Use of the technologies available (video terminals and computer assistance) to the copy editor is also included. (59.4 Lec. Hrs.)

JOU:171 Introduction to Photography 3 cr.

Presents the basics of photography: using a camera, developing and printing techniques, common photographic problems and the processes to solve them. Emphasis is placed on photographs for publication. (59.4 Lec. Hrs.)

JOU:172 Intermediate Photography 3 cr.

Acquaints the student with photography and darkroom techniques with particular emphasis on control. Various techniques will be demonstrated and the student will use the necessary chemicals, papers and films to achieve negative and print excellence. (59.4 Lec. Hrs.)

Prerequisite: JOU:171 or equivalent.

JOU:220 Advanced Newswriting 3 cr.

Expands journalistic skills by student reporting on news events as assigned by the instructor. Assignments vary from features, interpretive series, editorials and investigative reporting. Weekly seminar-type procedures and occasional lectures enhance the learning process. Articles written for the course are considered for publication. (59.4 Lec. Hrs.)

Prerequisite: JOU:123.

JOU:932 Journalism Internship 3 cr.

On-site experience in a community news organization is provided and is supervised by a professional journalist. Practical experience will be provided in all aspects of working at a daily news organization and includes gathering, processing and editing the news. The student will learn to maintain a daily beat, write news articles and observe operations of the news organization. (118.8 Internship Hrs.)

Prerequisites: JOU:120 and JOU:123.

JOU:941 Practicum in Communication 1-3 cr.

Hands-on experience in the writing, editing, producing, circulating and advertising of student publications. The student may have the option to gain experience in the field of broadcasting, particularly television. Emphasis in the area includes writing for radio and television, the aspects of producing, directing, working with television cameras, videotape and cable television. Up to six hours credit is given in either print or broadcast. (19.8-59.4 Lec. Hrs.)

LITERATURE

LIT:101 Introduction to Literature 3 cr.

A literature appreciation course which offers an introduction to the major literary genres: the short story, poetry, drama and the novel. Emphasis is on learning the basic elements of each genre and applying those elements as tools of literary interpretation through critical reading and writing.

This course satisfies a general education requirement in the Arts and Humanities Area.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107. ENG:106 recommended.

LIT:111 Modern American Literature Since Mid-1800's 3 cr.

An introduction to literary works in four genres (the short story, poetry, drama and the novel) by American authors from 1865 to the present, with a focus on themes and formal characteristics that define American literature. Emphasis is on learning the basic elements of each genre and applying those elements as tools of literary interpretation through critical reading and writing.

This course satisfies a general education requirement in the Arts and Humanities Area.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107. ENG:106 recommended.

LIT:126 Modern American Poetry 3 cr.

In this survey of modern American poetry, students will explore the lives and works of thirteen of America's greatest poets: Walt Whitman, Emily Dickinson, Robert Frost, Marianne Moore, Hart Crane, Wallace Stevens, Langston Hughes, T.S. Eliot, Ezra Pound, Robert Lowell, Elizabeth Bishop, Sylvia Plath and William Carlos Williams. (59.4 Lec. Hrs.)

LIT:183 Masterpieces: Neoclassical to Modern 3 cr.

An introduction to major works of literature from the 17th Century to the present. Attention is given to the personal and social values of the period through the study of the four primary literary genres: the short story, poetry, drama and the novel. Emphasis is on learning the basic elements of each genre and applying those elements as tools of literary interpretation through critical reading and writing.

This course satisfies a general education requirement in the Arts and Humanities Area.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107. ENG:106 recommended.

ARTS & SCIENCES - COURSE DESCRIPTIONS

LIT:185 Contemporary Literature 3 cr.

This course focuses on works written since World War II. The effects of culture, environment and mass media on literature and the four major genres (short fiction, poetry, novel and drama) are explored in detail through critical reading and writing.

This course satisfies a general education requirement in the Arts and Humanities Area.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107.
ENG:106 recommended.

The following courses are electives which will be offered on a rotating basis:

LIT:105 Children's Literature 3 cr.

Designed primarily for the student planning to enter elementary-level teaching. The student will develop an understanding of why and what children read and develop criteria for the selection of material for children's recreational and curriculum enrichment.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107.
ENG:106 and a general education literature course recommended.

LIT:110 American Literature to Mid-1800's 3 cr.

A study of the important characteristics and transitions in American literature. Emphasis is given to the works of selected poets and prose writers from 1607 to 1865.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107.
ENG:106 and a general education literature course recommended.

LIT:182 Literary Classics: Ancient 3 cr.

An introduction to pre-eminent works of literature from Homer to the Renaissance. Emphasis is on the personal and social contexts of the period and to the qualities which have given these writings enduring value.

(59.4 Lec. Hrs.)

Prerequisite: ENG:105 or ENG:107.
ENG:106 and a general education literature course recommended.

The following courses will be offered on a rotating basis under Studies in Literary Form:

LIT:161 The Short Story 3 cr.

An examination of the literary history and boundaries of the short story, its particular components in comparison with other kinds of fiction and short writings (e.g. novels, fairy tales, oral histories), and its subgenres (e.g. horror, detective, science fiction).

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107 and a general education literature course.
ENG:106 recommended.

LIT:165 The Novel 3 cr.

Designed to enrich the student's appreciation and understanding of the novel as a major genre of literature through the study of major representative works. The focus is on thematic connections, the history of the novel and elements of long fiction.

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107 and a general education literature course.
ENG:106 recommended.

LIT:176 Drama 3 cr.

An examination of drama as a literary form. Emphasis is on exploration of the conventions of drama through reading and interpretations of plays from all time periods, beginning with Greek and Roman drama and ending with contemporary drama.

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107 and a general education literature course.
ENG:106 recommended.

LIT:200 Studies in Literary Form 3 cr.

This course studies one particular literary genre such as the novel, the short story, contemporary drama, modern poetry, etc. The course emphasizes the craft of the genre through the examination of major, representative works as well as historical development. Students may enroll in more than one course under this catalog number.

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and
ENG:106 recommended.

The following courses will be offered on a rotating basis under Studies in Literary Theme:

LIT:131 Native American Literature 3 cr.

The study of a variety of Native American works including tales, songs, oratory, memoirs, poetry and novels. Critical examination of the works will be related to aspects of Native American culture and philosophy.

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and
ENG:106 recommended.

LIT:191 Classical Literature 3 cr.

An exploration of the function of classical themes and myths and their relevance today using a variety of ancient Greek and Roman writings.

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107 general education literature course and
ENG:106 recommended.

LIT:194 Humor and American Popular Culture 3 cr.

The study of a particular literary theme, humor in American popular culture, as it appears in various literary forms.

Emphasis is on the critical interpretation of the theme and on its relation to the culture as it appears in novels, plays, stories, poems, essays, films and other literary and popular culture artifacts.

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and
ENG:106 recommended.

LIT:195 Nature of Evil in Literature 3 cr.

A study of the social idea of evil as it is reflected in literature through the centuries (from *Paradise Lost* to *The Exorcist*).

(59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and
ENG:106 recommended.

ARTS & SCIENCES - COURSE DESCRIPTIONS

LIT:196 Literature and the Blues 3 cr.

An exploration of the world view, themes, forms and styles of blues music and its sociocultural contexts as reflected in short stories, novels, poetry, plays and autobiographical prose. Emphasis is on reading works by twentieth century African-American and Southern writers. (59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and ENG:106 recommended.

LIT:197 Sports Literature 3 cr.

An exploration of the theme of hero worship in the context of winning and losing in American sports. Students will examine the definition of being a hero, what characters gain and lose when they become heroes, what audiences expect of heroes and how characters become heroes in sports. Similar examinations will be made of sports villains and their relationships to heroes. (59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and ENG:106 recommended.

LIT:198 Existential Literature 3 cr.

Existential literature challenges us to question how our lives are ultimately defined by the fact that we will die some day. Writers such as Kierkegaard, Dostoevsky, Nietzsche and others will be discussed to guide us through a consideration of our existence. (59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and ENG:106 recommended.

LIT:220 Studies in Literary Theme 3 cr.

The study of a particular theme as it appears in various literary forms. Emphasis is on the critical interpretation of the theme and on the relationship of the theme to philosophies of life and/or culture as it appears in the different literary works. Students may enroll in more than one course under this catalog number. (59.4 Lec. Hrs.)

Prerequisites: ENG:105 or ENG:107, a general education literature course and ENG:106 recommended.

LIT:943 Readings in Literature 1-3 cr.

Designed to provide the student additional readings in literature, allowing the student to obtain a greater understanding in various areas in the discipline than can be attained by normal course work. (19.8 - 59.4 Lec. Hrs.)

MANAGEMENT

MGT:101 Principles of Management 3 cr.

This course is designed to explain the history and development of management theory and practice. Behavioral and scientific schools of management philosophy are examined. Components of organizations and how they must be integrated at all levels in an organization in order to produce an effective system are presented. (59.4 Lec. Hrs.)

MGT:110 Small Business Management 3 cr.

Blends entrepreneurial dreams with exploration of the range of business functions necessary to operate a small business, such as marketing and financial management, and business planning. Students will sharpen their problem-solving skills through a variety of experiential exercises, classroom discussion, and the completion of a partial business plan by course's end. (59.4 Lec. Hrs.)

MGT:130 Principles of Supervision 3 cr.

Emphasis is placed on the managerial directing functions, including the necessary supervisory qualities, duties and responsibilities. Attention is also given to contemporary supervisory approaches to supervision; the supervisor's relationship to the total management environment; self-management; and the supervisor's relationship to the individual employee and the work group. (59.4 Lec. Hrs.)

MGT:142 Problems and Issues in Supervision & Management 3 cr.

This course provides primary instruction tools for those who want to become supervisors. For those who are already supervisors, this course will improve the present levels of supervisory skills and knowledge. The course is an introduction to management functions and principles as they apply to the supervisory level of management. The course explains management principles and theories with terms, examples and situations that are understandable to beginners. Principles and theories are translated into every day managerial applications. (59.4 Lec. Hrs.)

Prerequisite: MGT:101 or MGT:130.

MGT:145 Human Relations in Management 3 cr.

Emphasis is placed on human relations problems in motivation and relationships with peers, subordinates and supervisors, dynamics of effective group interaction and research in the behavioral science area. (59.4 Lec. Hrs.)

MGT:165 Principles of Quality 3 cr.

This course provides a basic introductory understanding of the key principles of Total Quality Management (TQM) - leadership, information and analysis, planning, human resources, processes, results and customer satisfaction. (59.4 Lec. Hrs.)

Prerequisite: MGT:101.

MGT:188 Personnel Administration/Industrial Relations 3 cr.

An introduction to the theory and practice of personnel administration and industrial relations with a view toward harmonizing an individual worker's goals with goals of the organization. (59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

MGT:210 Management Decision-making 3 cr.

This course is a capstone “big-picture” course. It cuts across the whole spectrum of business and management. The center of attention is the total enterprise - the industry and competitive environment in which it operates, its long-term direction and strategy, its resources and competitive capabilities, and its prospects for success. Students will role play as managers answering such questions as what should managers do, and do well, to make the company a winner. Students will integrate the skills and knowledge they have acquired in previous courses in working real-world cases drawn from actual businesses.
(59.4 Lec. Hrs.)

Prerequisite: Completion of first year Business Management curriculum or instructor consent.

MARKETING

MKT:110 Principles of Marketing 3 cr.

Develops an integrated, analytical and managerial approach to the study of marketing. Principles of psychological, social, political and economic forces are analyzed as they relate to the marketing of goods and services. Strategy of marketing is based on the consumer-oriented concept.
(59.4 Lec. Hrs.)

MKT:140 Principles of Selling 3 cr.

Presents information regarding careers in selling, sales management, preparation needed for selling and sales presentations. Films and presentations by professional sales people enhance the learning experience.
(59.4 Lec. Hrs.)

MKT:150 Principles of Advertising 3 cr.

Explains the economic functions of advertising, its value and use in business. Analysis of consumer motivation, presentation of advertising and the effectiveness of various media is presented. Assignments give practice in effective advertising methods.
(59.4 Lec. Hrs.)

MKT:160 Principles of Retailing 3 cr.

Presents the character and significance of retailing in our economy. Examines the principles and applications of strategic planning in retail areas such as ownership, organization, consumer behavior, trading area, merchandise planning and financial management.
(59.4 Lec. Hrs.)

MATHEMATICS

MAT:037 Intro to Applied Math Topics Module I 1 cr.

This course is designed for any applied technology student who needs to improve arithmetic skills. Topics include arithmetic operations and problem solving with real numbers, fractions, decimals and percents. This course is recommended for students whose scores on assessment or diagnostic tests indicate a need for supplemental work in math. A scientific calculator is required.
(19.8 Lec. Hrs.)

MAT:038 Intro to Applied Math Topics Module 2 1 cr.

This course is designed for any applied technology student who needs to improve math skills. Topics include measurement systems, ratios and proportions, problem solving and an introduction to geometry. This course is recommended for students whose scores on assessment or diagnostic tests indicate a need for supplemental work in math. A scientific calculator is required.
(19.8 Lec. Hrs.)

MAT:039 Intro to Applied Math Topics Module 3 1 cr.

This course is designed for any applied technology student who needs an introduction to basic algebra. Topics include operations with signed numbers, techniques for solving simple equations and problem solving. This course is recommended for students whose scores on assessment or diagnostic tests indicate a need for supplemental work in math. A scientific calculator is required.
Prerequisite: MAT:038 or minimum math placement score.
(19.8 Lec. Hrs.)

MAT:041 Basic Math Skills 1-2-3 cr.

Designed for any student who needs to improve arithmetic skills. Topics include arithmetic operations on real numbers, fractions, decimals, percent, measurement, ratio and proportion, metric system, problem solving and an introduction to algebra. This course is recommended for students whose scores on assessment or diagnostic tests indicate a need for supplemental work in math.
(19.8, 39.6, 59.4 Lec. Hrs.)

MAT:047 Math for Nursing 3 cr.

This course is designed for pre-nursing students who need to improve arithmetic skills. This course builds on basic math skills and incorporates math computation skills necessary in the healthcare field. Emphasis is on understanding systems of measurement and conversions - metric, apothecary, household and other systems of measurement essential for the pre-nursing student. Topics include: whole number review, decimals, fractions, ratios and proportions, percents, formulas, household and metric measurement, basic algebra and word problems. The course is recommended for students whose scores on assessment or diagnostic tests indicate a need for supplemental work in math.
(59.4 Lec. Hrs.)

MAT:063 Elementary Algebra 4 cr.

A beginning course for students with little or no background in algebra. Covers basic concepts, linear equations and inequalities, graphing and linear equations in two variables, exponents and polynomials, factoring, rational expressions, and roots and radicals.
(79.2 Lec. Hrs.)
Prerequisite: Minimum math placement score.

ARTS & SCIENCES - COURSE DESCRIPTIONS

MAT:073 Elementary Algebra II 4 cr.

A one-semester course for students with a background in elementary algebra. Topics covered include a review of fundamental concepts, linear equations and inequalities in one variable, polynomials and factoring, rational expressions, linear equations and inequalities in two variables, rational exponents and radicals, quadratic equations and inequalities, systems of linear equations and inequalities, introduction to relations and functions and exponential and logarithmic functions. A graphing calculator is recommended. (79.2 Lec. Hrs.)

Prerequisite: MAT:063 or 1 year of high school algebra and minimum math placement scores.

MAT:104 Applied Math Topics 3 cr.

Presents algebra and geometry applied to specific trade applications. Mathematical ideas and procedures will be presented first, followed by applications within the various trades. (59.4 Lec. Hrs.)

Prerequisite: MAT:041, MAT:039 or placement by college assessment scores.

MAT:110 Math for Liberal Arts 3 cr.

A mathematics course designed for the liberal arts student. The course covers a broad spectrum of topics designed to help the student survey and develop skills that lead to appreciation of the value and uses of mathematics. The course will include four units. The first three will be: Unit 1: Problem Solving, Sets and Logic; Unit 2: Counting Methods and Probability; and Unit 3: Statistics. The fourth unit will be chosen from the following topics: Numeration Systems and Number Theory, Consumer Math (Mathematics of Finance), Social Choice and Decision Making. A graphing calculator is recommended.

This course satisfies a general education requirement in the Mathematics area. (59.4 Lec. Hrs.)

Prerequisite: MAT:073 or knowledge equivalent to two years of high school algebra.

MAT:121 College Algebra 4 cr.

A college-level algebra course for students majoring in business, the social sciences, sciences or liberal arts; and math students as indicated by placement measures. The course is designed to assist the student to review previously developed concepts and techniques and to prepare for future study in mathematics. Topics include: solving equations and inequalities; graphing equations and inequalities; functions including polynomial, absolute value, greatest integer, exponential and logarithmic functions; systems of equations; matrices; permutations; combinations; and the Binomial Theorem. Enrichment topics may include ellipses, hyperbolas and probability. Graphic calculator required. *This course satisfies a general education requirement in the Mathematics Area.* (79.2 Lec. Hrs.)

Prerequisite: MAT:073 or knowledge equivalent to 2 years of high school algebra and minimum math placement scores.

MAT:128 PreCalculus 4 cr.

A higher level mathematics course intended to prepare students for calculus or advanced science courses. Topics covered include logarithms and exponential functions, trigonometric functions, complex numbers, analytic geometry, and topics in the theory of equations. A graphing calculator is required.

This course satisfies a general education requirement in the Mathematics Area. (79.2 Lec. Hrs.)

Prerequisite: Satisfactory assessment scores and MAT:121 or equivalent preparation.

MAT:140 Finite Math 3 cr.

Finite Mathematics is designed for students in business, social sciences, and life sciences. Topics covered in this course are sets, functions, finance, matrices, systems of linear equations, linear programming, exponential and logarithmic functions, and sequences and series. A graphing calculator is required. *This course satisfies a general education requirement in the Mathematics Area.* (59.4 Lec. Hrs.)

Prerequisite: MAT:121 or equivalent preparation.

MAT:156 Statistics 3 cr.

Introductory statistics course for business, economics, mathematics, science and social science students. The course deals with obtaining, presenting and organizing statistical data. Topics covered include descriptive measures, probability, probability distributions, binomial distributions, normal distributions, sampling estimates, confidence intervals, hypothesis testing, chi-square test, and linear regression and correlation. A graphing calculator is required. *This course satisfies a general education requirement in the Mathematics Area.* (59.4 Lec. Hrs.)

Prerequisite: Knowledge equivalent to MAT:073 or two years of high school algebra and minimum math placement scores.

MAT:165 Business Calculus 3 cr.

This course is designed for students in business, social sciences and life sciences. Topics covered are limits, derivatives and applications of the derivative related to business, social science and the life sciences, integration and applications of the integral to business, social science and life sciences. A graphing calculator is required. *This course satisfies a general education requirement in the Mathematics Area.* (59.4 Lec. Hrs.)

Prerequisite: MAT:136 or MAT:200.

MAT:210 Calculus I 4 cr.

First of a series of three courses. The purpose of the sequence is to provide the student with a foundation in calculus and analytical geometry. Those students enrolled in the science, math, engineering, computer science and similar fields will gain proficiency. Topics include analytic geometry, differentiation and applications of the derivative, integration and its applications. A graphing calculator is required.

This course satisfies a general education requirement in the Mathematics Area. (79.2 Lec. Hrs.)

Prerequisite: MAT:128 or equivalent knowledge.

ARTS & SCIENCES - COURSE DESCRIPTIONS

MAT:216 Calculus II 4 cr.

A continuation of Calculus I, this is the second course in the series. Topics include differentiation and integration of trigonometric, logarithmic and exponential functions, methods of integration, improper integrals; polar coordinates and infinite series. A graphing calculator is required.

(79.2 Lec. Hrs.)

Prerequisite: MAT:210 or equivalent knowledge.

MAT:219 Calculus III 4 cr.

A continuation of Calculus II, this is the final course in the series. Topics include solid analytic geometry, moments, partial derivatives, multiple integrals, and vector analysis. A graphing calculator is required.

(79.2 Lec. Hrs.)

Prerequisite: MAT:216.

MAT:227 Differential Equations 4 cr.

This course is designed primarily for science, mathematics and engineering majors. Topics include ordinary differential equations, differential operators, numerical techniques and applications. A graphing calculator is required.

(79.2 Lec. Hrs.)

Prerequisite: MAT:216.

MASS MEDIA STUDIES

MMS:111 Video Production I 3 cr.

Introductory course in electronic remote video camera operation and editing. Special attention given to shot selection, framing, composition, and lighting.

Weekly projects evaluated by students and instructor in group process.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

MUSIC

MUS:100 Music Appreciation 3 cr.

An introductory course including an exploration of the basic music elements; a survey of musical periods and their characteristics from the ancient through the twentieth century; and a discussion of the differences between Western and non-Western musical form and function. Listening and concert attendance required.

This course satisfies a general education requirement in the Arts and Humanities Area.

(59.4 Lec. Hrs.)

MUS:101 Applied Voice 1 cr.

Advances students from their present vocal ability to a higher and more proficient level. There is no prerequisite and students need only the desire and interest to learn better singing techniques.

(9.9 Lab. Hrs.)

MUS:102 Music Fundamentals 3 cr.

An introduction to the basic elements of music, music reading and elementary ear training. Music notation skills are emphasized.

(59.4 Lec. Hrs.)

MUS:110 Applied Music 1 cr.

Private instruction in piano, violin or voice (other instruments may be arranged). Opportunities for performance will be provided.

(9.9 Lec. Hrs.)

MUS:120 Applied Piano I 1 cr.

Advances students from their present ability to a higher and more proficient level. There is no prerequisite and students need only the desire and interest to learn to play the piano.

(9.9 Lab. Hrs.)

MUS:122 Music Theory I 4 cr.

Techniques and materials of diatonic music, including melodic, harmonic and structural analysis. Introduction to tonal harmony through part-writing and harmonization of melodies. Sightsinging and aural skills included.

(59.4 Lec. Hrs./39.6 Lab. Hrs.)

Prerequisite: MUS:102.

MUS:123 Music Theory II 4 cr.

Further study in diatonic techniques and initial study in twentieth century techniques. Continuation of writing skills and analysis including small part forms. Sightsinging and aural skills included.

(59.4 Lec. Hrs./39.6 Lab. Hrs.)

Prerequisite: MUS:122.

MUS:147 Applied Instrumental Lessons 1 cr.

Students will be able to further their musical and technical skills on a particular instrument.

(9.9 Lec. Hrs./19.8 Lab. Hrs.)

MUS:151 Pop Singers 1 cr.

Variety Singers perform musical numbers with choreography; sacred and secular numbers, either a cappella or with instrumental accompaniment. They perform many civic and school concerts throughout the year. Audition is required for selection for the group.

(39.6 Lab. Hrs.)

Prerequisite: MUS:101.

MUS:154 Chorus 1 cr.

Designed for the student to participate in group performances. Choral arrangements include a variety of literature throughout the year including works with orchestra, sacred, secular and popular musical scores. The chorus presents several concerts during the year and produces the annual variety show.

Open to all students without an audition.

(59.4 Lab. Hrs.)

MUS:158 Civic Chorale 1 cr.

Designed to allow the choral groups to perform large scale choral works with orchestration and soloists. Enrollment may be with or without credit. Civic chorale membership is open to any resident of the community without audition.

(59.4 Lab. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

**MUS:165 Brass Ensemble/
Jazz Combo** 1 cr.
Designed for all students who play a brass instrument and wish to participate in group performances. A wide variety of literature, sacred, secular and Christmas, is included in the repertoire. The Brass Ensemble/Jazz Combo performs in the Fall and Spring Concerts and Variety Show. Small performances in the community are included throughout the semester.
(39.6 Lab. Hrs.)

MUS:199 Music History 3 cr.
This course surveys the history of music from ancient times to the present. Basic elements of music are introduced as they apply to specific musical periods. The course includes listening activities and concert attendance.
(59.4 Lec. Hrs.)

MUS:222 Music Theory III 4 cr.
An introduction to the techniques and materials of twentieth century music through analysis, listening and writing. Sight-singing and aural skills included.
(59.4 Lec. Hrs./39.6 Lab. Hrs.)
Prerequisite: MUS:123.

PHILOSOPHY

**PHI:101 Introduction to
Philosophy** 3 cr.
An introductory course using an analytical approach to the major types and problems of philosophy and stressing their relevance to contemporary society. *This course satisfies a general education requirement in the Arts and Humanities Area.*
(59.4 Lec. Hrs.)

PHI:105 Introduction to Ethics 3 cr.
This course is designed to give an introduction to ethics from a philosophical perspective. As with any philosophical activity, it will be an inquiry into the fundamental principles and basic concepts that are found at work in the ongoing determination of right and wrong in human life. Socrates' statement that ethics or moral philosophy is a subject that is "no small matter, but (concerns) how we ought to live" will be the overriding consideration in this course. *This course satisfies a general education requirement in the Arts and Humanities Area.*
(59.4 Lec. Hrs.)
Prerequisites: ENG:105. PHI:101 recommended.

PHI:110 Introduction to Logic 3 cr.
A study of the argumentative use of language and of methods for distinguishing correct from incorrect reasoning. First the multiple uses of language and their governing conventions are analyzed. Next the language of argument and informal fallacies are studied, followed by close analysis of actual arguments. The formal analysis of argument is then introduced through work on propositional logic and categorical syllogisms. The relation of formal analysis to everyday argument is examined as the course emphasis is on effective use of the latter. *This course satisfies a general education requirement in the Arts and Humanities Area.*
(59.4 Lec. Hrs.)

**PHI:127 The World's Approaches
to Spiritual Life** 3 cr.
This course involves a study of spiritualism in the world. Emphasis will be given to the origins, various concepts and applications of the phenomenon of spiritualism. What makes a person a spiritualist, and what are the fundamental teachings of spiritualism in the world? What is the relationship between the spiritual world and the physical world? What is the difference between "Spirituality" and "Spiritualism?" How does the belief in, and the practice of spiritualism affect everyday life of the peoples of the world?
(59.4 Lec. Hrs.)

PHYSICAL EDUCATION

**PEA:100/101 Introduction to
Coaching** 2-3 cr.
Introductory course dealing with the responsibilities, duties and problems in coaching the interscholastic athlete and the interscholastic team.
(39.6-59.4 Lec. Hrs.)

PEA:102 Aerobics 1 cr.
Designed for the student who would like to develop a degree of skill sufficient for leisure time participation.
(39.6 Lab. Hrs.)

PEA:109 Personal Wellness 1 cr.
The objective of this course is to teach students the basic principles of exercise, both theory and practice. Concepts included in this course are pre-exercise evaluation, cardiovascular fitness, practical training techniques, various exercise programs and post-evaluation. Students will have the option of analysis of computerized assessments.
(19.8 Lec. Hrs.)

PEA:117 Bowling I 1 cr.
Designed for students who would like to develop a degree of skill sufficient for leisure time participation.
(39.6 Lab. Hrs.)

**PEA:125 College Health
Education** 3 cr.
Study of the problems of health affected by social, economic and political changes of the twentieth century.
(59.4 Lec. Hrs.)

PEA:132 Fishing I 1 cr.
Designed for the student who would like to develop a degree of skill sufficient for leisure time participation.
(39.6 Lab. Hrs.)

PEA:134 Golf I 1 cr.
Designed for the student who would like to develop a degree of skill sufficient for leisure time participation.
(39.6 Lab Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

PEA:137 Leisure Time Education 1 cr.

Designed to provide an opportunity for the student to increase appreciation and enjoyment of leisure time via activities and skill development. Students will not be permitted to repeat for credit the several courses offered under this title. (39.6 Lab. Hrs.)

PEA:141 First Aid 2 cr.

Deals with first aid practices and problems relating to shock, contusions, hemorrhages, fractures, poisoning and other related injuries and illnesses. (39.6 Lec. Hrs.)

PEA:143 Advanced Physical Conditioning 1 cr.

Designed for the student who would like to develop a degree of skill sufficient for leisure time participation. (39.6 Lab. Hrs.)

PEA:148 Theory of Coaching Basketball 2 cr.

A study of the theory, mechanics and strategy of coaching basketball. Topics include various systems of offensive and defensive team play and basic fundamentals of passing, shooting, dribbling, etc. Attention is given to organization of squad and practice sessions, conditioning and handling of players. (39.6 Lec. Hrs.)

PEA:154 Racquetball I 1 cr.

Designed for students who would like to develop a degree of skill sufficient for leisure time participation. (39.6 Lab. Hrs.)

PEA:156 Distance Running I 1 cr.

Designed for students who would like to improve their physical conditioning and/or develop an interest in jogging for leisure activity. (39.6 Lab. Hrs.)

PEA:164 Swimming I 1 cr.

For skill techniques or physical condition. Basic swimming strokes, breath control and balance and control of the body are taught. (39.6 Lab. Hrs.)

PEA:174 Tennis I 1 cr.

Designed for the student who would like to develop a degree of skill sufficient for leisure time participation. (39.6 Lab. Hrs.)

PEA:176 Psychology of Athletic Competition 3 cr.

Deals with the motivation and understanding of the athlete and athletic team. Emphasis is on examining one's own competitive attitudes and how to improve the attitudes of the individual and the team. (59.4 Lec. Hrs.)

PEA:185 Weight Lifting I 1 cr.

Designed for the student who would like to develop a degree of knowledge sufficient for leisure time participation. (39.6 Lab. Hrs.)

PEA:187 Weight Training I 1 cr.

A course in physical fitness with emphasis on weight training. (39.6 Lab. Hrs.)

PEA:230 Individual and Team Sports 4 cr.

Designed to allow the student to understand the rules, organization and technique of developmental procedures in individual and team sports. (59.4 Lec. Hrs./39.6 Lab. Hrs.)

PEC:112 Techniques in Baseball 2 cr.

A course dealing with the development of the skills necessary for competition in baseball at the intercollegiate level. (79.2 Lab. Hrs.)

PEC:144 Theory of Coaching Baseball 2 cr.

A study of theory, mechanics and strategy of coaching baseball. Topics include offensive and defensive team play and basic fundamentals of hitting, catching, throwing and running. Attention is given to organization of team and practice sessions, conditioning and handling of players. (39.6 Lec. Hrs.)

PEC:161 Sports Officiating 3 cr.

Designed to teach the student the rules of officiating football, basketball, baseball and softball. Emphasis is on rule interpretation and proper mechanics of officiating. (39.6 Lec. Hrs./39.6 Lab. Hrs.)

PEH:160 Introduction to Physical Education 2-3 cr.

Introductory course designed to help the student develop leadership techniques, measure aptitudes and learn the general areas of physical education. Emphasis is placed on current needs and demands. (39.6-59.4 Lec. Hrs.)

PEV:167 Techniques in Softball 2 cr.

A course dealing with the development of the skills necessary for competition in softball at the intercollegiate level. (79.2 Lab Hrs.)

PHYSICAL SCIENCE

PHS:120 Exploring Physical Science 4 cr.

Introduction to selected topics in modern physical science. Emphasis is placed on topics of current events from the fields of astronomy, nuclear theory, chemistry, geology, electricity and optics. Course intended primarily for non-science majors, with material being of a non-mathematical nature.

This course satisfies a general education requirement in the Natural Sciences Area. (59.4 Lec. Hrs./39.6 Lab. Hrs.)

Prerequisite: One year of high school algebra or permission of instructor.

PHS:152 Astronomy 4 cr.

A basic course in descriptive astronomy, dealing with the development of modern astronomy from its beginnings to the present. Topics covered include motion of heavenly bodies, nature of the sun, members of the solar system, telescopes, birth and death of a star, and the organization of the universe. Some night labs are required.

This course satisfies a general education requirement in the Natural Sciences Area. (59.4 Lec. Hrs./39.6 Lab. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

PHS:166 Meteorology, Weather and Climate 4 cr.

An introduction to meteorology. The makeup of Earth's atmosphere, the elements of weather, weather maps, weather forecasting, storms and the effect of weather on the individual are covered. Basic weather instruments are constructed, and daily weather observations are made by the student. *This course satisfies a general education requirement in the Natural Sciences Area.* (59.4 Lec. Hrs./39.6 Lab. Hrs.)

PHS:172 Physical Geology 4 cr.

A survey course in physical geology, including the earth's dynamic systems, weathering of rocks, erosion processes, the theory of plate tectonics, volcanism, evolution of ocean basins, and resources and environmental problems. Emphasis in lab is on the study of common minerals and rocks. *This course satisfies a general education requirement in the Natural Sciences Area.* (59.4 Lec. Hrs./39.6 Lab. Hrs.)

PHYSICS

PHY:110 Survey of Physics I 3 cr.

Students will develop problem solving skills, become familiar with the scientific method and become proficient in making laboratory measurements. (39.6 Lec. Hrs./39.6 Lab. Hrs.) **Prerequisite:** MAT:073

PHY:111 Survey of Physics II 3 cr.

Students will develop problem solving skills, become familiar with the scientific method and become proficient in making laboratory measurements. (39.6 Lec. Hrs./39.6 Lab. Hrs.) **Prerequisite:** PHY:110

PHY:162 College Physics I 4 cr.

The first course in a sequence of two physics courses for students in liberal arts, pre-med, pre-vet, pre-dental, pre-pharmacy and other students not majoring in the physical sciences, math or engineering. Topics include fundamentals of mechanics, Newton's laws of motion, energy, momentum, fluids, rotation and thermal physics. Applications and history are discussed.

This course satisfies a general education requirement in the Natural Sciences Area. (59.4 Lec. Hrs./39.6 Lab. Hrs.)

Prerequisite: MAT:073 or two years of high school algebra. Trigonometry or high school geometry recommended.

PHY:172 College Physics II 4 cr.

Continuation of PHY:162, including waves, electricity, magnetism, optics and modern physics. (59.4 Lec. Hrs./39.6 Lab. Hrs.)

Prerequisite: PHY:162.

PHY:212 Classical Physics I 5 cr.

A course for students planning to major in physics, chemistry, engineering, mathematics or another physical science. The first in a sequence of two engineering physics courses. Topics include fundamentals of mechanics, Newton's laws of motion, energy, momentum, fluids, rotation and thermal physics. The application of calculus to physics is introduced.

This course satisfies a general education requirement in the Natural Sciences Area. (79.2 Lec. Hrs./39.6 Lab. Hrs.)

Pre/Co-requisite: MAT:210 or permission of instructor.

PHY:222 Classical Physics II 5 cr.

Continuation of PHY:212 Classical Physics I, including waves, electricity, magnetism, optics and modern physics. The application of calculus to these topics is introduced.

(79.2 Lec. Hrs./39.6 Lab. Hrs.)

Prerequisite: PHY:212 or permission of instructor.

POLITICAL SCIENCE

POL:111 American National Government 3 cr.

A survey of American government and politics. It includes discussion of the historical foundations and fundamental principles of American democracy, the basic institutions of government, the fundamental rights of citizens and the public policy process.

This course satisfies a general education requirement in the Social Sciences Area. (59.4 Lec. Hrs.)

POL:112 American State and Local Government 3 cr.

An introduction to politics, government and public policy at the state and local level, with particular emphasis on the state of Iowa. It includes an analysis of the relationship among federal, state and local governments; the structure and powers of state and local governments; the scope of political participation in state and local parties; and public policy-making by state and local governments. (59.6 Lec.Hrs.)

POL:125 Comparative Government and Politics 3 cr.

This course is a survey of political institutions across the globe. It includes discussion of the political institutions of countries at different levels of development. Emphasis will be placed on the impact of these differences on a state's citizens and public policy. Comparative Government will familiarize students with similarities and differences of governments around the world. (59.4 Lec.Hrs.)

Prerequisite: Ability to register for Composition I (ENG:105), as determined by established college assessment instruments.

POL:943 Readings in American Government 1-2 cr.

Designed to provide the student with additional reading in American government, allowing the student to obtain a greater understanding of the various problem areas in this discipline. (39.6-79.2 Lab. Hrs.)

Prerequisite: POL:111.

ARTS & SCIENCES - COURSE DESCRIPTIONS

PSYCHOLOGY

PSY:111 Introduction to Psychology 3 cr.

An examination of the fundamentals of behavior. Designed to familiarize students with human behavior, how it is studied and the applications of the results of that study. Theoretical issues, comprehension of research findings and research techniques will also be examined.

This course satisfies a general education requirement in the Social Sciences Area.
(59.4 Lec. Hrs.)

PSY:116 Human Resources I 2 cr.

Designed to facilitate self-awareness, positive self-regard and clarification of personal values in an atmosphere of trust and sharing. Emphasis is on the ways to use personal resources (strengths) for self-enhancement and personal growth.
(39.6 Lec. Hrs.)

PSY:117 Human Resources II 2 cr.

Designed to enable the student to explore personal values, strengths, experiences and relationships to enhance feelings of self-worth. Students practice specific interrelationship skills to improve abilities in relating to others. Assertiveness training and T.A. are utilized to help the student retain the achieved sense of self and allow others to maintain self-worth.
(39.6 Lec. Hrs.)

PSY:121 Developmental Psychology 3 cr.

Designed to provide the student with an understanding of the process and interrelationship of physical, emotional, intellectual and social evolution in the individual. Attention is given to these human potentials throughout the life cycle from conception to death.
(59.4 Lec. Hrs.)

Prerequisite: ENG:105.

PSY:211 Psychology of Adjustment 3 cr.

A study of the factors of mutual accommodation, adjustment. Emphasis is placed on normal adjustment problems.
(59.4 Lec. Hrs.)

Prerequisite: PSY:111 or permission of instructor.

PSY:213 Industrial and Organizational Psychology 3 cr.

A study of psychology as a guide to the relationship of people in industry. Designed to help each student develop an awareness of needs, sentiments and attitudes toward self and others in an organizational setting. Organizational problems are anticipated and preventive means are studied.
(59.4 Lec. Hrs.)

PSY:222 Child Psychology 3 cr.

Covers development from conception to childhood. Emphasis is on physiological, motor, personality, mental and emotional development of the child, as well as sensory and behavior development. Current research topics in child psychology are also explored.
(59.4 Lec. Hrs.)

PSY:223 Child Growth and Adolescent Psychology 3 cr.

Deals with the interplay of biological factors, human interactions, cultural forces and social structure which shape the growing child from conception to adolescence.
(59.4 Lec. Hrs.)

PSY:224 Adolescence Psychology 3 cr.

A comprehensive examination of the physical, cognitive and social dynamics of the developmental period between the ages of 11-18 years. Topics of discussion include puberty, the adolescent and the family, the adolescent and peers, education of adolescents, and sex and drugs in the adolescent subculture. The course is designed to provide an accurate picture of the adolescent within American culture.
(59.4 Lec. Hrs.)

PSY:226 Psychology of Aging 3 cr.

Aging is presented as an aspect of living. The course studies aging in terms of four distinct, but interrelated processes: chronological aging, biological aging, psychological aging and social aging. Same as SOC:220.
(59.4 Lec. Hrs.)

Prerequisite: PSY:121 recommended.

PSY:236 Psychology of Personality 3 cr.

An in-depth study of concepts related to personality development, description, assessment and special problems. Emphasis is given to the fields of psychoanalytic, behavioral, self-actualization and existentialism.
(59.4 Lec. Hrs.)

Prerequisite: PSY:111 or PSY:121 or permission of instructor.

PSY:241 Abnormal Psychology 3 cr.

Designed to provide the student with an understanding of abnormal behavior as it exists in modern life. Also the student will be given criteria to recognize abnormal behavior and be shown theoretical aspects along with treatment designs.
(59.4 Lec. Hrs.)

Prerequisite: PSY:111 or permission of instructor. ENG:105 recommended.

PSY:246 Introduction to Counseling Skills 3 cr.

This course is designed to provide students with three essential components relative to the fields of counseling and human services. These are 1) to attain a foundation in the theories of psychotherapy. In this course, selected prominent theories of psychotherapy, which provide guidelines for understanding human problems and for selecting interventions for these problems, will be studied. 2) To learn "helping" skills so that students can begin to practice micro-counseling techniques in the classroom. 3) To gain knowledge about the large number of occupational choices within the field of counseling and human services.
(59.4 Lec. Hrs.)

PSY:251 Social Psychology 3 cr.

A survey of the theories and research dealing with individual behavior in the social environment. Topics include social influence processes, interpersonal attraction, group behavior, leadership, conformity and attitude formation and change. Same as SOC:251.
(59.4 Lec. Hrs.)

Prerequisite: PSY:111 or permission of instructor.

ARTS & SCIENCES - COURSE DESCRIPTIONS

PSY:261 Human Sexuality 3 cr.

Introduction to the study of the dynamics of human sexuality. Emphasis is given to the physiological, psychological and social aspects of sexuality.

Same as SOC:261.

(59.4 Lec. Hrs.)

PSY:262 Psychology of Gender 3 cr.

This course is designed to explore the differences between the male and female gender from conception through adulthood. Differences in abilities and attitudes which arise from biology and the brain will be emphasized, although socio-cultural explanations for differences will also be discussed. In addition, the differences in the use of language and communication by males and females will be explored. The goal of the course is to understand these differences and to decide how males and females can use this understanding to communicate with each other and to augment appreciation for the cross-sex.

(59.4 Lec. Hrs.)

Prerequisite: PSY:111 recommended.

PSY:270 Research Methods in Social Sciences 3 cr.

Topics covered include the scientific method, control of research, ethics in research design, research methods and designs, and statistical analyses used to report research findings. Students will conduct a group research project as part of the course.

(59.4 Lec. Hrs.)

PSY:281 Educational Psychology 3 cr.

This course is designed for individuals who are or will be working in a vocational environment that requires them to provide or become part of an educational or training program. Although the course is targeting traditional educational systems, there is direct applicability to virtually any setting in which you may be required to help an individual or group of individuals learn and understand new information, or to develop new knowledge and skills sets. The fundamentals of this course are designed to assist the student in differentiating learning theory and processes as aspects of human development. Emphasis is placed on the roles of the educators and the students in applying the principles of learning, instruction, evaluation and pupil management.

(59.4 Lec. Hrs.)

PSY:943 Readings in Psychology 1-2 cr.

Designed to provide additional readings in psychology, allowing the student to obtain a greater understanding of the various areas of this discipline than can be attained by normal course work.

(39.6-79.2 Lab. Hrs.)

Prerequisite: PSY:111 or permission of instructor.

READING

RDG:032/033 Introduction to College Reading 2-3 cr.

Introductory course designed to assist the student whose present reading level is not sufficiently developed to meet the recommended college-level assignments. Emphasis will be on improving comprehensive reading skills as well as reading speed and general vocabulary. Satisfactory completion of course work and a passing score on the reading post-test must be met before enrollment in 100 level courses is permissible.

(39.6-59.4 Lec. Hrs.)

Prerequisite: Successful completion of RDG:042 or RDG:045 or ENG:064 or appropriate assessment scores.

RDG:042 Basic Reading Skills - Paired 3 cr.

This course is designed for students who need intensive direction in reading and study skills. This interdisciplinary course will include: 1) using an appropriate textbook to teach reading, vocabulary and study skills; and 2) using the reading text to remediate specific reading problems.

(59.4 Lec. Hrs.)

RDG:045 Keys to Reading 3 cr.

This course is designed for students who need intensive direction in reading and study skills. Emphasis will be on improving comprehensive reading skills and general vocabulary.

(59.4 Lec. Hrs.)

RDG:140 Technical Reading 3 cr.

This course is designed to assist the student who is required to read technical materials in his/her career choice. New technological changes require constant updating through reading books, professional journals and magazines.

Emphasis will be on improving reading comprehension skills, technical vocabulary, reading rate and study skills.

(59.4 Lec. Hrs.)

RDG:162 Speed Reading 2 cr.

Designed as an elective course for those students whose reading skills meet minimum standards, but who would like to improve their skills in reading speed and comprehension in college-level material.

(59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

RELIGION

REL:101 Survey of the World's Religions 3 cr.

This is an introductory course to the origins and historical developments of various religions of the world. Particular emphasis will be placed on understanding why peoples of the world embrace various religions, and the role religion plays in giving meaning and purpose to personal and social existence. The course will provide students the opportunity to understand world events through an understanding of the impact of religious beliefs and values on people's daily lives. The study will include a survey of Religions of Prehistoric Cultures; Native American Religions; African Religions; Religions of India; Religions of China and Japan; Religions of Southwest Asia; Christianity; the Bahai Religion; and New Religions in America.

This course satisfies a general education requirement in the Arts and Humanities Area.

(59.4 Lec. Hrs.)

SOCIOLOGY

SOC:110 Introduction to Sociology 3 cr.

The basic premise of sociology is that life is not lived individually, but in groups, through the symbols, the language, the roles we play, the culture the group has developed and the meanings the group has to offer. This course will introduce a framework of thinking that involves social structure, function, interaction and conflict, with respect to family, education, the economy, government and religion.

This course satisfies a general education requirement in the Social Sciences Area.

(59.4 Lec. Hrs.)

SOC:115 Social Problems 3 cr.

Designed to assist the student in the examination of major social problems: poverty, mental illness, crime and delinquency, alcoholism and drug addiction, family disorganization, problems of the aged and racial problems.

(59.4 Lec. Hrs.)

SOC:120 Marriage and Family 3 cr.

A study of the contemporary American family, the interpersonal relationships of family members, the emergence of human personality and the roles and role expectations of our culture, with emphasis on how they affect the student.

(59.4 Lec. Hrs.)

SOC:140 Human Behavior in the Social Environment 3 cr.

This course is intended to provide foundation content in a number of areas. Knowledge and skills helpful for effective social work practice are built from this foundation content. We explore human behavior and development from multiple perspectives for a multidimensional approach. The perspectives include ecological systems, conflict, rational choice, social constructionist, psychodynamic, developmental, social/behavioral, and a humanistic perspective. In addition, we examine human relationships at the family, group, community, organizational and cultural levels.

(59.4 Lec. Hrs.)

SOC:160 Introduction to Social Work 3 cr.

Social work's objective is to help people meet their legitimate needs. A society's social welfare system is the set of provisions it makes for the well-being of all its members. This course is an introduction to the social work profession, its participation in the social welfare system, and some of the ways social workers help people.

(59.4 Lec. Hrs.)

SOC:220 Sociology of Aging 3 cr.

Aging is presented as an aspect of living. The course studies aging in terms of four distinct, but interrelated processes: chronological aging, biological aging, psychological aging and social aging.

Same as PY:222.

(59.4 Lec. Hrs.)

Prerequisite: PSY:121 recommended.

SOC:230 Juvenile Delinquency 3 cr.

Introduces the causes of delinquency and the modification of such behavior by corrective institutions and individual therapy. Emphasis is placed on the study of the development of individual personality through inter-family relationships, antisocial aggressive acts from early abnormal family and social situations.

Same as CRJ:201.

(59.4 Lec. Hrs.)

SOC:240 Criminology 3 cr.

The study of human behavior and crime, the development of corrections and criminology with sociological and cultural approaches to crime and the career criminal. Same as CRJ:200.

SOC:251 Social Psychology 3 cr.

A survey of the theories and research dealing with individual behavior in the social environment. Topics include social influence processes, interpersonal attraction, group behavior, leadership, conformity and attitude formation and change.

Same as PSY:251.

(59.4 Lec. Hrs.)

Prerequisite: PSY:111 or permission of instructor.

SOC:261 Human Sexuality 3 cr.

Introduction to the study of the dynamics of human sexuality. Emphasis is given to the physiological, psychological and social aspects of sexuality.

Same as PSY:261.

(59.4 Lec. Hrs.)

SOC:943 Readings in Sociology 1-3 cr.

Designed to provide additional reading in sociology, allowing the student to obtain a greater understanding in various problem areas in the discipline.

(39.6-118.8 Lab. Hrs.)

Prerequisite: SOC:110.

ARTS & SCIENCES - COURSE DESCRIPTIONS

SPANISH

FLS:110 Spanish for Professional Law Enforcement 2 cr.

Designed to provide law enforcement officers with a basic knowledge of the Spanish language in order to deal more effectively, more efficiently and more professionally with Spanish-speaking persons they may encounter in various situations. (39.6 Lec. Hrs.)

FLS:141 Elementary Spanish I 4 cr.

Beginning Spanish with emphasis on understanding, speaking, reading and writing. Supplemented by cultural readings and multimedia presentations. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.* (79.2 Lec. Hrs.)

FLS:142 Elementary Spanish II 4 cr.

A continuation of FLS:141, further developing the student's skills in reading, writing, listening and speaking. Similarities and differences in culture will also be explored. *This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.* (79.2 Lec. Hrs.)

Prerequisite: FLS:141 or equivalent.

FLS:146 Situational Spanish 2 cr.

Conversation in Spanish using relevant contemporary situations. Situations to be presented will be determined following an assessment of student's background and needs. Listening comprehension is highly emphasized. (39.6 Lec. Hrs.)

Prerequisite: FLS:142.

FLS:231 Intermediate

Spanish I

3 cr.

Equivalent to third-level Spanish, this course reviews the fundamentals of language communication and further improves on idiomatic usages, speaking and understanding. Readings and multimedia presentations on Hispanic culture, current events and literary offerings are integrated in texts and assignments. Exams will test oral, cultural, comprehension and written skills.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.

(59.4 Lec. Hrs.)

Prerequisite: FLS:142, two years of high school Spanish or approval of instructor.

FLS:232 Intermediate

Spanish II

3 cr.

Designed to complete the second-year college course through intensive practices of methods and materials presented in Intermediate Spanish I. Advanced examination of Hispanic culture, through selected readings and multi-media presentations, will aid the student in increasing speed and fluency in the spoken language. Translation skills will be enhanced as well.

This course satisfies a general education requirement in the Cultural/Historical Perspectives Area.

(59.4 Lec. Hrs.)

Prerequisite: FLS:231 or consent of instructor.

SPEECH

SPC:112 Public Speaking 3 cr.

Introduction to the principles of public speaking with emphasis on performance and listening. Experience in the basic process and principles of public speaking, audience analysis, selection and organization of speech material, style and delivery. Practice in delivery and preparation of informative and persuasive extemporaneous speeches.

This course satisfies a general education requirement in the Communications Area. (59.4 Lec. Hrs.)

SPC:114 Advanced Public Speaking 2 cr.

Applications of the principles, theory, process and analysis of various methods of speaking, persuasion, composition, audience analysis, propaganda and logical, ethical and emotional proofs to change attitudes. Students will participate in class debates and discussions. (39.6 Lec. Hrs.)

SPC:122 Interpersonal Communication 3 cr.

This course will help students become more aware of how they relate to and communicate with other people. Elements will include self-esteem, disclosure, perception, listening, verbal and nonverbal communication, persuasion, assertiveness, coping with conflict and managing relationships. Small group communication and critical thinking are emphasized. (59.4 Lec. Hrs.)

SPC:170 Professional Communication 3 cr.

Practice and theory in communication in professional settings. Components include interpersonal, dyad, small group and large group discussion, extemporaneous and impromptu speaking - informative and persuasive. *This course satisfies a general education requirement in the Communications Area.* (59.4 Lec. Hrs.)

ARTS & SCIENCES - COURSE DESCRIPTIONS

STUDENT DEVELOPMENT

SDV:108 The College Experience 1 cr.

This course will assist all new college students to acquire essential skills needed for academic success. The topics covered are campus resources, classroom strategies, library skills, computer resources, and student responsibilities. (19.8 Lec. Hrs.)

SDV:112 Introduction to Reasoning 2 cr.

Studies problem-solving techniques that are necessary for critical thinking.

Emphasis is placed on learning appropriate strategies for solving numerical, word, spatial, matrix, convergent and divergent problems.

Topics include learning styles, right/left brain, memory techniques, decision making, value clarification and goal setting. (39.6 Lec. Hrs.)

SDV:113/114 Strategies for Academic Success 2-3 cr.

The purpose of this course is to provide an opportunity for students to learn and adopt methods to be successful in school.

Topics include memory development, reading and note-taking techniques, test-taking techniques, time and money management, stress reduction, self-esteem, and college policies and procedures. (39.6-59.4 Lec. Hrs.)

SDV:130/131 Career Exploration 1-2 cr.

Designed to involve students in educational and occupational orientation (as related to self) and to make valid educational choices. Participants have an opportunity to investigate employment opportunities in their field of interest.

The college selection process is reviewed and an appropriate curriculum for students' majors will be developed. (19.8-39.6 Lec. Hrs.)

SDV:174 Critical and Creative Thinking Studies 3 cr.

Provides training in thinking, decision-making, problem analysis and problem solving. The students will apply critical and creative thinking strategies to problems in a variety of personal, occupational and cultural situations. (59.4 Lec. Hrs.)

SDV:188 Understanding Chemical Dependency 2 cr.

This course studies a broad range of chemicals and the physiological and psychological effects on the human body and mind. The study includes behavioral implications and issues of prevention, intervention and treatment. (39.6 Lec. Hrs.)

SDV:190/191/192 Sex, Family and Marriage 1-3 cr.

Students explore interpersonal relationships related to love and marriage in modern society. Films, guest speakers and small group discussions will motivate class discussion exploring prerequisites to successful relationships. (19.8-59.4 Lec. Hrs.)

SDV:196 Getting Involved 1 cr.

Students will receive credit for volunteer work in a community organization or with one of the college services.

Emphasis is on involvement with other people. Activities may include tutoring, working with youth or aged, or a leadership position in a college activity. (19.8 Lec. Hrs.)

Prerequisite: Consent of instructor.

SDV:220 Honors Colloquium 2 cr.

Provides students who have a high level of academic achievement with learning opportunities beyond current curricular offerings. Through a variety of classroom and field activities, students will be challenged to use critical and creative thinking processes. Academic departments and guests will have opportunities to present enriching activities. (39.6 Lec. Hrs.)

FUEL your mind.



Career Technology

CLINTON ♦ MUSCATINE ♦ SCOTT
COMMUNITY COLLEGES
EASTERN IOWA COMMUNITY COLLEGE DISTRICT

CAREER TECHNOLOGY AREAS

Career Technology Concentration Areas	Award	College(s)
Accounting Management	AAS Degree, Diploma	.CCC,SCC
Administrative and Office Support	AAS Degree, Certificate, Diploma	.CCC,MCC,SCC
Accounting Assistant	Certificate	.MCC
Administrative Support	Diploma	.CCC
Clerk Receptionist	Certificate	.MCC
Microcomputer Application		
Software Specialist	Diploma	.SCC
Office Assistant	Diploma	.MCC
Office Support	Certificate	.SCC
Software Application Specialist	Certificate	.MCC
Auto Collision Repair Technology	AAS Degree, Diploma	.SCC
Automotive Technology	AAS Degree, Diploma, Certificate	.SCC
Business Management	AAS Degree, Certificates	.CCC,SCC
Management/Supervision	Certificate	.CCC,SCC
Marketing	Certificate	.CCC,SCC
Small Business Management	Certificate	.CCC,SCC
Cancer Information Management	AAS Degree, Diploma	.SCC
Child Care	AAS Degree, Certificate, Diploma	.MCC,SCC
CNC/Machining	AAS Degree	.SCC
CNC Programming	Certificate	.SCC
Manual Machining	Certificate	.SCC
Culinary Arts Apprenticeship	AAS Degree, Certificate	.SCC
Dental Assisting	Diploma	.SCC
Dental Hygiene	AAS Degree	.CCC,MCC,SCC(KCC)***
Diesel Technology	AAS Degree	.SCC
Electroneurodiagnostic Technology	AAS Degree	.SCC
Emergency Medical Services	AAS Degree, Certificate	.CCC,MCC,SCC
Equestrian Science	AAS Degree, Certificates	.CCC,MCC,SCC/BHC*
Farm Management	AAS Degree	.MCC
Animal Science and Production Specialist	Diploma	.MCC
Plant Production Specialist	Diploma	.MCC
Swine Production Specialist	Diploma	.MCC
Feed and Fertilizer Marketing	AAS Degree	.MCC
Retail Agribusiness Crop Science Specialist	Diploma	.MCC
Retail Agribusiness Feed and Grain Specialist	Diploma	.MCC
Retail Agribusiness Sales and Service Specialist	Diploma	.MCC
Retail Lawn Care Sales and Service Specialist	Diploma	.MCC
Fire Service Officer	Diploma	.CCC,MCC,SCC/BHC*
Graphic and Printing Communications	AAS Degree, Diploma	.CCC
Press Operations	AAS Degree, Diploma	.CCC
Health Information Technology	AAS Degree, Diploma	.SCC
Health, Safety and Environmental Technology	AAS Degree, Certificate	.CCC,MCC,SCC
Heating, Ventilation and Air Conditioning	AAS Degree, Certificate, Diploma	.SCC
Horse Science Technology	AAS Degree, Certificate	.CCC,MCC,SCC/BHC*
Horticulture	AAS Degree	.MCC
Hospitality Management	AAS Degree	.SCC

CAREER TECHNOLOGY AREAS

Information Technology	AAS Degree, Certificate	.CCC,MCC,SCC
A+ Preparation	Certificate	.CCC
CISCO Networking (CCNA)	Certificate	.CCC,MCC,SCC
CISCO Networking (CCNP)	Certificate	.SCC
Networking	AAS Degree	.CCC,MCC,SCC
Network+ Preparation	Certificate	.CCC
Software Development	AAS Degree	.CCC,MCC,SCC
Web Design	Certificate	.MCC,SCC
Interior Design	AAS Degree	.SCC
International Trade	Certificate	.CCC,MCC,SCC/BHC*
Law Enforcement	AAS Degree, Certificate	.CCC,MCC,SCC/BHC*
Manufacturing Maintenance	AAS Degree	.MCC
Manufacturing Technology	AAS Degree	.CCC,MCC
Mechanical Design	AAS Degree, Diploma	.SCC
CAD/Pro Engineer	Certificate	.SCC
Pro Engineer/Solid Modeling	Certificate	.SCC
Mechatronics Technology	AAS Degree, Diploma	.CCC
Massage Therapy and Body Work	Certificate	.CCC,MCC,SCC/BHC*
Nursing		
Associate Degree Nursing	AAS Degree	.CCC,SCC
Practical Nursing	Diploma	.CCC,MCC,SCC
Physical Therapist Assistant	AAS Degree	.CCC,MCC,SCC/BHC*
Radiologic Technology	AAS Degree	.SCC
Computed Tomography	Adv. Certificate	.SCC/CSC**
Diagnostic Medical Sonography	Adv. Certificate	.SCC/CSC**
Magnetic Resonance Imaging	Adv. Certificate	.SCC/CSC**
Nuclear Medicine Technology	Adv. Certificate	.SCC/CSC**
Respiratory Care	AAS Degree	.CCC/MCC/SCC/NICC****
Sign Language Interpreter	AAS Degree	.SCC
Technical Drafting and Computer Aided Design	AAS Degree	.CCC
Geographic Information Systems	Certificate	.CCC
Technical Studies	AAS Degree	.CCC,MCC,SCC
Electromechanical Systems	AAS Degree	.SCC
Applied Electricity	Certificate	.SCC
Electrical Mechanical Systems	Certificate	.SCC
Electrical Systems	Certificate	.SCC
Hydraulics/Pneumatics Systems	Certificate	.SCC
Truck Driving	Certificate	.SCC
Welding	AAS Degree, Diploma	.SCC
Basic Welding	Certificate	.SCC
General Maintenance	Certificate	.SCC
Production Welding	Certificate	.SCC
Structural Welding	Certificate	.SCC

* Black Hawk College Cooperative Programs, Moline, Illinois

** Carl Sandburg College Cooperative Program, Galesburg, Illinois

*** Kirkwood Community College Cooperative Program, Cedar Rapids, Iowa

**** Northeast Iowa Community College Cooperative Program, Peosta, Iowa

GENERAL EDUCATION REQUIREMENTS

Clinton, Muscatine & Scott Community Colleges

Associate in Applied Science

A minimum of 12 credit hours of general education is required for the Associate in Applied Science degree, with at least one course in Communications, one course in Humanities or Social Science and one course in Math or Science. Specific general education courses required in each program are listed under the program's curriculum.

Diploma

A minimum of six credit hours of general education is required for the diploma. Three credit hours must be in Communications and three credit hours in Humanities, Social Science, Math or Science. Specific general education courses required in each program are listed under the program's curriculum.

Certificate

There are no specific general education requirements for certificates.

ADMINISTRATIVE AND OFFICE SUPPORT

Clinton Community College

A.A.S., Diploma, Certificate

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
ADM:123 Document Formatting	3
ADM:179 Records Management	3
BUS:161 Human Relations	3
ADM:157 Business English	3
CSC:110 Introduction to Computers	<u>3</u>
	15

SECOND SEMESTER

ADM:130 Intermediate Document Formatting	3
BCA:134 Word Processing	3
ADM:154 Business Communication	3
ADM:223 Office Procedures	4
ADM:133 Business Math and Calculators	3
ADM:940 Office Leadership Seminar	<u>2</u>
	18

THIRD SEMESTER

ACC:111 Introduction to Accounting	3
BCA:250 Desktop Publishing	3
ADM:127 Advanced Document Formatting	3
ADM:149 Transcription	3
SPC:112 Public Speaking	<u>3</u>
	15

FOURTH SEMESTER

ADM:941 Administration and Office Support Practicum	4
HUM:110 Changes and Choices	3
BCA:226 Integrated Software Applications	3
Approved Electives	<u>6</u>
	16

A.A.S. TOTAL**64**

ADMINISTRATIVE SUPPORT DIPLOMA

FIRST SEMESTER

	CREDITS
ADM:123 Document Formatting	3
ADM:179 Records Management	3
BUS:161 Human Relations	3
ADM:157 Business English	3
CSC:110 Introduction to Computers	<u>3</u>
	15

SECOND SEMESTER

ADM:130 Intermediate Document Formatting	3
BCA:134 Word Processing	3
ADM:154 Business Communication	3
ADM:223 Office Procedures	4
ADM:133 Business Math and Calculators	3
ADM:940 Office Leadership Seminar	<u>2</u>
	18

THIRD SEMESTER

ACC:111 Introduction to Accounting	3
BCA:250 Desktop Publishing	3
ADM:127 Advanced Document Formatting	3
ADM:149 Transcription	3
SPC:112 Public Speaking	<u>3</u>
	15

DIPLOMA TOTAL**48**

OFFICE SUPPORT CERTIFICATE

FIRST SEMESTER

	CREDITS
ADM:123 Document Formatting	3
ADM:179 Records Management	3
BUS:161 Human Relations	3
ADM:157 Business English	3
CSC:110 Introduction to Computers	<u>3</u>
	15

SECOND SEMESTER

ADM:130 Intermediate Document Formatting	3
BCA:134 Word Processing	3
ADM:154 Business Communication	3
ADM:223 Office Procedures	4
ADM:133 Business Math and Calculators	3
ADM:940 Office Leadership Seminar	<u>2</u>
	18

CERTIFICATE TOTAL**33**

ADMINISTRATIVE AND OFFICE SUPPORT

Muscatine Community College

A.A.S., Diploma, Certificate

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
ADM:105 Introduction to Keyboarding	1
BCA:106 Windows Operating System	1
BCA:129 Word Processing I	2
BCA:130 Word Processing II	2
ADM:122 Document Formatting	2
ADM:155 Essentials of Business English I	2
ADM:156 Essentials of Business English II	2
MKT:181 Customer Service Strategies	2
ADM:171 Records Management	2
ADM:254 Business Professionalism	<u>1</u>
	17

SECOND SEMESTER

ADM:158 Effective Business Writing	2
BCA:147 Spreadsheets I	2
BCA:148 Advanced Spreadsheets	2
ADM:270 Intro. to Speech Recognition	3
BCA:207 PowerPoint/Outlook	2
ADM:257 Professionalism in the Workplace	2
ADM:254 Business Professionalism	1
BUS:161 Human Relations	<u>3</u>
	15

THIRD SEMESTER

ADM:132 Business Math and Calculations	2
ADM:279 Meeting and Conference Planning	2
BCA:159 Database Applications	2
ADM:141 Desktop Publishing	2
SPC:170 Professional Communication	3
ECN:120 Introduction to Macroeconomics-OR-	3
ECN:130 Introduction to Microeconomics	3
Approved Elective	<u>2</u>
	16

FOURTH SEMESTER

ACC:109 Introduction to Accounting I	2
ACC:110 Introduction to Accounting II	2
ACC:332 Computer Accounting-Quickbooks I	2
ADM:148 Transcription	2
BCA:220 Integrated Computer Business Applications	2
ADM:936 Cooperative Work Experience	3
Approved Elective	<u>3</u>
	16

A.A.S. TOTAL64

OFFICE ASSISTANT DIPLOMA

FIRST SEMESTER

ADM:105 Introduction to Keyboarding	1
BCA:106 Windows Operating System	1
BCA:129 Word Processing I	2
BCA:130 Word Processing II	2
ADM:132 Business Math and Calculations	2
ADM:155 Essentials of Business English I	2
ADM:156 Essentials of Business English II	2
BCA:159 Database Applications	2
MKT:181 Customer Service Strategies	<u>2</u>
	16

SECOND SEMESTER

ADM:158 Effective Business Writing	2
ADM:122 Document Formatting	2
ADM:257 Professionalism in the Workplace	2
ACC:109 Introduction to Accounting I	2
ACC:110 Introduction to Accounting II	2
BCA:147 Spreadsheets I	2
BCA:207 PowerPoint/Outlook	2
BUS:161 Human Relations	<u>3</u>
	17

THIRD SEMESTER

ADM:148 Transcription	2
ADM:171 Records Management	2
ADM:936 Cooperative Work Experience	<u>3</u>
	7

DIPLOMA TOTAL40

ACCOUNTING ASSISTANT CERTIFICATE

ADM:132 Business Math and Calculations	2
ACC:109 Introduction to Accounting I	2
ACC:110 Introduction to Accounting II	2
ACC:332 Computer Accounting-Quickbooks I	<u>2</u>
	8

ADMINISTRATIVE AND OFFICE SUPPORT

Muscatine Community College

A.A.S., Diploma, Certificate

CLERK RECEPTIONIST CERTIFICATE

FIRST SEMESTER

ADM:105	Introduction to Keyboarding	1
BCA:106	Windows Operating System	1
BCA:129	Word Processing I	2
BCA:130	Word Processing II	2
ADM:122	Document Formatting	2
ADM:171	Records Management	2
MKT:181	Customer Service Strategies	<u>2</u>
		12

SECOND SEMESTER

BCA:147	Spreadsheets I	2
ADM:155	Essentials of Business English I	2
ADM:156	Essentials of Business English II	2
ADM:257	Professionalism in the Workplace	<u>2</u>
		8

CERTIFICATE TOTAL20

SOFTWARE APPLICATIONS SPECIALIST CERTIFICATE

FIRST SEMESTER

ADM:105	Introduction to Keyboarding	1
BCA:106	Windows Operating System	1
BCA:129	Word Processing I	2
BCA:130	Word Processing II	2
BCA:159	Database Applications	2
ADM:141	Desktop Publishing	<u>2</u>
		10

SECOND SEMESTER

ADM:122	Document Formatting	2
BCA:147	Spreadsheets I	2
BCA:148	Spreadsheets II	2
BCA:207	PowerPoint/Outlook	2
ADM:270	Introduction to Speech Recognition	<u>1</u>
		9

CERTIFICATE TOTAL19

ADMINISTRATIVE AND OFFICE SUPPORT

Scott Community College

A.A.S., Diploma, Certificate

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
ADM:122 Document Formatting	2
ADM:171 Records and File Management	2
ADM:157 Business English	3
BCA:732 Getting Organized with Outlook	1
BCA:118 Introduction to the PC	1
BCA:106 Windows Operating System	1
MKT:181 Customer Service Strategies	2
ADM:102 Telephone and Mailing Techniques	1
BCA:722 Introduction to the Internet	1
BCA:711 Introduction to Microsoft PowerPoint	1
BUS:161 Human Relations	<u>3</u>
	18

SECOND SEMESTER

BCA:134 Word Processing Applications	3
BCA:146 Basic Spreadsheets	1
BCA:164 Basic Databases	1
BCA:149 Spreadsheets II	1
BCA:160 Intermediate Databases	1
BCA:153 Spreadsheet Applications III	1
BCA:169 Advanced Databases	1
BUS:110 Business Math and Calculators	3
HUM:110 Changes and Choices	<u>3</u>
	15

THIRD SEMESTER

ADM:125 Document Formatting II	2
BCA:250 Desktop Publishing	3
BUS:106 Employment Strategy	2
ADM:148 Transcription	2
BCA:220 Integrated Business Applications	2
SPC:170 Professional Communication	3
Business or Management Elective	<u>3</u>
	17

FOURTH SEMESTER

ACC:100 Principles of Accounting	3
MGT:151 Management Communication I	3
ADM:360 Administrative Project Management I	3
MGT:130 Principles of Supervisory Management	3
Business or Management Elective	<u>3</u>
	15

A.A.S. TOTAL65

MICROCOMPUTER APPLICATION SOFTWARE SPECIALIST DIPLOMA

FIRST SEMESTER

	CREDITS
ADM:122 Document Formatting	2
ADM:171 Records Management	2
ADM:157 Business English	3
BCA:732 Getting Organized with Outlook	1
BCA:118 Introduction to the PC	1
BCA:106 Windows Operating System	1
MKT:181 Customer Service Strategies	2
ADM:102 Telephone and Mailing Techniques	1
BCA:722 Introduction to the Internet	1
BCA:711 Introduction to Microsoft PowerPoint	<u>1</u>
	15

SECOND SEMESTER

BCA:134 Word Processing Applications	3
BCA:146 Basic Spreadsheets	1
BCA:164 Basic Databases	1
BCA:149 Spreadsheets II	1
BCA:160 Intermediate Databases	1
BCA:153 Spreadsheets III	1
BCA:169 Advanced Database	1
BUS:110 Business Math and Calculators	<u>3</u>
	12

THIRD SEMESTER

ADM:125 Document Formatting II	2
BCA:250 Desktop Publishing	3
BUS:106 Employment Strategy	2
BCA:220 Integrated Business Applications	2
BUS:161 Human Relations	<u>3</u>
	12

DIPLOMA TOTAL39

ADMINISTRATIVE AND OFFICE SUPPORT

Scott Community College

A.A.S., Diploma, Certificate

OFFICE SUPPORT CERTIFICATE

FIRST SEMESTER

		CREDITS
ADM:122	Document Formatting	2
ADM:171	Records Management	2
ADM:157	Business English	3
BCA:732	Getting Organized with Outlook	1
BCA:118	Introduction to the PC	1
BCA:106	Windows Operating System	1
ADM:102	Telephone and Mailing Techniques	1
BCA:722	Introduction to the Internet	<u>1</u>
		12

SECOND SEMESTER

BCA:134	Word Processing Applications	3
BUS:106	Employment Strategy	2
MKT:181	Customer Service Strategies	2
BCA:146	Basic Spreadsheets	1
BCA:164	Basic Databases	1
BUS:161	Human Relations	<u>3</u>
		12
CERTIFICATE TOTAL		24

AUTO COLLISION REPAIR TECHNOLOGY

Scott Community College

A.A.S., Diploma

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
CRR:140 Orientation and Safety	3
CRR:322 Basic Metal Bumping and Repair	5
CRR:801 Refinishing I	3
CRR:452 Trim and Component Panel Services	2
English Elective	3
CRR:113 Welding Survey	<u>2</u>
	18

SECOND SEMESTER

CRR:405 Non-Structural Panel Repair and Replacement	5
CRR:825 Refinishing Principles	5
CRR:798 Spray Techniques & Surface Coatings	1
CRR:200 Plastic Repair	1
Math Elective	3
CRR:114 Welding Systems and Techniques	<u>2</u>
	17

SUMMER SESSION

CRR:842 Color Matching Concepts	<u>5</u>
	5

**AUTO COLLISION REPAIR TECHNOLOGY
DIPLOMA AWARDED TOTAL 40**

THIRD SEMESTER

CRR:507 Structural Panel Repair and Replacement	5
CRR:612 Steering Suspension	3
CRR:878 Advanced Refinishing Techniques	2
CRR:115 Advanced Welding Techniques	1
Humanities Elective	3
Elective	<u>3</u>
	17

FOURTH SEMESTER

CRR:674 Electrical Service	4
CRR:743 Estimating	3
CRR:605 Mechanical Service	3
CRR:949 Special Topics	1-3
CRR:908 Cooperative Work Experience*	<u>3</u>
	13

A.A.S. TOTAL70

The above sequence is for fall semester start only. Students may begin during the spring semester. Ask an academic advisor or the Transportation Technologies Coordinator for the spring start sequence.

*A student may register for Coop Experience during the Summer Session, Third or Fourth Semester.

AUTOMOTIVE TECHNOLOGY

Scott Community College

A.A.S., Certificate, Diploma

FIRST SEMESTER

	CREDITS
Module I	
MAT:104 Applied Math Topics	3
AUT:115 Automotive Shop Safety	1
AUT:164 Automotive Engine Repair	4
Module II	
AUT:606 Basic Automotive Electricity/Electronics	3
AUT:614 Automotive Electrical I	3
16 Week Elective	
English Elective	<u>3</u>
	17

SECOND SEMESTER

Module III	
AUT:524 Automotive Brake Systems and Service	4
AUT:304 Automotive Manual Drive Train and Axles	4
Module IV	
AUT:802 Engine Performance I	3
AUT:232 Automotive Transmission I	<u>3</u>
	14

SUMMER SESSION

Module V	
AUT:404 Automotive Suspension and Steering	4
AUT:704 Automotive Heating and Air Conditioning	<u>4</u>
	8

**AUTOMOTIVE TECHNOLOGY
DIPLOMA AWARDED TOTAL** **39**

THIRD SEMESTER

Module VI	
AUT:811 Engine Performance II	4
Module VII	
AUT:233 Automotive Transmission II	3
16 Week Elective	
Humanities Elective	3
Elective	<u>3</u>
	13

FOURTH SEMESTER

Module VIII	
AUT:817 Automotive Engine Performance III	3
AUT:911 Co-op Experience	4
Module IX	
AUT:656 Automotive Electrical II	4
WEL:331 Welding Fundamentals	<u>2</u>
	13
A.A.S. TOTAL	65

This sequence is for fall semester start only. Students may begin in the spring. See the Transportation Technologies Department Coordinator for course sequence information.

AUTOMOTIVE TECHNOLOGY BASIC SERVICE CERTIFICATE

Fall Start Course Sequence

First Semester - Fall

AUT:116 Automotive Shop Safety	1
AUT:606 Basic Automotive Electricity/Electronics	3
AUT:614 Automotive Electrical I	3
General Education Elective	3

Second Semester - Spring

AUT:524 Automotive Brake Systems and Service	4
Summer Session	
AUT:404 Automotive Suspension and Steering	4

Certificate Total**18**

Spring Start Course Sequence

First Semester - Spring

AUT:116 Automotive Shop Safety	1
AUT:606 Basic Automotive Electricity/Electronics	3
AUT:614 Automotive Electrical I	3
AUT:524 Automotive Brake Systems and Service	4
General Education Elective	3

Summer Session - Fall

AUT:404 Automotive Suspension and Steering	4
Certificate Total	18

AUTOMOTIVE TECHNOLOGY GENERAL SERVICE CERTIFICATE

First Semester - Fall

AUT:116 Automotive Shop Safety	1
AUT:606 Basic Automotive Electricity/Electronics	3
AUT:614 Automotive Electrical I	3
AUT:164 Automotive Engine Repair	4
General Education Elective	3

Second Semester - Spring

AUT:802 Engine Performance I	3
AUT:232 Automotive Transmissions I	3
AUT:304 Automotive Manual Drive Train and Axles	4
AUT:524 Automotive Brake Systems and Service	4

Summer Session

AUT:704 Automotive Heating and Air Conditioning	4
AUT:404 Automotive Suspension and Steering	4

Certificate Total**36**

ACCOUNTING MANAGEMENT

Clinton & Scott Community Colleges

A.A.S., Diploma, Certificate

The Business Management program offers you the option to specialize in Accounting Management, Management/Supervision, Marketing, or Small Business Management.

There is a common set of core courses in all four emphasis areas which total 33 of the 64 credit hours needed for an A.A.S. There are 18 credit hours of specialty courses in each area except for Accounting Management, which has 21 credit hours of specialty courses. All require a minimum of 12 - 13 credit hours of general education classes. Check with your advisor regarding the number of general education credits needed for your concentration.

Note: The emphasis areas of Management Supervision, Marketing, and Small Business Management all share the same curriculum for the first two semesters, but are unique in third and fourth semester offerings. The recommended sequence of courses for the Accounting Management emphasis is slightly different from the other three. It is listed first for that reason.

ACCOUNTING MANAGEMENT A.A.S. DEGREE

FIRST SEMESTER

ACC:142	Introduction to Accounting I	3
MGT:101	Principles of Management	3
CSC:110	Introduction to Computers	3
BUS:102	Introduction to Business	3
BUS:110	Business Mathematics & Calculators	
OR		
	Mathematics Elective	<u>3</u>
		15-16

SECOND SEMESTER

ACC:146	Managerial Accounting	3
COM:142	Communication Skills	
OR		
	English/Communication Elective	3
BUS:161	Human Relations	3
BUS:185	Business Law I	3
BUS:180	Business Ethics	3
ECN:110	Introduction to Economics	<u>3</u>
		18

THIRD SEMESTER

ACC:161	Payroll Accounting	3
ACC:237	Intermediate Accounting	4
ACC:221	Cost Accounting	3
SPC:170	Professional Communication	3
HUM:110	Changes and Choices	
OR		
	Humanities/Social Science Elective	<u>3</u>
		16

SUMMER SESSION

ACC:312	Computer Accounting	<u>4</u>
		7

FOURTH SEMESTER

ACC:265	Income Tax Accounting	4
ACC:251	Governmental and Nonprofit Accounting	3
MGT:165	Principles of Quality	3
CRR:908	Cooperative Work Experience	
OR-		
	Accounting/Business/Management Elective	<u>1</u>
		11

A.A.S. TOTAL64

ACCOUNTING DIPLOMA

FIRST SEMESTER

BUS:102	Introduction to Business	3
BUS:161	Human Relations	3
ACC:121	Introduction to Accounting	3
CSC:110	Introduction to Computers	3
BUS:110	Business Mathematics & Calculators	
OR		
	Mathematics Elective	<u>3</u>
		15

SECOND SEMESTER

ACC:146	Managerial Accounting	3
ACC:265	Income Tax Accounting	4
ACC:161	Payroll Accounting	3
SPC:170	Professional Communication	3
COM:142	Communication Skills	
OR		
	English/Communications Elective	<u>3</u>
		16

SUMMER SESSION

ACC:312	Computer Accounting	<u>4</u>
		4

DIPLOMA TOTAL35

BUSINESS MANAGEMENT

Muscatine & Scott Community Colleges

A.A.S., Certificate

Core requirements for Management/
Supervision Emphasis, Marketing Emphasis,
and Small Business Management Emphasis:

FIRST SEMESTER

	CREDITS
ACC:121 Principles of Accounting	3
MGT:101 Principles of Management	3
BUS:102 Introduction to Business	3
CSC:110 Introduction to Computers	3
Math Elective (BUS:110 Recommended)	<u>3</u>
	15

SECOND SEMESTER

ACC:146 Managerial Accounting	3
BUS:180 Business Ethics	3
BUS:185 Business Law I	3
SPC:170 Professional Communication	3
English/Communications Elective (COM:102 Recommended)	<u>3</u>
	15

MANAGEMENT/ SUPERVISION EMPHASIS A.A.S. DEGREE

THIRD SEMESTER

MGT:130 Principles of Supervision	3
MGT:151 Management Communications I	3
SPC:170 Professional Communication	3
HUM:110 Changes and Choices	3
OR	
Humanities/Social Science Elective	3
General Elective	<u>4</u>
	16

FOURTH SEMESTER

MGT:145 Human Relations in Management	3
MGT:142 Problems and Issues in Supervision	3
MGT:165 Principles of Quality	3
MGT:210 Management Decision-making	3
CRR:908 Cooperative Work Experience	3
OR	
BUS/ACC/MGT Elective	<u>3</u>
	15

A.A.S. TOTAL64

MARKETING EMPHASIS A.A.S. DEGREE

THIRD SEMESTER

MGT:110 Small Business Management	3
MKT:110 Principles of Marketing	3
SPC:170 Professional Communication	3
HUM:110 Changes and Choices	3
OR	
Humanities/Social Science Elective	3
General Elective	<u>4</u>
	16

FOURTH SEMESTER

MKT:140 Principles of Selling	3
MKT:160 Principles of Retailing	3
MGT:165 Principles of Quality	3
MKT:150 Principles of Advertising	3
CRR:908 Cooperative Work Experience	3
OR	
BUS/ACC/MGTElective	3
	<u>15</u>

A.A.S. TOTAL64

SMALL BUSINESS MANAGEMENT EMPHASIS A.A.S. DEGREE

THIRD SEMESTER

MGT:110 Small Business Management	3
MKT:110 Principles of Marketing	3
MGT:130 Principles of Supervision	3
HUM:110 Changes and Choices	3
OR	
Humanities/Social Science Elective	3
General Elective	<u>4</u>
	16

FOURTH SEMESTER

MKT:140 Principles of Selling	3
MKT:160 Principles of Retailing	3
MGT:165 Principles of Quality	3
MGT:145 Human Relations in Management	3
SPC:170 Professional Communication	<u>3</u>
	15

A.A.S. TOTAL64

BUSINESS MANAGEMENT

MANAGEMENT SUPERVISION CERTIFICATE

BUS:102	Introduction to Business	3
BUS:185	Business Law I	3
CSC:110	Introduction to Computers	3
MGT:130	Principles of Supervisory Management	3
MGT:101	Principles of Management	3
MGT:142	Problems and Issues in Supervision & Management	<u>3</u>

CERTIFICATE TOTAL18

MARKETING CERTIFICATE

BUS:102	Introduction to Business	3
MKT:160	Principles of Retailing	3
BUS:185	Business Law I	3
MKT:110	Principles of Marketing	3
MKT:150	Advertising Principles	3
CSC:110	Introduction to Computers	<u>3</u>

CERTIFICATE TOTAL18

SMALL BUSINESS MANAGEMENT CERTIFICATE

ACC:121	Principles of Accounting I	3
BUS:102	Introduction to Business	3
MGT:110	Small Business Management	3
BUS:185	Business Law I	3
CSC:110	Introduction to Computers	3
MGT:145	Human Relations in Management	<u>3</u>

CERTIFICATE TOTAL18

CANCER INFORMATION MANAGEMENT

Scott Community College

A.A.S., Diploma

A.A.S. DEGREE

FIRST SEMESTER

CSC:110	Introduction to Computers*	3
HSC:113	Medical Terminology	2
BUS:110	Business Math and Calculators*	3
HIT:370	Health Records in Acute Care	3
BIO:168	Human Anatomy & Physiology I w/Lab	4
ENG:105	Composition I*	<u>3</u>

18

SECOND SEMESTER

BIO:173	Human Anatomy & Physiology II w/Lab	4
	General Education Requirement	3
HIT:120	Pharmacology for HIT	1
HIT:150	Principles of Disease I	2
HIT:250	Coding I*	3
	General Education Requirement*	<u>3</u>

16

SUMMER SESSION

HIT:160	Principles of Disease II	3
BUS:180	Business Ethics	<u>3</u>

6

THIRD SEMESTER

CIM:200	Registry Organization & Operation*	3
CIM:210	Oncology Coding & Staging System*	4
CIM:215	Abstracting Principles & Practice I*	2
CIM:240	Cancer Patient Follow-Up*	2
CIM:250	Cancer Statistics & Epidemiology*	3
HIT:420	Legal Aspects of Health Information	2
HIT:312	Health Informatics and Information Management Systems	<u>3</u>

19

FOURTH SEMESTER

HIT:440	Quality Management	3
CIM:220	Abstracting Principles & Practice II*	2
CIM:270	Cancer Registry Practicum*	4
CIM:260	Cancer Information Management Seminar*	1
SPC:112	Public Speaking	<u>3</u>

13

A.A.S TOTAL

72

This program is approved by the National Cancer Registrars Association (NCRA).

DIPLOMA TOTAL

36

*Courses required for the CIM Diploma

FIRST SEMESTER

	CREDITS
ECE:242 Early Childhood Guidance	2
ECE:133 Child Health, Safety and Nutrition	3
ECE:165 Learning Activities I	3
ECE:103 Introduction to Early Childhood Education	3
PSY:223 Child Growth and Adolescent Psychology	3
English/Communication General	
Education Elective	<u>3</u>
	17

CERTIFICATE AWARDED-CHILDHOOD DEVELOPMENT ASSOCIATE (CDA)

SECOND SEMESTER

ECE:166 Learning Activities II	3
LIT:105 Children's Literature	3
EDU:245 Exceptional Learner	3
EDU:220 Human Relations for the Classroom	3
Social Science or Humanities General	
Education Requirement	<u>3</u>
	15

DIPLOMA AWARDED

SUMMER SESSION

ECE:910 Practicum/Co-Op*	<u>2</u>
	2

THIRD SEMESTER

MGT:110 Small Business Management	3
ECE:192 Dynamics of the Family	1
ECE:134 Children's Health	3
ECE:910 Practicum/Co-Op*	2
SDV:174 Critical and Creative Thinking	3
Math or Science Elective	3
General Education Elective	<u>3</u>
	18

FOURTH SEMESTER

ECE:230 Day Care Food Service	2
ECE:190 Consumer Economics	2
ECE:290 Early Childhood Program Administration	3
ECE:910 Practicum/Co-Op	2
Approved Child Care Electives	<u>5</u>
	14

A.A.S. TOTAL66

* Students may be subject to release of information and criminal background check by each co-operative site prior to beginning their work co-operative experience.

CNC MACHINING

Certificate

MACHINING/CNC A.A.S. DEGREE

SESSION I		CREDITS
MFG:186	Plant Safety	1
MAT:733	Math for Manufacturing Technologies A	1.5
MFG:115	Lathe Work	<u>4.5</u>
		7

SESSION II		CREDITS
MAT:733	Math for Manufacturing Technologies B	1.5
MFG:105	Machine Shop Measuring	3
MFG:192	Blueprint Reading	<u>3</u>
		7.5

SESSION III		CREDITS
CSC:112	Computer Fundamentals for Technology I/A	2
MFG:113	Vertical/Horizontal Mills	5.5
MFG:111	Machinery Handbook	<u>1</u>
		8.5

SESSION IV		CREDITS
CSC:113	Computer Fundamentals for Technology I/B	2
MFG:114	Surface Grinding	2.75
MAT:734	Drills and Saws	2
MFG:140	Geometric Dimensioning and Tolerances	1
		7.75

SESSION V		CREDITS
MFG:190	Metallurgy	2
EGT:116	Continuous Quality Management	3
MFG:117	Cylindrical Grinding	<u>1.5</u>
		6.5

SESSION VI		CREDITS
PHY:173	Applied Physics I/A	1.75
ENG:111	Technical Writing (16 wk. class)	3
MFG:151	CNC Fundamentals	<u>2</u>
		6.75

SESSION VII		CREDITS
PHY:174	Applied Physics I/B	1.75
MFG:116	Carbide Tooling	1
MFG:118	Machine Tool Project (Capstone)	<u>4</u>
		6.75

SESSION VIII		CREDITS
MFG:221	CNC Milling Operator	2
MFG:201	CNC Turning Operator	2
MFG:224	Coordinate Measuring Machine	1
MFG:223	CAD/CAM	<u>2</u>
		7

SESSION IX		CREDITS
MFG:200	Electric Discharge Machines	1
MFG:205	Mill Programming	2
MFG:229	CNC Project (Capstone)	2
MFG:239	Lathe Programming	<u>2</u>
		7
A.A.S. TOTAL		64.75

MANUAL MACHINING CERTIFICATE

MFG:186	Plant Safety	1
MFG:192	Blueprint Reading	3
MAT:733	Math for Mfg Technologies - A	1.5
MAT:734	Math for Mfg Technologies - B	1.5
MFG:116	Carbide Tooling	1
MFG:105	Machine Shop Measuring	3
MFG:112	Drills and Saws	2
MFG:115	Lathe Work	4.5
MFG:113	Vertical/Horizontal Mills	5.5
MFG:114	Surface Grinding	2.75
MFG:117	Cylindrical Grinding	1.5
MFG:118	Machine Tool Project (Capstone)	<u>4</u>
CERTIFICATE TOTAL		31.25

CNC PROGRAMMING CERTIFICATE

MFG:186	Plant Safety	1
MFG:192	Blueprint Reading	3
MFG:146	Geometric Dimensioning and Tolerances	1
MAT:733	Math for Mfg Technologies - A	1.5
MAT:734	Math for Mfg Technologies - B	1.5
MFG:116	Carbide Tooling	1
MFG:151	CNC Fundamentals	2
MFG:201	CNC Turning Operator	2
MFG:239	Lathe Programming	2
MFG:205	Mill Programming	2
MFG:221	CNC Milling Operator	2
MFG:229	CNC Project (Capstone)	2
MFG:200	Electric Discharge Machines	1
MFG:223	CAD/CAM	2
MFG:224	Coordinate Measuring Machine	<u>1</u>
CERTIFICATE TOTAL		25

CULINARY ARTS APPRENTICESHIP

Scott Community College

A.A.S., Certificate

A.A.S. DEGREE

FIRST SEMESTER

		CREDITS
HCM:180	Food Fundamentals	2
HCM:100	Sanitation and Safety	2
HCM:501	Culinary Practicum I	3
HCM:154	Basic Food Preparation	<u>2</u>
		9

SECOND SEMESTER

HCM:502	Culinary Practicum II	3
HCM:265	Mathematics for Hospitality	3
HCM:233	Meal Planning and Nutrition	3
	General Education Elective	<u>3</u>
		12

SUMMER

HCM:503	Culinary Practicum III	1.5
HCM:255	Purchasing	<u>3</u>
		4.5

THIRD SEMESTER

HCM:280	Food Cost Accounting	3
HCM:241	Menu Planning and Sales Promotion	3
HCM:504	Culinary Practicum IV	3
HCM:156	Intermediate Food Preparation	<u>3</u>
		12

FOURTH SEMESTER

HCM:160	Advanced Food Preparation	3
HCM:505	Culinary Practicum V	3
HCM:301	Beverage Control	3
HCM:116	Fundamentals of Baking	<u>3</u>
		12

SUMMER

HCM:212	Industry Management	3
HCM:506	Culinary Practicum VI	1.5
HCM:155	Garde Manger	<u>3</u>
		7.5

FIFTH SEMESTER

HCM:507	Culinary Practicum VII	3
	Humanities Elective	3
	General Education Elective	<u>3</u>
		9

SIXTH SEMESTER

HCM:508	Culinary Practicum VIII	3
	English Elective	3
	General Education Elective	<u>3</u>
		9

SUMMER

HCM:509	Culinary Practicum IX	<u>1.5</u>
		1.5

A.A.S. TOTAL70.5

CULINARY ARTS ASSISTANT CERTIFICATE

This is a twelve-month certificate program that prepares students with basic culinary skills and knowledge necessary to pursue a career related to cooking and/or baking assistant.

FIRST SEMESTER

HCM:180	Food Fundamentals	2
HCM:100	Sanitation and Safety	2
HCM:501	Culinary Practicum I	<u>3</u>
		7

SECOND SEMESTER

HCM:154	Basic Food Preparation	2
HCM:116	Fundamentals of Baking	3
HCM:502	Culinary Practicum II	<u>3</u>
		8

SUMMER

HCM:503	Culinary Practicum III	1.5
HCM:212	Industry Management	<u>3</u>
		4.5

CERTIFICATE TOTAL19.5

DENTAL ASSISTING

Scott Community College

Diploma

FALL START OPTION:

FIRST SEMESTER

	CREDITS
DEA:504 Principles of Dental Assisting	5
DEA:293 Microbiology and Infection Control	2
DEA:406 Dental Materials	5
DEA:201 Head and Neck Anatomy	1
DEA:311 Dental Radiology I	2
DEA:257 Dental Anatomy	3
COM:102 Communication Skills*	<u>3</u>
	21

SECOND SEMESTER

DEA:702 Dental Office Procedures	2
DEA:321 Dental Radiology II	2
DEA:211 Nutrition for Dental Assisting	1
DEA:268 Pharmacology and Emergency Procedures for Dental Assisting	2
DEA:604 Dental Specialties	3
DEA:570 Dental Assisting Clinic	5
PSY:111 Introduction to Psychology*	<u>3</u>
	18

DIPLOMA TOTAL39

* Courses may be taken before beginning the program.

SPRING START OPTION:

SPRING SEMESTER

DEA:201 Head and Neck Anatomy	1
DEA:257 Dental Anatomy	3
DEA:293 Microbiology and Infection Control	2
DEA:211 Nutrition	1
DEA:268 Pharmacology and Emergency Procedures	2
DEA:702 Dental Office Procedures	2
COM:102 Communication Skills	3
OR	
PSY:111 Introduction to Psychology	<u>3</u>
	14

SUMMER SESSION

DEA:504 Principles of Dental Assisting	5
DEA:406 Dental Materials	5
DEA:311 Dental Radiology I	<u>2</u>
	12

FALL SEMESTER

DEA:321 Dental Radiology II	2
DEA:604 Dental Specialties	3
DEA:570 Dental Assisting Clinic (300 Hrs.)	5
COM:102 Communication Skills	3
OR	
PSY:111 Introduction to Psychology	<u>3</u>
	13

DIPLOMA TOTAL39

This program is available as a result of a partnership with Kirkwood Community College in Cedar Rapids, Iowa. This partnership gives the student the opportunity to take many of their classes (41 credits) through Eastern Iowa Community College District. Once accepted into the Kirkwood program, the student will take dental hygiene related classes in Cedar Rapids and may be placed in the practicum sites in the Eastern Iowa Community College District.

NOTE: Enrollment is limited and entrance is restricted to the fall semester. In addition to the general admission requirements of the college, applicants must meet specific program admission criteria. Each fall six EICCD students start the program at KCC. These six are selected during the interview phase in the spring, prior to admittance into the Dental Hygiene program.

Prerequisite courses:

	CREDITS
CHM:122 Introduction to General Chemistry	4
OR	
CHM:165 General Chemistry I	4
MAT:110 Math for Liberal Arts	3
CSC:110 Microcomputer Applications	3
BIO:168 Anatomy and Physiology I w/Lab	4
BIO:173 Anatomy and Physiology II w/Lab	4
Humanities Elective	3

After completion of the above courses, the student may be considered for the next fall class by setting up an interview -- see program admission criteria.

Additional General Education courses can be taken at CCC, MCC and SCC:

CHM:132 Introduction to Organic and Biochemistry	4
BIO:186 Microbiology	4
SPC:112 Public Speaking	3
SOC:110 Introduction to Sociology	3
ENG:105 Composition I	3
PSY:111 Introduction to Psychology	3

DIESEL TECHNOLOGY

Scott Community College

A.A.S.

FALL START:

FIRST SEMESTER

		CREDITS
AUT:115	Automotive Shop Safety	1
AUT:164	Automotive Engine Repair	4
MAT:104	Applied Math Topics	3
COM:102	Communication Skills	3
DSL:505	Heavy Duty Drive Train I	3
DSL:507	Heavy Duty Drive Train II	3
DSL:603	Hydraulics	<u>2</u>
		19

SECOND SEMESTER

AUT:606	Basic Electricity/Electronics	3
AUT:614	Automotive Electrical I	3
DSL:435	Diesel Fuel Systems I	3
DSL:437	Diesel Fuel Systems II	4
DSL:150	Truck Electrical	<u>3</u>
		16

SUMMER SESSION

DSL:340	Diesel Engine Repair	5
DSL:625	Heavy Duty Alignment	<u>3</u>
		8

THIRD SEMESTER

DSL:629	Heavy Duty Brakes and Service	3
WEL:331	Welding Fundamentals	2
DSL:905	Cooperative/Internship	2
PSY:213	Industrial & Organizational Psychology	3
DSL:201	Basic Gas Engine Performance	<u>2</u>
		12

FOURTH SEMESTER

DSL:520	Automatic Drive Train	5
DSL:710	Heating, A/C and Refrigeration	4
DSL:905	Cooperative/Internship	2
BCA:188	Business Computer Applications	<u>3</u>
		14

A.A.S. TOTAL69

SPRING START:

FIRST SEMESTER-SPRING

		CREDITS
AUT:115	Automotive Shop Safety**	1
AUT:606	Basic Electricity/Electronics	3
AUT:614	Automotive Electrical I	3
DSL:435	Diesel Fuel Systems I	3
DSL:437	Diesel Fuel Systems II	4
DSL:150	Truck Electrical	<u>3</u>
		17

SUMMER SESSION

DSL:340	Diesel Engine Repair	5
DSL:625	Heavy Duty Alignment	<u>3</u>
		8

SECOND SEMESTER-FALL

AUT:115	Automotive Shop Safety**	1
AUT:164	Automotive Engine Repair	4
DSL:505	Heavy Duty Drive Train I	3
DSL:507	Heavy Duty Drive Train II	3
DSL:603	Hydraulics	2
COM:102	Communication Skills	3
MAT:104	Applied Math Topics	<u>3</u>
		19

THIRD SEMESTER-SPRING

DSL:520	Automatic Drive Train	5
DSL:710	Heating, A/C and Refrigeration	4
DSL:905	Cooperative/Internship	2
BCA:188	Business Computer Applications	<u>3</u>
		14

FOURTH SEMESTER-FALL

DSL:629	Heavy Duty Brakes and Service	3
WEL:331	Welding Fundamentals	2
DSL:905	Cooperative/Internship	2
PSY:213	Industrial & Organizational Psychology	3
DSL:201	Basic Gas Engine Performance	<u>2</u>
		12

A.A.S. TOTAL69

** Spring start students may take AUT:115 in the spring or fall semester of the first year.

ELECTRONEURODIAGNOSTIC TECHNOLOGY (END)

Scott Community College

A.A.S.

A.A.S. DEGREE

FIRST SEMESTER

BIO:168	Human Anatomy and Physiology I w/Lab	4
HSC:113	Medical Terminology	2
END:210	Electronics and Instrumentation	3
END:110	Introduction to END	<u>5</u>
		14

SECOND SEMESTER

BIO:173	Human Anatomy and Physiology II w/Lab	4
PSY:111	Introduction to Psychology	3
END:300	END I	5
END:800	Clinical Practicum I	<u>4</u>
		16

SUMMER SESSION

END:320	END II	2
END:820	Clinical Practicum II	<u>4</u>
		6

THIRD SEMESTER

ENG:105	Composition I	3
BIO:255	Neuroanatomy	3
END:340	END III	3
END:840	Clinical Practicum III	<u>4</u>
		13

FOURTH SEMESTER

END:510	Polysomnography	4
END:860	Clinical Practicum IV	8
SPC:112	Public Speaking	<u>3</u>
		15

SUMMER SESSION

END:410	Evoked Potentials	2
END:880	Clinical Practicum V	<u>4</u>
		6

A.A.S. TOTAL70

NOTE: Enrollment is limited and entrance is restricted to the fall semester. In addition to the general admission requirements of the college, applicants must meet specific program admission criteria.

EMERGENCY MEDICAL SERVICES

Clinton, Muscatine & Scott Community Colleges

A.A.S., Certificates

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
EMS:218 Emergency Medical Tech Basic	7.5
HCS:113 Medical Terminology	2
ENG:111 Technical Writing	3
OR	
ENG:105 Composition I	
BIO:168 Human Anatomy and Physiology I w/Lab	4
	16.5

SECOND SEMESTER

PSY:121 Developmental Psychology	3
PNN:210 Pharmacology-Module A	1
PNN:211 Pharmacology-Module B	1
MGT:145 Human Relations in Management	3
BUS:102 Introduction to Business	3
EMS:311 Emergency Medical Tech Intermediate 85	4
	15

THIRD SEMESTER

EMS:405 Emergency Medical Tech Intermediate 99	15
	15

FOURTH SEMESTER

EMS:810 Advanced Cardiac Life Support (ACLS)	1
EMS:815 Pediatric Advanced Life Support (PALS)	1
EMS:820 Pre-Hospital Trauma Life Support (PHTLS)	1
EMS:816 Pediatric Education for the Pre-Hospital Professional	1
EMS:818 Neonatal Resuscitation Program (NRP)	1
SOC:110 Introduction to Sociology	3
CSC:110 Introduction to Computers	3
SPC:112 Public Speaking	3
MAT: Math Elective (above 100 level)*	3
	17

A.A.S. TOTAL**63.5**

* Approved by program director.

EMS BASIC CERTIFICATE

EMS:218 Emergency Medical Tech Basic	<u>7.5</u>
	7.5

IOWA INTERMEDIATE 85 CERTIFICATE

EMS:218 Emergency Medical Tech Basic	7.5
EMS:311 Emergency Medical Tech Intermediate 85	4
	11.5

IOWA PARAMEDIC 99 CERTIFICATE

EMS:218 Emergency Medical Tech Basic	7.5
EMS:311 Emergency Medical Tech Intermediate 85	4
EMS:405 Emergency Medical Tech Intermediate 99	<u>15</u>
	26.5

A.A.S. DEGREE

FIRST SEMESTER

EQ:101	Introductory Ag Seminar	1
EQ:125	Computers in Agriculture	1
EQ:151	Horse Production and Management	4
EQ:158	Horse Evaluation I	1
EQ:161	Principles and Methods of Stock Seat Equitation	3
EQ:285	Animal Science	
OR		
EQ:141	Animal Science	4
COM:102	Communication Skills	
OR		
ENG:105	Composition I	3
	Emergency Medical Tech	<u>1</u>
		18

SECOND SEMESTER

EQ:102	Ag Work Experience Seminar	1
EQ:109	Horse Science Work Experience	7
EQ:154	Horse Equipment and Facilities	3
EQ:159	Horse Evaluation II	1
EQ:167	Fundamentals of Horse Handling and Training	3
EQ:123	Agriculture Math	
OR		
MAT:121	College Algebra	<u>3</u>
		18

THIRD SEMESTER

EQ:142	Animal Nutrition	3
EQ:263	Methods of Teaching Horsemanship	2
EQ:262	Principles and Methods of English Equitation	4
EQ:267	Farrier Science	2
EQ:281	Agricultural Economics	
OR		
EQ:121	Agricultural Economics	3/4
	*EQ Electives	<u>2</u>
		16/17

FOURTH SEMESTER

EQ:201	Horse Science Seminar	1
EQ:209	Horse Science Work Experience	5
AG:211	Agricultural Salesmanship	3
EQ:266	Horse Show Preparation and Management	2
EQ:225	Computer Applications in Agriculture	
OR		
CSC:110	Introduction to Computers	3
	*EQ Electives	<u>3</u>
		17

A.A.S. TOTAL70

*Minimum of eight elective credits are required in the Equestrian Science program. Suggested electives offered during the fall semester include BU:110, EN:102, SP:101, EQ:253 or EQ:258. Suggested electives offered during the spring semester include EQ:122, EQ:222, EQ:232, EQ:254, EQ:259 or EQ:265.

This is only a suggested program and would not be appropriate for every student. Students should always consult with an academic advisor in choosing courses best suited to their needs and abilities.

This is a cooperative contract program taught at Black Hawk College (BHC) in Kewanee, Illinois. Students enroll as Scott Community College students but take courses at BHC.

FARM MANAGEMENT

Muscatine Community College

A.A.S., Diploma

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
COM:105 Communication Skills I	2
AGB:301 Applied Accounting for Farm Management I	1
AGS:352 Genetics	1
AGS:400 Swine Production I	2
AGC:901 Seminar I	.5
AGS:315 Principles of Animal Nutrition	2
AGC:861 Farm Experience I	3
AGB:121 Futures and Options	1
Human Relations (Elective)	
Ag Economics and Grain Science (Elective)	
	12.5

SECOND SEMESTER

COM:107 Communication Skills II	1
SPC:111 Public Speaking	2
MAT:104 Applied Math Topics	3
CSC:110 Introduction to Computers	3
AGB:302 Applied Accounting for Farm Management II	1
AGC:902 Seminar II	.5
AGA:285 Crop Protection	2.5
AGA:210 Corn and Soybean Production	2
AGC:862 Farm Experience II	3.5
	18.5

SUMMER SESSION

AGC:903 Seminar III	.25
FM:154 Integrated Crop Management	1
AGM:202 Agricultural Welding	2
AGC:863 Farm Experience III	2
AGA:333 Forage Production	1
	6.25

THIRD SEMESTER

AGS:554 Beef Production	2
AGC:904 Seminar IV	.5
AGA:901 Seed Science	1.25
AGB:304 Agricultural Credit	1
AGB:305 Agricultural Law	1
AGA:352 Soil Science and Fertilizers	2
AGS:324 Dairy Production	1
AGB:300 Farm Record Analysis	1
AGC:864 Farm Experience IV	3
AGM:130 Farm Electrification	1
AGS:410 Swine Production II	1
	14.75

FOURTH SEMESTER

ENV:115 Environmental Science OR	3
BIO:125 Plant Botany	4
AGB:306 Risk Management	1
AGM:160 Farm Structures	1
AGS:180 Sheep Production	1
AGC:905 Seminar V	.5
AGM:157 Machinery Management	2
AGB:232 Livestock and Grain Marketing	2
AGP:242 Precision Agricultural Applications	2
AGC:865 Farm Experience V	3.5
	16 or 17
AGC:949 Special Problems Elective	2

SUMMER SEMESTER

AGC:866 Farm Experience VI	2
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A.A.S. TOTAL70 or 72

ANIMAL SCIENCE AND PRODUCTION SPECIALIST DIPLOMA

FIRST SEMESTER

	CREDITS
COM:105 Communication Skills I	2
AGB:191 Agricultural Sales I (Elective)	1
AGS:400 Swine Production I	2
AGC:901 Seminar I	5
AGC:864 Farm Experience I	3
AGS:410 Swine Production II	1
AGM:130 Farm Electrification	1
AGS:554 Beef Production	2
AGS:315 Principles of Animal Nutrition	2
AGB:305 Agricultural Law	1

DIPLOMA TOTAL14.5

SECOND SEMESTER

COM:107 Communication Skills II	1
AGS:318 Feed Formulation	1.25
AGS:902 Seminar II	.5
AGA:162 Soil Management and Conservation	.5
AGC:862 Farm Experience II	3.5
AGS:180 Sheep Production (Elective)	(1)
AGB:232 Livestock and Grain Marketing	2
MAT:104 Applied Math Topics	3
CSC:110 Introduction to Computers	3
SPC:112 Public Speaking	2

16.75

SUMMER SEMESTER

AGC:903	Seminar III	.25
FM:144	Integrated Crop Management I	1
AGM:202	Agricultural Welding (Elective)	(2)
AGC:863	Farm Experience III	2
AGA:333	Forage Production	<u>1</u>

3.25

DIPLOMA TOTAL34.5

PLANT PRODUCTION SPECIALIST DIPLOMA

FIRST SEMESTER

		CREDITS
COM:105	Communication Skills I	2
AGB:110	Human Relations I (Elective)	(1.5)
AGA:881	Grain Science	1.25
AGA:350	Fertilizers	1
AGB:301	Applied Accounting for Farm Management I	1
AGA:351	Soil Science	1
AGC:901	Seminar I	.5
AGC:861	Farm Experience I	3
AGB:121	Futures and Options	1
AGM:130	Farm Electrification (Elective)	(1)
AGB:304	Agricultural Credit	1
AGB:300	Farm Record Analysis	1
AGA:901	Seed Science	<u>1</u>

13.75

SECOND SEMESTER

COM:107	Communication Skills II	1
AGB:302	Applied Accounting for Farm Management II	1
AGC:902	Seminar II	.5
AGA:285	Crop Protection	2.5
AGA:210	Corn and Soybean Production	2
AGA:162	Soil Management and Conservation	.5
AGC:862	Farm Experience II	3.5
MAT:104	Applied Math Topics	3
CSC:110	Introduction to Computers	3
SPC:112	Public Speaking	<u>2</u>

19

SUMMER SEMESTER

AGA:373	Integrated Crop Management II	1
AGA:207	Soybean Production	1
AGC:863	Farm Experience III	2
AGA:333	Forage Production	<u>1</u>

5

DIPLOMA TOTAL37.75

SWINE PRODUCTION SPECIALIST DIPLOMA

FIRST SEMESTER

COM:105	Communication Skills I	2
AGB:191	Agricultural Sales I (Elective)	(1.25)
AGS:352	Genetics	1
AGS:400	Swine Production I	2
AGC:901	Seminar I	.5
AGC:861	Farm Experience I	3
AGB:121	Futures and Options	1
AGC:410	Swine Production II	1
AGM:130	Farm Electrification	1
AGS:315	Principles of Animal Nutrition	2
AGB:305	Agricultural Law	<u>1</u>

14.5

SECOND SEMESTER

COM:107	Communication Skills II	1
AGS:318	Feed Formulation	1.25
AGC:902	Seminar II	.5
AGA:208	Corn Production I (Elective)	(1)
AGC:862	Farm Experience II	3.5
AGB:232	Livestock and Grain Marketing	2
MAT:104	Applied Math Topics	3
CSC:110	Introduction to Computers	3
SPC:112	Public Speaking	<u>2</u>

16.25

SUMMER SEMESTER

AGM:202	Agricultural Welding	2
AGC:863	Farm Experience III	2
AGM:121	Machinery Repair and Maintenance	<u>4</u>

8

OR

AGS:881	Feeds	1.25
AGA:370	Crop Management	1.25
AGA:371	The Green Plant	<u>1.25</u>

3.75

DIPLOMA TOTAL34.5-38.75

FEED AND FERTILIZER MARKETING

Muscatine Community College

A.A.S., Diploma

A.A.S. DEGREE

FIRST SEMESTER

COM:105	Communication Skills I	2
AGB:191	Agricultural Sales I	1.25
AGB:141	Applied Agribusiness Accounting I	1.25
AGB:110	Human Relations I	2
AGC:910	Alpha Mu Sigma I	.5
AGA:881	Grain Science	1.25
AGC:941	Employment Experience I	3
AGS:317	Animal Nutrition	2
AGB:105	Business Principles for Agriculture I	1.25
AGB:103	Agricultural Economics	<u>1</u>
		15.50

SECOND SEMESTER

COM:107	Communication Skills II	1
SPC:112	Public Speaking	2
MAT:104	Applied Math Topics	3
AGB:192	Agricultural Sales II	1.25
AGC:911	Alpha Mu Sigma II	.50
AGB:112	Human Relations II	2
AGA:210	Corn and Soybean Production	2
AGA:285	Crop Protection	2.5
AGC:942	Employment Experience II	<u>3.5</u>
		17.75

SUMMER SESSION

AGS:881	Feeds	1.25
AGC:912	Alpha Mu Sigma III	.25
AGS:120	Livestock Management	2
AGB:142	Agribusiness Accounting II	1.25
AGB:351	Principles of Marketing and Retailing for Agriculture	<u>1.25</u>
		6

THIRD SEMESTER

AGB:121	Futures and Options	1
AGS:352	Genetics	1
AGA:352	Soil Science and Fertilizer	2
AGC:943	Employment Experience III	3
AGC:913	Alpha Mu Sigma IV	.50
AGA:901	Seed Science	1.25
AGS:318	Feed Formulation	1.25
AGB:106	Business Principles for Ag II	1.25
AGB:280	Business Law for Agriculture	1.25
AGM:130	Farm Electrification Elective	<u>1</u>
		13.50

FOURTH SEMESTER

ENV:115	Environmental Science OR	3
BIO:125	Plant Botany	4
CSC:110	Introduction to Computers	3
AGB:193	Agricultural Sales III	1.25
AGA:891	Soil Chemistry	1.25
AGP:242	Precision Agricultural Applications	2
AGC:914	Alpha Mu Sigma V	.50
AGC:944	Employment Experience IV	<u>3.5</u>
		14.50/15.50

A.A.S. TOTAL67.25/68.25

RETAIL AGRIBUSINESS CROP SCIENCE SPECIALIST DIPLOMA

FIRST SEMESTER

COM:105	Communication Skills I	2
AGB:191	Agricultural Sales I *	1.25
AGA:351	Soil Science	1
AGB:110	Human Relations I	2
AGC:910	Alpha Mu Sigma I	5
AGA:881	Grain Science	1.25
AGC:941	Employment Experience I	3
AGB:105	Business Principles for Agriculture I	1.25
AGA:350	Fertilizers *	1
AGA:901	Seed Science	1.25
AGB:103	Agricultural Economics	1.25
AGB:121	Futures and Options	1
AGA:901	Seed Science	<u>1</u>
		17.75

* Students wishing to test out of Sales I must have instructor consent prior to signing up for the Fertilizers course. Both courses are required for this program. Students will have the opportunity to take a comprehensive exam in lieu of taking the Sales I course.

SECOND SEMESTER

COM:107	Communication Skills II	1
AGA:285	Crop Protection	2.5
AGS:911	Alpha Mu Sigma II	.5
AGC:942	Employment Experience II	3.5
AGA:208	Corn Production I	1
AGC:911	Soil Management and Conservation	.5
MAT:104	Applied Math Topics	3
CSC:110	Introduction to Computers	3
SPC:112	Public Speaking	<u>2</u>
		17

FEED AND FERTILIZER MARKETING

SUMMER SESSION

AGC:862	Farm Experience II	3.5
AGA:373	Corn Production II	1
AGA:207	Soybean Production	1
AGA:333	Forage Production	<u>1</u>

6.5

DIPLOMA TOTAL41.25

RETAIL AGRIBUSINESS FEED AND GRAIN SPECIALIST DIPLOMA

FIRST SEMESTER

COM:105	Communication Skills I	2
AGB:191	Agricultural Sales I	1.25
AGB:141	Applied Agribusiness Accounting I	1.25
AGB:110	Human Relations I	2
AGC:910	Alpha Mu Sigma I	.5
AGA:881	Grain Science	1.25
AGC:941	Employment Experience I	3
AGS:317	Animal Nutrition	2
AGB:105	Business Principles for Agriculture I	1.25
AGB:280	Business Law for Agriculture	1.25
AGB:121	Futures and Options	<u>1</u>

16.75

SECOND SEMESTER

COM:107	Communication Skills II	1
AGB:192	Agricultural Sales II	1.25
AGB:911	Alpha Mu Sigma II	.5
AGC:942	Employment Experience II	3.5
AGS:120	Livestock Management	1.75
AGB:112	Human Relations II	2
AGS:318	Feed Formulation	1.25
AGS:881	Soil Management and Conservation	5
AGB:232	Livestock and Grain Marketing	2
MAT:104	Applied Math Topics	3
SPC:112	Public Speaking	<u>2</u>

18.75

SUMMER SESSION

AGS:881	Feeds	1.25
AGC:912	Alpha Mu Sigma III	.25
AGB:350	Advertising in Agribusiness	2.5
AGB:351	Principles of Marketing and Retailing	<u>1.25</u>

5.25

DIPLOMA TOTAL40.75

RETAIL AGRIBUSINESS SALES AND SERVICE SPECIALIST DIPLOMA

FIRST SEMESTER

COM:105	Communication Skills I	2
AGB:191	Agricultural Sales I *	1.25
AGA:351	Soil Science	1
AGB:141	Applied Agribusiness Accounting I	1.25
AGB:110	Human Relations I	2
AGC:910	Alpha Mu Sigma I	.5
AGA:881	Grain Science	1.25
AGC:941	Employment Experience I	3
AGB:105	Business Principles for Agriculture I	1.25
AGA:350	Fertilizers *	1
AGB:280	Business Law for Agriculture	1.25
AGB:103	Agricultural Economics	1.25
AGB:121	Futures and Options	<u>1</u>

18

* Students wishing to test out of Sales I must have instructor consent prior to signing up for the Fertilizers course. Both courses are required for this program. Students will have the opportunity to take a comprehensive exam in lieu of taking the Sales I course.

SECOND SEMESTER

COM:107	Communication Skills II	1
AGB:142	Applied Agribusiness Accounting II	1.25
AGA:285	Crop Protection	2.5
AGB:192	Agricultural Sales II	1.25
AGC:911	Alpha Mu Sigma II	5
AGC:942	Employment Experience II	3.5
AGB:112	Human Relations II	2
MAT:104	Applied Math Topics	3
SPC:112	Public Speaking	<u>2</u>

17

SUMMER SESSION

AGA:370	Crop Management	1.25
AGA:371	The Green Plant	1.25
AGC:912	Alpha Mu Sigma III	.25
AGB:350	Advertising in Agribusiness	2.5
AGB:351	Principles of Marketing and Retailing for Agriculture	<u>1.25</u>

6.5

DIPLOMA TOTAL41.5

FEED AND FERTILIZER MARKETING

RETAIL LAWN CARE SALES AND SERVICE SPECIALIST DIPLOMA

FIRST SEMESTER

COM:105	Communication Skills I	2
AGB:191	Agricultural Sales I	1.25
AGA:351	Soil Science	1
AGB:141	Applied Agribusiness Accounting I	1.25
AGB:110	Human Relations I	2
AGC:910	Alpha Mu Sigma I	.5
AGC:941	Employment Experience I	3
AGB:105	Business Principles for Agriculture I	1.25
AGB:280	Business Law for Agriculture	1.25
AGB:103	Agricultural Economics	<u>1.25</u>
		14.75

SECOND SEMESTER

COM:107	Communication Skills II	1
AGB:142	Applied Agribusiness Accounting II	1.25
AGA:285	Crop Protection	2.5
AGB:192	Agricultural Sales II	1.25
AGC:911	Alpha Mu Sigma II	.5
AGC:942	Employment Experience II	3.5
AGB:112	Human Relations II	2
MAT:104	Applied Math Topics	3
SPC:112	Public Speaking	<u>2</u>
		17

SUMMER SESSION

AGC:863	Farm Experience III	3.5
AGA:333	Forage Production	<u>1</u>
		4.5

DIPLOMA TOTAL36.25

FIRE SERVICE OFFICER

Scott Community College/Black Hawk College

Diploma

FIRE SERVICE OFFICER DIPLOMA

FIRST SEMESTER

ENG:105	Composition I	3
HSE:100	Occupational Safety	3
FS:112	Command Officer Management	3
FS:118	Fire Service Instructor I	3
FLS:141	Elementary Spanish I	4
		12

SECOND SEMESTER

ENG:106	Composition II OR	
ENG:108	Technical Writing I	3
FS:114	Fire Prevention Principles	3
FS:115	Tactics and Strategy I	3
FS:212	Command Officer Management II	3
FLS:142	Elementary Spanish II	4
		16

THIRD SEMESTER

FS:215	Fire Fighting Tactics and Strategy II	3
FS:224	Command Officer Management III	3
PSY:111	Introductory Psychology	3
	Speech Elective	3
	Science Elective	<u>4</u>
		16

DIPLOMA TOTAL44

GRAPHIC ARTS & PRINTING TECHNOLOGY

Clinton Community College

A.A.S., Diploma

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
GRA:103 Introduction to Macintosh and Windows Computing	1
GRT:108 Introduction to Graphic Arts Technology	4
GRT:130 Quality Concepts and Regulations for Graphic Arts	2
GRT:170 Color Theory	3
GRT:220 Electronic Color Control	3
ART:120 2-D Design	3
Technical Elective (Optional)	
JOU:171 Introduction to Photography	<u>3</u>
	16-19

SECOND SEMESTER

GRT:110 Calculations and Measurements for the Graphic Arts	3
GRT:121 Electronic Publishing	3
GRA:150 Introduction to Web Design	3
GRT:250 Electronic Imaging	3
General Education Course	3

(Select one of the following)

ENG:105 Composition I OR	
ENG:111 Technical Writing	
Technical Elective	
(Select one of the following)	
GRT:162 Introduction to 3-D Modeling OR	
GRT:205 Press Finishing Advanced Operations OR	
GRT:215 Advanced Pre-Press Techniques OR	
GRT:268 Authoring OR	
JOU:172 Intermediate Photography	—
	18

DIPLOMA AWARDED36

THIRD SEMESTER

GRT:245 Issues in Graphic Arts Technology	3
GRT:140 Press Operations	3
General Education Elective	
(Select one of the following)	
PSY:111 Introduction to Psychology OR	
PSY:213 Industrial and Organizational Psychology OR	
SOC:110 Introduction to Sociology	3

Technical Elective	3
(Select one of the following)	
GRT:160 Electronic Pre-Press OR	
GRA:164 3-D Computer Animation OR	
GRT:264 Authoring and Web Design II OR	
GRT:163 Multimedia & the Internet OR	
GRT:230 Advanced Electronic Color Control or	
JOU:171 Fundamentals of Photography	—
	15

FOURTH SEMESTER

MKT:110 Principles of Marketing	3
GRT:222 Digital Output for Graphic Arts Management	3
GRA:805 Graphic Arts Process Production Co-op	5
GRT:266 Technology Changes in the Graphic Arts	2
GRA:902 Special Projects in Graphic Arts Tech.	<u>3</u>
	16

A.A.S. TOTAL64

PRESS OPERATIONS

FIRST SEMESTER

GRT:108 Introduction to Graphic Arts Technologies	4
ART:120 2-D Design	3
GRT:130 Quality Concepts and Regulations for Graphic Arts	2
GRA:103 Introduction to Macintosh and Windows Computing	1
GRT:220 Electronic Color Control	3
GRT:170 Color Theory	2
GRT:140 Press Operations	<u>3</u>
	18

SECOND SEMESTER

GRT:110 Calculations and Measurements for the Graphic Arts	3
GRT:121 Electronic Publishing	3
GRT:205 Press Finishing Advanced Operations	3
GRT:250 Electronic Imaging	3
GRT:215 Advanced Pre-Press Techniques	3
English Course (ENG:111 or ENG:105)	<u>3</u>
	18

DIPLOMA AWARDED36

GRAPHIC ARTS & PRINTING TECHNOLOGY

THIRD SEMESTER

GRT:245	Issues in GA Technology	3
General Education Electives		3
(Select one of the following)		
ART:101	Art Appreciation	
OR		
MUS:100	Music Appreciation	
OR		
PHI:105	Introduction to Ethics	
General Education Elective		3
(Select one of the following)		
PSY:213	Industrial and Organizational Psychology	
OR		
PSY:111	Introduction to Psychology	
OR		
SOC:110	Introduction to Sociology	
Technical Elective		3
(Select one of the following)		
GRT:160	Electronic Pre-Press	
OR		
JOU:171	Fundamentals of Photography	
OR		
CSC:110	Introduction to Computers	
OR		
GRT:230	Advanced Electronic Color Control	
OR		
GRT:245	PSI in Press & Finishing Operations	—
		12

FOURTH SEMESTER

GRT:266	Technology Changes in the Graphic Arts	2
GRA:805	Graphic Arts Process Production Co-Op	5
GRA:900	Special Projects	3
GRT:222	Digital Output for GA Management	3
MKT:110	Principles of Marketing	<u>3</u>
		16
A.A.S. TOTAL		.64

HEALTH INFORMATION TECHNOLOGY

Scott Community College

A.A.S.

A.A.S. DEGREE

FIRST SEMESTER

		CREDITS
CSC:110	Introduction to Computers	3
HSC:113	Medical Terminology	2
BUS:110	Business Math and Calculators	3
HIT:370	Health Records in Acute Care	3
BIO:168	Human Anatomy and Physiology I w/Lab	4
ENG:105	Composition I	<u>3</u>
		18

SECOND SEMESTER

HIT:380	Health Records in Alternative Care Settings	3
HIT:601	Medical Transcription (Optional)	(2)
HIT:120	Pharmacology for HIT	1
HIT:150	Principles of Disease I	2
HIT:250	Coding I	3
BIO:173	Human Anatomy and Physiology II w/Lab	4
	General Education Requirement (Psychology/Sociology)	<u>3</u>
		16

SUMMER

HIT:160	Principles of Disease II	3
HIT:620	Advanced Medical Transcription (Optional)	(1)
HIT:596	Health Information Practicum	<u>2</u>
		5

HEALTH INFORMATION TECHNOLOGY DIPLOMA AWARDED TOTAL **39**

THIRD SEMESTER

HIT:420	Legal Aspects of Health Information	2
HIT:485	Medical Billings and Reimbursement Systems	3
HIT:251	Coding II	3
HIT:451	Allied Health Statistics	3
BUS:180	Business Ethics	3
HIT:312	Health Informatics and Information Management Systems	3
HIT:310	Computers in Health Care	<u>3</u>
		17

FOURTH SEMESTER

HIT:440	Quality Management	3
HIT:252	Coding III	3
HIT:597	Health Information Practicum II	4
HIT:946	Health Information Technology Seminar	1
	General Education Requirement (Humanities)	<u>3</u>
		14

A.A.S. TOTAL **70**

The Health Information Technology Associate degree program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

Graduates of the two year program are eligible to write for the national certification exam (Registered Health Information Technician-RHIT) given by the American Health Information Management Association.

HEALTH, SAFETY AND ENVIRONMENTAL TECHNOLOGY

Clinton, Muscatine & Scott Community Colleges

A.A.S., Certificate

HSET courses are delivered via the Internet
HSET Website: <http://www.eicc.edu/hset>

FIRST SEMESTER

	CREDITS
CHM:122 Introduction to General Chemistry	4
ENG:111 Technical Writing	
OR	
ENG:105 Composition I	3
HSE:100 Occupational Safety	3
HSE:200 Waste & Remediation	3
MAT:104 Applied Math Topics	
OR	
Any 100 level or higher math	<u>3</u>
	16

SECOND SEMESTER

CHM:132 Introduction to Organic and Biochemistry	4
ENG:106 Composition II	
OR	
ENG:108 Composition II: Technical Writing	3
HSE:110 Industrial Processes	3
ENV:111 Environmental Science	4
SPC:112 Public Speaking	<u>3</u>
	17

THIRD SEMESTER

HSE:105 Characteristics of Hazardous Materials	3
HSE:205 Air and Water Quality	3
HSE:225 Legal Aspects of Occupational Safety and Health	3
HSE:230 Transportation of Hazardous Materials	3
Humanities/Social Science Elective	<u>3</u>
	15

FOURTH SEMESTER

HSE:211 Contingency Planning/Incident Mgt.	4
HSE:270 Sampling and Monitoring Procedures	
OR	
HSE:250 Special Topics (Fire Prevention/Ergonomics)	4
HSE:280 Hazardous Materials Health Effects	3
HSE:275 Worker Compensation / Incident Investigation	3
HSE:285 Industrial Hygiene	<u>3</u>
	17

A.A.S. TOTAL65

HEALTH, SAFETY & ENVIRONMENTAL TECHNOLOGY CERTIFICATE

The HSET Certificate program is appropriate for students who have prior education and experience in a related field. The most likely candidates for the certificate program are those with an industrial background and a college degree.

Students may choose certificates with either an environmental or a safety emphasis with the assistance from their advisor to reach the required 18 semester hours for their personalized certificate; or choose a combination of courses that meets the student's needs.

	CREDITS
CORE COURSES (Required)	
HSE:100 Occupational Safety	3
HSE:225 Legal Aspects of Occupational Safety and Health	3
HSE:285 Industrial Hygiene	<u>3</u>
	9

SAFETY EMPHASIS (9 Hours Required)

HSE:105 Characteristics of Hazardous Materials	3
HSE:211 Contingency Planning / Incident Management	4
HSE:230 Transportation of Hazardous Materials	3
HSE:250 Special Topics (Fire Prevention/Ergonomics)	4
HSE:275 Worker Compensation/ Incident Investigation	3

OR

ENVIRONMENTAL EMPHASIS (9 Hours Required)

HSE:110 Industrial Processes	3
HSE:200 Waste and Remediation	3
HSE:205 Air and Water Quality	3
HSE:270 Sampling and Monitoring Procedures	4
HSE:280 Hazardous Materials Health Effects	3

CERTIFICATE TOTAL18

Students may automatically receive the certificates they earn as they complete the requirements for an A.A.S. degree.

HEATING, VENTILATION AND AIR CONDITIONING

Scott Community College

A.A.S., Diploma, Certificate

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
HCR:308 Refrigeration Fundamentals	5
HCR:405 Basic Electricity for HVAC Technicians	5
HCR:260 HVAC Trade Skills I	3
Communication or English- General Education Elective	3
	16

SECOND SEMESTER

HCR:116 Domestic Heating	5
HCR:261 HVAC Trade Skills II	3
HCR:441 HVAC Controls and Circuitry	5
Math General Education Elective	3
HCR:880 Professional Development for HVAC Technicians	2
	17

SUMMER SESSION

HCR:271 Advanced Domestic Heating and Air Conditioning	5
HCR:890 Industry Competency Exam (ICE)- Residential	1
	7

**HEATING, VENTILATION AND
AIR CONDITIONING
DIPLOMA AWARDED** **40**

THIRD SEMESTER

HCR:802 Central Systems for HVAC	4
HCR:291 Commercial Systems	3
HCR:860 HVAC Management and Business Fundamentals	3
HVAC Elective*	3
Approved Humanities Elective	3
	16

FOURTH SEMESTER

HCR:320 Light Commercial Refrigeration	6
HCR:805 Environmental Controls and Equipment	5
HCR:811 Computer-Aided Control System Design	3
HCR:885 Light Commercial Competency Exam	1
	15

A.A.S. TOTAL **71**

*HVAC Electives: HCR:525 Welding for HVAC
CSC:118 Introduction to Computers

HEATING, VENTILATION AND AIR CONDITIONING CERTIFICATE

FIRST SEMESTER

	CREDITS
HCR:308 Refrigeration Fundamentals	5
HCR:405 Basic Electricity for HVAC Technicians	5
	10

SECOND SEMESTER

HCR:116 Domestic Heating	5
HCR:441 HVAC Controls and Circuitry	5
	10

CERTIFICATE AWARDED **20**

HORSE SCIENCE TECHNOLOGY

Clinton, Muscatine & Scott Community Colleges/Black Hawk College A.A.S., Certificate

A.A.S. DEGREE

FIRST SEMESTER

AG:101	Introductory Ag Seminar	1
AG:125	Computers in Agriculture	1
AG:141	Animal Science	4
OR-		
AG:285	Animal Science	
EQ:151	Horse Production and Management	4
EQ:158	Horse Evaluation	1
EQ:161	Principles and Methods of Stock Seat Equitation	4
HE:200	First Aid	1
	Approved Communications Elective	<u>3</u>
		19

SECOND SEMESTER

AG:102	Ag Work Experience Seminar	1
EQ:109	Horse Science Work Experience	8
EQ:154	Horse Equipment and Facilities	3
EQ:159	Horse Evaluation II	1
AG:232	Forage Crops	3
	Approved Mathematics Elective	<u>3</u>
		19

THIRD SEMESTER

AG:121	Ag Economics	3
OR-		
AG:281	Ag Economics	4
AG:142	Animal Nutrition	3
EQ:253	Horse Health Care	3
EQ:254	Stable Management	4
	Approved AG Electives*	<u>5</u>
		19-20

FOURTH SEMESTER

AG:201	Advanced Ag. Work Exp. Seminar	1
EQ:209	Advanced Horse Science Work Exp.	5
AG:211	Ag Salesmanship	3
AG:225	Computer Applications in Ag	3
	Approved EQ/AG Electives*	<u>3</u>
		15

A.A.S. TOTAL72-73

Minimum total 70 hours required for degree

* A minimum of nine elective hours are required in the Horse Science Technology Program. Suggested electives include: (Fall Semester) AG:131, AG:258, AG:262 or AG:267. (Spring Semester) AG:122, AG:167, AG:214, AG:222, AG:259, AG:263, AG:264 or AG:266.

HORSE SCIENCE TECHNOLOGY CERTIFICATE

FIRST SEMESTER

EQ:151	Horse Production and Management	4
EQ:161	Principles and Methods of Stock Seat Equitation	4
AG:141	Animal Science	4
AG:142	Animal Nutrition	3
EQ:253	Horse Health Care	3
EQ:254	Stable Management	4
	Approved EQ/AG Electives*	<u>1</u>
		23

SECOND SEMESTER

AG:232	Forage Crops	3
EQ:154	Horse Equipment and Facilities	4
	Approved EQ/AG Electives*	<u>1</u>
		8

CERTIFICATE TOTAL31

*A minimum of two elective hours are required for the Horse Science Technology Certificate. Suggested electives include: Fall Semester: AG:125, EQ:158, AG:2248, AG:225; Spring Semester: AG:102, EQ:109, EQ:159, AG:225. This is only a suggested program and would not be appropriate for every student. Students should always consult with an academic advisor in choosing courses best suited to their needs and abilities.

This is a cooperative contract program taught at Black Hawk College (BHC) in Kewanee, Illinois.

FIRST SEMESTER

	CREDITS
COM:105 Communication Skills I	2
AGB:191 Agricultural Sales I	1
AGB:105 Business Principles for Agriculture I	1.25
AGB:110 Human Relations I	2
AGH:234 Plant Identification and Care I	2
AGF:139 Floral Design I	2
AGF:149 Retail Flower Shop Operations	2
AGH:450 Horticulture Leadership I	.75
AGH:235 Plant Genetics	<u>2</u>
	15

SECOND SEMESTER

COM:107 Communication Skills II	1
AGH:130 Greenhouse Management	2
AGH:237 Plant Identification and Care II	2
AGH:452 Horticulture Leadership II	.5
AGH:805 Horticulture Employment Experience I	2.5
MAT:104 Applied Math Topics	3
CSC:110 Introduction to Computers	3
SPC:111 Public Speaking	2
AGH:143 Equipment Repair	<u>3</u>
	19

SUMMER SESSION

AGH:815 Horticulture Internship	4
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THIRD SEMESTER

AGA:351 Soil Science	1
AGA:350 Fertilizer	1
AGH:454 Horticulture Leadership III	.75
AGH:402 Golf Course Maintenance	2
AGH:339 Athletic Field Maintenance	1
AGH:152 Landscape and Design	3
AGH:274 Nursery Management	2
AGH:254 Pest Management	<u>2</u>
	12.75

FOURTH SEMESTER

AGA:891 Soil Chemistry	1.25
AGB:192 Agricultural Sales II	1.25
AGB:112 Human Relations II	2
AGH:149 Drawing and Design	2
AGH:115 Turf Management	2
AGH:455 Horticulture Leadership IV	.5
AGH:827 Horticultural Employment Experience III	3.5
BIO:125 Plant Botany	<u>4</u>
	16.5

A.A.S. TOTAL67.5

HOSPITALITY MANAGEMENT

Scott Community College

A.A.S.

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
HCM:100 Sanitation and Safety	2
HCM:205 Hospitality Lab I	2
HCM:319 Introduction to Hospitality	3
HCM:950 Hospitality Practicum I	2.5
HCM:951 Hospitality Management Info Systems	<u>3</u>
	12.5

SECOND SEMESTER

HCM:330 Workplace Human Relations	3
HCM:606 Hospitality Management Practices	3
HCM:952 Hospitality Practicum II	2.5
COM:102 English Communications	<u>3</u>
	11.5

THIRD SEMESTER

HCM:953 Hospitality Practicum III	2.5
HCM:265 Math for Culinary Arts	3
HCM:203 Hospitality Lab II	2
PSY:213 Industrial & Organizational Psychology	<u>3</u>
	10.5

FOURTH SEMESTER

HCM:612 Human Resources/Revenue Management	3
HCM:279 Hospitality Hotel Accounting	3
HCM:954 Hospitality Practicum IV	2.5
Gen. Ed. Elective	<u>3</u>
	11.5

FIFTH SEMESTER

HCM:955 Hospitality Law I	2
HCM:956 Hospitality Lab III	3
HCM:270 Hospitality Practicum V	2.5
HCM:958 Workplace Spanish for Hospitality Management	4
HCM:311 Hotel and Restaurant Operations	<u>3</u>
	14.5

SIXTH SEMESTER

HCM:610 Hospitality Sales and Marketing	2
HCM:310 Hospitality Law II	3
HCM:959 Hospitality Practicum VI	<u>2.5</u>
	7.5

A.A.S. TOTAL68

INFORMATION TECHNOLOGY

Clinton, Muscatine & Scott Community Colleges

A.A.S., Certificate

SOFTWARE DEVELOPMENT CONCENTRATION

SCC (A.A.S.)

FIRST SEMESTER

NET:114	Foundations of Information Technology	3
CIS:121	Introduction to Programming	3
CSC:110	Introduction to Computers	3
MAT:767	Applied Math for IT	3
OR		
MAT:110	Math for Liberal Arts	3
OR		
MAT:121	College Algebra	4
	General Education Elective - English/Communication	<u>3</u>
		15-16

SECOND SEMESTER

NET:303	Windows Workstation Operating Systems	3
	IT Programming Required Courses*	<u>12</u>
		15

THIRD SEMESTER

	IT Programming Required Courses*	12
	Humanities/Social Science Elective	<u>3</u>
		15

FOURTH SEMESTER

NET:851	Innovations in Technology	3
NET:910	CO-OP/Occupational Experience	2-3
	IT Programming Required Courses*	<u>12</u>
		17-18

A.A.S. TOTAL 64

**See advisor for approved IT programming courses.*

NETWORKING CONCENTRATION

CCC, MCC & SCC (A.A.S.)

FIRST SEMESTER

NET:114	Foundations of Information Technology	3
CIS:121	Introduction to Programming	3
CSC:110	Introduction to Computers	3
MAT:110	Math for Liberal Arts	3
OR		
MAT:121	College Algebra	4
	General Education Elective - English/Communication	<u>3</u>
		15-16

SECOND SEMESTER

NET:214	CISCO Networking	5
NET:224	CISCO Routers	5
NET:303	Windows Workstation Operating Systems	3
	General Education Electives - English/Communication	<u>3</u>
		16

THIRD SEMESTER

NET:234	CISCO Switches	5
NET:244	CISCO Wide Area Networks (WAN)	5
	IT Networking Electives	3
	General Education Electives- Humanities/Social Science	<u>3</u>
		16

FOURTH SEMESTER

NET:851	Innovations in Technology	3
NET:910	CO-OP/Elective	2-3
	IT Programming Electives**	<u>12</u>
		17-18

A.A.S. TOTAL 64

*** See advisor for approved IT programming elective courses.*

CISCO NETWORKING - CCNA

CCC, MCC & SCC (CERTIFICATE)

NET:214	CISCO Networking	5
NET:224	CISCO Routers	5
NET:234	CISCO Switches	5
NET:244	CISCO Wide Area Networks (WAN)	<u>5</u>

CERTIFICATE TOTAL 20

INFORMATION TECHNOLOGY

Clinton, Muscatine & Scott Community Colleges

A.A.S., Certificate

CISCO NETWORKING - CCNP

SCC (CERTIFICATE)

NET:254	CISCO Advanced Routing	5
NET:264	CISCO WAN Remote Access	5
NET:274	CISCO Switching Multi-layer	5
NET:284	CISCO Support	<u>5</u>
CERTIFICATE TOTAL		20

WEB DESIGN

MCC & SCC (CERTIFICATE)

FIRST SEMESTER

CIS:606	Visual Basic Net I	3
CIS:110	Introduction to Computers	3
CIS:161	C+ +	3
CIS:210	Web Development I	<u>3</u>
		12

SECOND SEMESTER

CIS:338	Sol/Oracle	3
CIS:171	Java - OR-	3
CIS:607	Visual Basic Net II	3
CIS:223	CISCO/Adobe Web Design	3
	Co-op or IT Elective	<u>3</u>
		12
CERTIFICATE TOTAL		24

A+ PREPARATION

CCC (CERTIFICATE)

SPRING SEMESTER

NET:114	Foundations of Information Technology	4
NET:303	Windows Workstation Operating System	3
NET:107	Hardware/Software Installation and Troubleshooting	<u>3</u>
		10

FALL SEMESTER

ENG:107	Composition I	3
NET:105	Printer Maintenance and Repair	3
NET:489	A+ Examination Preparation	1
NET:910	Cooperative Work Experience	<u>3</u>
CERTIFICATE TOTAL		10

NETWORK+ PREPARATION

CCC (CERTIFICATE)

FALL SEMESTER

NET:114	Foundations of Information Technology	4
NET:305	Introduction to Network Operating Systems	3
ENG:107	Composition I	<u>3</u>
		10

SPRING SEMESTER

NET:303	Windows Workstation Operating Systems	3
NET:214	CISCO Networking	5
NET:487	Network + Test Preparation	1
NET:910	Cooperative Work Experience	<u>3</u>
		12

CERTIFICATE TOTAL **22**

COMPUTER REPAIR AND HELP DESK SUPPORT

CCC (CERTIFICATE)

FALL START

FALL SEMESTER

NET:114	Foundations of Information Technology	4
NET:305	Introduction to Programming	3
ENG:107	Composition I	3
NET:107	Hardware/Software Installation and Troubleshooting	<u>3</u>
		13

SPRING SEMESTER

NET:303	Windows Workstation Operating Systems	3
NET:305	CISCO Networking	3
NET:785	Fundamentals of Desktop Support	3
NET:910	Cooperative Work Experience	<u>3</u>
		12

CERTIFICATE TOTAL 25

WIRELESS LAN CERTIFICATION

CCC (CERTIFICATE)

SPRING START

SPRING SEMESTER

ENG:107	Composition I	3
NET:679	IP Addressing and Subnetting	1
NET:214	CISCO Networking	5
NET:303	Windows Workstation Operating System	<u>3</u>
		12

FALL SEMESTER

CIS:704	Windows Workstation Operating Systems	3
NET:155	Wireless Networking	3
NET:313	Windows Servers	3
NET:910	Cooperative Work Experience	<u>3</u>
		12

CERTIFICATE TOTAL 24

INTERIOR DESIGN

Scott Community College

A.A.S.

FIRST SEMESTER

	CREDITS
INT:302 Color Theory	3
INT:301 Design Fundamentals	3
INT:310 Architectural Graphics	4
INT:116 Materials I	4
General Education Elective:	
BUS:110 Business Math and Calculators	
OR any 100 level Math course	<u>3</u>
	17

SECOND SEMESTER

INT:120 Materials II	3
INT:127 History of Decorative Arts I	3
INT:131 Interiors I	4
INT:134 Marketing for Interior Designers	3
INT:140 Presentation Graphics	<u>3</u>
	16

SUMMER SESSION

INT:920 Field Experience	4
General Education Electives	<u>3</u>
OR	7
Design Elective (Optional)	

THIRD SEMESTER

INT:205 Kitchen and Bath Design and Lighting	4
INT:210 Interiors II	3
INT:228 History of Decorative Arts II	3
INT:209 CAD for Interior Designers	3
General Education Elective	<u>3</u>
	16

FOURTH SEMESTER

INT:215 History of 20th Century Art and Architecture	4
INT:313 Contract Design	4
INT:230 Interiors III	3
INT:260 Codes for Interiors	2
General Education Elective	<u>3</u>
	16
A.A.S. TOTAL	72

GENERAL EDUCATION ELECTIVES

BUS:110 Business Math and Calculators	
OR	
Any Math above 100 level	
ENG:105 Composition I OR	
COM:102 Communication Skills	
PSY:111 Introduction to Psychology	
OR	
SOC:110 Introduction to Sociology	
SPC:112 Public Speaking	

DESIGN ELECTIVES

INT:928 Independent Study	2
INT:250 Interior & Exterior Landscaping	2

This is a cooperative contract program taught at Black Hawk College (BHC) in Moline, Illinois. Students enroll as Scott Community College students, but take courses at BHC.

FIRST SEMESTER

	CREDITS
BA:110 Introduction to Business	3
ECON:270 Introduction to International Business	3
BA:272 International Marketing	3
CS:103 Introduction to Microcomputers	<u>3</u>
	12

SECOND SEMESTER

BA:278 International Business Seminar	1
BA:276 International Internship	3
GEOG:105 Introduction to Regional Geography	3
SPEC:175 Intercultural Communication	<u>3</u>
	15

CERTIFICATE TOTAL31

BA:287 International Business Culture	3
BA:280 Introduction to E-Commerce	3
BA:230 Principles of Marketing	3

This is only a suggested program and would not be appropriate for every student. Students should always consult with an academic advisor in choosing courses best suited to their needs and abilities.

LAW ENFORCEMENT

Clinton, Muscatine & Scott Community Colleges/Black Hawk College A.A.S., Certificate

This is a cooperative contract program taught at Black Hawk College (BHC) in Moline, Illinois. Students enroll as Scott Community College students, but take courses at BHC.

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
CO:100* Communication Skills	3
CJ:151 Criminal Justice System	3
HE:102 Living in a Changing World	2
LE:101 Police Organization and Administration I	3
SO:100 Principles of Sociology	3
Elective	<u>1</u>
	15

SECOND SEMESTER

LE:109 Police Community Relations	3
LE:152 Criminology and Delinquent Behavior	3
EN:132* Technical Writing I	3
MA:110 Mathematics for General Education	3
Law Enforcement Elective	<u>3</u>
	15

THIRD SEMESTER

PS:251 American National Government	
OR	
Humanities or Fine Arts Elective	3
LE:251 Criminal Investigation	3
LE:255 Criminal Law I	3
PY:101 Introductory Psychology	3
Law Enforcement Elective	<u>3</u>
	15

FOURTH SEMESTER

PS:252 State and Local Government	3
LE:257 Police Ethics	3
PY:** 200 Level	3
SP:111* Business and Professional Communications	3
Elective	<u>3</u>
	15

A.A.S. TOTAL**.60**

*EN:101-102 and SP:101 may be substituted for students planning to transfer to a four-year school.

**PY:250 Abnormal Psychology recommended.

This is only a suggested program and would not be appropriate for every student. Students should always consult with an academic advisor in choosing courses best suited to their needs and abilities.

LAW ENFORCEMENT CERTIFICATE

FIRST SEMESTER

	CREDITS
CO:100* Communication Skills	3
CJ:151 Criminal Justice System	3
LE:101 Police Organization and Administration I	3
LE:251 Criminal Investigation	3
LE:255 Criminal Law I	<u>3</u>
	15

SECOND SEMESTER

LE:109 Police Community Relations	3
LE:152 Delinquent Behavior	3
LE:257 Police Ethics	3
EN:132* Technical Writing I	3
Law Enforcement Elective	<u>3</u>
	15

CERTIFICATE TOTAL**.30**

*EN:101 or 102 may be substituted.

This is only a suggested program and would not be appropriate for every student. Students should always consult with an academic advisor in choosing courses best suited to their needs and abilities.

Clinton, Muscatine & Scott Community Colleges/Black Hawk College A.A.S., Certificate

This is a cooperative contract program taught at Black Hawk College (BHC) in Moline, Illinois. Students enroll as Scott Community College students, but take courses at BHC.

PRIVATE SECURITY CERTIFICATE

FIRST SEMESTER

		CREDITS
CO:100	Communication Skills	3
CJ:151	Criminal Justice System	3
LE:251	Criminal Investigation	3
LE:255	Criminal Law I	3
SV:165	Physical Security Concepts	<u>3</u>
		15

SECOND SEMESTER

EN:132	Technical Writing I	3
LE:152	Delinquent Behavior	3
LE:257	Police Ethics	3
**	Law Enforcement or Security Elective	3
SV:166	Physical Security Operations	<u>3</u>
		15

Minimum total hours required for Certificate 30

**Electives: SECR:160/SECR:270/SECR:272/SECR:275

MANUFACTURING MAINTENANCE

Muscatine Community College

A.A.S.

A.A.S. DEGREE

FIRST SEMESTER

		CREDITS
MAT:720	Industrial Math and Measurement I	3
ENG:105	Composition I	3
IND:102	Manufacturing Processes	3
ELT:134	Electrical Circuits and Components I	4
IND:134	Blueprint Reading	2
TH:105	Principles of Technology I	<u>4</u>
		19

SECOND SEMESTER

MAT:721	Industrial Math and Measurement II	3
IND:146	Hydraulic Power Systems	2
ELT:121	Basic Electronics	5
IND:159	Bearings and Lubrication	2
ELT:275	Electro-Mechanical Controls	3
CSC:110	Introduction to Computers	<u>3</u>
		18

THIRD SEMESTER

IND:147	Pneumatic Power Systems	2
IND:222	Geometric Tolerancing and Dimensioning	3
IND:158	Sheetmetal Fabrication	3
ELT:154	Industrial Electronics	3
SPC:122	Interpersonal Communication	3
	Manufacturing Elective	<u>3</u>
		17

FOURTH SEMESTER

ATR:122	Robotics and Automation	4
EE:172	Industrial Controls and Circuits	3
PSY:213	Industrial and Organizational Psychology	3
WEL:124	Maintenance Welding	3
	Manufacturing Elective	<u>3</u>
		16

A.A.S. TOTAL70

MANUFACTURING MAINTENANCE CERTIFICATE

FALL

		CREDITS
MAT:720	Industrial Math and Measurement I	3
IND:134	Blueprint Reading	2
DSC:603	Hydraulics	2
WEL:124	Maintenance Welding	<u>3</u>
		19

SPRING

CSC:110	Introduction to Computers	3
MAT:721	Industrial Math and Measurement II	3
SPC:112	Public Speaking	
	OR	
SPC:170	Professional Communications	3
	Social Science Elective	<u>3</u>
		12

SUMMER

ENG:105	English Composition I	3
ELT:134	Electrical Circuits	<u>4</u>
		7

CERTIFICATE TOTAL38

MANUFACTURING TECHNOLOGY

Clinton & Muscatine Community Colleges

A.A.S.

FIRST SEMESTER

		CREDITS
MAT:720	Industrial Math and Measurement I	3
CSC:110	Introduction to Computers	3
IND:134	Blueprint Reading	2
IND:159	Bearings and Lubrication	2
SPC:122	Interpersonal Communication	3
	Social Science Elective	<u>3</u>
		16

SECOND SEMESTER

MAT:721	Industrial Math and Measurement II	3
ENG:105	Composition I	3
IND:146	Hydraulic Power Systems	2
ELT:275	Electro-Mechanical Controls	3
WEL:124	Maintenance Welding	<u>3</u>
		14

THIRD SEMESTER

CHM:122	Introduction to General Chemistry	4
ENG:106	Composition II	3
EE:172	Industrial Controls and Circuits	3
MAT:121	College Algebra	4
ENV:111	Environmental Science	<u>4</u>
		18

FOURTH SEMESTER

BUS:102	Introduction to Business	3
IND:221	Metallurgy	3
MT:157	Metallurgy of Steel Making	3
ELT:121	Basic Electronics	5
IND:310	ISO 9000	<u>3</u>
		17
A.A.S. TOTAL65

MESSAGE THERAPY & BODY WORK

Clinton, Muscatine & Scott Community Colleges/Black Hawk College

Certificate

This is a cooperative contract program taught at Black Hawk College (BHC) in Moline, Illinois. Students enroll as Scott Community College students, but take courses at BHC.

		CREDITS
MB:100	Therapy Theory I	5 cr.
MB:101	Therapy Theory II	5 cr.
MB:102	Musculoskeletal Anatomy/Kinesiology	4 cr.
MB:103	Human Anatomy/Physiology	5 cr.
MB:104	CPR/First Aid/Body Mechanics	1 cr.
MB:105	Professional Practices	1 cr.
MB:106	Pathology	3 cr.
MB:107	Advanced Technique Practice I	5 cr.
MB:108	Advanced Technique Practice II	5 cr.
MB:109	Therapy Theory and Practice	6 cr.
CERTIFICATE TOTAL40

MECHANICAL DESIGN TECHNOLOGY

Certificate

CAD/PRO ENGINEER

A.A.S. DEGREE

SESSION I

MAT:142	Technical Mathematics I	1.5
DRF:114	Basic Drafting I/A	2.5
ENG:111	Technical Writing	3
CSC:112	Computer Fundamentals For Technicians I/A	<u>2</u>
		3.5

Session II

MAT:143	Technical Mathematics II	1.5
DRF:115	Basic Drafting I/B	2.5
CAD:225	Descriptive Geometry	<u>2</u>
		3.5

Session III

MAT:144	Technical Mathematics III	
DRF:130	Industrial Drafting Applications I	3.5
IND:222	Geometric Tolerancing/Dimensioning	<u>3</u>
		6.5

Session IV

MAT:145	Technical Mathematics IV	1.5
DRF:135	Industrial Drafting Applications II	<u>3.5</u>
		5

Session V

EGT:116	Continuous Quality Management	3
CAD:231	Pro Engineer - Basic Modeling	<u>4</u>
		7

Session VI

PHY:130	Applied Physics I	2
EGT:161	Strength of Material I/A	1.5
CAD:241	Pro Engineer Advanced Modeling	<u>4</u>
		7.5

Session VII

PHY:135	Applied Physics II	2
EGT:162	Strength of Material I/B	1.5
CAD:251	Pro Engineer-Assemblies	<u>4</u>
		7.5

Session VIII

EGT:163	Strength of Material II/A	1.5
CAD:233	Pro Engineer Basic Detailing	4
DRF:148	Project Design I	<u>1.5</u>
		7

Session IX

EGT:164	Strength of Material II/B	1.5
CAD:256	Pro Engineer Sheet Metal	4
DRF:149	Project Design II	<u>1.5</u>
		7

A.A.S. TOTAL 64

CAD/PRO ENGINEER DIPLOMA

SESSION I

MAT:142	Technical Mathematics I	1.5
DRF:114	Basic Drafting I/A	2.5
ENG:111	Technical Writing	3
CSC:112	Computer Fundamentals for Technicians I/A	<u>2</u>
		9

Session II

MAT:143	Technical Mathematics II	1.5
DRF:115	Basic Drafting I/B	2.5
CAD:225	Descriptive Geometry	<u>2</u>
		6

Session III

MAT:144	Technical Mathematics III	1.5
DRF:130	Industrial Drafting Applications I	3.5
IND:222	Geometric Tolerancing/Dimensioning	<u>3</u>
		8

Session IV

MAT:145	Technical Mathematics IV	1.5
DRF:135	Industrial Drafting Applications II	3.5
CAD:260	Auto Desk Inventor	<u>4</u>
		9

Session V

EGT:116	Continuous Quality Management	3
CAD:231	Pro Engineer Basic Modeling	4

DIPLOMA TOTAL 39

MECHANICAL DESIGN TECHNOLOGY

Certificate

CAD/PRO ENGINEER CERTIFICATE

SESSION I

MAT:142	Technical Mathematics I	
DRF:114	Basic Drafting I/A	2.5
ENG:111	Technical Writing	3
CSC:112	Computer Fundamentals For Technicians I/A	

Session II

MAT:143	Technical Mathematics II	
DRF:115	Basic Drafting I/B	2.5
CAD:225	Descriptive Geometry	2

Session III

MAT:144	Technical Mathematics III	
DRF:130	Industrial Drafting Applications I	3.5
IND:222	Geometric Tolerancing/Dimensioning	3

Session IV

MAT:145	Technical Mathematics IV	
DRF:1335	Industrial Drafting Applications II	3.5
CAD:260	Auto Desk Inventor	4
		9

CERTIFICATE TOTAL32

PRO ENGINEER/SOLID MODELING CERTIFICATE

CORE COURSES

		CREDITS
CAD:231	Pro Engineer - Basic Modeling	4
CAD:233	Pro Engineer - Basic Detailing	4
CAD:251	Pro Engineer - Assembly	4

ELECTIVE COURSES

Select two of the following:

CAD:212	Solid Works	4
CAD:241	Pro Engineer - Advanced Modeling	4
CAD:256	Pro Engineer - Sheet Metal	4
CAD:257	Pro Engineer - Basic Milling	4
CAD:259	Pro Engineer - Basic Turning	2
CAD:260	AutoDesk Inventor	4

CERTIFICATE TOTAL18/20

MECHATRONICS TECHNOLOGY

Clinton Community Colleges

A.A.S., Diploma

FIRST SEMESTER

	CREDITS
ELE:101 Industrial Safety	1
ELE:141 DC & AC Circuits	4
MAT:743 Technical Math I	3
CAD:114 AutoCAD I	2
IND:136 Process Control I	<u>3</u>
	13

SECOND SEMESTER

ELT:153 Electronics	4
MAT:748 Technical Math II	3
IND:137 Process Control II	3
IND:149 Applied Mechanics	3
ELT:174 Digital Circuits	<u>3</u>
	16

**MECHATRONICS TECHNOLOGY
DIPLOMA AWARDED TOTAL 29**

THIRD SEMESTER

IND:148 Mechanisms	3
ELT:123 Programmable Controllers	3
ELT:175 Computer Programming	3
ELT:176 Instrumentation	3
IND:143 Motors & Drives	<u>3</u>
	15

FOURTH SEMESTER

IND:188 Mechatronic Applications	3
ELT:177 Microcontrollers	3
ATR:123 Automation Technology	3
ART:276 Networking for Industry	3
ENG:111 Technical Writing	<u>3</u>
	15

Suggested Electives

CSC:110 Introduction to Computers	3
PSY:213 Industrial and Organizational Psychology	<u>3</u>
(or other social science elective)	6

A.A.S. TOTAL65

A.A.S. DEGREE

FIRST SEMESTER

	CREDITS
BIO:168 Human Anatomy and Physiology I w/Lab	4
PNN:210 Pharmacology Module A	1
PNN:211 Pharmacology Module B	1
PNN:165 Nursing Fundamentals Module A	5
PNN:166 Nursing Fundamentals Module B	5
PSY:111 Introduction to Psychology	<u>3</u>
	19

SECOND SEMESTER

BIO:151 Nutrition	3
BIO:173 Human Anatomy and Physiology II w/Lab	4
PNN:511 Concepts in Clinical Nursing Module A	4
PNN:512 Concepts in Clinical Nursing Module B	5
PSY:121 Developmental Psychology	<u>3</u>
	19

SUMMER SESSION-PN

PNN:641 Transition to Practice	6
ENG:105 Composition I	<u>3</u>
	9

****PRACTICAL NURSING DIPLOMA TOTAL ...47**

SUMMER SESSION - ADN

ENG:105 Composition I	3
Choose One Course:	
ADN:473 Nursing in Mental Health OR	5
ADN:432 Nursing the Childbearing Family OR	5
ADN:442 Nursing of Children and Families	<u>5</u>
	8

THIRD SEMESTER

BIO:186 Microbiology	4
SOC:110 Introduction to Sociology	3

Choose Two Courses:

ADN:473 Nursing in Mental Health OR	5
ADN:432 Nursing the Childbearing Family OR	5
ADN:442 Nursing of Children and Families	<u>5</u>
	17

FOURTH SEMESTER

ADN:541 Concepts in Clinical Nursing Module 2A	6
ADN:542 Concepts in Clinical Nursing Module 2B	7
	13

SUMMER SESSION (5 weeks)

ADN:811 Comprehensive Nursing	<u>5</u>
	5

***ASSOCIATE DEGREE NURSING

A.A.S. TOTAL81

*Nursing courses in the first two semesters can be taken at Muscatine Community College.

**Graduates will be eligible to make application for the National Council Licensure Examination for Practical Nurses.

***Graduates will be eligible to make application for the National Council Licensure Examination for Registered Nurses.

NOTE: Acceptance into the programs is required.

PHYSICAL THERAPIST ASSISTANT

Clinton, Muscatine & Scott Community Colleges/Black Hawk College

A.A.S.

This is a cooperative contract program taught at Black Hawk College (BHC) in Moline, Illinois. Students enroll as Scott Community College students, but take courses at BHC.

FIRST SEMESTER

		CREDITS
BI:145	Anatomy and Physiology I	4
BI:150	Medical Terminology	3
EN:101	Composition I	3
PA:100	Introduction to PTA	3
PA:113	Physical Agents I	2
PA:202	Physical Rehabilitative Techniques	<u>3</u>
		18

SECOND SEMESTER

BI:146	Anatomy and Physiology II	4
PY:101	Introduction to Psychology	3
PA:201	Kinesiology	4
PA:203	Pathology	2
PA:204	Practicum I	3
PA:207	Massage	<u>1</u>
		17

THIRD SEMESTER

PY:200	Human Growth and Development	3
PA:205	Physical Therapy Science	2
PA:208	Therapeutic Exercise I	3
PA:214	Practicum II	3
SP:114	Interpersonal Communication	<u>3</u>
		14

FOURTH SEMESTER

MA:108	Statistics for General Education OR	
CS:100	Introduction to Computers	3
PA:209	Therapeutic Exercise II	4
PA:213	Physical Agents II	2
PA:290	Clinical Seminar	2
SP:175	Intercultural Communication	<u>3</u>
		14

FIFTH SEMESTER

PA:280	Clinical Internship I	4
PA:281	Clinical Internship II	<u>4</u>
		8

A.A.S. TOTAL72

This is only a suggested program and would not be appropriate for every student. Students should always consult with an academic advisor in choosing courses best suited to their needs and abilities.

The curriculum for Physical Therapist Assistant is career oriented and accredited by the American Physical Therapy Association.

Each applicant must meet the following requirements:

- High school graduation or equivalent
- Physical examination required prior to any clinical experience
- Any developmental courses that are required as determined by ASSET scores and program faculty
- One year high school biology course or equivalent passed with a grade of "C" or above within the past 5 years, or BIOL 145 Anatomy and Physiology I at Black Hawk College passed with a "C" or above
- Minimum of "C" average in courses previously completed at Black Hawk College and any courses transferred from other colleges
- Personal interview with PTA faculty
- Students must achieve a grade of "C" or above in all courses to continue the program

Applications to the program will be accepted each year for admission to the PTA classes beginning September 1 and are strongly encouraged to be submitted by June for admission in the Fall semester. A maximum of 24 students are accepted each year into this program.

Upon completion of this course of study, students may be eligible to take the board examination to become a licensed Physical Therapist Assistant in Illinois. (The student is bound by the Illinois Physical Therapy Act: Paragraph 4257/Section 7 and Paragraph 4258.1/Section 8.1.)

A.A.S. DEGREE

FIRST SEMESTER

		CREDITS
BIO:168	Human Anatomy and Physiology I w/Lab*	4
RAD:100	Introduction to Radiography and Patient Care	5
RAD:123	Radiographic Procedures I	5
RAD:350	Imaging	<u>3</u>
		17

SECOND SEMESTER

BIO:173	Human Anatomy & Physiology II w/Lab*	4
RAD:143	Radiographic Procedures II	5
RAD:300	Radiographic Exposure	4
RAD:210	Clinical Education	4
HSC:113	Medical Terminology*	<u>2</u>
		19

SUMMER SESSION

RAD:183	Special Procedures	3
RAD:220	Clinical Education II	<u>3</u>
		6

THIRD SEMESTER

PSY:111	Introduction to Psychology*	
	OR	
SOC:110	Introduction to Sociology*	3
RAD:760	Film Evaluation I	2
RAD:500	Clinical Education III	6
RAD:750	Radiographic Pathology	<u>3</u>
		14

FOURTH SEMESTER

RAD:800	Physics for Radiographers	3
RAD:850	Radiation Protection and Biology	3
RAD:510	Clinical Education IV	6
RAD:790	Film Evaluation II	2
SPC:112	Public Speaking* OR	3
ENG:105	Composition I*	<u>3</u>
		17

SUMMER SESSION

RAD:946	Seminar	2
RAD:540	Clinical Practicum V	3
RAD:890	Quality Assurance	<u>1</u>
		6

A.A.S. TOTAL79

NOTE: Enrollment is limited and entrance is restricted to

the fall semester. In addition to the general admission requirements of the college, applicants must meet specific program admission criteria.

*Courses may be taken while waiting to enter the program.

After completing the program at Scott Community College and earning licensure as a Radiologic Technologist, you may wish to specialize in one of the following areas. These advanced certificate programs are offered cooperatively through Scott Community College and Carl Sandburg College in Galesburg, Illinois.

DIAGNOSTIC MEDICAL SONOGRAPHY (ADVANCED CERTIFICATE)

FIRST SEMESTER

		CREDITS
RD:262	Sectional Anatomy for Diagnostic Imaging	3
US:250	Ultrasound Physics & Instrumentation I	3
US:252	Abdominal Sonography	3.5
US:255	Sonography Practicum I	<u>5</u>
		14.5

SECOND SEMESTER

US:260	Ultrasound Physics & Instrumentation II	2
US:262	OB/GYN Sonography	4
US:265	Sonography Practicum II	<u>6</u>
		12

SUMMER SESSION

US:272	Sonography of Superficial Structures	2
US:274	Sonography Critique	2
US:275	Sonography Summer Practicum	<u>5</u>
		9

THIRD SEMESTER

US:280	Vascular Equipment & Instrumentation	2
US:282	Vascular Sonography	4
US:285	Sonography Practicum III	<u>6</u>
		12

CERTIFICATE TOTAL47.5

RADIOLOGIC TECHNOLOGY

Scott Community College

A.A.S.

COMPUTED TOMOGRAPHY (ADVANCED CERTIFICATE)

RD:262	Sectional Anatomy for Diagnostic Imaging	3
RD:250	CT Principles & Instrumentation	3
RD:252	Computed Tomography Procedures	4
RD:255	CT Practicum	<u>6</u>
CERTIFICATE TOTAL		16

MAGNETIC RESONANCE IMAGING (ADVANCED CERTIFICATE)

RD:262	Sectional Anatomy for Diagnostic Imaging	3
MR:250	MRI Physics & Instrumentation	3
MR:252	MRI Imaging Procedures	4
MR:255	MRI Practicum	<u>6</u>
CERTIFICATE TOTAL		16

NUCLEAR MEDICINE TECHNOLOGY (ADVANCED CERTIFICATE)

FIRST SEMESTER

NMT:250	Physics of Nuclear Medicine Technology	2
NMT:252	Nuclear Medicine Procedures I	3
NMT:254	Nuclear Medicine Instrumentation I	2
NMT:255	Nuclear Medicine Practicum I	<u>5</u>
		12

SECOND SEMESTER

NMT:260	Radiopharmacology	2.5
NMT:262	Nuclear Medicine Procedures II	3
NMT:264	Nuclear Medicine Instrumentation II	2
NMT:265	Nuclear Medicine Practicum II	5
		12.5

SUMMER

NMT:272	Advanced Nuclear Medicine Procedures & Techniques	4.5
NMT:275	Nuclear Medicine Practicum III	<u>5</u>
		9.5

CERTIFICATE TOTAL		34
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RESPIRATORY CARE

Clinton, Muscatine & Scott Community Colleges/Northeast Iowa Community College

This program is available as a result of a cooperative partnership with Northeast Iowa Community College in Peosta/Dubuque, Iowa. Our partnership with NICC provides you the opportunity to take some of your classes (21 credits) through Eastern Iowa Community College District. Once accepted into the Northeast Iowa program, you will take your Respiratory Care classes in Peosta/Dubuque and may be placed in your practicum sites in the Eastern Iowa/Iowa City District.

BIO:168	Human Anatomy & Physiology w/Lab I	4
BIO:173	Human Anatomy & Physiology w/Lab II	4
BIO:186	Microbiology	4
CSC:110	Introduction to Computers	3
ENG:105	Composition I	3
PSY:111	Introduction to Psychology	<u>3</u>
		21
Clinical Practicum at Genesis/University of Iowa (register through NICC)		

SIGN LANGUAGE INTERPRETER

Scott Community College

A.A.S.

FIRST SEMESTER

	CREDITS
DRA:130 Acting I	3
ENG:105 Composition I OR	3
COM:102 Communication Skills	3
ASL:151 American Sign Language I	5
ITP:141 English Vocabulary/Grammar for Interpreters	4
ITP:126 Orientation to Deafness	4
	19

SECOND SEMESTER

ITP:135 Introduction to Language	3
ITP:121 Introduction to Interpreting I	4
ASL:181 American Sign Language II	5
ITP:131 Social Aspects of Deaf Culture	4
	16

SUMMER SESSION

PSY:121 Developmental Psychology	3
Humanities Elective	3
	6

THIRD SEMESTER

BUS:110 Business Math and Calculators	3
ITP:122 Introduction to Interpreting II	4
ASL:251 American Sign Language III	5
ITP:230 Transliteration I	4
INT:253 Practical Issues	3
	19

FOURTH SEMESTER

ITP:231 Transliteration II	3
ASL:281 American Sign Language IV	4
ITP:941 Practicum	2
ITP:211 Interpreting Skills Lab	3
	12

A.A.S. TOTAL72

TECHNICAL DRAFTING & COMPUTER-AIDED DESIGN (CAD)

Clinton Community College

A.A.S., Certificate

FIRST SEMESTER

	CREDITS
EGR:112 Engineering Drawing I	3
CAD:113 AutoCAD I	3
MAT:743 Technical Math	3
CAD:271 Introduction to GIS	3
CSC:110 Introduction to Computers	3
	15

SECOND SEMESTER

EGR:113 Engineering Drawing II	3
CAD:140 Parametric Solid Modeling I	3
MAT:748 Technical Math II	3
ENG:111 Technical Writing	3
CAD:273 Advanced GIS	3
	15

SUMMER SEMESTER

CAD:160 Plane Surveying	3
CAD:235 Strength of Materials	4
	7

THIRD SEMESTER

CAD:196 Architectural Drafting	3
CAD:130 Applied Drafting	3
CAD:272 Cartography	3
PHY:162 College Physics I	4
PSY:213 Industrial and Organizational Psychology (or Humanities/Social Science Elective)	3
	16

FOURTH SEMESTER

CAD:161 Architectural Modeling & Rendering	3
DRF:161 Applied Descriptive Geometry I	3
CAD:274 Remote Sensing	3
PHY:172 College Physics II	4
	13

A.A.S. TOTAL66

GEOGRAPHIC INFORMATION SYSTEMS CERTIFICATE

CAD:271 Introduction to GIS	3
CAD:272 Cartography	3
CAD:273 Advanced GIS	3
CAD:274 Remote Sensing	3
	12

CERTIFICATE TOTAL12

TECHNICAL STUDIES

Clinton, Muscatine & Scott Community College

A.A.S., Diploma, Certificate

The Technical Studies program will provide Associate of Applied Science degree students with the opportunity to customize and personalize a specific technical course of study that meets their own individual employment needs.

The program incorporates a common core of general education course work, combined with a core concentration of technical courses and elective courses from other technical program offerings. The A.A.S. Degree in Technical Studies consists of 64 credits. Some of these credits may come by assessing Credit for Prior Learning. A maximum of 46 credit hours may be earned toward the Technical Studies Degree through Credit for Prior Learning. This may include successful completion of 8,000 hours of any approved Bureau of Apprenticeship Training program.

Students must work with an academic advisor to complete and file an educational course of study plan with the registrar's office.

Students may choose to concentrate their studies in Electromechanical Systems. See the program guide below.

CORE CONCENTRATION:

24 credit hours of this degree program must come from one program-specific area.

ELECTIVE COURSES:

22 credit hours of this degree program can be selected from any of the current career program (A.A.S.) courses offered at the colleges.

GENERAL EDUCATION:

18 credit hours required from the following areas:

English or Communications	3
Math or Science	3
Microcomputer Applications	3
Arts and Humanities	3
Cultural and Historical Perspectives	3
Social Sciences	<u>3</u>
	18

ELECTROMECHANICAL STUDIES

(A.A.S.)

SESSION I

ELE:101	Industrial Safety	1
ELE:115	Basic Electricity I	2
ELE:124	Tools/Adapters/Instruments	2
ENG:111	Technical Writing (16-week class)	<u>3</u>
		8

SESSION II

ELE:131	Basic Electricity II	2
EGT:133	Hydraulics/Pneumatics I	2
ELE:127	Troubleshooting	1
ELE:116	Blueprint Reading	<u>1</u>
	Technical Writing (cont.)	
		6

SESSION III

MAT:722	Industrial Math/Measurement I/A	1.5
ELE:144	Basic Electronics I/A	1.5
ELE:128	Electrical Systems I	3
CSC:112	Computer Fundamentals for Techs I/A	<u>2</u>
		8

SESSION IV

MAT:723	Industrial Math/Measurement I/B	1.5
ELE:145	Basic Electronics I/B	1.5
EGT:134	Hydraulics/Pneumatics II	3
CSC:113	Computer Fundamentals for Techs I/B	<u>2</u>
		8

SESSION V

PHY:173	Applied Physics I/A	1.75
ELE:129	Electrical Systems II	3
EGT:116	Continuous Quality Management	3
	General Education Elective	<u>3</u>
		10.75

SESSION VI

PHY:174	Applied Physics I/B	1.75
ELE:133	Electrical Systems III	3
EGT:135	Hydraulics/Pneumatics III	<u>3</u>
		7.75

SESSION VII

ELE:134	Electrical System Controls	3
EGT:137	Hydraulics/Pneumatics IV	4
	General Education Elective	<u>3</u>
		10

SESSION VIII

ELE:139	Electrical Systems Analysis	3
EGT:145	Hydraulics/Pneumatics V	4
		7

A.A.S. TOTAL**65.5**

APPLIED ELECTRICITY CERTIFICATE

ELE:101	Industrial Safety	1
ELE:115	Basic Electricity I	2
ELE:131	Basic Electricity II	2
ELE:124	Tools/Adapters/Instrumentation	2
ELE:144	Basic Electronics I/A	1.5
ELE:127	Troubleshooting	1
ELE:116	Blueprint Reading	1
ELE:145	Basic Electronics	1.5
EGT:133	Hydraulics/Pneumatics I	2
PHY:173	Applied Physics I/A	1.75
PHY:174	Applied Physics I/B	<u>1.75</u>
CERTIFICATE TOTAL		17.5

ELECTRICAL SYSTEMS CERTIFICATE*

ELE:128	Electrical Systems I	3
ELE:129	Electrical Systems II	3
ELE:133	Electrical Systems III	3
ELE:134	Electrical Systems Controls	3
ELE:139	Electrical Systems Analysis	<u>3</u>
CERTIFICATE TOTAL		15

*Must meet prerequisites.

HYDRAULICS/PNEUMATICS SYSTEMS CERTIFICATE*

EGT:133	Hydraulics/Pneumatics I	2
EGT:134	Hydraulics/Pneumatics II	3
EGT:135	Hydraulics/Pneumatics III	3
EGT:137	Hydraulics/Pneumatics IV	4
EGT:145	Hydraulics/Pneumatics V	<u>4</u>
CERTIFICATE TOTAL		16

*Must meet prerequisites.

TRUCK DRIVING

Scott Community College

Certificate

TDT:110	Commercial Drivers License Regulations	2
TDT:130	Commercial Vehicle Operation	<u>7</u>

CERTIFICATE TOTAL**9**

Day and evening sessions start every seven weeks beginning in February and ending in November.

The program includes:

Commercial Drivers License Requirements, First Aid, Mapping and Freight Billings, Truck Maintenance/ Inspection, Emergency Maneuvers, Dock Operations, City and Highway Driving, U.S. DOT Rules and Regulations.

To sign up:

1. Send a completed application to Scott Community College.
2. You must take the Department of Transportation physical, eye exam and drug test prior to the start of classes. Give the exam form to your doctor to complete and sign. Return the signed form to the Scott Community College Admissions Office. Note: The form is used for college purposes. It is not to be used for company hiring.
3. You are guaranteed a seat only after all tuition and fees have been paid.

WELDING

Clinton, Muscatine & Scott Community College

A.A.S., Diploma, Certificate

A.A.S. DEGREE

YEAR ONE FALL 1ST 8 WEEKS

MFG:186	Plant Safety	1
MAT:733	Math for Manufacturing Technologies A	1.5
WEL:126	Shielded Metal Arc Welding - Basic	<u>4.75</u>
		7.25

YEAR ONE FALL 2ND 8 WEEKS

MAT:734	Math for Manufacturing Technologies B	1.5
MFG:192	Blueprint Reading	3
WEL:129	Gas Metal Arc Welding - Basic	<u>4.25</u>
		8.75

YEAR ONE SPRING 1ST 8 WEEKS

WEL:136	Oxy-Acetylene Welding	4.25
CSC:112	Computer Fundamentals for Technicians A	<u>2.0</u>
		6.25

YEAR ONE SPRING 2ND 8 WEEKS

WEL:133	Gas Tungsten Arc Welding	2.5
WEL:132	Flux Core Welding	2.25
CSC:113	Computer Fundamentals for Technicians B	<u>2.0</u>
		6.75

YEAR ONE SUMMER

EGT:116	Continuous Quality Management	3
WEL:215	Shielded Metal Arc Welding Advanced I	<u>5</u>
		8

YEAR TWO FALL 1ST 8 WEEKS

WEL:216	Shielded Metal Arc Welding Advanced II	4.5
WEL:217	Gas Metal Arc Welding Advanced	1.25
ENG:111	Technical Writing	<u>3</u>
		8.75

YEAR TWO FALL 2ND 8 WEEKS

WEL:219	Layout & Fabrication	3
ENG:111	Technical Writing	
	Technical/Career Education Elective	<u>4.25*</u>
		7.25

YEAR TWO SPRING 1ST 8 WEEKS

	Cultural and Historical Perspectives Gen. Ed.	3
	Social Science Gen. Ed.	3
	Technical/Career Education Elective	<u>4</u>
		10

YEAR TWO SPRING 2ND 8 WEEKS

	Cultural and Historical Perspectives Gen. Ed.	
	Social Science Gen. Ed.	
	Technical/Career Education Elective	<u>3</u>
		3

A.A.S. Total**66****

*These numbers may vary depending on the Technical/Career Education electives selected. The total minimum credits required for Technical/Career Education electives is 22.

**Total number of credit hours may vary depending on Technical/Career Education electives selected.

WELDING DIPLOMA

YEAR ONE FALL 1ST 8 WEEKS

MFG:186	Plant Safety	1
MFG:182	Math for Manufacturing Technologies A	1.5
WEL:126	Shielded Metal Arc Welding - Basic	<u>4.75</u>
		7.25

YEAR ONE FALL 2ND 8 WEEKS

MFG:183	Math for Manufacturing Technologies B	1.5
MFG:192	Blueprint Reading	3
MFG:190	Metallurgy	2
WEL:129	Gas Metal Arc Welding - Basic	<u>4.25</u>
		10.75

YEAR ONE SPRING 1ST 8 WEEKS

ENG:111	Technical Writing	3
WEL:132	Flux Core Welding	2.25
WEL:215	Shielded Metal Arc Welding - Advanced I	5
WEL:217	Gas Metal Arc Welding - Advanced	<u>1.25</u>
		9.75

YEAR ONE SPRING 2ND 8 WEEKS

WEL:216	Shielded Metal Arc Welding - Advanced II	4.5
WEL:136	Oxy-Acetylene Welding	4.25
WEL:133	Gas Tungsten Arc Welding	2.5
WEL:219	Layout and Fabrication	3
EGT:116	Continuous Quality Management	<u>3</u>
		17.25

Diploma Total**46.75**

BASIC WELDING CERTIFICATE

YEAR ONE FALL 1ST 8 WEEKS

WEL:126	Shielded Metal Arc Welding - Basic	4.75
WEL:129	Gas Metal Arc Welding - Basic	<u>4.25</u>
		9

YEAR ONE FALL 2ND 8 WEEKS

MFG:192	Blueprint Reading	3
WEL:136	Oxy-Acetylene Welding	<u>4.25</u>
		7.25

YEAR ONE SPRING 1ST 8 WEEKS

WEL:133	Gas Tungsten Arc Welding	2.5
WEL:132	Flux Core Welding	<u>2.25</u>
		4.75

Certificate Total21

PRODUCTION WELDING CERTIFICATE

YEAR ONE FALL 1ST 8 WEEKS

MFG:186	Plant Safety	1
MAT:733	Math for Manufacturing A	1.5
WEL:127	Shielded Metal Arc Welding - Modules	1.25
WEL:129	Gas Metal Arc Welding - Basic	<u>4.25</u>
		8

YEAR ONE FALL 2ND 8 WEEKS

MAT:734	Math for Manufacturing B	1.5
MFG:192	Blueprint Reading	3
MFG:190	Metallurgy	2
WEL:137	Oxy-Acetylene Welding - Modules	<u>.5</u>
		7

YEAR ONE SPRING 1ST 8 WEEKS

WEL:132	Flux Core Welding	2.25
WEL:217	Gas Metal Arc Welding - Advanced	<u>1.25</u>
		3.5

Certificate Total18.5

STRUCTURAL WELDING CERTIFICATE

YEAR ONE FALL 1ST 8 WEEKS

MFG:186	Plant Safety	1
MFG:182	Math for Manufacturing Technologies A	1.5
WEL:126	Shielded Metal Arc Welding - Basic	<u>4.75</u>
		7.25

YEAR ONE FALL 2ND 8 WEEKS

MFG:183	Math for Manufacturing Technologies B	1.5
MFG:192	Blueprint Reading	3
MFG:190	Metallurgy	2
WEL:137	Oxy-Acetylene Welding - Modules	<u>.5</u>
		7

YEAR ONE SPRING 1ST 8 WEEKS

WEL:132	Flux Core Welding	2.25
WEL:215	Shielded Metal Arc Welding - Advanced I	5
WEL:216	Shielded Metal Arc Welding - Advanced II	<u>4.5</u>
		11.75

Certificate Total26

GENERAL MAINTENANCE WELDING CERTIFICATE

WEL:126	Shielded Metal Arc Welding - Basic	4.75
WEL:129	Gas Metal Arc Welding - Basic	4.25
WEL:136	Oxy-Acetylene Welding	4.25
MFG:192	Blueprint Reading	3
ELE:101	Industrial Safety	1
ELE:115	Electricity I	2
EGT:133	Hydraulics/Pneumatics I	2
MAT:733	Math for Manufacturing Technologies A	1.5
MAT:734	Math for Manufacturing Technologies B	1.5
CSC:112	Computer Fundamentals for Technicians A	1.5
CSC:113	Computer Fundamentals for Technicians B	<u>1.5</u>

Certificate Total28.25

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

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Here is an example to aid in understanding the course description designations:

- 1) ACC: 2)146 3)Managerial Accounting 4) 3 cr.
 - 5) A continuation of Principles of Accounting I, this course introduces corporate structures related to accounting for
 - 6) (59.4 Lec. Hrs.)
 - 7) Prerequisite: ACC:142 or permission of instructor.
 - 8) Co-requisite:
- 1) Academic area prefix:
Example: ACC is Accounting.
 - 2) Course number:
If the first number is less than 100, the course is for internal college credit only.
 - 3) Course title
 - 4) Number of semester hours the course is worth
 - 5) Description of course content
 - 6) Designates the number of 50-minute contact hours per semester spent in lecture (Lec. Hrs.) and/or laboratory setting (Lab Hrs.) and/or cooperative learning setting.
 - 7) Prerequisites are courses that must be successfully completed or other qualifications that must be met prior to enrolling in the listed course.
 - 8) Co-requisites are courses that must be taken before or at the same time as the listed course.

Not all courses are available on all campuses each semester.

ACCOUNTING

ACC:051 Basic Accounting 3 cr.

Designed for the student who has not had high school bookkeeping. Emphasis is placed on learning the accounting cycle, structures systems and records usually incorporated by small businesses and professional offices. Completion of assigned problems will coincide with the readings.

(59.4 Lec. Hrs.)

ACC:109 Introduction to Accounting 2 cr.

This course is an introduction to accounting concepts and is designed for non-accounting majors. Students will learn the accounting cycle and will become familiar with the financial records usually maintained by small service businesses and professional offices. Concepts will be reinforced by completing accounting exercises, problems, and an introductory-level simulation.

(39.6 Lec. Hrs.)

ACC:110 Introduction to Accounting II 2 cr.

This course is a continuation of ACC:109. The students will learn the generally accepted principles of accounting for a merchandising business. Students will learn to use special journals and subsidiary ledgers, to prepare financial statements for a merchandising business, and to perform basic financial statement analysis. Concepts will be reinforced by completing accounting exercises, problems, and a simulation.

(39.6 Lec. Hrs.)

Prerequisite: ACC:109.

ACC:111 Introduction to Accounting 3 cr.

Designed for the student who has not had high school bookkeeping or for the student desiring to enter office employment. Emphasis is placed on learning the accounting cycle, structured systems, and records usually incorporated by small businesses and professional offices. A practice simulation provides an opportunity for students to apply those concepts learned throughout the course and also indicates to the instructor that competencies have been met.

(59.4 Lec. Hrs.)

Prerequisites: MAT:041.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ACC:121 Principles of Accounting 3 cr.

An introduction to accounting terminology and concepts and accepted accounting practices of analyzing, recording, summarizing, presenting, and interpreting business financial transactions of sole proprietorships and partnerships. Significant emphasis is placed upon practice and application. (59.4 Lec. Hrs.)

ACC:142 Financial Accounting 3 cr.

An introduction to the use of accounting in the decision making process. Information will be presented with a bias toward user orientation as opposed to preparer orientation. Course competencies will be developed in the areas of identifying the role of accounting in society, basic accounting and business terminology, concepts behind financial information, accepted accounting practices, analysis and interpretation of financial statements of sole proprietorships and corporations. (59.4 Lec. Hrs.)

ACC:146 Managerial Accounting 3 cr.

This course introduces corporate structures related to accounting for equities, reporting cash flows and financial statement analysis. Cost accounting systems are introduced: job order, process and standard cost systems. Emphasis is given to managerial and cost analysis activities by exposing students to accounting principles and practices. This course not only serves as the foundation for other accounting courses for students planning careers in accounting, but also provides the literacy needs for students in business administration. (59.4 Lec. Hrs.)

Prerequisite: ACC:142 or equivalent course.

ACC:161 Payroll Accounting 3 cr.

This introductory course covers the processes of payroll accounting. Topics include methods of computing compensations, state and federal laws affecting payroll, mandatory and voluntary payroll deductions, methods of keeping payroll records, and preparation of internal and governmental reports. (39.6 Lec. Hrs.)

Prerequisite: ACC:142.

ACC:221 Cost Accounting 3 cr.

A study of basic cost accounting concepts and product cost accumulation procedures emphasizing differences between job order, process and standard costing. Emphasis is placed on the managerial accounting activities of controlling costs, cost analysis and decision making. (59.4 Lec. Hrs.)

Prerequisite: ACC:146.

ACC:237 Intermediate Accounting 4 cr.

The in-depth study of selected financial accounting theory and practices. Topics may include professional organization structures, financial statements, the time-value of money, inventories, other current and non-current assets and liabilities. As time permits some other specialty topics, such as the statement of cash flows, accounting for leases, and revenue recognition principles are introduced. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ACC:146.

ACC:251 Governmental and Nonprofit Accounting 3 cr.

The purpose of this course is to give the student a basic background in accounting principles and practices for governmental units and other nonprofit organizations. (59.4 Lec. Hrs.)

ACC:265 Income Tax Accounting 4 cr.

Covers federal income taxes as they apply to the individual, partnerships and business. Major emphasis is placed on the individual return including supporting schedules and statements. Considerable effort is expended in actual form completion and understanding of IRS requirements. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ACC:121.

ACC:311 Computer Accounting 3 cr.

Transfers manual accounting skills to a microcomputer operation. In addition to learning computer operation procedures, accounting units covered are the general ledger, special journals, vouchers, financial statement analysis, depreciation, inventory, payroll and Lotus 1-2-3. Simulations of business activities are processed through an entire accounting cycle and various reports are generated. Student will also learn to create an entire computerized accounting system. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ACC:142 or equivalent preferred, ACC:051 acceptable.

ACC:312 Computer Accounting 4 cr.

This course is designed to develop accounting and problem solving skills on microcomputers. Students will complete the accounting cycle through financial statement preparation using integrated accounting software packages. Use of electronic spreadsheet capabilities will be explored. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ACC:146.

ACC:332 Computer Accounting-QuickBooks I 2 cr.

Students apply accounting concepts to keep financial records for small service and merchandising companies using the accounting software QuickBooks. Topics include setting up a company, creating a chart of accounts, recording customer and vendor transactions, processing payroll, printing financial reports, and recording adjusting entries. (39.6 Lec. Hrs.)

Prerequisite: ACC:110.

ACC:701 Certified Bookkeeper Review 3 cr.

This course is designed to prepare the student to successfully sit for the Certified Bookkeeper Exam. Material will be reviewed to aid the student in attaining the knowledge and skills required to conduct all key bookkeeping and accounting functions through the adjusted trial balance and basic payroll concepts for small to mid-size organizations. (59.4 Lec. Hrs.)

Prerequisite: ACC:146.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ADMINISTRATIVE ASSISTANT

ADM:102 Telephone and Mailing Techniques 1 cr.

Students will learn how to use the telephone as an effective communication tool by learning how to speak clearly, correctly and convincingly. Students will also have an opportunity to gain hands-on experience by developing, practicing and making simulated calls covering a wide variety of topics and situations. (19.8 Lec. Hrs.)

ADM:105 Introduction to Keyboarding 1 cr.

This course is designed for the student with no prior keyboarding experience. The major objective is to develop touch control of the keyboard with speed and accuracy through proper keyboarding techniques. (39.6 Lab Hrs.)

ADM:106 Introduction to Keyboarding 2 cr.

This course is designed to improve keyboarding speed and/or accuracy. Students at any skill level may enroll, as the course work is individually prescribed to improve skill level. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ADM:105.

ADM:122 Document Formatting 2 cr.

This course is designed to take the student beyond basic keyboarding. The student will learn the proper formatting of business and personal-business letters, envelopes, simple tables, short business reports, and interoffice memorandums. In addition, the student will continue to improve keyboarding speed and accuracy through the completion of skill-building exercises. Review and application of language arts skills and accurate proofreading of documents are also emphasized. (39.6 Lab Hrs.)

Prerequisite: ADM:105, BCA:129 and BCA:130.

ADM:123 Document Formatting 3 cr.

A course designed for the student with little or no prior keyboarding experience. The major objectives are to develop touch control of the keyboard with speed and accuracy through proper keyboarding techniques and to learn proper formatting of letters, simple tables, short reports and memorandums. (19.8 Lec. Hrs./79.2 Lab Hrs.)

ADM:125 Document Formatting II 2 cr.

An intermediate level document formatting class designed for the student who can demonstrate basic keyboarding and formatting skills. The student will learn correct formatting of business correspondence for different situations, complex tables, multi-page reports and a variety of business forms. Emphasis is placed on efficient and accurate production of documents from unarranged and rough-draft copy. Continued improvement of keyboarding speed and accuracy is integrated into the class through skill development drills and exercises. Test Out Available. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ADM:123 or ADM:122.

ADM:127 Advanced Document Formatting 3 cr.

An advanced level course requiring students to demonstrate a high level of keyboarding and formatting skills. Emphasis is placed on production of office-quality documents with minimal direction under a variety of simulated business environments. Continued improvement of keyboarding speed and accuracy is integrated into the class through skill development drills and exercises. (19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: ADM:123, ADM:130.

ADM:130 Intermediate Document Formatting 3 cr.

An intermediate level document formatting class designed for the student who can demonstrate basic keyboarding and formatting skills. The student will learn correct formatting of business correspondence for different situations, complex tables, multi-page reports and a variety of business forms. Emphasis is placed on efficient and accurate production of documents from unarranged and rough-draft copy. Continued improvement of keyboarding speed and accuracy is integrated into the class through skill development drills and exercises. A report project is included in this class. (19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: ADM:123.

ADM:132 Business Math and Calculations 2 cr.

This course is designed to advance the student's knowledge of the fundamentals of mathematics and to apply these fundamentals to business situations. Students will develop speed and accuracy in using the touch method of entry on electronic calculators. Topics covered include addition, subtraction, multiplication, division, fractions, percentages, simple interest, discounts, and payroll taxes. (39.6 Lec. Hrs.)

ADM:133 Business Math and Calculators 3 cr.

Designed to refresh the student's knowledge of mathematics fundamentals and applications of these fundamentals to business and office occupations. Topics covered include addition, subtraction, multiplication, division, fractions, percentages, interest, discounts, payroll taxes, insurance, bank reconciliation, installment loans, stocks and bonds. (59.4 Lec. Hrs.)

Prerequisite: MAT:041.

ADM:141 Desktop Publishing 2 cr.

This course gives the student knowledge and practice in desktop publishing using Microsoft Publisher software. Desktop publishing is the integration of graphics, text, and design to create such documents as flyers, letterhead, business cards, newsletters, brochures, web pages, etc. Decision-making skills will be used to complete desktop publishing projects. (39.6 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ADM:148 Transcription 2 cr.

This course is designed to help students develop machine transcription skill. Students will learn to transcribe business documents accurately and efficiently from taped dictation. As the course progresses, the dictation becomes more complex, giving the students many opportunities to make formatting, spelling, grammar, punctuation, word usage, and style decisions. Good word processing and business English skills are necessary for success.

(39.6 Lec. Hrs.)

Prerequisites: ADM:156, BCA:130 and ADM:122.

ADM:149 Transcription 3cr.

This course emphasizes the development of efficient transcription skills.

Throughout this course, students are challenged to spell correctly and use proper punctuation while transcribing documents from taped dictation. The exercises gradually become more complex, giving the students many opportunities to make formatting, grammar, punctuation, usage, and style decisions.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

ADM:154 Business Communications 3 cr.

This course is designed to develop proficiency in writing business letters and other types of communications used in business. Verbal communication and listening skills, reports, communications theory, semantics, human behavior, and possible dictation of letters may be included. Various types of business communications will be analyzed and practical applications written. A review of business English skills and proofreading will also be included.

(59.4 Lec. Hrs.)

Prerequisites: ADM:157, ADM:123 or ADM:122.

ADM:155 Essentials of Business English I 2 cr.

This course is designed to help students improve their verbal and written communication skills. Students will receive comprehensive, up-to-date, and relevant instruction in the correct use of English grammar. In addition, students will have the opportunity to improve their spelling and proofreading skills.

(39.6 Lec. Hrs.)

ADM:156 Essentials of Business English II 2 cr.

This course is a continuation of Essentials of Business English I. Students will have the opportunity to improve their abilities in the areas of punctuation, capitalization, number style, and editing. In addition, students will continue to improve their abilities in the areas of grammar and word usage, spelling, and proofreading. The course is also designed to introduce students to basic composition skills, such as sentence structure, paragraph development, and message organization.

(39.6 Lec. Hrs.)

Prerequisite: ADM:155.

ADM:157 Business English 3 cr.

This course is designed to help the students sharpen their communication skills. The students will study and upgrade their skills in the basic areas of grammar and usage, punctuation, spelling, proofreading and editing.

(59.4 Lec. Hrs.)

ADM:158 Effective Business Writing 2 cr.

This course is designed to provide for the development of written communication skills that allow students to plan and create effective and professional documents in the work place. The students will use critical thinking skills to determine the appropriate approach to use in the preparation of various business messages. Different types of business communications are analyzed for style and effectiveness. A review of business English skills may be included.

(39.6 Lec. Hrs.)

Prerequisites: ADM:156 and BCA:129.

ADM:162 Office Procedures 3 cr.

Focuses on a variety of knowledge and skills needed to function in a business environment. Topics may include, but are not limited to, customer service concepts, professional telephone skills and the use of other forms of electronic communication, services of the U.S. Postal Service, acquisition of supplies and equipment, time and stress management, professional appearance and image, domestic and international travel considerations, and preparation and follow-up for meetings and/or conferences.

(59.4 Lec. Hrs.)

Prerequisites: ADM:171, ADM:179, ADM:123 or ADM:122 and ADM:157.

ADM:171/179 Records Management 2-3 cr.

This course is designed for the student to learn and apply the indexing and filing rules that are applicable to the four major filing systems: alphabetic, geographic, numeric and subject filing. Numerous records management supplies, equipment, computer database information, etc., are also integrated into this course.

(39.6 - 59.4 Lec. Hrs.)

ADM:195 Legal Terminology 1 cr.

Course is designed to develop a general basic background in legal terms. The definition, correct spelling and pronunciation of common legal terms will be emphasized.

(19.8 Lec. Hrs.)

ADM:223 Office Procedures 4 cr.

This course focuses on a variety of knowledge and skills needed to function in a business environment. Topics may include, but are not limited to, customer service concepts, professional telephone skills and use of other forms of electronic communication, services of the U.S. Postal Service, acquisition of supplies and equipment, time and stress management, professional appearance and image, domestic and international travel considerations, and preparation and follow-up for meetings and /or conferences.

(59.4 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: ADM:123, ADM:157.

Co-requisite: ADM:133.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ADM:254 Business Professionalism 1 cr.

This course is designed to develop professional growth in the areas of leadership, community service, cooperation, patriotism and business knowledge through membership and participation in a professional organization. This course may be repeated once.
(19.8 Lec. Hrs.)

ADM:255 Business Professionalism II 1 cr.

This course is designed to continue the professional growth of the students in the areas of leadership, community service, cooperation, patriotism and business knowledge through continued membership and participation in a professional organization. This course may be repeated once.
(19.8 Lec. Hrs.)

ADM:257 Professionalism at the Workplace 2 cr.

This course is designed to help students develop the skills, attitudes, and knowledge to work effectively in a variety of professional business environments. Some of the topics to be included are personal appearance, health and well-being, professional attire, manners and etiquette, ethics, professional certifications, professional growth, and job advancement.
(39.6 Lec. Hrs.)

Prerequisite: ADM:195.

ADM:270 Introduction to Speech Recognition Software 1 cr.

Speech-recognition software is revolutionizing legal, medical, dental, government, and business offices everywhere. In this course you will master speech-recognition fundamentals as you work through 50 basic skill lessons to achieve speech writing proficiency of 110-150 words per minute with 97-99% accuracy. This course will also help you achieve speech writing proficiency and learn essential voice formatting communication skills in order to succeed in today's speech-driven world.
(19.8 Lec. Hrs.)

ADM:279 Meeting and Conference Planning 2 cr.

Meetings play an important role in the communication of information in every kind of business. This course is designed to provide guidelines for planning and conducting informal and formal business meetings, conferences, and conventions. Note taking techniques and the basics of parliamentary procedure will be presented. Students will learn to complete the follow-up activities associated with the event, such as preparation of minutes, resolutions, correspondence, and expense reports.
(39.6 Lec. Hrs.)

Prerequisite: BCA:129.

ADM:360 Administrative Project Management I 3 cr.

This course is designed to be a capstone in the Administrative and Office Support program. The courses will provide a hands-on production setting.
(59.4 Lec. Hrs.)

Prerequisite: Completion of the diploma.

ADM:361 Administrative Project Management II 3 cr.

This course is a two-semester course and is designed to be a capstone in the Administrative and Office Support program. The courses will provide a hands-on production setting.
(59.4 Lec. Hrs.)

Prerequisite: Completion of the diploma.

ADM:940 Leadership Development 2 cr.

This course is designed to develop self- and professional growth in the area of leadership. The course will provide a base for students to build and increase self-esteem, discover the components of leadership, become aware of leadership issues, participate in a service project and develop their own leadership style.
(39.6 Lec. Hrs.)

ADM:941 Administrative and Office Support Practicum 4 cr.

This is a realistic approach to management support training for the advanced student who is an Associate Degree candidate. All skill courses in the AOS program must have been completed prior to taking this course. The student will have direct involvement with a series of high-level, long-range assignments patterned as closely as possible to business problems that are faced by administrative assistants today.
(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: Completion of the diploma.

AGRICULTURE - AGRONOMY

AGA:162 Soil Management and Conservation .5 cr.

Designed to assist the student in the classification of soils, the proper use of soils and the cropping system by the use of tillage equipment. Surveys soil conservation practices and their place in agriculture.
(18 Lec. Hrs.)

Prerequisite: AGC:862.

AGA:207 Soybean Production 1 cr.

This course is designed to enable the student to learn and discuss the most current issues and research information dealing with the commercial production of soybeans. Primary focus of the course will be on the factors of growth and development, variety selection and plant population, fertility management, herbicide usage and herbicide damage, insect and disease identification and control, harvesting, safe storage and the fundamental process of marketing the soybean crop. Special focus will be placed on management's critical thinking abilities in relation to the above production factors and the economical use of all resources.
(24 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGA:208 Corn Production I 1 cr.

This course covers the principles of corn production relative to managerial decisions needed to produce maximum economic yield. Topics to include crop budgets and budget troubleshooting, cost analysis and control, physiology of plant development, factors affecting yield, variety selection, insect and weed control concerns, and basic managerial decision making regarding producing corn in the U.S. Corn Belt.
(30 Lec. Hrs.)

Prerequisite: AGC:862.

AGA:285 Crop Protection .5 cr.

Deals with the safe handling and use of agricultural chemicals, the control of weeds through chemical methods and the calibration of equipment. Designed as a field observation of chemical control of weeds, insects, insect life cycles and principles of pesticide use and ecological use in modern production operations. Students are advised to take the state private pesticide applications exam upon completion of this class.
(72 Lec. Hrs.)

Prerequisite: AGC:942.

AGA:333 Forage Production 1 cr.

Deals with current recommended practices and economics of oats, wheat and forage production including varieties, seeding, control of weeds, harvesting and storage of legumes and grasses.
(24 Lec. Hrs.)

AGA:350 Fertilizers 1 cr.

Includes applied chemistry and mathematics in the study of the kinds and processing of fertilizers, fertilizer combinations, and the bulk blending of materials, methods and timing of fertilizer application, use of micronutrients or trace minerals, the effect of various pHs and microorganism activities upon nutrient availability and economic principles as they apply to the fertilizer business and environment. Current topics within the industry will also be discussed.
(30 Lec. Hrs.)

AGA:351 Soil Science 1 cr.

The first in a series of three courses in soil and fertilizers in the ag-business curriculum. Covers soil development, physical and chemical properties of soils, soil sampling techniques and information for soil testing laboratories.
(19.8 Lec. Hrs.)

Prerequisite: AGC:942.

AGA:370 Crop Management 1.25 cr.

This course covers the principles of corn production relative to managerial decisions needed to produce maximum economic yield. Topics to include crop budgets and budget troubleshooting, cost analysis and control, physiology of plant development, factors affecting yield, variety selection, insect and weed control concerns, and basic managerial decision making regarding producing corn in the U.S. Corn Belt. This course is designed to enable the student to learn and discuss the most current issues and research information dealing with the commercial production of soybeans. Primary focus of the course will be on the factors of growth and development, variety selection and plant population, fertility management, herbicide usage and herbicide damage, insect and disease identification and control, harvesting, safe storage and the fundamental process of marketing the soybean crop. Special focus will be placed on management's critical thinking abilities in relation to the above production factors and the economical use of all resources. This class will conclude with the agronomic and economic study of small grain and forage production in the Midwest Corn Belt Region.
(33.6 Lec. Hrs.)

Prerequisite: AGC:942.

AGA:371 The Green Plant 1.25 cr.

Deals with the principles of botany, including the study of photosynthesis, nutrient transport, plant propagation, effect of length of days, kinetics of growth, some plant classification, translocation of nutrients, nutrient disease relationships, variations in plant composition, effect of fertilizer elements on growth and nutritive requirements of plants. Attention is also on the control of harmful molds, fungi and organisms causing disease in crops.
(33.6 Lec. Hrs.)

Prerequisite: AGC:942.

AGA:373 Corn Production II 1 cr.

Major emphasis of this course deals with the study of integrated pest management and the knowledge and use of diagnostic tools and techniques producers have available. This course will primarily deal with nutrient deficiencies, weed control, insect control and disease control in corn production enterprises.
(24 Lec. Hrs.)

AGA:881 Grain Science 1.25 cr.

Study of grain grading, discounts, pricing, drying, storage and insects. Various equipment and proper use including sampling and testing will be emphasized. Practices used in grain handling at elevator and grain terminal businesses will be explained.
(36 Lec. Hrs./4.8 Lab Hrs.)

Prerequisite: AGC:941.

AGA:891 Soil Chemistry 1.25 cr.

A continuation of AGA:352, including the principles of general chemistry dealing with the chemical composition of soils, the principles and practices of liming, the nature and function of nitrogen, phosphorus, potassium and some trace minerals in the soil, rates and timing of fertilizer applications.
(36 Lec. Hrs.)

Prerequisite: AGC:943.

AGA:901 Seed Science 1 cr.

Study of crop conditioning and handling. Various methods of handling and drying grain will be emphasized. Changes within the grain will be discussed. The economics of storage and drying systems along with grain quality will be emphasized.
(30 Lec. Hrs.)

Prerequisite: AGC:866.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGRICULTURE - FARM MANAGEMENT

AGB:103 Agricultural Economics 1.25 cr.

Deals with the economic principles applied to the feed, grain seed and fertilizer business. Topics include supply, demand, marginal returns, opportunity costs, prices, taxation, finance and fundamentals of hedging of agricultural products as applied to agricultural business.
(36 Lec. Hrs.)

AGB:105 Business Principles for Agriculture I 1.25 cr.

Designed to provide the student with a general introduction to the business environment.
(36 Lec. Hrs.)

Prerequisite: AGC:941.

AGB:106 Business Principles for Agriculture II 1.25 cr.

A study of the overall operation of the agriculture business. The student is assigned a project on establishing a business.
(36 Lec. Hrs.)

Prerequisite: AGC:943.

AGB:110 Human Relations I 2 cr.

Designed to help the student prepare for employment, satisfactory work performance, co-worker relations, employer-employee relations, work habits and attitudes and the procedures for applying and interviewing for a job.
(36 Lec. Hrs.)

AGB:112 Human Relations II 2 cr.

This course is designed to help students function better in today's complex work and social environment. Interpersonal relations in an organization are emphasized as well as an understanding of human relations, importance in achieving job satisfaction and accomplishment. Areas of specific discussion are attitudes, self-disclosure, emotional control, positive reinforcement, first impressions, team building, conflict management and coping with life changes.
(36 Lec. Hrs.)

Prerequisite: AGC:941.

AGB:121 Futures and Options 1 cr.

A basic study of the principles of futures and options will be covered. Subjects included will be the futures market, trading mechanics, hedging and speculating, arbitrage, fundamental and technical analysis and following futures and options. Attention is given to show where hedging and/or the use of options may fit the agribusiness.
(30 Lec. Hrs.)

Prerequisite: AGC:861.

AGB:141 Applied Agri-Business Accounting I 1.25 cr.

An introduction to the accrual accounting system. Emphasis is also given to the accounting cycle and basic accounting principles and practices used by many companies in the input/supply sector of the agriculture industry.
(36 Lec. Hrs.)

Prerequisite: AGC:941.

AGB:142 Applied Agri-Business Accounting II 1.25 cr.

A continuation of AGB:141, including a study of accruals, payroll and depreciations.
(36 Lec. Hrs.)

Prerequisite: AGC:941.

AGB:191 Agricultural Sales I 1 cr.

Investigates selling as a career, preparing for the selling process, and selling and the behavioral sciences. Selling techniques and procedures will also be studied.
(19.8 Lec. Hrs.)

AGB:192 Agricultural Sales II 1.25 cr.

Selling techniques and procedures will be emphasized in this course. Each student will practice these techniques and procedures in role playing situations.
(36 Lec. Hrs.)

Prerequisite: AGC:941.

AGB:193 Agricultural Sales III 1.25 cr.

A continuation of AGB:191 and AGB:192 with emphasis on sales to agricultural customers. The total scope of the duties of a salesperson is emphasized. Use of the phone in sales is covered. Each student makes several sales presentations.
(36 Lec. Hrs.)

Prerequisites: AGB:191 and AGB:192

AGB:232 Livestock and Grain Marketing 2 cr.

Emphasis on the alternatives available for marketing grain and livestock, establishing a marketing plan and grading alternatives. This course also continues the discussion of hedging and options.
(60 Lec. Hrs.)

AGB:255 Applied Agri-Business Accounting III 1.25 cr.

Continuation of FF:106 and FF:124 with emphasis on the analysis of financial statements. Each student is assigned a practice set and keeps records for the business.
(36 Lec. Hrs.)

Prerequisites: AFB:141, AGB:142 and AGC:943.

AGB:280 Business Law for Agriculture 1.25 cr.

Deals with contracts, sales, commercial paper and agency relationships.
(36 Lec. Hrs.)

Prerequisite: AGC:942.

AGB:300 Farm Record Analysis 1 cr.

Deals with the various crop and livestock budgets, cash flow, whole farm budgeting, rental and leasing agreements. Each student must make his/her own management decisions in regard to purchasing equipment, choosing crop and livestock operations and keeping complete records. Weather, prices and market information are given as the year progresses.
(30 Lec. Hrs.)

Prerequisite: AGC:864.

AGB:301 Applied Accounting for Farm Management I 1 cr.

Emphasis is placed on the importance of farm recordkeeping as an essential management tool. Topics include inventory, depreciation, receipts and expenses, cash and accrual methods of accounting, net farm income statements and net worth statements. Students gain experience by working a practical recordkeeping problem.
(30 Lec. Hrs.)

Prerequisites: AGC:861.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGB:302 Applied Accounting for Farm Management II 1 cr.

To develop the student's understanding of income tax management, depreciation, capital gains, setting up cash flows, net farm income statements, and net worth statements to help the student analyze the farm business.
(30 Lec. Hrs.)

Prerequisite: AGB:862.

AGB:304 Agricultural Credit 1 cr.

Covers the importance of obtaining credit, its wise use, credit sources for farmers and maintaining a good credit rating. Students are exposed to credit instruments and the necessary budgets required for obtaining credit.
(30 Lec. Hrs.)

AGB:305 Agricultural Law 1 cr.

A study of contracts, torts, restrictions on the use and ownership of land, water rights and estate planning.
(30 Lec. Hrs.)

AGB:306 Risk Management .5 cr.

Deals with the principles of insurance coverage used in the farm business.
(18 Lec. Hrs.)

Prerequisite: AGB:865.

AGB:350 Advertising in Agribusiness 2.5 cr.

Designed to develop the student's understanding of advertising and its role in today's business community. Primary emphasis is placed on the advertising function in the business industry.

Topics include purposes of advertising, planning an ad program, radio, print and creative advertisements. Each student, through use of an advertising budget, develops a detailed advertising program for a business.
(72 Lec. Hrs.)

Prerequisite: AGB:942.

AGB:351 Principles of Marketing and Retailing for Agriculture 1.25 cr.

Study of the principles, practices and theory involved in supplying consumers with goods and services and of the retail business as the last step in the channel of distribution. Topics include marketing mix planning, consumer behavior, market research, merchandising techniques, margin and markup, discounts and inventory procedures.
(33.6 Lec. Hrs.)

Prerequisite: AGB:942.

AGRICULTURE - COMPREHENSIVE

AGC:861 Farm Experience I 3 cr.

Students select an employment center (their home farm or other) to gain practical farm experience.
(288 Coop Hrs.)

Prerequisite: Consent of instructor and enrollment in Farm Management program.

AGC:862 Farm Experience II 3.5 cr.

Students select an employment center (their home farm or other) to gain practical farm experience.
(336 Coop Hrs.)

Prerequisite: Consent of instructor and enrollment in Farm Management program.

AGC:863 Farm Experience III 2 cr.

Students select an employment center (their home farm or other) to gain practical farm experience.
(192 Coop Hrs.)

Prerequisites: Consent of instructor and enrollment in Farm Management program.

AGC:864 Farm Experience IV 3 cr.

Students select an employment center (their home farm or other) to gain practical farm experience.
(288 Coop Hrs.)

Prerequisite: Consent of instructor and enrollment in Farm Management program.

AGC:865 Farm Experience V 3.5 cr.

Students select an employment center (their home farm or other) to gain practical farm experience.
(336 Coop Hrs.)

Prerequisites: Consent of instructor and enrollment in Farm Management program.

AGC:866 Farm Experience VI 2 cr.

Students select an employment center (their home farm or other) to gain practical farm experience.
(192 Coop Hrs.)

Prerequisite: Consent of instructor and enrollment in Farm Management program.

AGC:901 Seminar I .5 cr.

Designed to give the student an opportunity to present and discuss current topics, problems and ideas that do not relate to current classes, hear speakers and discuss questions pertaining to Extension meetings. Instructors will guide students' discussion and attempt to provide conclusions and attitudes conducive to successful farm operation.
(12 Lec. Hrs.)

AGC:902 Seminar II .5 cr.

Designed to give the student an opportunity to present and discuss current topics, problems and ideas that do not relate to current classes, hear speakers and discuss questions pertaining to Extension meetings. Instructors will guide students' discussion and attempt to provide conclusions and attitudes conducive to successful farm operation.
(12 Lec. Hrs.)

AGC:903 Seminar III .25 cr.

Designed to give the student an opportunity to present and discuss current topics, problems and ideas that do not relate to current classes, hear speakers and discuss questions pertaining to Extension meetings. Instructors will guide students' discussion and attempt to provide conclusions and attitudes conducive to successful farm operation.
(4.8 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGC:904 Seminar IV .5 cr.

Designed to give the student an opportunity to present and discuss current topics, problems and ideas that do not relate to current classes, hear speakers and discuss questions pertaining to Extension meetings. Instructors will guide students' discussion and attempt to provide conclusions and attitudes conducive to successful farm operation. (12 Lec. Hrs.)

AGC:905 Seminar V .5 cr.

Designed to give the student an opportunity to present and discuss current topics, problems and ideas that do not relate to current classes, hear speakers and discuss questions pertaining to Extension meetings. Instructors will guide students' discussion and attempt to provide conclusions and attitudes conducive to successful farm operation. (12 Lec. Hrs.)

AGC:906 Seminar VI .25 cr.

Designed to give the student an opportunity to present and discuss current topics, problems and ideas that do not relate to current classes, hear speakers and discuss questions pertaining to Extension meetings. Instructors will guide students' discussion and attempt to provide conclusions and attitudes conducive to successful farm operation. (4.8 Lec. Hrs.)

Prerequisite: AGC:866.

AGC:910 Alpha Mu Sigma I .5 cr.

Designed to help the student develop a working knowledge of parliamentary procedure, develop the ability to successfully conduct meetings, develop leadership qualities, develop and foster relationships with other students, DECA chapters and industry on a state and national level. (12 Lec. Hrs.)

Co-requisite: Must be a student in the Feed and Fertilizer Marketing program or have instructor consent.

AGC:911 Alpha Mu Sigma II .5 cr.

Designed to help the student develop a working knowledge of parliamentary procedure, develop the ability to successfully conduct meetings, develop leadership qualities, develop and foster relationships with other students, DECA chapters and industry on a state and national level. (12 Lec. Hrs.)

Co-requisite: Must be a student in the Feed and Fertilizer Marketing program or have instructor consent.

AGC:912 Alpha Mu Sigma III .25 cr.

Designed to help the student develop a working knowledge of parliamentary procedure, develop the ability to successfully conduct meetings, develop leadership qualities, develop and foster relationships with other students, DECA chapters and industry on a state and national level. (8.4 Lec. Hrs.)

Co-requisite: Must be a student in the Feed and Fertilizer Marketing program or have instructor consent.

AGC:913 Alpha Mu Sigma IV .5 cr.

Designed to help the student develop a working knowledge of parliamentary procedure, develop the ability to successfully conduct meetings, develop leadership qualities, develop and foster relationships with other students, DECA chapters and industry on a state and national level. (12 Lec. Hrs.)

Co-requisite: Must be a student in the Feed and Fertilizer Marketing program or have instructor consent.

AGC:914 Alpha Mu Sigma V .5 cr.

Designed to help the student develop a working knowledge of parliamentary procedure, develop the ability to successfully conduct meetings, develop leadership qualities, develop and foster relationships with other students, DECA chapters and industry on a state and national level. (12 Lec. Hrs.)

Co-requisite: Must be a student in the Feed and Fertilizer Marketing program or have instructor consent.

AGC:924 Honors Project 1 cr.

A research project requiring individual initiative and research exploring a problem area relative to the business during the employment experience. The report is to be in acceptable form, preferably typed, may include pictures and charts, and is signed by the employer. Topic must be different than other research writing course. (60 Lab Hrs.)

Co-requisite: AGC:943.

AGC:941 Employment Experience I 3 cr.

Instructors and students select employment centers to gain practical experience from approved places of business during a six- to seven-week employment experience period. The experience centers are approved and coordinated by a faculty member. Students receive the going wages during these periods. (288 Coop Hrs.)

Co-requisite: Consent of instructor and enrollment in Feed and Fertilizer Marketing program.

AGC:942 Employment Experience II 3.5 cr.

Instructors and students select employment centers to gain practical experience from approved places of business during a six- to seven-week employment experience period. The experience centers are approved and coordinated by a faculty member. Students receive the going wages during these periods. (336 Coop Hrs.)

Prerequisite: AGC:941.

Co-requisites: Consent of instructor and enrollment in Feed and Fertilizer Marketing program.

AGC:943 Employment Experience III 3 cr.

Instructors and students select employment centers to gain practical experience from approved places of business during a six- to seven-week employment experience period. The experience centers are approved and coordinated by a faculty member. Students receive the going wages during these periods. (288 Coop Hrs.)

Prerequisite: AGC:942.

Co-requisites: Consent of instructor and enrollment in Feed and Fertilizer Marketing program.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGC:944 Employment Experience IV 3.5 cr.

Instructors and students select employment centers to gain practical experience from approved places of business during a six- to seven-week employment experience period. The experience centers are approved and coordinated by a faculty member. Students receive the going wages during these periods.
(336 Coop Hrs.)

Prerequisite: AGC:943.

Co-requisites: Consent of instructor and enrollment in Feed and Fertilizer Marketing program.

AGC:949 Special Problems 2 cr.

Designed to allow the student to research and study a production or management topic in an area of interest. Areas of possible study could include sustainable agriculture on value-added crop or livestock production. After the student has approved the topic area with the instructor, research on the paper can begin, with an oral presentation and paper project to be turned in at the close of the class.
(60 Lec. Hrs.)

AGRICULTURE - FLORAL

AGF:139 Floral Design I 2 cr.

Introduces the student to design theory. Emphasis is given to the development of special techniques in basic design as it applies to flowers, foliage and accessories. Hands on work with floral design is given in three medias, fresh, silk and dried.
(39.6 Lec. Hrs.)

AGF:141 Floral Design II 2 cr.

This course is designed to acquaint the student with the basic skills required to be a successful floral designer. Instruction will include principles and elements of design, care and conditioning of fresh cut materials, drying and preserving methods, and sales technique. Opportunity for extensive lab work is offered.
(39.6 Lec. Hrs.)

AGF:149 Retail Flower Shop Operation 2 cr.

A study of the principles of organizing, financing, and managing a retail flower shop.
(39.6 Lec. Hrs.)

AGRICULTURE - HORTICULTURE

AGH:130 Greenhouse Management 2 cr.

This course presents management of greenhouse crops and environment. Commercial crops grown in Iowa will be investigated and emphasis will be given to proper fertilization and utilization of modern fertilizer application equipment.
(39.6 Lec. Hrs.)

AGH:143 Equipment Repair 3 cr.

An introductory course in basic horticulture equipment maintenance. Areas to be covered will include safety, basic tools, air-cooled engine technology, fuel and lubrication, electrical systems, governor systems, failure analysis, and engine disassembly and inspection, maintenance schedules and basic repairs.
(12 Lec. Hrs.)

AGH:234 Plant Identification and Care I 2 cr.

Introduces the student to the study of garden and house flowering and foliage plants. Topics will include production, culture, propagations and materials necessary for the growth of annuals, perennials, bulbs, ground cover, ferns, exotic and tropical plants, shrubs and roses.
(39.6 Lec. Hrs.)

AGH:235 Plant Genetics 2 cr.

An introductory genetics class for students majoring in Horticulture Science. This course will provide insight into many aspects of plant genetics, including inheritance in conjunction with methods for the isolation and detection of specific gene fragments so that the student can understand the detection of genetic diseases and identification of individual (DNA fingerprinting). Students can discover how genes are organized, how they reproduce and how they affect the next generation of cells. Recombination, structure and replication of DNA, and gene expression will be major topics of study.
(39.6 Lec. Hrs.)

AGH:237 Plant Identification and Care II 2 cr.

Continues the study of garden and house flowering and foliage plants.
(39.6 Lec. Hrs.)

AGH:254 Pest Management 2 cr.

This course provides basic knowledge of the weeds, diseases and insects that commonly affect or attach to ornamental plants. The structure, function and life cycles of these pests will be studied. A collection of pests will help students with the identification process.
(39.6 Lec. Hrs.)

AGH:450 Horticultural Leadership I .75 cr.

Designed to provide students the opportunity to discuss current issues in horticulture, be introduced to horticulture professionals as well as other horticulture students throughout the region.
(15 Lec. Hrs.)

AGH:452 Horticultural Leadership II .5 cr.

Designed to provide students the opportunity to discuss current issues in horticulture, be introduced to horticulture professionals as well as other horticulture students throughout the region.
(12 Lec. Hrs.)

AGH:454 Horticultural Leadership III .5 cr.

Designed to provide students the opportunity to discuss current issues in horticulture, be introduced to horticulture professionals as well as other horticulture students throughout the region.
(10 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGH:455 Horticultural Leadership IV .5 cr.

Designed to provide students the opportunity to discuss current issues in horticulture, be introduced to horticulture professionals as well as other horticulture students throughout the region. (10 Lec. Hrs.)

AGH:805 Horticulture Employment Experience I 3.5 cr.

This course provides on-the-job experience in a commercial horticulture business. Students will gain an in-depth understanding of the skills necessary to be successful in the field of horticulture. (186.7 Coop. Hrs.)

AGH:815 Horticulture Employment Experience II 3 cr.

This course provides on-the-job experience in a commercial horticulture business. Students will gain an in-depth understanding of the skills necessary to be successful in the field of horticulture.

AGH:827 Horticulture Employment Experience III 3.5 cr.

This course provides on-the-job experience in a commercial horticulture business. Students will gain an in-depth understanding of the skills necessary to be successful in the field of horticulture. (186.7 Coop. Hrs.)

AGRICULTURE - MECHANICS

AGM:121 Machinery Repair and Maintenance 4 cr.

Deals with systems of routine farm machinery upkeep, maintenance, adjustment and repair. (40 Lec. Hrs./72 Lab Hrs.)
Prerequisite: AGC:866.

AGM:130 Farm Electrification 1 cr.

A study in basic electrical planning including farmstead distribution planning, layout of circuits, electrical code and selection of electric motors. Emphasis is placed on wiring skills. (24 Lec. Hrs./6 Lab Hrs.)
Prerequisite: AGC:861.

AGM:157 Machinery Management 2 cr.

Deals with the economics of machinery selection and use. Topics also include management decisions concerning size of machine, purchasing and the operation of major farm machines. (60 Lec. Hrs.)

AGM:160 Farm Structures 1 cr.

Deals with building material and planning, providing the student with knowledge needed in selecting economical, flexible and highly useful farm buildings. Emphasis is placed on structure trends, types, building materials and plan reading. (30 Lec. Hrs.)
Prerequisite: AGC:865.

AGM:202 Agricultural Welding 2 cr.

Designed to teach the student how to weld with different electrodes in all positions. Emphasis is on the E-6010 and E-7018 electrodes. Students safely set up welding equipment, adjust, operate, weld and braze in all four positions. The learning experience is also enhanced by cutting freehand with the cutting torch and operating semi-automatic cutting equipment. (6.0 Lec. Hrs./42.0 Lab Hrs.)

AGRICULTURE - PRECISION AG

AGP:242 Precision Agricultural Applications 5 cr.

This introductory course will concentrate on the theories and applications of Geographic Information Systems (GIS), Site Specific Farming (SSF), Precision Farming (PF), and Global Positioning Systems (GPS); exploration of various tools for Variable Rate Technology (VRT) and Variable Rate Application (VRA); remote sensing as a diagnostic tool for managerial decisions. This course is designed to help retail students assist agricultural producers become more profitable and preserve non-renewable resources: identify computer hardware and software needs; and make recommendations to producers based on agronomic and economic data. (99 Lec. Hrs.)
Prerequisite: AGA:350.
Co-requisites: AGP:242 or AGC:913.

AGRICULTURE - ANIMAL SCIENCE

AGS:120 Livestock Management 1.75 cr.

Designed to provide the student with an understanding of practices, feeding programs, space requirements, production testing programs, gestation periods, sanitation and disease control problems and background knowledge needed to advise farmers on their livestock problems. (48 Lec. Hrs.)
Prerequisite: AGC:943.

AGS:180 Sheep Production 1 cr.

Deals with the economic and management practices involved with sheep breeding and lamb breeding. (30 Lec. Hrs.)
Prerequisite: AGC:865.

AGS:315 Principles of Animal Nutrition 2 cr.

A study of the digestive systems of farm livestock, the basic food nutrients, how and why they are needed by the animals and the individual nutrient requirements of each farm animal depending on stage of growth, development or function. It will also cover topics such as selection of feeds for feeding farm animals and the procedures used to determine what feeds to use. We will also select the proper feed rations to use and learn to formulate balanced feed rations. (60 Lec. Hrs.)

AGS:317 Fundamentals of Nutrition 2 cr.

A study of the digestive systems of farm livestock, the basic food nutrients, how and why they are needed by the animals and the individual nutrient requirements of each farm animal depending on stage of growth, development or function. It will also cover topics such as selection of feeds for feeding farm animals and the procedures used to determine what feeds to use. We will also select the proper feed rations to use and learn to formulate balanced feed rations. (60 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AGS:318 Feed Formulation 1.25 cr.

A study of the analysis of feed, development of ration, formulation of feeds on both a nutritional and an economical basis and the substitution of ingredients in feed formulas.

(36 Lec. Hrs.)

Prerequisite: AGC:943.

AGS:324 Dairy Production 1 cr.

Designed to teach the student how to manage a dairy herd profitably. Consideration is given to rations, feeding practices, care of replacements and use of records.

(30 Lec. Hrs.)

Prerequisite: AGC:864.

AGS:352 Genetics 1 cr.

Deals with the basic genetics in both livestock and crop science. Topics include breeding systems and selection, breeding animals based on individual type, progeny testing and genetic improvement. Seed selection based on hybrid characteristics and basic biotechnical advances will be discussed.

(30 Lec. Hrs.)

Prerequisite: AGC:861.

AGS:400 Swine Production I 2 cr.

This is the first of two courses that together give a basic foundation for one planning to operate a profitable swine enterprise. Swine facilities from past to present are analyzed with special emphasis on the economic, social, environmental and physical demands of sustainability. Included are the fundamentals of swine care, selection, breeding, reproduction, management and disease prevention and control.

(60 Lec. Hrs.)

AGS:410 Swine Production II 1 cr.

A continuation of AGS:400. Emphasis is placed on reproduction, reproduction management, animal selection and reproductive nutrition.

(30 Lec. Hrs.)

Prerequisite: AGC:865.

AGS:554 Beef Production 2 cr.

This course is designed to explore the principles and concepts of the various beef production enterprises in the Midwest including commercial cow calf, purebred cow calf and feedlot production centers, including stocker and feeder operations. Major emphasis of the course is placed on the topics of breeds, selection and genetics; cow calf investment, profitability and risk management; EPDs, reproductive management and efficiency; health management, nutritional management, facilities, and handling and marketing of beef cattle.

(60 Lec. Hrs.)

Prerequisite: AGB:302.

AGS:881 Feeds 1.25 cr.

Deals primarily with the composition feeds. Topics also include grain and grain by-products, roughages, pasture grasses, soilage and silage, manural values of feeds and feed palatability.

(28.8 Lec. Hrs./4.8 Lab Hrs.)

Prerequisite: AGC:942.

AMERICAN SIGN LANGUAGE

ASL:151 American Sign Language I 5 cr.

This is an introductory level course which is designed with a sequenced series of readiness activities in the language of American signs. The course emphasizes vocabulary building, sign principles and development of expressive and receptive signing skills. The students participate in exercises that develop a comprehension of sign vocabulary and grammatical patterns of ASL.

(79.2 Lec. Hrs./59.4 Lab Hrs.)

ASL:181 American Sign Language II 5 cr.

This course is designed for students to continue to study American Sign Language (ASL). The students will participate in various exercises that will increase their receptive skills as well as expressive skills. The students will also be signing more, along with the full use of body language, facial expression, pantomime and gesture. The students will continue their awareness and developmental patterns and tendencies of ASL.

(79.2 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ASL:151.

ASL:251 American Sign Language III 5 cr.

Expands on previously learned grammatical structures and lexical items of the target language. The student learns to control the language in a variety of conversational settings through directed conversations and group discussion.

(79.2 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ASL:181.

ASL:281 American Sign Language IV 4 cr.

Expands on previously learned grammatical structures and lexical items of the target language. The student learns to control the language in a variety of conversational settings through directed conversations and group discussion.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ASL:251.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ASSOCIATE DEGREE NURSING

ADN:432 Nursing the Childbearing Family 5 cr.

Nursing the Childbearing Family is one of three courses which allow a student to articulate to the associate degree level of nursing education. The course is designed as a family-centered approach to caring for childbearing clients and families. The student will build on prior learning to apply critical thinking principles while caring for the childbearing family. The concepts of caring, health, environment, person and nursing are closely re-examined as they relate to the childbearing family.

Emphasis is placed on concepts such as bonding, parenting and the family. Also, patient/client and family teaching are introduced as related to the childbearing years and the neonatal period. The various roles of the professional maternity nurse team member are examined. (59.4 Lec. Hrs./118.8 Clinical Hrs.)

Prerequisites: BIO:151, BIO:173, BIO:186, PSY:111, PSY:121, PNN:165 & 166, PNN:210 & 211, PNN:511 & 512.

Co-requisites: BIO:168, ENG:105 AND SOC:110.

ADN:442 Nursing of Children and Families 5 cr.

Nursing of Children and Families is one of three courses which allow a student to articulate to the associate degree level of nursing education. This course focuses on a family-centered approach in the promotion of child and family health. The previously taught concepts are reexamined as related to disorders of children. Emphasis is placed on meeting children's health needs through the concepts of play, parenting and client-family teaching. The various roles of a pediatric professional nurse team member are examined.

(59.4 Lec. Hrs./118.8 Clinical Hrs.)

Prerequisites: BIO:151, BIO:173, BIO:186, PSY:111, PSY:121, PNN:165 & 166, PNN:210 & 211, PNN:511 & 512.

Co-requisites: BIO:168, ENG:105 AND SOC:110.

ADN:473 Nursing in Mental Health 5 cr.

Mental Health Nursing is one of three courses which allow a student to articulate to the associate degree level of nursing education. The course focuses on the maladaptive neuro-biological and behavioral responses of individuals to developmental and situational events throughout the life span. Theoretical concepts are presented to assist the student in developing self awareness, as well as understanding the meaning of behavior of others. The basic philosophical approach emphasizes the intrinsic worth and dignity of all individuals. Mental health nursing principles are presented with emphasis on the concept of caring, therapeutic use of self and the practice of therapeutic communication skills. The focus is on holistic nursing, and because mental health nursing is applicable to every nurse's individual practice, the concepts discussed in this course may be utilized in all clinical nursing settings.

Application of specific mental health nursing principles and practice is determined by the nursing diagnosis of the client's psychosocial and behavioral problems. The mental health nursing clinical experience provides an opportunity for the student to utilize the nursing process in a variety of mental health care facilities. (59.4 Lec. Hrs./118.8 Clinical Hrs.)

Prerequisites: BIO:151, BIO:168, BIO:173, PNN:210 and 211, PNN:165, PNN:511 and 512, PSY:111 and PSY:121.

Co-requisites: BIO:186, ENG:105 and SOC:110.

ADN:541/542 Concepts in Clinical Nursing II Modules A and B 13 cr. (ADN:541 - 6 cr.; ADN:542 - 7 cr.)

Focuses on the utilization of the nursing process and therapeutic communication in the care of individuals/groups with a variety of complex health problems. Theoretical concepts and principles underlying health problems during various developmental phases are explored. The nursing student will utilize critical thinking skills to analyze and synthesize previous and concurrent knowledge in the use of the nursing process. Clinical experiences are offered in a variety of environmental settings in which a registered nurse may practice. In each area, the role of the registered nurse will be emphasized. This course is offered in two modules.

(178.2 Lec. Hrs./237.6 Clinical Hrs.)

Prerequisites: BIO:168, BIO:173, BIO:151, BIO:186, PSY:111, PSY:121, PNN:210 & 211, PNN:165 & 166, PNN:511 & 512, ADN:473, ADN:432, ADN:442, ENG:105, SOC:110.

ADN:811 Comprehensive Nursing 5 cr.

This is an exit course for associate degree nursing students which builds on concepts taught in previous nursing courses. The concepts of caring, health, environment, person and nursing are closely examined. Emphasis is placed on the use of the nursing process to meet the health needs of individuals and groups across the life span, focusing particularly on the unique needs of elderly clients. Current patient care management philosophies along with varying leadership styles are presented. The student is provided an opportunity to examine ethical, legal and moral principles that relate to the delivery of nursing care through the examination of current trends and legislation affecting the health care industry. Specific strategies to meet the challenges of role transition from student to professional practitioner are discussed.

(51.0 Lec. Hrs./72.0 Clinical Hrs.)

Prerequisites: BIO:168, BIO:173, BIO:151, BIO:186, PSY:111, PSY:121, PNN:210, PNN:211, PNN:165, PNN:166, PNN:511, PNN:512, ADN:473, ADN:432, ADN:442, ADN:541, ADN:542, ENG:105, SOC:110.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AUTOMATION TECHNOLOGY AND ROBOTICS

ATR:122 Automated Manufacturing Technology Robotics 4 cr.

A beginning course in robotics and automation designed to give students the fundamentals needed to complete further coursework in robotics. Topics covered will include computer usage, keyboarding, programming using LOGO, robot systems, computer aided design, robot geometry, analog and digital devices, logic circuits and machine vision. (39.6 Lec. Hrs./118.8 Lab Hrs.)

Prerequisites: MAT:720 and IND:102.

ATR:123 Automation Technology 3 cr.

This course introduces various devices used in the manufacturing environment. Robotic systems are studied in detail along with work cell designs. Common robotic applications are studied along with robot terminology. The students also will study hard automation and its applications. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ELT:123.

ATR:176 Networking for Industry 3 cr.

This course gives the student experiences with common types of networks used in industrial locations. The student will learn computer communication techniques and gain hands-on experience with RS 232, RS 422 and Ethernet networks. (39.6 Lec. Hrs./39.6 Lab Hrs.)

AUTO TECHNOLOGY

AUT:115 Automotive Shop Safety 1 cr.

This course is designed to acquaint the student with the proper personnel and shop safety procedures needed to function in an automotive shop. Tool identification, tool care and maintenance will be covered. Policy, procedures and orientation will also be included in this course. (19.8 Lec. Hrs.)

AUT:164 Automotive Engine Repair 4 cr.

Basic theory of two-cycle and four-cycle gasoline engines and their application will be introduced. Disassembly, inspection and reassembly competencies will be experienced as well as cooling, lubrication, induction, exhaust, compression and valve systems. Students will develop competencies in precision measuring and services procedures. (39.6 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115.

AUT:232 Automotive Automatic Transmissions I 3 cr.

This course is designed to provide basic knowledge in the diagnosis and repair of the automatic transmission. The student will develop skills necessary to perform in-car automatic transmission service.

The student will also develop an understanding of the operation and service of torque converters, planetary gear trains and hydraulic components used in automatic transmissions. In-car service, as well as, removal-installation and overhaul procedures will be stressed in the lab portion of this course. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115.

AUT:233 Automatic Transmission II 3 cr.

This course is designed to provide advanced knowledge and skills in the diagnosis and repair of automatic transmissions and transaxles. The student will develop skills in reading transmission hydraulic control circuit schematics and perform diagnosis of electronically controlled automatic transmissions and transaxles. The use of pressure gauges, scan tools and other test equipment will be practiced. (34.65 Lec. Hrs./74.25 Lab Hrs.)

Prerequisites: AUT:115 and AUT:232

AUT:304 Automotive Manual Drive Train and Axles 4 cr.

Provides basic knowledge in automotive clutches, standard transmissions, transaxles and differentials. Basic theory, diagnosis and service procedures are covered. Students will be able to correctly disassemble and reassemble standard transmissions, transaxles and differentials in accordance with manufacturers' guidelines. (49.5 Lec. Hrs./89.1 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115.

AUT:404 Automotive Suspension and Steering 4 cr.

This course deals specifically with automobile suspension and steering systems. Specific skills needed for the development of competencies will be taught. Competencies that are developed in this course are aimed at entry-level skills as a suspension and steering specialist. (49.5 Lec. Hrs./89.1 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115.

AUT:524 Automotive Brake Systems and Service 4 cr.

This course is designed to allow the student to begin the mastery of the brake systems used on today's cars and light trucks. This course deals specifically with disc and drum brakes, power and conventional braking systems and emergency braking systems. Topics also include hydraulic and electro-hydraulic brake components, basic diagnosis and anti-lock braking systems. The use of measuring tools, brake lathes and ABS scantools will be stressed. Students will develop competencies aimed at entry-level skills as a brake specialist. (49.5 Lec. Hrs./89.1 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115.

AUT:606 Basic Automotive Electricity/Electronics 3 cr.

In this course the student is introduced to basic electrical and electronics principles. The basics are applied to automotive electrical circuits. What electricity is and how it does its work is covered in detail. Lab sessions are spent turning theory into hands-on practice with meters and basic circuits. (39.6 Lec. Hrs./59.4 Lab Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

AUT:614 Automotive Electrical I 3 cr.

In this course the student is introduced to basic automotive battery, charging and starting systems. The operating principles will be discussed during the lecture/ discussion sessions. Lab sessions are spent practicing testing, diagnosis and repair.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: AUT:606

Co-requisite: AUT:116.

AUT:656 Automotive Electrical II 4 cr.

This course deals specifically with the automobile chassis electrical systems. The student will be taught how automobile circuits are wired and how they operate. Troubleshooting and repair of the systems will be stressed. Upon completion the student should be able to demonstrate an understanding of the operation and design of the following types of chassis electrical systems: lighting systems, horn, wiper/washer, cooling fan, instruments and warning devices, speed control, anti-lock brake and traction control, HVAC, heated windows and mirrors, power accessories, and passive restraint systems.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites or Co-requisites:

AUT:614 and AUT:115.

AUT:704 Automotive Heating and Air Conditioning 4 cr.

Students will be instructed in basic theory, system diagnosis and service procedures. Students will gain competencies in troubleshooting, purging, evacuating charting, and performance testing vehicles with air conditioning systems. Students will be provided with the opportunity to become certified to handle refrigerants.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

AUT:802 Engine Performance I 3 cr.

This course is designed to train the student in engine mechanical testing and ignition system theory and testing. Electronic (EI) and distributor (DI) ignition systems will be discussed. Lab time will be used to learn the use of diagnostic equipment in troubleshooting and repair of engine mechanical and ignition systems as they relate to driveability issues.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115, AUT:606.

AUT:811 Engine Performance II 4 cr.

This course is designed to give students an understanding of electronic fuel injection and the use of computer controls in today's automobiles. The course will present Electronic Fuel Injection theory and component operation as well as automotive computer operation, sensor inputs and actuator outputs. Diagnosis and testing of these systems will be discussed and practiced. Similarities and differences of various Original Equipment Manufacturer systems will be discussed.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: AUT:606, AUT:116 and AUT:802.

AUT:817 Automotive Engine Performance III 3 cr.

The course will present automotive emissions, emission control devices and 5-gas analysis. This course is designed to help the student improve his/her ability to diagnose driveability problems. Diagnosis and testing will be discussed and practiced. A review of fuel, ignition and computer system testing will also be included.

(34.65 Lec. Hrs./74.25 Lab Hrs.)

Prerequisite: AUT:115, AUT:606, AUT:802 and AUT:811.

BIOLOGY

BIO:114 General Biology IA 4 cr.

Introduction to basic principles of biology. Topics include chemical applications in biology, cellular biology, bioenergetics, cell division and genetics. *This course satisfies a general education requirement in the Natural Sciences Area.*

(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: RDG 032, MAT 041 and MAT 047. Recommended: Successful completion of CHM:122 or one year high school chemistry.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:151 Nutrition 3 cr.

Surveys the normal nutritional needs for all individuals. Emphasizes identifying the various essential nutrients and their functions. Diets and their components are discussed as well as food protection and preservation. American and international food patterns are discussed and evaluated.

(59.4 Lec. Hrs.)

Prerequisite: BIO:114 or BIO:168.

BIO:163 Essentials of Anatomy and Physiology 4 cr.

A one-semester course covering the fundamentals of human anatomy and physiology. Units of study include cell chemistry and structure and systems of the body (integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, urinary, reproductive and sensory). This course is not equivalent to or intended to replace BIO:168 and/or BIO:173.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:168 Human Anatomy and Physiology I w/Lab 4 cr.

A study of the structure and function of the human body. This course is the first course of a two-semester sequence. The study begins at the cellular level and proceeds through selected organ systems.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: BIO:114, CHM:110 or CHM:122 or CHM:165 or CHM:179 or one year of high school chemistry within the last five years.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

BIO:173 Human Anatomy and Physiology II w/Lab 4 cr.

The second course in a two-semester sequence. The content includes the completion of the study of the organ systems.

(59.4 Lec. Hrs./39.6 Lab Hrs)

Prerequisite: BIO:168.

BIO:186 General Microbiology 4 cr.

An in-depth examination of the microbial world with emphasis on classification, reproduction, genetics, physiology, infectious disease and control.

Laboratory exercises will be directed toward the use of equipment and identification of clinically and economically important organisms.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

BIO:208 Introduction to Anatomy 2 cr.

An introductory non-laboratory course to familiarize the student with the general structure and function of the systems of the human body. Emphasizes mastery of the vocabulary associated with the anatomical parts and their function.

(39.6 Lec. Hrs.)

BIO:255 Neuroanatomy 3 cr.

The gross anatomy of the brain and spinal cord will be discussed. Emphasis will be placed on clinical applications of the functional anatomy of the nervous system. Topics will include the structure and function of the sensory and motor pathways, basal ganglia, cranial nerves, ventricular system, vascular system and peripheral nervous system.

(59.4 Lec. Hrs.)

Prerequisites: BIO:168 and BIO:173.

BUSINESS

BUS:102 Introduction to Business 3 cr.

Introduces the student to American contemporary business, its nature and environment. A survey course providing exposure to social responsibilities of business, management, production, human resources, marketing, finance, quantitative methods, world business and business law.

(59.4 Lec. Hrs.)

BUS:106 Employment Strategy 2 cr.

Students will complete assignments focused on their individual and career targets, while developing successful lifetime job search skills and career management tools. Students will also learn job search techniques, such as completing employment applications, preparing letters of application and resumes and participating in a mock interview.

(39.6 Lec. Hrs.)

Prerequisites: ADM:157 and ADM:123 or ADM:122.

BUS:107 Business Careers 1 cr.

Designed to assist students in making a career choice in the Administrative and Office Support program. Participants will have an opportunity to investigate employment in their area of interest through a number of activities including field trips, guest speakers and career counseling.

(19.8 Lec. Hrs.)

BUS:108 Customer Service Strategies 1 cr.

Students will learn how to deal with customers in a variety of settings and will be exposed to practical, real-world concepts and experiences. Using actual case studies, students will learn how to successfully handle a variety of customer situations and problems.

(19.8 Lec. Hrs.)

BUS:110 Business Mathematics and Calculators 3 cr.

Review of math fundamentals and their application to business. Topics covered include multiplication, division, fractions, percentages, interest, discounts, etc., on an electronic calculator. The student will be able to operate proficiently by the touch system.

(59.4 Lec. Hrs.)

BUS:112 Business Math 3 cr.

This course provides a review of basic mathematical fundamentals and their application to business situations. Topics covered may include fractions, percentages, markups and markdowns, interest (both simple and compound), amortization, and statistical measurement. The student will be able to identify how these mathematical tools can aid management in business decision making.

(59.4 Lec. Hrs.)

Prerequisite: MAT:041 or placement by college assessment test.

BUS:161 Human Relations 3 cr.

Provides a foundation of accepted personal and business behavior in professional working relationships. Personality characteristics with relation to fellow employees and business associates are an integral part of the course. Topics include motivation of individuals and groups, contribution to a desirable working atmosphere, adjustment to the job, stress management techniques and other areas of human relations.

(59.4 Lec. Hrs.)

BUS:180 Business Ethics 3 cr.

Study of ethical principles and the application of ethical principles to situations relevant to decision-making in the professional and business world.

(59.4 Lec. Hrs.)

BUS:185 Business Law I 3 cr.

Provides the student with a basic understanding of business law. Includes an introduction to the legal environment (including ethics, property and computer law); contracts; sales; employer/employee relations (including agency); consumer protection and product liability; property and wills.

(59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

BUSINESS COMPUTER APPLICATIONS

BCA:106 Windows Operating Systems 1 cr.

Students will learn about user interfaces, Windows, Windows Explorer and each Office Suite application. Topics include using the mouse, minimizing, maximizing and restoring windows, sizing and scrolling windows, launching and quitting an application, displaying the contents of a folder, creating a folder, selecting and copying a group of files, renaming and deleting a file and a folder, using the Windows Help menu and shutting down the Windows system. A brief overview of the following software will also be given: Word, Excel, Access, PowerPoint and Outlook. Test Out Available. (19.8 Lec. Hrs.)

Prerequisite: BCA:118.

BCA:106 Windows Operating System 1 cr.

This course includes basic file management commands along with basic computer terminology and concepts. (9.9 Lec. Hrs./19.8 Lab Hrs.)

BCA:118 Introduction to the PC 1 cr.

Students taking this course will have had little experience with computers. The class will cover computer hardware and software concepts to consider when purchasing, installing or maintaining a personal computer. Test Out Available. (19.8 Lec. Hrs.)

BCA:129 Basic Word Processing 2 cr.

This course is designed to give the student an introductory knowledge of an industry-standard word processing software. Topics to be covered include creating, printing, and editing documents; formatting characters and paragraphs; formatting documents and sections; printing envelopes and labels; cutting and pasting text within and between documents; formatting text into newspaper columns; and creating headers, footers, and footnotes and endnotes in reports. (39.6 Lec. Hrs.)

Prerequisite: ADM:105

BCA:130 Advanced Word Processing 2 cr.

In this course, the student will learn the advanced features of an industry-standard word processing software. Topics include merging documents, creating tables, inserting graphics and clip art, creating styles, sorting text, selecting records, and creating fill-in forms. (39.6 Lec. Hrs.)

Prerequisites: BCA:129

BCA:134 Word Processing Applications 3 cr.

This course is designed to give the student an in-depth knowledge of an industry-standard word processing software. Topics to be covered may include the basics of producing documents by creating, formatting, editing, saving and printing along with advanced commands used for mail merge, tables, macros, columns and graphics. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ADM:123 or ADM:122.

BCA:146 Basic Spreadsheets 1 cr.

Students are introduced to Excel terminology, the Excel window and the basic characteristics of a worksheet and workbook. Topics include starting and quitting Excel, entering text and numbers, selecting a range, using the AutoSum button, copying using the fill handle, changing font size, formatting in bold, centering across columns, using the AutoFormat command, charting using the ChartWizard, saving and opening a workbook, editing a worksheet, using the Auto Calculate area and using the Excel Help system. Test Out Available. (19.8 Lec. Hrs.)

Prerequisites: BCA:118 and BCA:106.

BCA:147 Basic Spreadsheets 2 cr.

This course offers the student the opportunity to learn the fundamentals of Microsoft Excel, to be exposed to practical examples of the computer as a useful tool, and to become acquainted with the proper procedures to create worksheets suitable for course work, professional purposes, and personal use. The student will learn to write formulas and use built-in functions, answer what-if questions, format spreadsheets, create graphs, and use database functions of spreadsheets. (39.6 Lec. Hrs.)

BCA:148 Advanced Spreadsheets 2 cr.

This class is designed to take students beyond the fundamentals of spreadsheets and to give them the opportunity to learn how to solve complex spreadsheet problems. Some of the topics include financial functions, templates, 3-D references in formulas, macros, an introduction to Visual Basic for Applications (VBA) for Excel, the Solve command, and pivot charts and pivot tables. (39.6 Lec. Hrs.)

Prerequisite: BCA:147.

BCA:149 Spreadsheet II 1 cr.

Students will use formulas and functions to build a worksheet and learn more about formatting and printing a worksheet. Topics include entering formulas, using functions, verifying formulas, formatting text, formatting numbers, conditional formatting, drawing borders and adding colors, changing the widths of columns and rows, spell checking, previewing a worksheet, printing a section of a worksheet and displaying and printing the formulas in a worksheet. Test Out Available. (19.8 Lec. Hrs.)

Prerequisite: BCA:146 or consent of instructor.

BCA:153 Spreadsheet II 1 cr.

Students will learn how to work with larger worksheets, how to create a worksheet based on assumptions, how to use the IF function and absolute cell references, charting techniques and how to perform what-if analysis. Topics include assigning global formats, rotating text, using the fill handle to create a series, deleting, inserting, copying and moving data on a worksheet, displaying and formatting the system date, displaying and docking toolbars, creating a 3-D pie chart on a chart sheet, enhancing a 3-D pie chart, freezing titles, changing the magnification of worksheets, displaying different parts of the worksheet using panes and completing simple what-if analysis and goal seeking. Test Out Available. (19.8 Lec. Hrs.)

Prerequisite: BCA:149.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

BCA:156 Intermediate Databases 1 cr.

Students will learn to use queries to obtain information from the data in their databases. Topics include creating queries, running queries and printing the results. Specific query topics include displaying only selected fields, using character data in criteria, using wildcards, using numeric data in criteria, using various comparison operators and creating compound criteria. Other related topics include sorting, joining tables and restricting records in a join. Students will use computed fields, statistics and grouping.

Test Out Available.
(19.8 Lec. Hrs.)

Prerequisite: BCA:164.

BCA:158 Spreadsheet Applications 2 cr.

This course offers the student the opportunity to learn proficient use of a popular spreadsheet program, to set up formulas and use built-in functions, to answer what-if questions, to format spreadsheets, to create graphs and to perform sorts and queries. The student will build several spreadsheets, learning new commands with each one.
(19.8 Lec. Hrs./39.6 Lab Hrs.)

BCA:159 Database Applications 2 cr.

This course provides basic training using Microsoft Access, a database management system. The term database describes a collection of data organized in a manner that allows access, retrieval, and use of that data. Using Access, students will create databases; add, change, and delete records in tables; establish relationships among tables; sort and index data; retrieve data using queries; and calculate statistics from the databases. In addition, students will create and edit forms for data entry and reports for more formal presentation of the data.
(39.6 Lec. Hrs.)

BCA:164 Basic Databases 1 cr.

Students are introduced to the concept of a database and shown how to use Access to create a database. Topics include creating a database, creating a table, defining the fields in a table, opening a table, adding records to a table, closing a table and previewing and printing the contents of a table. Additional topics include using a form to view data, using the report Wizard to create a report and using the Access Help system. Students will learn how to design a database and eliminate redundancy.

Test Out Available.
(19.8 Lec. Hrs.)

Prerequisite: BCA:106.

BCA:169 Advanced Database 1 cr.

Students learn the crucial skills involved in maintaining a database. These include using datasheet view and form view to add new records, change existing records, delete records and locate and filter records. Students learn the processes of changing the structure of a table, adding additional fields, changing characteristics of existing fields, creating a variety of validation rules and specifying referential integrity. Students will also perform mass changes and deletions using queries, create single-field and multiple-field indexes and use sub-datasheets to view related data.

Test Out Available.
(19.8 Lec. Hrs.)

BCA:188 Computer Fundamentals for Technicians 3 cr.

This course will cover microcomputer operating systems, hardware and application software. Spreadsheets, database management, word processing and 2-D graphics packages will be specific areas of coverage. Lab exercises will follow lecture and class discussion.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

BCA:207 PowerPoint/Outlook 2 cr.

Students will learn how to create business presentations, such as overhead transparencies and on-screen slide shows, using Microsoft PowerPoint, a presentation software application. They will also learn to use Microsoft Outlook, an integrated task, scheduling, and communications management program, to improve their ability to organize their time and stay abreast of correspondence in a business or personal environment.
(39.6 Lec. Hrs.)

BCA:216 Introduction to Microsoft Applications 4 cr.

An introduction to computers including Windows, database and spreadsheet applications. This course is designed for use in a Windows environment and will include student computer projects.
(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: ADM:105.

BCA:220 Integrated Applications Simulation 2 cr.

This course offers the student the opportunity to understand and apply OLE (object linking and embedding) concepts by creating documents using spreadsheet, word processing, database, and presentation software applications and then transferring data from one application to another. This is an office simulation that will allow the student to utilize his/her decision-making and time management skills.
(39.6 Lec. Hrs.)

Prerequisite: BCA:130, BCA:147 or BCA:159.

BCA:228 Integrated Software Applications 4 cr.

This is an advanced course in microcomputer software applications. Students will plan and create spreadsheets, databases, presentations and word processing documents using integrated systems software that allows for data transfer among applications.
(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: ADM:127, BCA:134, ADM:127, BCA:216 and CSC:110

Prerequisite: BCA:156.

BCA:250 Desktop Publishing 3 cr.

This course takes the student beyond the basic commands of word processing while gaining knowledge and practice in desktop publishing. Desktop publishing is the integration of graphics and text. The student will learn advanced features of the word processing software, such as creating and applying styles, macros and master documents. Decision-making skills will be used to complete desktop publishing projects such as graphs, bulleted charts, newsletters and folded brochures.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: BCA:134, ADM:123 or ADM:122.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

BCA:711 Introduction to Microsoft PowerPoint 1 cr.

Students are introduced to PowerPoint terminology, the PowerPoint windows and the basics of creating a multi-level bulleted list presentation. Topics include selecting a design template, increasing font size, changing font style, ending a slide show with a black slide, saving a presentation, viewing the slides in a presentation, checking a presentation for spelling and style errors, changing line spacing on the slide master, printing copies of the slides and using the PowerPoint Help system.

Test Out Available.

(19.8 Lec. Hrs.)

Prerequisite: BCA:118.

BCA:722 Introduction to the Internet 1 cr.

Students are introduced to the World Wide Web and its components. They will explore the World Wide Web and learn how the Web is organized, URLs, browsing Web pages, Web page management techniques and saving and printing material obtained from a Web site. In addition, they will learn techniques for searching the vast amount of material using search engines.

Test Out Available.

(19.8 Lec. Hrs.)

Prerequisite: BCA:106.

BCA:732 Getting Organized with Outlook 1 cr.

Students will discover the benefits of using a powerful desktop information management program. They will learn how this program can assist in organizing a busy schedule, keeping track of files and communicating with others. Students will learn how individuals and work groups can organize, find, view and share information easily. Students will receive hands-on experience entering both on-time and recurring appointments and events. Other topics include sending e-mail messages, generating and managing daily, weekly and monthly schedules, printing and saving a calendar, generating a list of contacts, creating and printing tasks and creating, importing and exporting personal subfolders.

Test Out Available.

(19.8 Lec. Hrs.)

Prerequisite: BCA:118.

CANCER INFORMATION MANAGEMENT

CIM:200 Registry Organization & Operations 3 cr.

Students will develop an understanding of the regulatory requirements for an approved cancer program. Emphasis will be given to the requirements outlined by the Commission on Cancer (CoC) of the American College of Surgeons (ACoS), data standards set by the North American Association of Central Cancer Registries (NAACCR), data standards set by the National Cancer Institute (NCI) in its Surveillance, Epidemiology and End Results (SEER) program, data standards set by the World Health Organization (WHO) and other organizations. Legal, ethical and confidentiality issues in both the internal and external settings will be addressed. Students will obtain an overview of the relationships between a registry and other departments within a facility. Basic daily operational tasks, reference resources and computer hardware and software needs will be introduced.

(59.4 Lec. Hrs.)

Prerequisites: Completion of HIT diploma, CIM first year coursework.

CIM:210 Oncology Coding and Staging Systems 4 cr.

This course will focus on the basic concepts of coding and staging of malignant neoplasms. It will provide a general overview of the *International Classification of Disease for Oncology*, 3rd Ed. topography codes and *International Classification of Disease*, 9th Ed. morphology nomenclature and classification systems. American Joint Committee on Cancer (AJCC) staging, SEER Summary staging, and extent of disease concepts used by physicians and cancer surveillance organizations to determine treatment and survival will be emphasized.

(39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: Completion of HIT diploma, CIM first year coursework.

Co-requisite: CIM:200.

CIM:215 Abstracting Principles & Practice I 2 cr.

Students will be introduced to the principles of cancer registry abstracting. Identification and selection of appropriate clinical information from medical records in a manner consistent with cancer registry regulatory core data item requirements will be emphasized. Recording accurate coding and staging of site-specific cancer information and use of CNExT cancer registry software from C/NET Solutions will be introduced. (79.2 Lab. Hrs.)

Prerequisites: Completion of HIT diploma, CIM first year coursework.

Co-requisites: CIM:200, CIM:210.

CIM:220 Abstracting Principles & Practice II 2 cr.

This course further applies the principles of cancer registry abstracting. Identification and selection of appropriate clinical information from medical records in a manner consistent with cancer registry regulatory core data item requirements; recording, coding and stating site-specific cancer information; and using accuracy, timeliness and completeness of data.

(79.2 Lab. Hrs.)

Prerequisite: CIM:215.

CIM:240 Patient Follow-up 2 cr.

This course will cover follow-up methodology, confidentiality and ethical issues; identification of second primaries, recurrence, spread of disease and survival data. Physician, patient and other follow-up resources and activities will be introduced.

(39.6 Lec.Hrs.)

Prerequisites: Completion of HIT diploma, CIM first year coursework.

Co-requisites: CIM:200, CIM:210.

CIM:250 Cancer Statistics & Epidemiology 3 cr.

This course will introduce the student to cancer statistics, principles of epidemiology, cancer surveillance, annual report preparation, presentation of cancer data and special studies. Use of cancer statistical data for marketing and strategic planning will also be studied.

(59.4 Lec. Hrs.)

Prerequisites: Completion of HIT diploma, CIM first year coursework.

Co-requisites: CIM:200, CIM:210.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CIM:260 Cancer Information Management Seminar 1 cr.

This course provides a comprehensive discussion of all topics common to the cancer registry profession. Emphasis is placed on application of professional competencies, job search tools and preparation for the certification exam. (19.8 Lec. Hrs.)

CIM:270 Cancer Registry Practicum 4 cr.

Students must have student health forms completed and on file. This course will provide students with hands-on experience in all aspects of registry organization and operation. A total of 224 hours under the supervision of a CTR will be spent by the student abstracting and experiencing all the tasks of a full-time cancer registrar. (237.6 Clinical Hrs.)

Prerequisite: Completion of all other CIM coursework.

CHEMISTRY

CHM:110 Introduction to Chemistry 3 cr.

Designed for the student with no high school chemistry background. A study of chemistry in our lives and chemical principles preparatory to CHM:122 or CHM:165. An introduction to the composition and properties of matter, bond types, acids and bases, pH and a description of the major branches of chemistry. (59.4 Lec. Hrs.)

CHM:122 Introduction to General Chemistry 4 cr.

An elementary approach to chemical principles and laboratory practices. Emphasizes the nature of matter, bonding, nomenclature, equations, acids and bases and chemistry as applied to everyday life. Intended primarily to fulfill laboratory science requirements and to fulfill chemistry requirements for nursing, dental hygiene, or some home economics and agricultural programs. (59.4 Lec. Hrs./39.6 Lab Hrs.)

CHM:132 Introduction to Biochemistry 4 cr.

A continuation of CHM:122. Study of aliphatic and aromatic compounds, their chemistry and uses in consumer products such as polymers, drugs and foods. Attention is also given to biologically important compounds: proteins, nucleic acids, carbohydrates and lipids and the chemistry of these molecules in the living organism. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CHM:122 or CHM:165/166.

CHM:165/166 General Chemistry I 4-5 cr.

The first course in a sequence of two general chemistry courses for students in pre-med, pre-chiro, pre-vet, pre-dental, pre-pharmacy, pre-engineering, other physical or biological sciences, or liberal arts. Topics include calculation methods, stoichiometry, gases, atomic structure and periodicity, solutions and chemical bonding. The five credit hour course also covers nuclear chemistry. (59.4-79.2 Lec. Hrs./39.6-59.4 Lab Hrs.)

Prerequisites: CHM:110 or CHM:122 or high school chemistry, and MAT:073 or two years of high school algebra.

COLLISION REPAIR/REFINISH

CRR:113 Welding Survey 2 cr.

This course is designed to acquaint the student with the fundamentals in MIG and oxy-acetylene welding as they pertain to the auto collision repair industry. Instruction will be given in equipment, setup, safety and application in the oxy-acetylene and MIG processes, with an emphasis on safety. The lab will be correlated with the lecture to provide the student with practical hands-on experience. (19.8 Lec. Hrs./59.4 Lab Hrs.)

Co-requisite: CRR:140.

CRR:114 Welding Systems and Techniques 2 cr.

This course is designed to increase the student's proficiency with basic welding concepts and to further knowledge and skills of other welding processes used in auto collision repair. Topics covered include resistance and spot welding, aluminum and flux core welding, TIG welding, plasma cutting and the equipment used for these operations. (19.8 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: CRR:113 or comparable experience.

CRR:115 Advanced Welding Techniques 1 cr.

A lab course which is designed to enhance the student's skills with all the welding concepts typically used in the auto collision repair industry. It will include all welding processes used on steel, aluminum and other metallic parts typically encountered on the automobile. Joint design and fabrication will be covered to prepare the student for applicable certification tests. (59.4 Lab Hrs.)

Prerequisite: CRR:114.

Co-requisite: CRR:507.

CRR:140 Orientation and Safety 3 cr.

This course is an orientation to the college and departmental activities, functions and regulations and an overall safety program. It covers all areas of shop and tool safety and includes topics pertinent to the ACR industry regarding employee and community right-to-know and the laws and regulations governing the handling of hazardous materials. (59.4 Lec. Hrs.)

CRR:200 Plastics Repair 1 cr.

This course is designed to acquaint the student with the methods and techniques used to identify and repair plastics commonly used on modern day automobiles. Major topics of instruction include welding and adhesive repairs and panel replacements made on plastics, composites and fiberglass. Pre-paint cleaning and preparation will also be emphasized. (19.8 Lec. Hrs.)

Prerequisite: CRR:113.

Co-requisite: CRR:140.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CRR:322 Basic Metal Bumping and Repair 5 cr.

This course is designed to acquaint the student with the tools, equipment and techniques utilized for repairing minor collision damage. Emphasis will be placed on damage identification and analysis and formulating an appropriate repair plan.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Co-requisites: CRR:140.

CRR:370 Special Topics Elective 1 cr.

This lab course will give the student an opportunity to complete any unfinished requirements they did not complete in any one of the courses for which they had registered. The student may enroll for this course more than one time.

(59.4-178.2 Lab Hrs.)

CRR:405 Non-Structural Panel Repair and Replacement 5 cr.

This course will provide training in the repair and replacement of metallic and composite non-structural component and stationary parts. Topics covered in the course include pre-replacement roughing and aligning, force application analysis, glass service and replacement and the alignment of all adjustable panels.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisites: CRR:322 and CRR:113.

Co-requisite: CRR:114.

CRR:452 Trim and Component Panel Service 2 cr.

This course will address all facets of the final detailing of the interior and exterior trim and accessories as required for vehicle's pre-delivery prep. It also includes servicing all door and window mechanisms, removal and replacement of all interior and exterior trim components, and adjusting all exterior component panels.

(19.8 Lec. Hrs./59.4 Lab Hrs.)

CRR:507 Structural Panel Repair and Replacement 5 cr.

This course is designed to provide the student with the skills necessary to repair the undercarriage on severely damaged vehicles. It will include an in-depth study of measuring and tracking systems commonly used to analyze, isolate and repair damage on the undercarriage and other structural parts of collision damaged vehicles. Replacement and corrosion protection of said parts will also be included as part of the repairs.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisites: CRR:114 and CRR:405.

Co-requisite: CRR:612.

CRR:605 Mechanical Service 3 cr.

This course is designed to help the student identify and repair the mechanical problems and failures that typically occur as a result of an automobile accident. The course will include diagnosing and repairing problems with the brake system, drive train, exhaust system and other mechanical components typically damaged in a collision situation. The course will also include instruction in diagnosing and repairing problems with the vehicle's A/C cooling system and the regulations governing the handling and use of CFC gases.

(19.8 Lec. Hrs./118.8 Lab Hrs.)

CRR:612 Steering and Suspension 3 cr.

This course is designed to acquaint the student with the suspension and steering systems, and how they are affected by a collision. It will include instruction in the diagnosis and repair of problems affecting the drivability of a vehicle after it has been involved in a collision. It also includes a study of the steering geometry, alignment principles, tracking and replacement procedures for damaged components. The interrelation of each part to the overall handling of the vehicle are all included.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

CRR:674 Electrical Service 4 cr.

This course will acquaint the student with the methods utilized to diagnose and troubleshoot electrical problems that affect the operation of various electrically integrated parts of the vehicle. It will include energy production, electrical theory, interpreting wiring diagrams, electrical measuring and testing equipment as they are used in the repair of damaged passive and active restraint systems, air bags, anti-lock braking systems and other electrical problems which typically occur as a result of a collision.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

CRR:743 Estimating 3 cr.

This course is designed to acquaint the student with the methods and techniques used to analyze and identify the damage sustained by a vehicle involved in a collision. It will also include an in-depth study of the collision and specification manuals typically used in writing an automobile damage report. A survey of the day-to-day activities performed by shop personnel such as scheduling, customer relations and inventory control will also be included.

(59.4 Lec. Hrs.)

Co-requisite: Math elective-math above 100 level.

CRR:798 Spray Techniques & Surface Coating I 2 cr.

This is an entry level course for individuals seeking to become employed as spray painters in industry. The course is designed to acquaint the student with the principles and concepts utilized for applying various automotive, commercial and industrial surface coatings using both the virtual painting system and conventional spray painting equipment. Emphasis will be placed on proper equipment selection, setup, manipulation and maintenance. The course will also include instruction in the OSHA hazard communication and all applicable employee right-to-know requirements.

(39.6 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CRR:801 Refinishing I 3 cr.

This is an introductory course designed to acquaint the student with all phases of surface removal and the preparation required for application of fillers, paint and primer coatings. Proper substrate preparation and basecoat application will be emphasized. Other topics will include pre-cleaning, surface removal, abrasives, fillers, basecoat selection, masking and proper spray application.

(19.8 Lec. Hrs./118.8 Lab Hrs.)

Co-requisite: CRR:140.

CRR:825 Refinishing Principles 5 cr.

This course will prepare the student to select and apply basecoats and topcoats that are compatible with the existing finish and substrates. Topics covered will include methods used to identify existing finishes, selecting and applying the proper basecoats, top coats, solvent and additive selection and maintenance on all air supply and spray equipment. VOC tracking regulations and applications will also be introduced.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite: CRR:140.

CRR:842 Color Matching 5 cr.

This course is an in-depth study of color and its makeup and the proper techniques utilized for tinting and shading paint to accomplish a color match on a vehicle. Spot repairing and blending techniques to obtain a color match on direct gloss, two and three stage finishes will also be included. The students will also be trained and evaluated using the spray technique analysis and research (star) criteria.

(39.6 Lec. Hrs./178.2 Lab Hrs.)

Prerequisite: CRR:825.

CRR:878 Advanced Refinishing 2 cr.

This is the last in a series of refinishing courses which is designed to acquaint the student with diagnosing and repairing various paint problems and failures and repairing them using a systems approach. In-depth study and comparative analysis will be conducted on various paint manufacturers' products and how they are to be used in resolving the various paint failures. A VOC analysis will be completed for several of the products used.

(19.8 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: CRR:842.

COMMUNICATIONS

COM:102 Communication Skills 3 cr.

The purpose of this course is to prepare the student to communicate effectively in business and professional situations. The major emphasis is on improving interpersonal skills, on using standard English in writing and speaking, on gaining proficiency in listening and on composing specific types of business communications.

(59.4 Lec. Hrs.)

Prerequisite: Appropriate placement based on assessment or successful completion of ENG:065 or ENG:013.

COM:105 Communication Skills I 2 cr.

Designed to provide a general background in communication skills concentrating on telephone, employment applications, business letters and basic writing techniques.

(39.6 Lec. Hrs.)

COM:107 Communication Skills II 1 cr.

A continuation of COM:105. Includes a speech component and selected writing skills for various technical programs.

(19.8 Lec. Hrs.)

Prerequisite: COM:105.

COMPUTER AIDED DRAFTING

CAD:104 Computer Aided Drafting - CAD 3 cr.

This follow-up course to DRF:118 continues to introduce students to the foundations of drafting and descriptive geometry. The course will continue to develop student skills in the areas of computer generated drawings, geometric constructions, sketching and shape description, multiview projections, sectional views, auxiliary views, dimensioning and axonometric projections. Emphasis will be placed on machine drafting concepts while utilizing proper computer aided design (CAD) techniques and methods.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: DRF:118 or equivalent.

CAD:113 AutoCAD I 3 cr.

Designed to familiarize users of CAD systems with all of the tools necessary for the efficient production of drawings. Topics that will be covered include starting and ending commands, two-dimensional drawing commands, drawing management (layers and system settings), editing and viewing commands, text commands, dimensioning techniques and styles, and symbols (blocks and external references).

(19.8 Lec. Hrs./39.6 Lab Hrs.)

CAD:114 AutoCAD I 2 cr.

Designed to familiarize users of CAD systems with all of the tools necessary for the efficient production of drawings. Topics that will be covered include starting and ending commands, two-dimensional drawing commands, drawing management (layers and system settings), editing and viewing commands, text commands, dimensioning techniques and styles, and symbols (blocks and external references).

(19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: DRF:118.

CAD:127 and CAD:128 Intermediate AutoCAD 2000 I/A And I/B 2 cr. each

This course is a follow up to CAD:115 and CAD:116, where students use the various principles to complete more complex mechanical drawings and electrical and piping diagrams. This course will include the use of AutoCAD 2000 training software/hardware that is comparable to equipment used in regional industry.

(39.6 Lec. Hrs./79.2 Lab Hrs. each course)

Prerequisites: CAD:127, CAD:115 and CAD:116, CAD:128 and CAD:127.

CAD:130 Applied Drafting 3 cr.

Designed to assist the student in the completion of a set of drafting plans as they may pertain to the indicated special skills of drafting. The student may complete a set of specified drawings/problems that could be used in the actual engineering area. Nomenclature, computation, symbols, and schematics relevant to the indicated industrial area will be utilized.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CAD:113

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CAD:140 Parametric Modeling I 3 cr.

Designed to use parametric solid modeling programs such as Mechanical Desktop or Autodesk Inventor to create mechanically engineered parts. Topics that will be covered include: parametric modeling fundamentals, part modeling, assembly modeling, advanced modeling techniques, sheet metal modeling and creating engineering drawings. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: DRF:154 and CAD:175.

CAD:160 Plane Surveying 3 cr.

Introductory course that covers basic surveying operations which include measuring horizontal and vertical distances and angles. Will cover the various survey methods which are common practice and introduce the various types of field surveying. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MAT:743.

CAD:161 Architectural Modeling and Rendering 3 cr.

Designed to use programs such as Architectural Desktop or 3d Studio Viz to create three-dimensional architectural forms and layouts. Topics include: 3-D space modeling, 2-D plan development, document creation, importing data, material properties, setting up cameras, setting up lights and animations. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CAD:175 and CAD:196.

CAD:164 Solid Modeling 2 cr.

Designed to use both AutoCAD's ACIS solid modeler as well as other parametric solid modeling programs to create mechanically engineered parts. Topics that will be covered include 2-D regions, 3-D solid primitives, extruded 3-D solids, revolved solids, Boolean operations, slicing, hiding, shading and rendering 3-D models, sketching profiles, using constraints, sketch planes, work planes, features, multi-view layouts, parametric dimensioning, editing, and paths and sweeps. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: DRF:154 and DF:258.

CAD:175 Advanced AutoCAD 2 cr.

Designed to focus on some of AutoCAD's productivity tools that can increase efficiency and productivity. Topics that will be covered include review of 2-D drafting techniques, advanced use of blocks, attributes, labels and tags, external reference files, advanced drawing techniques, model and paper space, 3-D viewing commands, viewports, 3-D wire frame modeling, solid modeling and miscellaneous techniques for customizing. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: DRF:118.

CAD:196 Architectural Drafting 3 cr.

An introduction to architectural drawing which includes: basic house design, room planning, foundation plans, floor plans, elevations, electrical plans, plumbing plans, HVAC plans and presentation drawings. The student will be provided enough information to prepare a set of architectural working drawings. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: DRF:154 and CAD:114.

CAD:211 Fundamentals of AutoCAD 4 cr.

This is a tutorial-based course covering the fundamentals of AutoCAD. Students begin with basic shapes and work through multiview drawings in a series of extensive hands-on tutorial lessons. The AutoCAD Heads-Up Design Interface is also covered allowing students to concentrate on design intent rather than the keyboard. Other areas of coverage include the WYSIWYG (What You See Is What You Get) plotting feature as well as Named Plot Style and Layout Plotting. During the course students will cover object properties and organization through layers, orthographic views, dimensioning and notes, auxiliary views and GRIPS, section views, blocks and assembly drawings. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:114 and DRF:115.

CAD:212 Solid Works 4 cr.

This is a tutorial-based course covering the basics of Solid and Parametric modeling using Solid Works. Students will learn the fundamentals of solid modeling with Solid Works through a series of competency-based projects. Students will learn through a progressive approach from chapter to chapter. Beginning with extruded and revolved features, students move through sweeps, lofts, ribs and patterned features, ending with sub-assemblies, assemblies and finally fundamentals of drawing. As in most solid/parametric modeling packages, parts, drawing and assemblies have an associated relationship with each other. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:114 and DRF:115.

CAD:225 Descriptive Geometry 2 cr.

This course introduces students to basic principles of descriptive geometry. These principles are valuable for determining true shapes of planes, angles between two lines, two planes, or a line and a plane, and for locating the intersection between two planes, a cone and a plane, or two cylinders. Problems are solved graphically by projecting points onto selected adjacent projection planes in an imaginary projection system. Major areas of concentration will be orthographic projection, primary auxiliary views, lines, planes, successive auxiliary views, piercing points, intersection of planes, angle between planes, parallelism, perpendicularity, angle between lines and oblique planes, and plane tangencies. (19.8 Lec. Hrs./39.6 Lab Hrs.)

CAD:226 Strength of Materials I 3 cr.

An introductory course in the area of structural mechanics including a complete review of statics, researching simple stresses in members and taking a look at the various structural properties of materials in design. (59.4 Lec. Hrs.)

Prerequisite: MAT:748.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CAD:227 Strength of Materials II 3 cr.

An advanced course in the area of structural mechanics. The course includes an examination of mechanical connections, center of gravity, properties of sections, beam sizing and column sizing.
(59.4 Lec. Hrs.)

Prerequisite: CAD:226.

CAD:228 Applied Physics I 3 cr.

Standard physics concepts unified in four major systems - mechanical, fluid, electromagnetic and thermal. This unified technical concepts approach allows the student to learn physics in a hands-on atmosphere through extensive laboratory work and demonstrations. Special examples are used making this course pertinent to the drafting technician. The concepts covered are force, work, rate, momentum, resistance, energy and power.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: MAT:748.

CAD:229 Applied Physics II 3 cr.

A continuation of CAD:228 using the unified technical concepts approach to applied physics. Special examples are used making this course pertinent to the drafting technician. The concepts covered are force transformers, energy converters, transducers, vibrations and waves, exponential constants of linear systems, radiation and optics, and optical systems.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CAD:228.

CAD:231 Pro Engineer - Basic Modeling 4 cr.

This is a tutorial-based course covering the basics of solid and parametric modeling using Pro Engineer. Students will learn the fundamentals of solid modeling with Pro Engineer through a series of 11 tutorial-based lessons that include the use of a multimedia CD. Along with exercises at the end of each lesson students will also create projects for use during the assembly and detailing lessons. Students begin by becoming familiar with the user interface, model structure and view controls. These concepts are followed by the creation of simply extruded protrusions and the use of the higher end functionality to create revolved protrusions, mirror copies, rounds and protrusions. Engineering drawings, assembly functionality and sweeps and blends give the students a good sound base for Pro Engineer - Advanced. The final project for the course is a full assembly of a Panavise complete with engineering drawings.
(39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:114 and DRF:115.

CAD:233 Basic Detailing 4 cr.

This is a course designed for technicians and designers who must use Pro Engineer's drawing functionality. Students will learn how to create orthographic views of part models to be used in detail drawings. Students will completely dimension drawings using title block formats, design tolerancing and GD and T. Students will also create assembly drawings and bill of materials using the table command. Multiple sheet drawings and multi-model drawings will also be created.
(39.6 Lec. Hrs./79.2 Lab Hrs.)

CAD:235 Strength of Materials 4cr.

An introductory course in the area of structural mechanics including a complete review of statics, researching simple stresses in members, and taking a look at the various structural properties of materials in design. The course also includes an examination of mechanical connections, center of gravity, properties of sections, and beam sizing and column sizing.
(79.2 Lec. Hrs.)

Prerequisite: MAT:748.

CAD:241 Advanced Pro Engineer Modeling 4 cr.

This is a continuation of CAD:231 Basic Modeling. Students will gain more experience in part modeling using more advanced sketching and modeling tools. More advanced use of datums, layers, relations and sweeps will be utilized. Students will also create family tables of similar parts and use Pro Program to automate part design and creation. Development of mapkeys and customization of the Pro Engineer interface will also be addressed.
(39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:114, DRF:115 and CAD:231.

CAD:243 Advanced Pro Engineer Detailing 4 cr.

This course is designed for the user who creates and manipulates large or multiple sheet drawings. Students will use Pro Engineer's layer control and feature show capabilities to create advanced detail drawings. Exploded assemblies and tabulated drawings will be covered, as will simplified reps, the use of symbols, ordinate dimensions and created and shown dimensions.
(39.6 Lec. Hrs./79.2 Lab Hrs.)

CAD:251 Pro Engineer Assemblies 4 cr.

This course is for the designers who will create assemblies from existing parts. The constraint functionality of Pro Engineer will be used to create multiple part assemblies as well as sub-assemblies. Students will learn the differences between Top Down and Bottom Up assemblies. Students will use the start part and start assembly tools in assembly creation. Troubleshooting and redefining assembly constraints will also be emphasized. Students will also learn to modify the assembly explode states for assembly drawing creation.
(39.6 Lec. Hrs./79.2 Lab Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CAD:256 Pro Engineer - Sheet Metal 4 cr.

This course is designed for the user who creates and manipulates large or multiple sheet drawings. Students will use Pro Engineers layer control and feature show capabilities to create advanced detail drawings. Exploded assemblies and tabulated drawings will be covered, as will simplified reps, the use of symbols, ordinate dimensions, and created and shown dimensions.

(39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:114, DRF:115 and CAD:231.

CAD:257 Pro Engineer - Basic Milling 4 cr.

This course covers the basic fundamentals of NC Milling using Pro Engineer. It is designed for programmers using Pro NC and Programming on 3 - 5 axis NC machines. Students will learn to create simple NC programs by combining the model, coordinate system, machining and tooling parameters to create tool paths. Basic profiling operations involving step depth, multiple passes and lead in and out will be covered. Students will identify and use the machine coordinate system and use NC Check to verify operations. Hole making and surface milling will be addressed as well as face milling and manipulation of tool paths. Finally, students will use Pro Engineer's post processing functionality to create machine code.

(39.6 Lec. Hrs./79.266 Lab Hrs.)

Prerequisite: CAD:231, CAD:233 and CAD:251.

CAD:259 Pro Engineer - Basic Turning 2 cr.

This course covers the basic fundamentals of NC Turning using Pro Engineer. It is designed for programmers needing to create two and four axis tool paths for machining on a CNC lathe. Specifically, students will learn to create the five types of turning sequences: area, profile, groove, thread and hole making.

Additionally, all of these sequences, except hole making, can be used to create outside, inside or facing sequences.

(19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CAD:231, CAD:233 and CAD:151.

CAD:260 AutoDesk Inventor 4 cr.

This is a tutorial-based course covering the basics of Solid and Parametric modeling using AutoDesk Inventor. Students begin by creating basic shapes and work into intelligent solid models and assemblies and then multi-view drawings. The text uses a series of tutorial-based lessons to achieve this. Students begin with the fundamentals of parametric modeling and proceed through solid geometry concepts, the model tree, parametric constraints, the BORN technique, geometric construction tools, parent/child relationships and assemblies. Although AutoDesk Inventor is the software used in this course, the techniques and concepts apply to many solid and parametric modeling packages.

(39.6 Lec. Hrs./79.2 Lab Hrs.)

CAD:271 Introduction to GIS 3 cr.

A Geographic Information System (GIS) is a computer-based tool for mapping and analyzing feature events on earth. This course introduces students to the tools and techniques of GIS including applications, components, mapping, topology, data, and data capture.

CAD:272 Cartography 3 cr.

Cartography covers the basic history of mapmaking and the various projections. This course provides a study of GIS applicable cartography including cartographic principles, data acquisition methods used in map production, and methods of base map development. Map projections, map scale, types of thematic maps, and map accuracy will also be covered.

CAD:273 Advanced GIS 3 cr.

A follow-up course to CAD:271 Introduction to GIS which studies advanced topics in spatial modeling, image processing, and GIS project management. Students will learn how to bring all of the pieces of GIS data together for advanced analysis and modeling.

Prerequisite: CAD:271.

CAD:274 Remote Sensing 3 cr.

Remote Sensing is the theory and principles involved in the use of satellite imagery and aerial photogrammetry. This course will show students how to use remotely sensed imagery as data sources for GIS systems. Fundamentals of photogrammetry, basic image interpretation, and classification techniques will be covered.

Prerequisite: CAD:272.

COMPUTER FORENSICS

CFR:100 Introduction to Computer Forensics 3 cr.

This course is designed to provide the student with a comprehensive understanding of Computer Forensics, Investigation Tools and Techniques. Students will learn how to set up an Investigator's office and Laboratory, as well as examine what computer forensic hardware and software available. Topics covered include procedures for identification, preservation, and extraction of electronic evidence, auditing and investigation of network and host intrusions and forensic tools.

(39.6 Lec. Hrs./29.6 Lab Hrs.)

Prerequisites: Advanced class standing and background security check.

COMPUTER NETWORKING

NET:104 IT A+ Certification Prep Course 4 cr.

This course presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification.

(39.6 Lec. Hrs./79.2 Lab Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

NET:105 PC Printer Maintenance and Repair 3 cr.

This course will prepare the student to: troubleshoot laser, inkjet and dot matrix printer failures, repair or replace the failing units, perform any required adjustments or alignments, and verify proper printer operation. Proper preventive maintenance techniques will also be covered.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

NET:106 IT Essentials II: Network Operating Systems 4 cr.

This is an intensive introduction to multi-user, multitasking networking operating systems. Characteristics of the Linux, Windows 2000, NT and XP network operating systems will be discussed. Students will explore a variety of topics including installation procedures, security issues, back-up procedures and remote access.
(39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: NET:104.

NET:107 Hardware/Software Installation and Troubleshooting 1 cr.

This course provides students with "hands-on" experience installing PC hardware and software. Online resources and reference manuals will be utilized for troubleshooting hardware and software problems.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: NET:303.

NET:114 Foundations of Information Technology 4 cr.

This course is designed as an introduction to the general uses, concepts, application and implementation of information technology within business and industry. Topics include programming logic, number systems, basic hardware design and software concepts. Some hands-on experience will consist of working with hardware, operating systems and networking.
(59.4 Lec. Hrs./39.6 Lab Hrs.)

NET:155 Wireless LAN's 3 cr.

This course provides a hands-on guide to planning, designing, installing and configuring wireless LANs that prepares students for the Certified Wireless Network Administrator (CWNA) certification. The course provides an in-depth coverage of wireless networks with extensive coverage of IEEE 802.11b/a/g/pre-n implementation, design, security, and troubleshooting. The lecture is reinforced with hands-on projects.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: NET:114, NET:303 or permission of instructor.

NET:214 CISCO Networking (Networking Fundamentals) 5 cr.

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes.
(79.2 Lec. Hrs./39.6 Lab Hrs.)

Recommended Prerequisites: NET:114, NET:303 and MAT:110.

NET:224 CISCO Routers (Routing Protocols and Concepts) 5 cr.

This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Troubleshooting skills are practiced and emphasized.
(79.2 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: NET:214.

NET:224 CISCO Switches (LAN Switching and Wireless) 5 cr.

This course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students configure a switch for basic functionality and how to implement Virtual LANs, VTP, and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol in a converged network are presented, and students develop the knowledge and skills necessary to implement wireless technology in a small to medium network.
(79.2 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: NET:214.

NET:244 CISCO WAN (Accessing the WAN) 5 cr.

This course covers how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control and addressing services. The course uses the Cisco Enterprise Composite model (ECM) to introduce integrated network services and explains how to select the appropriate devices and technologies to meet ECM requirements. Students learn how to detect, troubleshoot, and correct common enterprise network implementation issues. This course prepares the student for the ISCW certification exam.
(79.2 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: NET:224, NET:234.

NET:254 Advanced Routing (Building Scalable Internetworks) 5 cr.

Focusing on advanced routing, this course covers configuration of EIGRP, OSPF, IS-IS, and BGP routing protocols, and how to manipulate and optimize routing updates between these protocols. Other topics include multicast routing, IPv6, and DHCP configuration. Students will learn how to create an efficient and expandable enterprise network. Students will also learn how to install, configure, monitor, and troubleshoot network infrastructure equipment. This course prepares the student for the BSCI certification exam.
(79.2 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: NET:244 or CCNA Certification.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

NET:264 Remote Access (Implementing Secure Converged WANs) 5 cr.

Students are introduced to secure enterprise-class network services for teleworkers and branch sites. Students will learn how to secure and expand the reach of an enterprise network with a focus on VPN configuration and securing network access. Topics include teleworker configuration and access, frame-mode MPLS, site-to-site IPSEC VPN, Cisco EZVPN, strategies used to mitigate network attacks, Cisco device hardening, and IOS firewall features. This course prepares the student for the BCRAN certification exam. (79.2 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: NET:244 or CCNA Certification.

NET:274 Multi-Layer Switching (Building Multilayer Switched Networks) 5 cr.

This hands-on, lab-oriented course stresses the design, implementation, operation, and troubleshooting of multilayer switched networks. Students learn how to build of the appropriate Cisco IOS services to build reliable, scalable, multilayer-switched LANs. Focus areas of the course include VLANs, Spanning Tree Protocol, wireless client access, minimizing service loss, and minimizing data theft in a campus network. This course prepares the student for the BCMSN certification exam. (79.2 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: NET:244 or CCNA Certification.

NET:284 Internetwork Troubleshooting (Optimizing Converged Networks) 5 cr.

This course introduces students to effective QoS techniques for optimization in converged networks with voice, wireless, and security applications. Topics include implementing a VoIP network, specific mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security, and basic wireless management. This course prepares the student for the ONT certification exam. (79.2 Lec. Hrs./39.6 Lab Hrs.)
Prerequisites: NET:254, NET:264, NET:274.

NET:303 Windows Operating System 3 cr.

This course prepares the student for supporting and using Windows Operating System Platform in a business setting. Topics of this course include installation, administration of resources, troubleshooting, networking, optimization and security. (39.6 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: BCA:106 or equivalent Windows Operating System experience.

NET:305 Introduction to Network Operating Systems 3 cr.

This course is designed to give students of varying experience a practical working knowledge of baseline IT skills and technologies. We will cover each of the major operating systems, including DOS, Windows 9x/NT/2000/XP and UNIX/Linux. Topics include: installation, administration of resources, troubleshooting, networking, optimization and security. (39.6 Lec. Hrs./39.6 Lab Hrs.)

NET:313 Windows Servers 3cr.

This course is designed to give students a practical understanding of Windows Servers. Students will learn to plan, install, configure, manage, and troubleshoot windows servers using hands-on labs as well as group and individual projects. Topics covered include installing and configuring the server operating system, setting up hardware, configuring system resources, optimizing system performance, configuring server storage, configuring network connectivity, and implementing server security. This course may be taken more than once provided the server operating system being offered has changed. (39.6 Lec. Hrs./39.6 Lab Hrs.)
Prerequisites: NET:114.

NET:487 Network+ Test Preparation 1 cr.

The Network+ Test Preparation course will prepare the student to take the Network+ Certification Examination. Through hands-on training, students learn the vendor-independent network skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP client. The course also helps prepare students for two popular certification examinations: ComptTIA Network+ and Microsoft Networking Essentials. (9.9 Lec. Hrs./19.8 Lab Hrs.)
Prerequisite: NET:107, NET:114 and NET:303.

NET:489 A+ Test Preparation 1 cr.

The A+ Test Preparation course prepares the student to take the A+ Certification Examination. Topics include: computer architecture, microprocessors, memory, storage, video, modems, printers, LANs (Local Area Networks), device drivers, batch files, hard drives, MS-DOS and Windows Family Operating Systems. (9.9 Lec. Hrs./19.8 Operating Lab Hrs.)
Prerequisite: NET:114, NET:303, NET:107 and NET:105.

NET:679 TCP/IP 1cr.

This course is intended to provide the necessary information to understand the TCP/IP protocol Suite as well as IP Addressing and Subnetting. This course includes a discussion on the structure and purpose of an IP Address and the purpose for Subnetting. A thorough discussion on Subnetting Class A, B, & C networks, as well as, Variable Length Subnet Mask (VLSM), and Supernetting (Classless Internet Domain Routing) of multiple Class C Addresses is provided. Finally, an introduction to Internet Protocol Version 6 is provided. (9.9 Lec. Hrs./19.8 Lab Hrs.)
Prerequisite: None.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

NET:765 Fundamentals of Desktop Support 3cr.

This course will introduce the student to the service concepts, skill sets, career paths, and operations of the help desk industry. Students will master the role of a help desk analysis, navigate the help desk environment, and learn crucial problem solving skills. Through this course students will develop the "soft skills" and the "self-management skills" needed to deliver excellent customer support at the help desk. This course provides an overview of the help desk for individuals interested in pursuing a career in technical support. The course will integrate strong real-world computer support examples, case studies, and group/team exercises to emphasize the concepts of the course.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: None.

NET:851 Innovations in Technology 3 cr.

The Information Technology profession demands constant professional updates. This course allows students to explore current trends in the information technology area and participate in other career-path professional development activities.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: Advanced Standing (students have completed 50% of their course work toward their degree).

NET:910 Co-op Work Experience 2-3 cr

Cooperative Education Experience will integrate classroom theory with on-the-job training. The college will assist a student in securing employment which will be related to the student's major field of study and/or career interests. Under the supervision of the college and the employer, the student participates in job training experiences. In addition to employment, attendance at scheduled on-campus seminars is required. Seminars may include job searching skills as well as professional development. Students may take Cooperative Work Experience for two semesters, or up to a maximum of eight credit hours.
(158.4-237.6 Coop Hrs.)

COMPUTER PROGRAMMING

CIS:121 Introduction to Programming Logic 3 cr.

Introduction to structured programming logic using a variety of methods to solve programming problems. Topics covered include flowcharting, pseudocode, hierarchy charts, truth tables, control breaks, arrays, logic constructs, object-oriented programming.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

CIS:161 C++ 3 cr.

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.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: MAT:110 and at least one semester of a programming language.

CIS:164 C++ Advanced 3 cr.

This course is a continuation of C++. Topics covered include: the Visual C++.NET environment, classes, Inheritance, Windows Programming, Foundation Classes, File and Database access.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CIS:161.

CIS:171 Java 3 cr.

This course provides an introduction to object-oriented programming using the Java programming language. The course covers methods, objects, and classes with the emphasis on modularity and reusable code. Students design programs demonstrating conditionals, iteration, array handling and event processing.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CIS:210.

CIS:210 Web Development I 3 cr.

Students will learn how to evaluate, design, construct and maintain Internet web pages and web sites. Topics include HTML, DTML, graphics, animation and FTP.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: NET:114 and at least one semester of a programming language.

CIS:211 Web Development II 3cr.

Students will learn how to evaluate, design, construct and maintain interactive Internet Web pages and Web sites using Dynamic Hyper Text Markup Language (DHTML). Topics include: JavaScript, server-side and client-side programs, variables, arrays, control structures, form validation, object properties, methods and event handlers, multimedia via Java applets and ColdFusion.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CIS:210.

CIS:223 CISCO/Adobe Web Design 3 cr.

This course will focus on the overall production processes surrounding web site design with particular emphasis on design elements involving layout, navigation and interactivity.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CIS:210.

CIS:274 Introduction to e-Commerce 3cr.

This course explores how the landscape of online commerce is changing and evolving. With balanced coverage of both the technological and the strategic aspects of successful e-commerce, students are able to tackle the real-world business cases included in each chapter. Reflecting changes in the economy and how businesses are responding, this course emphasizes revenue and transaction cost reduction models as an alternative to the older ideas of business models. Topics covered include Technology Infrastructure: The Internet and the World Wide Web; Selling on the Web: Revenue Models and Building a Web Presence; Marketing on the Web; Business-to-Business Strategies: From Electronic Data Interchange to Electronic Commerce; and The Environment of Electronic Commerce: Legal, Ethical, and Tax Issues.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

CIS:307 Introduction to Databases 3 cr.

This course provides the student with an overview of database management systems. The student will learn about database fundamentals, database modeling, Structured Query Language (SQL), database administration and current issues. Through hands-on exercises, students will develop databases on different platforms.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: At least one semester of a programming language.

CIS:338 Oracle 3 cr.

This course is designed to enable students to learn the fundamental aspects of Structured Query Language (SQL) in order to create and maintain Oracle database objects, as well as store, manipulate, and retrieve data from an Oracle database. Also, students will learn fundamental aspects of Oracle's Programming Language/Structure Query Language (PL/SQL) in order to create PL/SQL application code blocks that can be shared by Oracle forms, reports and data management applications.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: NET:114, NET:303 and at least one semester of a programming language.

CIS:402 COBOL 3 cr.

Introductory concepts of COBOL, the Common Business Oriented Language, will be presented in this course. Business problems will be solved using the structured approach to COBOL. Good style and design characteristics will be emphasized. This course will cover the basics of logic design, basic COBOL syntax, common COBOL verbs, arithmetic operations, report editing, techniques for comparing, and programming multiple levels of control for report formats.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite/Co-requisite: NET:114. CIS:121 is strongly recommended.

CIS:504 Systems Structural Analysis 3 cr.

This course provides a broad yet specific treatment of the makeup, analysis, design and implementation of systems projects with emphasis on learning how to analyze existing systems applications and design better ones for computer processing. Object-oriented design techniques are discussed and good communication skills will be emphasized.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: At least two semesters of a programming language.

CIS:606 Visual Basic NET I 3 cr.

This hands-on course covers essential aspects of Visual Basic for Windows. Students will design applications; understand controls and properties; user variables, functions, and expressions; use statements and methods; use arrays; design menus; and access files.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: NET:303 is strongly recommended.

CIS:607 Visual Basic NET II 3 cr.

This course is a continuation of Visual Basic NET I. Topics covered in this course include using masks and data validation, advanced controls, error handling, reporting, advanced file handling and packaging and distribution of completed applications.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: CIS:606.

CIS:608 Visual Basic III 3 cr.

Students continue to study advanced Visual Basic topics including class modules, multi-tier database applications, web forms and web services.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CIS:607.

CIS:704 UNIX / Linux 3 cr.

This course is designed to give students a basic understanding of the UNIX operating system, commands, the word systems duties and system administrative duties required when using a UNIX-based system.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: NET:114, NET:303 and MAT:767.

CIS:929 IT Special Projects 1 cr.

Courses of instruction involving material of timely, special or unusual interest not contained in the regular course offerings. These courses may be offered by faculty members with the approval of their department chair and the dean of the college. These may be courses exploring areas of special interest to the proposing faculty member, department or to the students.
(19.8 Lec. Hrs.)

COMPUTER SCIENCE

CSC:110 Introduction to Computers 3 cr.

An introduction to computers including database, word processing and spreadsheet applications. This is a beginning course designed primarily to develop computer skills and will include student computer projects.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

CSC:112 and CSC:113 Computer Fundamentals for Technicians 2 cr. each

This course will cover microcomputer operating systems, hardware and application software. Spreadsheets, database management, word processing, graphs and operating Windows environment, Internet searches and power point presentations. Lab exercises will follow lecture and class discussion.
(19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CSC:112 - None. CSC:113 - CSC:112.

DENTAL ASSISTING

DEA:201 Head & Neck Anatomy 1 cr.

This course will include the basic study of structure and functions of the human body. Emphasis will be placed on head and neck anatomy.
(19.8 Lec. Hrs.)

Co-requisite: DEA:257.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

DEA:211 Nutrition for Dental Assistants 1 cr.

This course is designed to give the student an overview of basic nutrition and its role in dentistry.
(19.8 Lec. Hrs.)

DEA:257 Dental Anatomy 3 cr.

This course introduces histology, embryology and gross anatomy of the deciduous and permanent teeth. This also includes the structure, function, and form of individual teeth and supportive tissue.
(59.4 Lec. Hrs.)

DEA:268 Pharmacology and Emergency Procedures for Dental Assistants 2 cr.

This course is a study of the nature, action and uses of drugs seen in a dental setting. The student also will learn how to respond to the various emergencies that may occur in a dental office.
(39.6 Lec. Hrs.)

DEA:293 Microbiology and Infection Control 2 cr.

This course will acquaint the dental assisting student with a general knowledge of microbiology. Students will be presented the infection control procedures and protection protocols based on OSHA standards and CDC guidelines.
(39.6 Lec. Hrs.)

DEA:311 Dental Radiology I 2 cr.

This course covers the history and theory of dental radiology. It includes radiation productions, equipment, exposure techniques, processing, mounting films and radiation safety for the patient and the dental assistant. The student receives practical experience working with dental mannequins.
(19.8 Lec. Hrs./39.6 Lab Hrs.)

Co-requisites: DEA:201, DEA:293, DEA:406 and DEA:504.

DEA:321 Dental Radiology II 2 cr.

This course will build on the foundation acquired in Radiology I for Dental Assistants. It will include practical experience in exposing, processing and evaluating dental films on mannequins and patients.
(19.8 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: All first semester Dental Assisting courses.

Co-requisites: All second semester Dental Assisting courses.

DEA:406 Dental Materials 5 cr.

This course provides the student with the basic understanding of dental materials and the practical application of laboratory skills used in dentistry.
(79.2 Lec. Hrs./59.4 Lab Hrs.)

DEA:504 Principles of Dental Assisting 5 cr.

This course provides the fundamentals and skills of four-handed dentistry; chairside assisting procedures, instrumentation and patient care by lecture and laboratory experiences.
(59.4 Lec. Hrs./118.8 Lab Hrs.)

DEA:570 Dental Assisting Clinic 5 cr.

This course provides the dental assisting student with experiences in chairside assisting, laboratory procedures and reception duties in various general and specialty dental offices.
(396.0 Clinical Hrs.)

Prerequisites: All first semester Dental Assisting courses.

Co-requisite: All second semester courses.

DEA:592 Seminar for Dental Assisting 1 cr.

This course will include lectures, conferences, reports and discussion of procedures and experiences encountered during dental practicum. It will also acquaint the student with the history and structure of dental auxiliary organizations.
(19.8 Lec. Hrs.)

Co-requisites: All second semester Dental Assisting courses.

Prerequisites: All first semester Dental Assisting courses.

DEA:604 Dental Specialties 3 cr.

This course will introduce the student to the specialty areas of dentistry which include endodontics, oral surgery, orthodontics, periodontics, prosthodontics, oral pathology, public health and pediatric dentistry. It will include instrumentation, procedures and the dental assistant's role in each specialty.
(59.4 Lec. Hrs.)

Prerequisites: All first semester Dental Assisting courses.

Co-requisites: All second semester Dental Assisting courses.

DEA:702 Dental Office Procedures 1 cr.

This course focuses on developing skills as a dental business assistant. It will include an introduction to computer skills and use of those skills in a dental office.
(19.8 Lec. Hrs.)

DIESEL TECHNOLOGY

DSL:150 Truck Electrical Systems 3 cr.

This course deals specifically with truck electrical systems. Students will gain the knowledge and competencies needed to diagnose, troubleshoot and repair electrical systems and accessory circuits on today's trucks.
(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: AUT:614 and AUT:115.

DSL:340 Diesel Engine Repair 5 cr.

Acquaints the student with the modern diesel engine used in transportation and automotive industries. The course is divided into five sections. In each section operation, overhaul and adjustments will be thoroughly covered for the diesel engine used in the transportation and the automotive diesel engine industry. Labs correlate with lectures to provide the student with practical hands-on experiences.
(59.4 Lec. Hrs./118.8 Lab Hrs.)

DSL:435 Diesel Fuel Systems I 3 cr.

Acquaints the student with the Cummins and Bosch fuel pumps. It covers the operation, testing and adjustments required to troubleshoot and repair these systems.
(59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

DSL:437 Diesel Fuel Systems II 4 cr.

This course acquaints the student with operation testing and adjustments required to troubleshoot and repair diesel fuel systems. The course is broken down into five different modules. Sections include (A) Caterpillar mechanical and electronic fuel systems; (B) Detroit Diesel Mechanical and Electronic Fuel System; (C) Cummins Electronic Fuel Systems; (D) Roosa Mechanical Fuel Pumps; and (E) Robert Bosch VE Fuel Pumps. Labs correlate with lecture to provide the student with practical hands-on experience.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: DSL:435.

DSL:505 Heavy Duty Drive Train I 3 cr.

This course covers the theory and operation of heavy duty drive trains. Students will gain competencies in removal, installation and repair of clutches, heavy duty manual transmissions, power dividers, drive shafts and differentials. Safety procedures will be stressed as well as basic maintenance and adjustment procedures.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: AUT:115.

DSL:507 Heavy Duty Drive Train II 3 cr.

This course covers the theory of drive trains and axles. Students will gain competencies in removal, installation, repair and adjustment of drive shafts, power dividers, differentials and axles. Safety procedures will be stressed as well as basic maintenance and adjustment procedures.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: DSL:505.

DSL:520 Automatic Drive Train 5 cr.

Acquaints the student with the major components and operation of automatic transmissions. Includes the functions and operation of truck transmissions, the functions and operations of the hydraulic system, lock-up type torque converter, and disassemble, rebuild and assembly procedures. Labs correlate with lectures to provide the student with practical hands-on experiences.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite: AUT:115.

DSL:603 Hydraulics 2 cr.

This course will acquaint the student with basic hydraulic operation, pumps, cylinder controls and other hydraulic accessories including troubleshooting techniques.

(39.6 Lec. Hrs.)

DSL:625 Heavy Duty Alignment 3 cr.

This course goes into the theory and procedures of front and rear alignment. It will include automotive through heavy duty applications. Lab time will be on testing and setting according to service procedures. Also included will be basic truck driving to provide students experience in moving trucks and trailers into the shop area.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

DSL:629 Heavy Duty Brakes and Service 3 cr.

Acquaints the student with the principles of diagnosis and repairing truck brake systems. Included will be a study of hydraulic brake systems, air brake systems, brake components and brake adjustments as they pertain to heavy duty brake systems. Labs correlate with lectures to provide the student with practical hands-on experiences.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: AUT:115.

DSL:710 Heating, Air Conditioning and Refrigeration 4 cr.

This course is designed for the student to gain a basic understanding and working knowledge of truck and automobile heating and air conditioning systems as well as trailer refrigeration units.

Students will gain entry-level competencies in the diagnosis and repair of common problems in these systems.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite or Co-requisite: AUT:115.

DSL:836 Basic Driving Techniques 3 cr.

Designed for Diesel students who want to learn the basic elements of tractor-trailer driving. Students who successfully complete this course will earn a CDL license.

(19.8 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite: DOT physical exam, drug test and instructor approval. Must have current valid driver's license. This course is for graduated Diesel Tech students only. Instructor's signature required for registration.

DRAFTING

DRF:114 and DRF:115 Basic Drafting I/A and I/B 2.5 cr. each

An introductory course covering the fundamentals and foundations of drafting/mechanical drawing. This course will develop student skills in the areas of lettering and sketching techniques, as well as the use of drafting instruments. Major units of instruction will include applied geometry and construction, the drawing and dimensioning of orthographics, pictorial representations, sections and auxiliary views. The student will progress from single view drawings to multi-view detail/working drawings.

Labs will closely parallel lecture material.

(19.8 Lec. Hrs./59.4 Lab Hrs. each course)

Prerequisites: DRF:114 - None.

DRF:115 - DRF:114.

DRF:116 and DRF:117 Machine Drafting I/A and I/B 2.5 cr. each

Advanced drafting course progression from skills developed in DRF:114-Basic Drafting or IE:100 and IE:101-Basic Drafting I/A and I/B. Major areas of concentration will include tolerancing, geometric tolerancing, manufacturing processes, fasteners, gearing and cams, welding representations, piping drawing, electronic diagrams and detail working drawings. Lab and lecture hours will be meshed to aid in student understanding.

(19.8 Lec. Hrs./59.4 Lab Hrs. each course)

Prerequisite: DRF:116 - DRF:115.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

DRF:130 Industrial Drafting Applications I 3.5 cr.

This is an advanced applied industrial drafting course; students will get hands-on experience over the topics covered in this course during practical labs. Major areas of concentration will include: fasteners, power transmission, forming processes, and machine processes. Lab activities will closely parallel material covered during lecture.

(29.7 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:115.

DRF:135 Industrial Drafting Applications II 3.5 cr.

This is second in a series of advanced applied industrial drafting courses; students will get hands-on experience over the topics covered in this course during practical labs. Major areas of concentration will include: welding and fabrication, hydraulics/pneumatics, and schematic layout. Lab activities will closely parallel material covered during lecture.

(29.7 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: DRF:115.

DRF:145 Civil Applications 3 cr.

Designed to use civil CAD programs such as Land Development Desktop or AutoCAD Map to utilize specific tools in the creation of civil mapping and drawing projects. Topics include: sharing of files, managing data, linking maps to databases, adding data to maps, creating and editing maps, importing/exporting and working with data, and plotting maps.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: CAD:175 and CAD:160.

DRF:148 Project Design I 1.5 cr.

This course will provide students an introduction to the design process.

Students are introduced to some of the design tools used by engineering teams and will cover such topics as “whole systems thinking,” “teams as a tool in the engineering design process,” “creativity and innovation in design,” “problem solving processes for design” and “communicating a design.” Students will work in teams of two to three and will be required to complete a project during the course of the class. Students will be given a choice of projects from which to choose.

(19.8 Lec. Hrs./19.8 Lab Hrs.)

Prerequisite: EGT:161 and EGT:162.

DRF:149 Project Design II 1.5 cr.

This class will build on the skills and techniques learned in Project Design I. Students will work in teams of two or three and will cover topics to include “from concept to delivery: Managing the project,” “quality through the design review process” and “delivering the product.” Each team will be required to complete an assigned project during the course of the class.

(19.8 Lec. Hrs./19.8 Lab)

Prerequisite: DRF:148.

DRF:154 Machine/Mechanical Drawing 7 cr.

Designed to assist the student in the completion of sets of working drawings (detail and assembly drawings) from selected projects. The ANSI pertaining to Machine/Mechanical Drawing will be covered in detail. The student will complete a set of technical illustrations from a project that could be used in parts manuals. Pictorial drawings for advertising, sales and displays will also be completed. Nomenclature, computation, symbols and schematics relevant to working and pictorial drawing are utilized.

(79.2 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite: DRF:118 and CAD:104.

DRF:161 Applied Descriptive Geometry I 3 cr.

The fundamental concepts of descriptive geometry through an emphasis on logical reasoning, visualization and practical applications. Special emphasis will be placed on applying descriptive geometry to various engineering disciplines so students can see the value of the course as they apply the tools and techniques learned to practical problems.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

DRF:170 Machine Design Drafting 3 cr.

A continuation of Basic Drafting covering fasteners, pictorial, tolerance and fits, detail and working drawings. Labs correlate with lectures to provide the student with practical hands-on experiences.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

DRAMA

DRA:110 Introduction to Film 3 cr.

Designed to introduce the student to the history, evolution, philosophic, artistic and economic aspects of motion pictures and the filmmaking industry. Students will have the opportunity to examine the various genres of the movie industry - drama, film noir, western, fantasy, documentary, romantic comedy, horror, musicals, silent film, etc. Utilizing film excerpts and entire movies as tools, students will hone skills in film analysis, beginning with recognition of theme and critically viewing productions in terms of such elements as: fictional elements, editing, cinematography, visual design, photography, special effects, sound, acting, music and directing. Progressively, students will observe similarities and differences in film and literature and relate philosophical, historical and cultural theories and events to the industry.

(59.4 Lec. Hrs.)

DRA:130 Acting I 3 cr.

A fundamental course in the physical, vocal and imaginative techniques in the art of acting. Final project will be performance of a scene in a recital.

(59.4 Lec. Hrs.)

EARLY CHILDHOOD EDUCATION

ECE:103 Introduction to Early Childhood Education 3 cr.

Introductory study of education for young children. This course is intended to equip beginning teachers of young children and those students interested in early childhood education with a working knowledge of educational methods and principles in dealing with young children through a developmental curriculum.

(59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ECE:133 Child Health, Safety and Nutrition 3 cr.

This course offers a basic foundation of the current concepts in the fields of health, safety and nutrition for young children. These fields and their interrelationships are applied to optimize the physical and cognitive development of the young child.
(59.4 Lec. Hrs.)

ECE:134 Children's Health 3 cr.

This course focuses on the importance of early positive social and emotional relationships between children and their caregivers and how this may be facilitated by use of appropriate techniques of physical care.
(59.4 Lec. Hrs.)

ECE:165 Learning Activities I 3 cr.

This course examines the role of play in relation to learning and development. Ways to use activities to stimulate learning experiences for young children are emphasized. Students plan and present specific activities in a child care/preschool setting.
(39.6 Lec. Hrs./59.4 Lab Hrs.)

ECE:166 Learning Activities II 3 cr.

This course expands the knowledge, skill and experience in planning, presenting and evaluating young children's learning activities in specific curriculum areas.
(39.6 Lec. Hrs./59.4 Lab. Hrs.)
Prerequisites: ECE:165.

ECE:168 Science and Math Activities for Young Children 3 cr.

This course is designed for students in early childhood teacher training. Activities in the class are presented in a developmental sequence designed to support young children's construction of the concepts and skills essential to a basic understanding of math and science.
(59.4 Lec. Hrs.)
Prerequisite: ECE:103, ECE:165, ECE:166.

ECE:169 Arts/Music Activities for Young Children 3 cr.

This course focuses on the development of the teacher of young children to be able to allow children to express themselves through the fine arts. Topics covered in this class are developing art in children, nurturing music ability, creative play activities, as well as multicultural projects, projects for children with disabilities and the gifted child.
(59.4 Lec. Hrs.)

Prerequisites: ECE:165, ECE:166, ECE:103.

ECE:190 Consumer Economics 2 cr.

This course provides an in-depth study of personal financial decisions the average person can expect to confront. Topics include the basics of budgeting, income taxes, the wise use of insurance, housing decisions, consumer issues, financial planning and investment options.
(39.6 Lec. Hrs.)

Prerequisite: BUS:110 or 100 level math.

ECE:192 Dynamics of the Family 1 cr.

This course explores the critical relationship of family members to one another and of the role of the Child Care Associate to members of the family. Multicultural relationships will be explored as well as an introduction to the changing role and structure in modern society.
(19.8 Lec. Hrs.)

Prerequisite: ECE:103.

ECE:230 Day Care Food Service 2 cr.

The student will acquire an understanding of the basic nutritional needs of children and nutritional composition of foods. Basic menu planning, food purchasing and preparation are included. Students prepare snacks and lunches that would be appropriate for centers with children of all ages.
(39.6 Lec. Hrs.)

Prerequisites: ECE:103, ECE:133 and PSY:211.

ECE:242 Early Childhood Guidance 2 cr.

Effective methods used to guide children's behavior in individual and group situations are the emphasis of this course. Positive aspects of discipline and development of self-control in children are stressed.
(39.6 Lec. Hrs.)

ECE:290 Early Childhood Education Program Administration 3 cr.

This course is a continuation of ECE:165 and ECE:166 and deals with the development and implementation of a learning program encompassing a variety of subject areas and age groups. Provides information on curriculum development, materials, teaching strategies and evaluation.
(59.4 Lec. Hrs.)

Prerequisites: ECE:165, ECE:166.

ECE:910 Work Experience 1-8 cr.

Cooperative Education Experience will integrate classroom theory with on-the-job training. The College will assist the student in securing employment related to the student's major field of study and/or career interests. Under the supervision of the College and the employer, the student participates in job training experiences. In addition to employment, attendance at scheduled on-campus seminars is required. Seminars may include job searching skills as well as professional development. Student eligibility consists of the successful completion of 12 credit hours with EICCD with at least two courses in the chosen major and maintenance of a grade point average of 2.0 or higher. Eligibility requirements and credit hours available vary by program area.
(Variable Coop Hrs.)

Prerequisite: Consent of instructor.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ECONOMICS

ECN:110 Introduction to Economics 3 cr.

A one-semester presentation of the basic economic problem of scarcity. The course is a survey of micro-economics dealing with market behavior and macro-economics dealing with government stabilization policies in the U.S. International trade issues are included. (Not recommended for students who anticipate a bachelor's degree requiring a two-term sequence in economics.) (59.4 Lec. Hrs.)

EDUCATION

EDU:220 Human Relations for the Classroom Teacher 3 cr.

Includes interpersonal and intergroup relations and contributes to the development of sensitivity to and understanding of the values, beliefs, life styles, and attitudes of individuals and the diverse groups found in a pluralistic society. The course is designed to emphasize development of one's self-concept, review and development of one's values and attitudes toward ethnic groups of our society, and involvement of class members in activities designed to improve communication and intergroup relations. (59.4 Lec. Hrs.)

EDU:245 Exceptional Learner 3 cr.

An introductory course designed to provide the student with an overview of the field of special education and the policies and programs established for the education of exceptional students. It includes an analysis of the nature, incidence and characteristics of the physically and mentally handicapped, the behavior disordered, the talented and gifted and the learning disabled. (59.4 Lec. Hrs.)

ELECTRICAL TECHNOLOGY

ELE:101 Industrial Safety 1 cr.

This is a course covering industrial safety. Materials presented cover aspects of safety in the work place such as mechanical, chemical, environmental and electrical topics. The roll of OSHA in the work place is covered along with forms such as Material Safety Data Sheets and the use of Personal Protective Equipment. (9.9 Lec. Hrs./19.8 Lab. Hrs.)

ELE:115 Basic Electricity I 2 cr.

This course covers basic electricity terminology and symbols, Ohm's Law, Power Law, Direct Current, series circuits, parallel circuits and combinational circuits, testing, measurements, introduction to Alternating Current and basic troubleshooting are also covered. (19.8 Lec. Hrs./39.6 Lab Hrs.)
Co-requisite: ELE:101.

ELE:116 Blueprint Reading 1 cr.

This course is an introduction to reading and interpreting mechanical, electrical, electronic, electromechanical, hydraulic and welding prints. Symbols, drawings and prints in each one of these categories are presented. (9.9 Lec. Hrs./19.8 Lab Hrs.)

ELE:122 Electrical Systems II 3 cr.

This course instructs the student in principles of industrial programmable controllers (PLCs). Concepts of and/or logic, timing, counting and program control are presented. Also material covering PLC hardware, programming devices, memory and wiring are also included. (29.7 Lec. Hrs./59.4 Lab Hrs.)
Prerequisites: ELE:101, ELE:124 and ELE:128 or instructor's approval.

ELE:124 Tools/Adapters/Instrumentation 2 cr.

This course covers the safe use and care of hand tools, introduction to conduit bending and soldering, use of meters and oscilloscopes. High voltage testing of industrial devices is also presented. (19.8 Lec. Hrs./39.6 Lab Hrs.)
Co-requisites: ELE:101, ELE:115 and ELE:131.

ELE:127 Troubleshooting 1 cr.

This course teaches general techniques and philosophy of troubleshooting. Students learn logical approaches to troubleshooting, use of aids to troubleshooting and the use of good communication skills. Planned maintenance is contrasted with breakdown maintenance. (4.95 Lec. Hrs./29.7 Lab Hrs.)
Co-requisite: ELE:103.

ELE:128 Electrical Systems I 3 cr.

This course covers the concepts of three-phase systems, reading of electrical motor control diagrams, operation and maintenance of three phase motors and motor controls. Fundamental start/stop controls as well as electronic motor controls are covered. Use of instruments for troubleshooting is included in lab exercises. (29.7 Lec. Hrs./59.4 Lab Hrs.)
Prerequisites: ELE:101 and ELE:124 or instructor's approval.

ELE:129 Electrical Systems Controls 3 cr.

This course presents the principles of microprocessor-based controllers using the PC platform. Students learn basic microprocessor characteristics, bus structure and input/output systems. Students evaluate industrial PCs as controllers and data acquisition tools. General concepts of industrial networks are included. (29.7 Lec. Hrs./59.4 Lab Hrs.)
Prerequisites: ELE:101, ELE:124 and ELE:133.

ELE:131 Basic Electricity II 2 cr.

This course presents alternating current symbols and terminology, single phase power concepts, testing and measurement, capacitive and inductive loads, filters, DC motors and generators, single phase AC motors. Phase angle calculations and measurements are covered as well. (19.8 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: ELE:115.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ELE:133 Electrical Systems III 3 cr.

This course teaches applications of industrial electronics and programmable logic controllers used to control manufacturing processes. Students perform labs on sequential logic and both open and closed loop process control systems. Interfacing and troubleshooting of electronic sensing devices and control systems is included.

(29.7 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: ELE:101, ELE:124 and ELE:129.

ELE:139 Electrical Systems Analysis 3 cr.

This course focuses on analysis of installation, safe operation and maintenance of electrical systems. Rules and guidelines governing installation and operation of systems such as the National Electrical Code (NEC) and Occupational Safety and Health Act (OSHA) are presented where they are relevant to electrical systems. Total Productive Maintenance (TPM) is also covered to include maintenance of electrically operated machines and systems.

(29.7 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: ELE:101, ELE:124 and ELE:129.

ELE:141 DC & AC Circuits 4 cr.

Study of resistive circuits with DC and AC sources, emphasizing theorems and important methods of solution, followed by a study of reactive circuits with AC and transient sources skills needed in basic science and technology. Covers the areas of advanced algebra.

(39.6 Lec. Hrs./79.2 Lab Hrs.)

ELE:144 Basic Electronics 1A 1.5cr.

This course is organized in two parts. Part one covers analog electronics, which includes semiconductor devices, diodes, transistors, operational amplifiers and power supplies. Part two covers logic concepts, digital devices, gates, flip/flops, timer integrated circuits, counters, decoders and multiplexers. An introduction to microcomputer ICs is included.

(19.8 Lec. Hrs./19.8 Lab Hrs.)

Prerequisites: ELE:115 and ELE:124.

ELE:145 Basic Electronics 1B 1.5cr.

The electronics study is organized in two parts. This part 1/B covers logic concepts, digital devices, gates, flip/flops, timer integrated circuits, counters, decoders and multiplexers. An introduction to microcomputer ICs is included. Part 1/A covers analog electronics, which includes semiconductor devices, diodes, transistors operational amplifiers and power supplies. Students should have taken or have the equivalent to Part 1/A first.

(19.8 Lec. Hrs./19.8 Lab Hrs.)

Prerequisites: ELE:115 and ELE:124.

END:210 Electronics and Instrumentation 3 cr.

This course will provide the basics in electronics and instrumentation for the electroneurodiagnostic student. The student will learn appropriate precautions to ensure electrical safety. The student will study the instrumentation of the analog EEG machine with regard to calibration, high frequency filter, low frequency filter, 60 Hz filter, sensitivity settings, mechanical baseline, electrical baseline, time axis, pen deflection, and troubleshooting techniques. Digital EEG instrumentation analog to digital conversion, troubleshooting techniques, and basic computer language will be studied. The student will learn how to compute voltage, frequency, and duration of waveforms. Differential amplifiers will be studied as well as polarity convention, resistance and impedance.

(59.4 Lec. Hrs.)

Co-requisite: END:110.

END:300 Electroneurodiagnostics I 5 cr.

This course is a continuation of Introduction to END. Terminology will be expanded. EEG tracing will be reviewed and the student will learn to interpret basic normal and abnormal patterns. Laboratory exercises will include additional training on 10/20 system for measurement, electrode application and performance recording.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisites: END:110, END:210 and BIO:168.

Co-requisites: END:800 and BIO:173.

END:320 Electroneurodiagnostics II 2 cr.

This course will cover elements of electroneurodiagnostics (END) including medications and how they affect the electrical activity of the brain at both therapeutic and toxic levels, various types of headaches and their relationship to the electroencephalogram (EEG), identification of electrocerebral silence (brain death) through specific EEG recording criteria and pattern recognition of the electrocardiogram (EKG) on the EEG. Clinical records will be evaluated.

(39.6 Lec. Hrs.)

Prerequisites: END:300, END:800 and BIO:173.

Co-requisite: END:820.

ELECTRONEURO-DIAGNOSTIC TECHNOLOGY

END:110 Introduction to Electroneurodiagnostics (END) 5 cr.

This is an introductory course to basic electroencephalographic concepts and techniques. Students will learn the basics of taking a patient history, infection control, and will be introduced to the terminology and skills needed to interpret EEG waveforms. Instrumentation is demonstrated in the classroom and hands-on experience is provided in the laboratory.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Co-requisite: BIO:168 and END:210.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

END:340 Electroneurodiagnostics III 3 cr.

This course studies specific neurological conditions such as brain tumors, toxic and metabolic disorders and cerebrovascular, infectious and degenerative diseases. Head trauma and psychological disorders will also be studied. Students will correlate EEG patterns with clinical condition. (59.4 Lec. Hrs.)

Prerequisites: END:320 and END:820.
Co-requisites: BIO:255 and END:840.

END:410 Evoked Potentials 2 cr.

This course will introduce students to evoked potentials as well as give students exposure to advanced testing procedures done in EU laboratories. (39.6 Lec. Hrs.)

Prerequisites: END:510 and END:860.
Co-requisite: END:880.

END:510 Polysomnography 4 cr.

This course provides an introduction to polysomnography or sleep studies. Students learn the technical aspects of running all-night sleep studies and the classification of sleep disorders that will be discussed during lecture. Laboratory sessions will provide the opportunity for practicing monitor placement and scoring of studies. (59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: END:210, END:340, END:840 and BIO:265.
Co-requisite: END:860.

END:800 Clinical Practicum I 4 cr.

Students will be assigned to a clinical affiliate where they will be oriented to the hospital and to the neurodiagnostic department. Under direct supervision students will perform EEG recordings, calibrate instruments and perform simplified history taking. Students will interpret EEGs with a technologist and occasionally work with a neurologist. (316.8 Clinical Hrs.)

Prerequisite: END:110.
Co-requisite: END:300.

END:820 Clinical Practicum II 4 cr.

Students will be assigned to a clinical affiliate where they will gain more hands on experience in performing and interpreting electroencephalographic records. Students will review the electroencephalograph with a technologist and interpret it with a neurologist. (316.8 Clinical Hrs.)

Prerequisite: END:300, END:800 and BIO:173.

Co-requisite: END:320.

END:840 Clinical Practicum III 4 cr.

This course is a continuation of Clinical Practicums I and II. It will focus on the student performing EEGs more independently. The student will also work with more advanced EEG procedures such as surgical monitoring and extended/continuous EEG. At the completion of this clinical practicum, the student will be able to measure for the 10/20 system in 10 minutes and apply electrodes in 35 minutes for a total hook-up time of 45 minutes. (316.8 Clinical Hrs.)

Prerequisites: END:320 and END:820.

Co-requisite: END:340.

END:860 Clinical Practicum IV 8 cr.

This course will focus on the performance of polysomnography within the END laboratory and provide the students with the opportunity to continue to gain competency with EEG. The students will perform all-night sleep studies, analyze and compile data for physician interpretation. Opportunities for reinforcement of prior learning of EEGs will also be incorporated into this course. (633.6 Clinical Hrs.)

Prerequisites: END:340, END:840 and BIO:255.

Co-requisite: END:510.

END:880 Clinical Practicum V 4 cr.

This course will provide experience in evoked potentials as well as continue practice in EEG and the advanced END procedures performed in the lab. The students will be prepared for employment by involvement in scheduling, supervision of first-year students and observation of advanced procedures. (316.8 Clinical Hrs.)

Prerequisites: END:510 and END:860.
Co-requisite: END:410.

ELECTRONICS

ELT:121 Basic Electronics 5 cr.

An introductory course covering electronic principles. No prior knowledge or experience in the field of electronics is necessary before enrolling in this course. The starting point is "what is electricity?" and the course develops from there to include the study of electric measuring units, basic circuit arrangements, DC fundamentals, AC fundamentals and semiconductor principles. (59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite: MAT:720.

ELT:123 Programmable Controllers 3 cr.

The student will learn the fundamentals of programmable logic controllers (PLCs). The topics will include ladder logic, the internal and external circuitry of PLCs, input-output capability of PLCs and PLC programming. Laboratory exercises will use the Allen-Bradley SLC 500 PLC and RS Logix 500 programming software in "read world" applications. (39.6 Lec. Hrs./39.6 Lab Hrs.)

ELT:134 Electrical Circuits and Components I 4 cr.

The course covers basic electricity, direct current circuits, magnetism, electromagnetic induction, alternating current circuits, impedances, reactances, power and electrical energy. Emphasis is placed on electrical measurement, instruments and applications. (59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite or Co-requisite: MAT:720 or MAT:073 or MAT:121.

ELT:135 Electrical Circuits and Components II 4 cr.

The course places emphasis on alternating current circuits, impedances, reactances, power and electrical energy. Emphasis is placed on AC circuits, behavior, electrical measurement instruments and applications. (59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ELT:134.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ELT:153 Electronics 4 cr.

A course covering solid state devices and their applications. The topics include diodes and bipolar transistors and their use in various circuits. Emphasis is placed on practical equivalent circuits and theory. In the lab the principles learned in DC & AC circuits are applied. Proper lab procedure and the use of test instruments are taught.

(39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites/Co-requisites: MAT:748, ELE:141.

ELT:154 Industrial Electronics 3 cr.

A continuation of Basic Electronics. The course will continue to study semiconductors and their applications in such circuits as transistor amplifiers, Op Amps, active filters, oscillators, timers, voltage regulators and phase locked loops.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ELT:121.

ELT:174 Digital Circuits 3 cr.

A course in digital logic with an emphasis on practical design techniques and circuit applications. Topics include gates, logic functions, mapping techniques, function minimization, flip-flops, counters, registers, IC family characteristics, encoders, decoders, multiplexers, de-multiplexers, A to D and D to A conversion techniques.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite/Co-requisite: EE:141.

ELT:175 Computer Programming 3 cr.

This course covers beginning and advanced programming techniques needed by the technician. The course uses the C language. Emphasis is placed on both technical problem solving and the techniques of structured programming.

The course includes beginning topics as well as the more advanced topics of structures, pointers and file I/O.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

ELT:176 Instrumentation 3 cr.

Applications of electronic and pneumatic instrumentation will be used to showcase various types of flow meters, level transmitters, differential pressure cells and other common instrumentation. The students will demonstrate the use of instrumentation in industrial systems.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: IND:136, IND:137.

ELT:177 Microcontrollers 3 cr.

Introduction to the study of microcontrollers and their applications. Topics include microcontroller architecture and introductory programming and interfacing techniques.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: ELT:174, ELT:175.

ELT:275 Electro-Mechanical Controls 3 cr.

A study of motor controls. Topics include single and three phase motor starters of varying primary and secondary voltages, and solid state vs. mechanical controls.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

EMERGENCY MEDICAL SERVICES

EMS:218 Emergency Medical Technician-Basic 7.5 cr.

This program includes theory, practical lab, clinical practice and field internship. It consists of 7 modules of instruction; airway management, patient assessment, medical emergencies, trauma, infants and children and ambulance operations. This course is based on the United States Department of Transportation Guidelines, and the National Standard Curriculum for EMS Education that is the foundation of knowledge and skills of the EMT-Basic.

Upon successful completion of the program, the student is eligible to sit for the National Registry Basic Examination to obtain a National EMT-Basic certification and an Iowa EMT-Basic certification.

(59.4 Lec. Hrs./150.48 Lab Hrs., 24 Clinical Hrs./24 Field Hrs.)

Prerequisite: Must possess a current CPR card that validates training in obstructed airway and CPR for adults, children and infants.

EMS:311 Emergency Medical Technician - Intermediate (185) 4cr.

This is an 8 week program that includes theory, practical lab, clinical, and field internship. It consists of 5 modules of instruction; preparatory, patient assessment, airway, fluid resuscitation, and assessment based management. The student will also complete a competency based clinical and field rotation during the program. This course is based on the United States Department of Transportation Guidelines and the National Standard Curriculum for EMS Education which is the foundation of knowledge and skills of the EMT - Intermediate/85. Upon successful completion of the program, the student is eligible for the National Registry of Emergency Medical Technicians, EMT - Intermediate/85 practical and written examinations. Upon successful completion of the National Registry examinations, the student will also receive a State of Iowa, EMT - Intermediate/85 certification.

(59.4 Lec. Hrs./24 Clinical Hrs./24 Field Hrs.)

Prerequisites:

1. Emergency Medical Technician - Basic
2. Must possess a current American Heart Association Healthcare Provider or American Red Cross, Professional Rescuer CPR card which validates training in obstructed airway and CPR for adults, children, and infants.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

EMS:405 EMT Intermediate 99 15 cr.

This is a 35 week program that includes theory, practical lab, clinical, and field internship. It consists of 7 modules of instruction; preparatory, airway, patient assessment, trauma, medical, special considerations, and assessment based management. The student will also complete a competency based clinical and field rotation during the program. This course is based on the United States Department of Transportation Guidelines and the National Standard Curriculum for EMS Education which is the foundation of knowledge and skills of the EMT-Intermediate/99. Upon successful completion of the program, the student is eligible for the National Registry of Emergency Medical Technicians, EMT-Intermediate /99 practical and written examinations. Upon successful completion of the National Registry examinations, the student will also receive a State of Iowa, EMT-Iowa Paramedic certification. (237.6 Lec. Hrs./100 Clinical Hrs./100 Field Hrs.)

Prerequisites: EMS:218 or EMS:311.

1. Emergency Medical Technician - Basic, or an Iowa Emergency Medical Technician - Intermediate 85 certification.
2. Must possess a current American Heart Association Healthcare Provider or American Red Cross, Professional Rescuer CPR card which validates training in obstructed airway and CPR for adults, children, and infants.

EMS:810 Advanced Cardiac Life Support - ACLS 1 cr.

This intensive certification course is presented utilizing the American Heart Association Standards and Guidelines for the Advanced Cardiac Life support Provider (ACLS). This course is designed to expand the students' knowledge of Emergency Cardiovascular Care for the adult patient, and to formulate the correct treatment plan for given patient simulations. Upon successful course completion, the student will receive an American Heart Association ACLS Provider certification card for a two-year certification period. (19.8 Lec. Hrs.)

EMS:815 Pediatric Advanced Life Support (PALS) 1 cr.

This intensive certification course is presented utilizing the American Academy of Pediatrics and the American Heart Association Standards and Guidelines for the Pediatric Advanced Life Support Provider (PALS). This course is designed to expand the students' knowledge of Emergency Cardiovascular Care for the pediatric patient and to formulate the correct treatment plan for given patient simulations. Upon successful course completion the student will receive an American Heart Association PALS Provider certification card for a two-year certification period. (19.8 Lec. Hrs.)

EMS:816 Pediatric Education for the Pre-Hospital Provider (PEPP) 1 cr.

The Pediatric Education for the Pre-Hospital Provider Course (PEPP) is an intensive program designed to expand the students' knowledge of Cardiac and Trauma Emergency Care for the pediatric patient. Participants will learn how to effectively assess and manage ill and injured children. This curriculum was developed by the American Academy of Pediatrics as a complete source of pre-hospital medical information for the emergent care of infants and children. Upon successful course completion the student will receive an American Academy of Pediatrics PEPP Provider certification card for a 4-year certification period. (19.8 Lec. Hrs.)

EMS:818 Neonatal Resuscitation Program (NRP) 1 cr.

The Neonatal Resuscitation Provider Course is a certification program that utilizes the Standards and Guidelines of the American Academy of Pediatrics and the American Heart Association. This program is designed to be an intensive program where participants learn an evidence-based approach in resuscitation of the neonate. The causes, prevention and management of mild to severe neonatal asphyxia are carefully explained so health care professionals may develop optimal knowledge and skill in newborn resuscitation. Upon successful course completion the student will receive an American Academy of Pediatrics/ American Heart Association NRP Provider certification card for a 2-year certification period. (19.8 Lec. Hrs.)

EMS:820 Pre-Hospital Trauma Life Support (PHTLS) 1 cr.

The Pre-Hospital Trauma Life Support course is presented utilizing the Standards and Guidelines for Emergency Trauma Care under the direction of the American College of Surgeons. This intensive hands-on program is a unique educational opportunity that was created in recognition for the real need in EMS education for additional training in the care of the trauma patient. This program is designed to enhance and increase knowledge and skills necessary in delivering critical care in the pre-hospital environment. Upon successful course completion the student will receive an American College of Surgeons PHTLS Provider certification for a 4-year certification period. (19.8 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ENGINEERING

EGR:112 Engineering Drawing I 3 cr.

This course deals with the integration of freehand sketching and computer drawing of orthographic projection; theory of pictorial drawing, basic dimensioning and working drawings; the analysis and synthesis of theoretical and practical problems involving the size, shape and/or relative position of common geometric magnitudes as points, lines and planes. (39.6 Lec. Hrs./39.6 Lab Hrs.)

EGR:113 Engineering Drawing II 3 cr.

Continuation of EGR:112. Includes basic working drawings completed with AutoCAD software. AutoCAD problems are similar to the conventional problems from EGR:112. Key elements of engineering geometry, intersection and developments, engineering dimensioning, limits and fits, design drawings. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: EGR:112 or the equivalent.

ENGINEERING TECHNOLOGY

EGT:116 Continuous Quality Management 3 cr.

This is an introductory course which will lead the student into the world of quality and the quality process. Students will learn new ways to make decisions based on pertinent data gained through the use of many new tools. Students will be encouraged to use the tools and information they receive in everyday life as well as in their future careers. (59.4 Lec. Hrs.)

EGT:133 Hydraulics/Pneumatics I 2 cr.

This course presents the basic laws of fluid power systems and properties of fluids to explain the behavior of fluid power devices in fundamental applications. Fluid power components such as cylinders, motors, compressors, pumps, flow control valves and accumulators are studied as well as assembled in labs. Fluid power symbols are taught through example air and hydraulic diagrams. (19.8 Lec. Hrs./39.6 Lab Hrs.)

EGT:134 Hydraulics/Pneumatics II 4 cr.

This course features fluid power devices in control applications. Fluid power cylinders and motors are presented in direction and speed control circuits using flow controls, direction and pressure control valves. Also pressure intensifiers, air-over-oil systems, rotary actuators and flow dividers are presented in their applications. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: ELT:133.

EGT:135 Hydraulics/Pneumatics III 3 cr.

This course focuses on the proper selection of hydraulic and pneumatic components from guidelines provided. Students work out piping layout and sizing on example systems. Cylinders and motors are chosen from tables and charts based on criteria. Sizing of flow and pressure control devices such as pressure regulators or flow dividers as well as other components are covered. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: EGT:134.

EGT:137 Hydraulics/Pneumatics IV 4 cr.

This course focuses on electrical control of fluid power circuits. Control of pressure and flow by electrical means is covered in both hydraulic and pneumatic systems. Students wire circuits to control cylinder motions and pressures. Students implement both 'hardwired' and programmable logic circuits to demonstrate these principles. Hydraulic servo principles are also introduced. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: EGT:135.

EGT:145 Hydraulics/Pneumatics V 4 cr.

This course covers three key areas of fluid power controls. Students are shown how to properly install belt, chain or direct-coupled drives that are used to power hydraulic pumps and motors. Students are then shown how to identify vibration frequencies of drive mechanisms and how to minimize their effects. Last students disassemble, inspect and reassemble common fluid power components. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: EGT:137.

EGT:161 and EGT:162 Strength of Material I/A and I/B 1.5 cr. each

This course is designed to deliver instruction and study in the area of static force systems, centers of gravity, friction, moments of inertia, shear and moment diagrams. Analysis of stress/strain that occur within machine and structural elements is also covered. Other topics such as results of tensile, compressive, torsional and flexural loading are also included. (29.7 Lec. Hrs. each course)

Prerequisite: MAT:725.

EGT:163 and EGT:164 Strength of Material II/A and II/B 1.5 cr. each

This is a course covering the branch of mechanics that develops relationships between external forces acting on a body and the intensity of internal forces acting within the body. Computations of deformation and comparison of stability under external forces will be covered. (24 Lec. Hrs. each course)

Prerequisites: MAT:725 and EGT:162.

ENGLISH

ENG:105 Composition I 3 cr.

A writing and reading course designed to prepare the student for the types of written communication and thought essential to the academic and working world. The general goals of Composition I are to have students gain more confidence in their writing abilities and improve their proficiency in critical reading, exposition and persuasion. (59.4 Lec. Hrs.)

Prerequisite: Appropriate placement on assessment or successful completion of ENG:065 or ENG:013.

ENG:106 Composition II 3 cr.

An advanced writing and reading course dealing with logic in thought and communication. Emphasis is on reasoning and argument, research skills and sophistication of style in writing. (59.4 Lec. Hrs.)

Prerequisite: ENG:111 or ENG:105.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

ENG:108 Composition II: Technical Writing 3 cr.

An advanced course in technical writing for students in technical, business or science programs. Because students in technical fields need to become familiar with the complexities and constraints of on-the-job communication, this course offers practice in the kinds of technical writing, reading and oral communication encountered in the world of work. Students will analyze, evaluate and research complex communication situations and apply what they've learned, using collaborative, interpersonal and problem-solving skills and the essentials of style, formatting, documentation and graphics. Designed to help students acquire the rhetorical skills needed to respond to a variety of audiences in authoritative and convincing ways. (59.4 Lec. Hrs.)

Prerequisite: ENG:111 or ENG:105.

ENG:111 Technical Writing 3 cr.

A writing, speaking and reading course to prepare students for the types of communication and thought essential to the working world. The general goals of Technical Communication are that students gain more confidence in their writing abilities and improve their proficiency in critical reading and problem-solving, applied to practical situations. Students will also present material orally and visually, with assignments related to their content areas. Emphasis is on the writing process and learning the forms appropriate for technical communication purposes and audiences. This course is an alternative to EN:105 and is recommended for students in technical, business and science programs. (59.4 Lec. Hrs.)

Prerequisite: Appropriate placement on assessment or successful completion of ENG:065 or ENG:013.

ENVIRONMENTAL SCIENCE

ENV:115/111 Environmental Science 3-4 cr.

In this course common environmental problems will be surveyed, with discussion as to their possible causes, consequences and remedies. An emphasis will be placed on objective analysis of issues and arguments related to environmental concerns. (59.4 Lec. Hrs./0-39.6 Lab Hrs.)

ENV:139 Energy and Environment 4cr.

The course is intended to introduce students to the scientific principles associated with energy transformation, collection, extraction, transmission and storage as they learn energy's significance in society and effects of its use on the environment. (59.4 Lec. Hrs./39.6 Lab Hrs.)

GRAPHIC COMMUNICATIONS

GRA:103 Introduction to Macintosh 1 cr.

This course is a prerequisite/co-requisite for all electronic publishing and multimedia courses. This specialized course is designed for students entering the graphic arts technology program and provides them with the basic operational knowledge of Macintosh and IBM-compatible computers. Topics covered include cross-platform explanation of the basic operating systems, how to work with memory, creating and saving files, how to work with publishing and graphics files on a network, electronic transfer across platforms, file maintenance, and troubleshooting. (4.9 Lec. Hrs. / 19.8 Lab Hrs.)

GRA:150 Authoring and Web Development 3 cr.

This course will instruct students on planning, designing, and managing effective web sites. Focus is placed on developing manual HTML and CSS scripting skills as well as incorporating XML-ready and XHTML-ready script into the code. Throughout this class special consideration given to creating sites which are W3C and ADA compliant. (19.8 Lec. Hrs./79.2 Lab Hrs.)

GRA:164 Digital 3-D and Animation 3 cr.

This specialization course will introduce the student to the basic steps for completing computer animation. Concepts to be explored include 3-D modeling, rendering, compositing and special effects and recording of the animation sequence to video. (19.8 Lec. Hrs./79.2 Lab Hrs.)
Prerequisites: GA:102, GRT:110, GRA:103, GRT:122 and GRT:162.

GRA:805 Graphic Arts Occupational Experience 5 cr.

This management-based course is designed to actively involve the student in all phases of graphic arts production processes. The student will be required to apply the skills and knowledge gained in prior printing courses. The course will bring together all phases of graphic arts and focus on production from both management and shop floor levels. The student will gain increased awareness of industrial practices through the co-op program. (19.8 Lec. Hrs./316.8 Coop Hrs.)
Prerequisite: GRT:215 and GRT:205 or GRT:220.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

GRA:900 Special Projects in Graphic Arts Technology 3 cr.

This course is designed by the student and members of the graphic arts technology faculty to provide a highly individualized learning experience within the areas of electronic pre-press, multi-media, webpage design, graphic design, animation, graphic arts management, or press operations. Specific advanced tasks and projects are identified and customized for the student for completion in one semester. Students will create a portfolio highlighting the skills they have developed throughout the program. (19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: All courses from the first three semesters of the Graphic Arts program.

GRA:900 Special Topics in Graphic Arts Technology 1-3 cr.

This is a special topics course offered at discretion of the instructor. Students will be able to explore in greater detail a subject that does not normally fall within the scope of the current curriculum for the graphic arts technology program, but is related to the topic of graphic arts. The description for this course will be determined on a case-by-case basis as appropriate to the content. (19.8 - 59.4 Lec. Hrs./0 -39.6 Lab Hrs.)

GRAPHIC TECHNOLOGIES

GRT:108 Introduction to Graphic Arts Technology 4 cr.

The objective of this course is to give students a complete introduction to the graphic communications industry. Students will cover safety, an introduction to graphic communications, history of the graphic arts, traditional and electronic pre-press procedures, press and finishing operations, web development and multi-media. This course is an introduction to the graphic communications industry and students should be prepared for an intensive course of study. (19.8 Lec. Hrs./79.2 Lab Hrs.)

GRT:110 Calculations and Measurements for Graphic Arts 3 cr.

The course is designed for students who will pursue a career in the graphic arts industry. It includes a complete study of basic math skills for pre-press, press, estimating and bindery. (59.4 Lec. Hrs.)

GRT:121 Electronic Publishing 3 cr.

Participants will gain an in-depth working knowledge of Quark XPress, with an emphasis on technical skills. In addition they will learn about the basics of design and layout, typography and about the many tools and resources available. Participants will study and apply the design elements of emphasis, contrast, balance alignment, repetition, flow, use of images, color and typography by completing specific projects designed to increase their understanding of each element and through class critiques of each project. (19.8 Lec. Hrs./79.2 Lab Hrs.)

GRT:122 Introduction to Multi-Media 4 cr.

This overview course will introduce the student to a variety of multi-media software applications. Output to paper, film, video, CD-ROM, and the web will be a few of the areas addressed, with hands-on experience available by way of numerous design and presentation projects. (79.2 Lec. Hrs.)

GRT:130 Quality Concepts and Regulations for the Graphic Arts 2 cr.

This course will introduce the student to concepts being utilized throughout industry today. Techniques for team building, decision making and communication will be discussed and incorporated. The skills developed in this course will be utilized throughout the program. (39.6 Lec. Hrs.)

GRT:140 Press Operations 3 cr.

This specialized course will expose the printing technology student to a variety of methods for applying ink to a multitude of substrates. Lecture and lab will consist of the principles for operation in the areas of offset lithography, screen press operations, flexography and non-impact techniques. The student will spend extended periods during the semester in actual operations of the above principles. (19.8 Lec. Hrs./79.2 Lab Hrs.)

GRT:160 Electronic Pre-Press 3 cr.

A continuation of Electronic Publishing. The course will involve the student in advanced functions on the computer formats. Exposure to layout software as well as various publication formats will be addressed. (39.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: GRT:121.

GRT:162 Introduction to 3-D Modeling 3 cr.

This course will introduce students to basic and intermediate 3-D modeling concepts. Students will be given instruction on building simple to complex objects using points, polygons, primitives, and sophisticated advanced tools found in various software modeling packages. Students will learn how to prepare 3-D graphics for print, for web, interactive software titles, and video. (19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: GRA:103.

GRT:163 Multimedia and the Internet 3 cr.

This course will explore the creation of advanced interactive websites based upon vector-based graphics and animation. (19.8 Lec. Hrs./79.2 Lab Hrs.)

GRT:170 Color Theory 2 cr.

A basic course designed to increase the intellectual and visual awareness of the technical aspects of color, its manipulation and control. Basic color principles, terminology and applications will be discussed. We will experiment with the interaction of color and its implications. In addition, we will explore color harmony, how color interacts and its qualities and possible combinations. (39.6 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

GRT:205 Advanced Press/ Finishing Operations 3 cr.

This is a specialized course in press operations. The student will perform advanced work in lithography, screen and flexography processes. Concepts such as process color, ink trap, dot gain, impositions, press machines and troubleshooting will be highlighted. Advanced finishing operations will be performed detailing folding, cutting and binding techniques.

(19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: GRT:140.

GRT:215 Advanced Pre-Press Techniques 3 cr.

An in-depth study of photomechanical techniques and processes detailing half-toning, duo tones and problem solving. This specialization course will also detail advanced film assembly and contacting operations. Other concepts explored will include densitometry, pin register systems and maintenance on various pre-press equipment.

(19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: GA:102, GA:106 and GRT:110.

GRT:220 Electronic Color Control 3 cr.

This specialization course will introduce the student to various means of image creation and manipulation. The principles of scanning, software systems and color control through means of composites will be addressed.

(19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: GRT:160.

GRT:222 Digital Output for Graphic Management 3 cr.

Students will be introduced to the pre-flight software available for preparing files to be printed to disk, film, paper and directly to the plate. Practical experience will be gained through the application of the pre-flight software to documents prepared in page layout software, including Quark Xpress and PageMaker. Experience with the management of files using the PostScript page description language will be stressed. Students will also learn about digital input devices, such as cameras, graphic pads, and scanners, as well as learn how to prepare files for electronic transfer to service bureaus.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: GRA:103, GRT:160,

GRT:230 Advanced Electronic Color Control 3 cr.

As the graphic arts production process compresses more and more to the designer, graphic artists are expected to take on more of an active role in the capturing and manipulation of bitmap images for print. Students will explore advanced topics related to the creation and capture, manipulation and targeting of bitmap images for print and the web.

(19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisite: GRT:220.

GRT:240 Estimating and Inventory Control 3 cr.

This course is designed to give the student detailed information on processes used in estimating production costs, department budgets, equipment specifications and inventory control.

(59.4 Lec. Hrs.)

GRT:241 Estimating for Electronic Pre-Press and Digital Output 3 cr.

This course is designed to give the student detailed information on processes used in estimating production costs, departmental budgets, equipment specifications and inventory control for electronic pre-press and digital production for multi-media projects. Students will examine each of these areas with respect to specific workflow issues, industry standard times and costs, and also rate sheet development for electronic production. Students will be given projects to identify workflow, specific costs and budgetary requirements for profitability in order to gain practical experience with management issues within the graphic arts technology industry.

(59.4 Lec. Hrs.)

Prerequisites: GRT:110 and GRT:240.

GRT:245 Issues in Graphic Arts Technology 3 cr.

Students will cover a variety of business topics related to graphic communications, including professional relationships, business practices, pricing and trade customs, salaries, legal issues and professional and technology related issues. In addition forms and contracts will be covered. The course will cover graphic design, web design, illustration, animation and other areas of specialty.

(59.4 Lec. Hrs.)

GRT:250 Electronic Imaging 3 cr.

A continuation of Electronic Color Control, this course will involve the student in high-end scanning and output devices. Various networking configurations, as well as software and hardware associated with the process, will be covered in detail.

(19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: GRT:160 and GRT:220.

GRT:264 Authoring and Web Design II 3 cr.

This specialization course will introduce the student to advanced concepts in web development. Students will develop skills in scripting JavaScript and DHTML.

(19.6 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: GRT:110 GRA:103, GRT:122 and GRT:163.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

GRT:266 Technology Changes in the Graphic Arts 2 cr.

Seminar course on advances in graphic arts technology and how they may affect the industry and workplace. The Graphic Arts Technology Center will be utilized to demonstrate new advances in technology and environmental technology. (39.6 Lec. Hrs.)

GRT:268 CD Authoring 3 cr.

File sizes and download times of multimedia content often exceed what is generally considered acceptable for the Internet. In these situations thought needs to be given to distributing multimedia content on CD and DVD-based media. This course will explore the creation of interactive content for CDs and DVDs. (19.8 Lec. Hrs./79.2 Lab Hrs.)

HEALTH SCIENCES

HSC:113 Medical Terminology 2 cr.

This course enables students to recognize and define medical terminology as well as identify medical words from Greek and Latin prefixes, suffixes, word roots and combining forms. This course is offered in two formats: classroom instruction or as an independent study. (39.6 Lec. Hrs./79.2 Lab Hrs.)

HEALTH INFORMATION TECHNOLOGY

HIT:120 Pharmacology for HIT 1 cr.

This course provides the student with an introduction to common drugs and drug therapies as they relate to the field of health information technology. It includes accurate identification of drug name spelling and indications for usage. (19.8 Lec. Hrs.)

HIT:150 Principles of Disease I 2 cr.

This course is an introduction to disease etiology covering the five basic classifications of disease from the cellular level to the organ system level that includes: congenital and hereditary diseases, inflammatory and infectious diseases, metabolic diseases, degenerative diseases and neoplastic diseases. (19.8 Lec. Hrs./39.6 Lab Hrs.)

HIT:160 Principles of Disease II 3 cr.

This course is a continuation of HIT:150 and focuses in-depth on common disorders of the body by organ system involvement such as cardiovascular system, gastrointestinal system, urinary system, etc. Depth of study will focus on the five basic classifications of disease as manifested in each body organ system, signs and symptoms, diagnostic work-up, current disease management and prognosis as it pertains to each organ system. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HIT:150.

HIT:250 Coding I 3 cr.

This course is first of a three-part sequence that provides a foundation in diagnostic and procedural coding and classification systems in use in healthcare settings today. Emphasis is placed on ICD-9-CM coding conventions, rules, methodology and sequencing, data sets, documentation requirements, quality control and coding resources. Practical applications in coding inpatients and outpatients will utilize workbooks and various handouts. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HSC:113, CSC:110, BUS:110, HIT:370, BIO:168, ENG:105.

HIT:251 Coding II 3 cr.

This course is a continuation of HIT:250. Students are introduced to CPT-4 HCPCS as it relates to physician's offices and hospital Outpatient Prospective Payment System (OPPS). Students will be working with actual medical records in the classroom lab. Emphasis is placed on accuracy, compliance and outpatient coding requirements. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380 HIT:601, HIT:120, HIT:150, HIT:250.

HIT:252 Coding III 3 cr.

Designed to provide students the opportunity to become proficient coders. Students will apply coding guidelines, rules and regulations. Case scenarios and actual medical records will be used to code ICD-9-CM and CPT-4 diagnoses and procedures. Students will assign appropriate codes through chart documentation review and analysis, assign DRG's and assign APC's utilizing 3M Coding & Reimbursement System software. Students will learn valid reimbursement optimization techniques. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:120, HIT:150, HIT:250.

HIT:312 Health Informatics and Information Management Systems 1 cr.

This course combines knowledge gained in a variety of Health Information Technology courses. The student will collect, analyze and present healthcare data (and other data) using MS Word, Excel, ChartWizard, Access and PowerPoint software. (39.6 Lab Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:120, HIT:150, HIT:250.

HIT:370 Health Records in Acute Care 3 cr.

This course introduces students to the Health Information Management profession. Topics include acute care health record content and usage, quantitative and qualitative analysis, record format, control, storage, retention policies and filing and numbering systems. Students will be introduced to various HIM computer software products such as 3M HIS, SoftMed ChartFact and SoftMed ChartLocator. (39.6 Lec. Hrs./39.6 Lab Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HIT:380 Health Records in Alternative Care Settings 3 cr.

This course is a continuation of HIT:370, Health Records I. Students will look at the entire continuum of health care delivery systems. Alternative care settings including ambulatory care, long-term care, home health, hospice and mental health will be studied along with their respective licensing and accrediting standards, documentation issues and reimbursement methodologies.

Additional topics include Cancer Registry abstracting with hands-on use of CNEXT registry software. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HIT:370.

HIT:420 Legal Aspects of Health Information 2 cr.

This course covers in-depth the legal issues involved in health care information management. Students will gain an overview of the U.S. legal system, past and current healthcare legislation including HIPAA. Topics will include use of the medical record as a legal document, informed consent, privacy and security regulations, and response to subpoena. Students will take a field trip to the local county courthouse to sit in on a trial in progress. Student will utilize SoftMed ChartRelease software to gain application skills in handling release of information documentation. (39.6 Lec. Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:360, HIT:120, HIT:150, HIT:250.

Co-requisite: HIT:160 and HIT:620.

HIT:440 Quality Management 3 cr.

This course provides an overview of supervision and management activities in a health information department. Focus is placed on a team approach toward the achievement of both departmental and organizational goals. Students will participate in problem-solving activities, committee activities and development of technical writing skills. Emphasis is placed on activities relating to planning, organizing, directing, controlling and budgeting in an HIM department. Additional topics include performance improvement monitors, utilization management and risk management principles. (39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:120, HIT:150, HIT:250, BUS:110.

HIT:451 Allied Health Statistics 3 cr.

Terms, definitions and formula used in computing healthcare statistics such as census, occupancy rates, infection rates, mortality rates and average length of stay will be presented and utilized throughout this course. Students will need a refresher course in mathematical computations before taking this course. The major focus of this course will be on the importance of accuracy in interpretation of healthcare statistics. (59.4 Lec. Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:120, HIT:150, HIT:250, BUS:110.

HIT:485 Medical Billing and Reimbursement Systems 3 cr.

This course introduces the basic theory and principles related to managed care concepts across the entire continuum of health care delivery. It focuses on the emergence of integrated delivery networks and the continuous balancing of cost vs. quality of care in our U.S. healthcare system today. Students will practice classroom software simulations of Medical Manager Physician's office practice management software and SoftMed Hospital billing software simulation. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:120, HIT:150, HIT:250.

Co-requisites: HIT:251

HIT:596 Health Information Technology Practicum 2 cr.

This is a supervised 96-hour professional practice experience designed to introduce the student to the basic daily operations and functions of a health information department. The student will utilize knowledge and skills learned in the classroom, observe and, when appropriate, practice hands-on applications under the supervision of health information department staff. Students will be required to meet certain goals and objectives, submit a written report of the learning experience and undergo a professional and technical

skills evaluation. Although the acute care setting is a common setting for Practicum I, any healthcare setting may be appropriate. Site to be arranged by the instructor.

(96 Hrs. Clinical Practicum)

Prerequisites: HIT:370, HIT:120, HIT:150 and HIT:250.

HIT:597 Health Information Technology Practicum II 4 cr.

This is supervised 224-hour professional practice experience designed to give the student exposure to advanced level functions in various healthcare settings. Coding, transcribing, auditing, billing and QI activities will be emphasized. The student will be required to meet written goals and objectives, submit a written report on the learning experience and

undergo a professional and technical skills evaluation. Practicum site to be arranged by the instructor. (224 Hours Clinical Practicum)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:150, HIT:120, HIT:250

HIT:601 Medical Transcription 2 cr.

This optional course provides opportunities to practice and develop basic skills in the use of transcription equipment, gain familiarity with common formats of medical reports and common medical terminologies. Reference sources are identified and students receive laboratory experience in transcribing history and physicals, consultation reports, operative reports and discharge summaries dictated by real physicians and encompassing all body systems. The SUM Program of software is utilized. (79.8 Lab Hrs.)

Prerequisites: HSC:113, HIT:120, CSC:110.

HIT:620 Advanced Medical Transcription 1 cr.

This optional course is a continuation of HIT:601. In-depth medical reports dictated by real physicians are provided including radiology, pathology, orthopedic, cardiovascular and gastrointestinal operative reports. Emphasis is placed on accuracy of spelling and format. The SUM Program software for advanced students is utilized. (39.6 Lab Hrs.)

Prerequisite: HIT:601.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HIT:946 Health Information Technology Seminar 1 cr.

This is a capstone course designed to provide a comprehensive review of professional competencies, preparation for the RHIT certification exam, preparation of professional resume and job search tools. This course should be taken the last semester.

(19.8 Lec. Hrs.)

Prerequisite: HSC:113, HIT:370, HIT:380, HIT:601, HIT:120, HIT:150, HIT:250.

HEALTH, SAFETY & ENVIRONMENTAL TECHNOLOGY

HSE:100 Occupational Safety 3 cr.

This course provides an introduction to the U.S. Occupational Safety and Health Administration's (OSHA) regulations that pertain to protecting workers from exposure to occupational hazards.

Students concentrate on researching, interpreting, summarizing, and applying the OSHA regulations. Students are introduced to a proactive philosophy of company compliance with OSHA regulations, with an emphasis on using specific approaches to providing a safe and healthful work environment.

Additionally, through activities and exercises, students are introduced to procedures for conducting a chemical inventory, interpreting Material Safety Data Sheets (MSDSs), developing a written Hazard Communication (HAZCOM) program, and developing an effective HAZCOM training program. (59.4 Lec. Hrs.)

HSE:105 Characteristics of Hazardous Materials 3 cr.

This course provides instruction in learning to recognize the physical and chemical characteristics of hazardous materials classes and how chemicals within those classes can harm humans and the environment. By applying basic chemistry, students will associate chemical names with particular health and safety hazards. Additionally, students will identify common trade names and/or synonyms for the chemicals. (59.4 Lec. Hrs.)

HSE:110 Industrial Processes 3 cr.

In this course, the student is provided a nontechnical introduction to common general manufacturing processes that involve hazardous materials and wastes, with emphasis on: waste minimization/pollution prevention (P2) strategies, waste treatment methods, and common processes within facilities. Each student completes a major project in which he/she investigates and reports on a specific industry, especially its basic processes, materials flow, worker health and safety exposures, and waste reduction issues. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Co-requisites: CHM:122, HSE:100, and HSE:200.

HSE:200 Waste and Remediation 3 cr.

This course provides a study of the U.S. Environmental Protection Agency regulations pertaining to hazardous waste management, with an emphasis on the requirements of the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Students learn the steps in managing hazardous wastes from cradle to grave, which includes reading, interpreting, and applying sections from the Code of Federal Regulations. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Co-requisite: HSE:100 or demonstrated ability to use the Code of Federal Regulations.

HSE:205 Air and Water Quality 3 cr.

This course provides a study of the U.S. Environmental Protection Agency regulations pertaining to compliance with the Clean Air Act Amendments of 1990 and the Clean Water Act's National Pollutant Discharge Elimination System. Students learn how they may support professional personnel responsible for complying with the environmental regulations for air emissions and wastewater, as they are both discharged by industrial facilities. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Co-requisite: HSE:100 or ability to use the Code of Federal Regulations.

HSE:211 Contingency Planning/ Incident Management 4 cr.

This course provides instruction on how to develop an emergency response contingency plan for a facility or community. Students learn that the steps for emergency preparedness include analyzing the hazards, writing and implementing the contingency plans, training employees for an emergency, and evaluating the effectiveness of the contingency plan. Students will develop and implement the "Incident Management System" through both practical and theoretical case scenarios. (79.2 Lec. Hrs.)

(79.2 Lec. Hrs.)

Prerequisite: HSE:100 and HSE:200.

HSE:225 Legal Aspects of Occupational Safety and Health 3 cr.

This course provides a study of legal implications of legislation as it applies to health and safety in the workplace.

Students concentrate on regulatory, common, and administrative law; mandatory and voluntary compliance to standards; applicable government agencies and their roles; and OSHA regulations. Additionally, students are introduced to the professional code of ethics of a safety person. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Prerequisite: HSE:100.

HSE:230 Transportation of Hazardous Materials 3 cr.

This course provides a detailed study of the U.S. Department of Transportation (USDOT) Hazardous Materials Regulations (49 CFR Parts 100 to 185).

Through assigned readings and activities, students study the procedures for preparing hazardous materials packages for transport, reporting an accident and developing a written training program for HAZMAT employees. The course includes problems and case studies in which the student identifies and interprets applicable DOT hazardous materials regulations and recommends compliance strategies. Students learn how an environmental health and safety technician may support professional personnel responsible for compliance with the regulations for transportation of hazardous materials. Emphasis is placed on identifying, interpreting and applying sections from the Code of Federal Regulations (CFR). (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Prerequisite: HSE:100 and HSE:200.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HSE:250 Special Topics (*Fire Prevention and Ergonomics*) 4 cr.

FIRE PREVENTION

The students will be introduced to different methods of fire prevention, how certain chemicals and materials burn, and what additional hazards these chemicals will produce. This course will also address fire detection and employee alarm systems. Resources will include the local fire departments, National Fire Protection Association (NFPA), and Federal Emergency Management Agency (FEMA).

(79.2 Lec. Hrs.)

ERGONOMICS

Ergonomics is the science of fitting the job to the worker. This course will address different means to reduce the number and severity of musculoskeletal disorders (MSDs) caused by exposure to risk factors in the workplace. Work-related musculoskeletal disorders (WMSDs) can result when there is a mismatch between the physical requirements of the job and the physical capacity of the worker.

(79.2 Lec. Hrs.)

Prerequisites: HSE:100 and CHM:132.

HSE:270 Sampling and Monitoring Procedures 4 cr.

This course introduces students to a variety of sampling procedures used in industrial settings and for emergency response. Topics to be covered include: sampling and monitoring devices; industrial hygiene monitoring; outside air sampling; surface water, groundwater, soil and waste sampling. Emphasis will be placed on collecting and preserving representative samples, interpreting laboratory results, and on complying with relevant federal regulations.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: MAT:073 or equivalent, CHM:122, HSE:100, and HSE:200.

Co-requisite: CHM:132.

HSE:275 Worker Compensation / Incident Investigation 3 cr.

An accident is an unplanned event that results in personal injury or in property damage. Employers need to investigate all accidents regardless of the extent of injury or damage. The first part of this course will provide the students the background information needed to conduct an in-depth incident investigation. The second part will cover material relevant in the workers compensation insurance aspect side of the post incident. Students will learn what the actual cost of insurance is and how that is calculated, and how an effective safety program will reduce the cost of the company's insurance premiums and the actual workers compensation claims.

(59.4 Lec. Hrs.)

Prerequisite: HSE:100

HSE:280 Hazardous Materials Health Effects 3 cr.

This course provides a review of human health effects from exposures to chemicals. Topics covered include determination of risk factors, routes of entry of hazardous materials and their effects on target organs, acute and chronic effects, and control measures.

(59.4 Lec. Hrs.)

Prerequisites: CHM:122, CHM:132, HSE:100, and HSE:105.

HSE:285 Industrial Hygiene 3 cr.

The Industrial Hygiene course will provide the necessary information to the students to allow them to establish and maintain a basic industrial hygiene program. Through practical exercises, students will learn to anticipate, recognize, evaluate, and control occupational health hazards in the workplace. The student will learn basic environmental sampling concepts for the collection and analysis of data to identify problems, and develop methods and procedures to control or eliminate occupational exposures in the workplace. The course will cover physical and

chemical exposures in the workplace. Examples of topics covered in this course include: basics of toxicology, occupational diseases related to skin contact or inhalation of chemicals in the workplace; the detection and control of airborne contaminants and ventilation; illness and injury from causes such as sound, radiation, heat, biological agents, and accidents; anatomy, and physiology. (59.4 Lec. Hrs.)

Prerequisite: CHM:122, CHM:132 and HSE:100.

HEATING AND AIR CONDITIONING

HCR:116 Domestic Heating 5 cr.

This course covers installation, troubleshooting, maintaining, repairing of gas, fuel oil, electric furnaces and heat pumps. The course will also cover temperature, humidity, air filtering and air movement for a complete home conditioning system.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Co-requisite: HCR:441.

HCR:260 HVAC Trade Skills I 3 cr.

This course covers all types of tools pertaining to but not restricted to the HVAC profession. Included with the introduction of the student to the tools is the proper usage of these tools. The student will learn soldering and brazing, iron pipe cutting and threading, PVC solvent welding, all fittings, drilling, sawing and cutting sheet metal.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Co-requisite: HCR:405.

HCR:261 HVAC Trade Skills II 3 cr.

This course covers all types of tools pertaining to but not restricted to the HVAC profession. Included with the introduction of the student to the tools is the proper usage of these tools. The student will learn how to manufacture sheet metal fittings with the tools available. In addition to the use of hand tools, the different power tools that are common to sheet metal shops everywhere will be covered.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: HCR:260.

Co-requisite: MAT:104.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HCR:271 Advanced Domestic Heating and Air Conditioning 5 cr.

This course covers all residential and light commercial high-efficiency heating and air conditioning equipment. Included with the instruction will be a hands-on, competency-based lab with high-efficiency equipment. This course will cover all 80-90% furnaces.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisites: HCR:260 and HCR:116.

HCR:291 Commercial Systems 3 cr.

This course covers all types of commercial heating and cooling systems. Systems included are air cooled and water cooled air conditioning systems, cooling towers, water chillers, gas and electric heating systems for heating air and water, industrial heating systems including direct fired make up air equipment.

Commercial water heaters and controls will also be discussed.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: HCR:116, HCR:441.

HCR:308 Refrigeration Fundamentals 5 cr.

This course covers temperature/pressure relationships, basic refrigeration systems, refrigerants, metering devices, tool identification/usage and safety, basic refrigeration components and their use, refrigeration applications and methods of installation, maintenance, diagnosis and repair of refrigeration equipment.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Co-requisites: HCR:405.

HCR:320 Light Commercial Refrigeration & Hydronic Systems 6 cr.

This course covers commercial refrigeration systems including, but not limited to: walk-in, reach-in coolers and freezers, ice machines and refrigerant control devices. This course will also cover piping methods for refrigeration and boilers, compressors, pumps and radiant heating systems. This course will cover the use, installation, diagnosis and maintenance of the items listed above.

(79.2 Lec. Hrs./118.8 Lab Hrs.)

Prerequisite: HCR:271.

HCR:405 Basic Electricity for HVAC Technicians 5 cr.

This course covers those concepts and procedures that will enable the student to work successfully in the industry.

Electrical principles, components, meters, schematics and systems are discussed and applied to modern small and large scale installations. Troubleshooting and servicing are presented in practical terms for ensuring immediate productivity.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Co-requisites: HCR:308 and MAT:104.

HCR:441 HVAC Controls and Circuitry 5 cr.

This course acquaints the student with the electrical controls and circuitry associated with domestic oil, gas and electric heating systems. Hands-on laboratory experiences are correlated with the lecture to provide the student with realistically simulated work situations.

(59.4 Lec. Hrs./118.8 Lab Hrs.)

Prerequisites: HCR:308 and HCR:405.

Co-requisite: HCR:116.

HCR:525 Welding for the HVAC/R Trades 3 cr.

This course is designed especially for HVAC/R students and technicians. The welding processes that are covered in the class are those that an HVAC/R technician will typically encounter on the job. Instruction will be given in equipment, setup, safety, and application of the following processes: oxyacetylene and basic arc welding, brazing, and cutting. The lab will correlate with the lecture to provide the student with hands on experience.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: COM:102.

Co-requisites: HCR:802 and HCR:291.

HCR:802 Control Systems for HVAC 4 cr.

This course covers electrical symbols, transformers, single phase motors, three-phase motors, motor starters and electronic devices for the Heating, Ventilation and Air Conditioning field (HVAC). Included with the instruction will be a hands-on, competency-based lab.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: HCR:441.

HCR:805 Environmental Controls and Equipment 5 cr.

This course covers laws and enforcement of the Clean Air Act, the process and equipment used for reclamation and recycling of CFC's, HCFC's, and HFC's. Transportation of these refrigerants and certification test as required for EPA Section 608 will be discussed.

Geothermal design, installation and service will be included in this course.

(59.4 Lec. Hrs./118.5 Lab Hrs.)

Prerequisite: HCR:308, HCR:116.

HCR:811 Computer Aided Control System Design 3 cr.

This course is designed to deliver instruction in the area of heating and cooling load calculations, airflow, air supply/return layout, commercial and industrial burners and control systems. Extensive use of computers and load calculation software will be incorporated to enhance student productivity.

(59.4 Lec. Hrs.)

Prerequisite: HCR:116, HCR:441.

HCR:860 HVAC Management and Business Fundamentals 3 cr.

This course will cover all applications for HVAC technicians. Included in the course will be HVAC residential heating and cooling load loss calculations, equipment sizing, duct sizing and layout, job estimating, billing, customer relations, actual comparison of gas and electric heat calculations. Small business forms will be discussed, including basic payroll, job estimating, Workers Comp, self-employed government forms. Airflow measurements and calculations will also be demonstrated.

(59.4 Lec. Hrs.)

Prerequisites: HCR:308, HCR:116.

HCR:880 Industry Competency Exam (ICE) 1 cr.

This course is designed to prepare the student for the Residential Industry Competency Exam. Time is spent on each section of the exam, to ensure the student successfully passes the exam. The Residential Industry Competency Exam (ICE) is designed to test for knowledge of the fundamentals and basic skills necessary for entry-level residential technicians.

(19.8 Lec. Hrs.)

Prerequisite: HCR:116, HCR:261, HCR:441.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HCR:885 Light Commercial Competency Exam 1 cr.

This course is designed to prepare the student to successfully complete the Light Commercial Industry Competency Exam (LC-ICE). The LC-ICE is designed to test for knowledge of the fundamentals and basic skills needed for an entry-level commercial HVAC technician. This course will also review the material for the North American Technician Excellence (NATE) Certification Core Exam. Completion of at least one of the exams is mandatory, either the LC-ICE or the NATE. Each exam requires an additional fee.

(19.8 Lec. Hrs.)

Prerequisites: HCR:291, HCR:860, HCR:805.

Co-requisites: HCR:802, HCR:320, HCR:811.

HCR:890 Professional Development for HVAC 2 cr.

This course is designed to give students the skills needed for employment interviews, to complete job applications and resumes, to develop teamwork and enhance communication skills needed to be successful on the job. Students will also be introduced to a variety of professional organizations in the HVAC field and the benefits of membership in those professional organizations.

(19.8 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: COM:102.

HOSPITALITY, CULINARY ARTS AND MANAGEMENT

HCM:100 Sanitation and Safety 2 cr.

This course provides students with a solid foundation in foodservice sanitation and safety. Students will be required to pass State of Illinois exam for certification.

(39.6 Lec. Hrs.)

HCM:116 Fundamentals of Baking 3 cr.

This course is for a student with an advanced level of foodservice experience and very little baking/pastry experience. Students will cover the basics of theory and preparation of baked items. Science and math will play a large role in this course. Some items the students will prepare are bread, cakes, frostings, cookies, creams, puddings, pie crusts and filling and basic plated pastry. The focus of the course is on quantity production in a restaurant.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: HCM:100, HCM:156 and HCM:502.

HCM:154 Basic Food Preparation 2 cr.

Upon completion of this course, students will have attained basic skills in grilling, knife skills, frying, broiling, sauteing, vegetable cookery, recipe conversion and soups/stocks.

(19.8 Lec. Hrs./59.4 Lab Hrs.)

HCM:155 Garde Manger 3 cr.

Students will prepare all foods associated with a true Garde Manger station in a restaurant. Some foods prepared will be salads, pate, terrines, cold appetizers, show pieces, ice carvings, canapes and show platters.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: HCM:100, HCM:241 and HCM:160.

HCM:156 Intermediate Food Preparation 3 cr.

This course is designed to help students transition from basic to advanced food skills. Students will develop a solid foundation in culinary arts.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: HCM:100 and HCM:154.

HCM:160 Advanced Food Preparation 3 cr.

In this course, students develop to the level of Advanced Food Preparation and Professional Standards. Students also acquire a knowledge of food and beverage combinations.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: HCM:154 and HCM:156.

HCM:180 Food Fundamentals 2 cr.

This course is an overview of foodservice and culinary arts. Students look at industry structure, developing trends and influences of management. Students will begin their awareness of food products and the world of food.

(39.6 Lec. Hrs.)

Co-requisite: HCM:100.

HCM:203 Hospitality Lab II 2 cr.

This is a hands-on lab course where students will practice their skills in customer service, concierge contacts and point-of-sale training.

(79.2 Lab Hrs.)

HCM:205 Hospitality Lab I 2 cr.

This hands-on lab course will allow students to train in front and back of the hospitality establishments. Training in operations of food service, dining skills, housekeeping and laundry operations are included in this course.

(79.2 Lab Hrs.)

HCM:212 Industry Management for Chefs 3 cr.

This course is for an apprentice or professional chef seeking certification from the American Culinary Federation (ACF). Students will be exposed to theoretical concepts as well as practical applications to develop management skills related to the restaurant industry. The course is service-oriented with emphasis on staff and guest relations.

(59.4 Lec. Hrs.)

HCM:233 Menu Planning and Nutrition 3 cr.

Emphasis will be on basic food nutrients and their use in restaurant cooking. USDA guidelines and USRDA standards are covered. Students will calculate body energy requirements and create nutritionally sound menus using classical tools/preparation methods.

(59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HCM:241 Menu Planning and Sales Promotion 3 cr.

Students will learn what influences impact the menus that we offer and how to target menus to specific needs. Exploration of menus from other cultures and a variety of functions will also be covered. The student will learn to prepare a cost-effective, seasonally oriented and overall aesthetic menu.

(59.4 Lec. Hrs.)

Prerequisites: HCM:154 and HCM:280.

HCM:255 Purchasing 3 cr.

Students will study purchasing techniques and specifications used in the industry. Various food distributors will speak in class. This training will involve completion of a purchasing project.

(59.4 Lec. Hrs.)

HCM:265 Mathematics for Hospitality 3 cr.

This course will provides students with a basic understanding of mathematical applications in the first weeks, then continues with more applied sets of skills and topics related to the professional food service setting.

(59.4 Lec. Hrs.)

Prerequisites: (Student must take college assessment.)

HCM:270 Hospitality Practicum V 2.5 cr.

This course includes on-the-job training necessary to fulfill the U.S. Department of Labor required hours developed for completion of the journeyman certification. Students will work at a sponsoring site and document hours and work processes.

(667 Practicum Hrs.)

HCM:279 Hospitality Hotel Accounting 3 cr.

This course is designed to help students distinguish between management accounting and business accounting. Reading and developing financial statements and other concepts of income management are also included in this course.

(59.4 Lec. Hrs.)

HCM:280 Food Cost Accounting 3 cr.

This course teaches students to effectively calculate and control costs in foodservice establishments. Students are provided with the basic concepts to yield a profit in the kitchen and manage effective control over income and expenses in the restaurant industry.

(59.4 Lec. Hrs.)

HCM:301 Beverage Control 3 cr.

This course will provide an in-depth study of wines, beverages, spirits and beers. Purchasing/storage and developing a wine list that is compatible with a variety of foods will be covered. Students must be at least 21 years of age to taste alcoholic beverages.

(59.4 Lec. Hrs.)

HCM:310 Hospitality Law II 3 cr.

This course trains the student to be proactive in all aspects of the hospitality industry and gives a perspective of areas of concern. Topics covered are alcohol and events, stage safety, guest rights and applied and theoretical sociological perspectives in securing property.

(59.4 Lec. Hrs.)

HCM:311 Hotel and Restaurant Operations 3 cr.

This course trains students to become effective front of the house restaurant managers, covering areas of dining such as effective speaking, leadership, scheduling practices and conflict resolution.

(59.4 Lec. Hrs.)

HCM:319 Introduction to Hospitality 3 cr.

This course is an overview of the Hospitality Industry. Students will examine and review the industry structure and developing trends in hotel management. Students will begin their awareness and exploration of the world of hospitality.

(59.4 Lec. Hrs.)

HCM:330 Workplace Human Relations I 3 cr.

This course will expose students to multiple areas of human resources including real life case studies based on hospitality industry assessments and history.

(59.4 Lec. Hrs.)

HCM:501 Culinary Practicum I 3 cr.

Students will complete a total of nine practicums (6000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(960 Practicum Hrs.)

HCM:502 Culinary Practicum II 3 cr.

Students will complete a total of nine practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(960 Practicum Hrs.)

Prerequisite: HCM:501.

HCM:503 Culinary Practicum III 1.5 cr.

Students will complete a total of nine practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(480 Practicum Hrs.)

Prerequisite: HCM:502.

HCM:504 Culinary Practicum IV 3 cr.

Students will complete a total of 9 practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(960 Practicum Hrs.)

Prerequisite: HCM:503.

HCM:505 Culinary Practicum V 3 cr.

Students will complete a total of 9 practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(960 Practicum Hrs.)

Prerequisite: HCM:504.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HCM:506 Culinary Practicum VI

1.5 cr.

Students will complete a total of 9 practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(480 Practicum Hrs.)

Prerequisite: HCM:505.

HCM:507 Culinary Practicum VII

3 cr.

Students will complete a total of 9 practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(960 Practicum Hrs.)

Prerequisite: HCM:506.

HCM:508 Culinary Practicum VIII

3 cr.

Students will complete a total of 9 practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(960 Practicum Hrs.)

Prerequisite: HCM:507.

HCM:509 Culinary Practicum IX

1.5 cr.

Students will complete a total of 9 practicums (6,000 hours total) in addition to classroom study. Practicums provide the students with on-the-job training following the American Culinary Federation's work processes.

(480 Practicum Hrs.)

Prerequisite: HCM:508.

HCM:606 Hospitality Management Practices

3 cr.

This course is designed to train students in a supervisory capacity. Topics including problem solving, team playing, delegating of duties and evaluating performance are included in this course.

(39.6 Lec. Hrs./39.6 Lab Hrs.)

HCM:610 Hospitality Sales & Marketing

2 cr.

This course is designed to expose students to multiple approaches to marketing, including product and sales orientations, the four Ps of marketing and demand patterns.

(39.6 Lec. Hrs.)

HCM:612 Human Resources & Revenue Management

3 cr.

This course will assist students in developing skills in diverse working environments, documentation, analyzing and interviewing candidates for employment positions.

(59.4 Lec. Hrs.)

HCM:950 Hospitality Practicum I

2.5 cr.

This course includes on-the-job training necessary to fulfill the U.S. Department of Labor required hours developed for completion of the journeyman certification. Students will work at a sponsoring site and document hours and work processes. Students will complete a total of 6 practicums totaling 4000 hours of on-the-job training.

(667 Practicum Hrs.)

HCM:951 Hospitality Management Information Systems

3 cr.

This course will provide an overview and development of skills critical in the lodging industry. These skills include introduction of computer skills necessary to function in the front of the house operations.

(39.6 Lec. Hrs., 39.6 Lab Hrs.)

HCM:952 Hospitality Practicum II

2.5 cr.

This course includes on-the-job training necessary to fulfill the U.S. Department of Labor required hours developed for completion of the journeyman certification. Students will work at a sponsoring site and document hours and work processes.

(667 Practicum Hrs.)

HCM:953 Hospitality Practicum III

2.5 cr.

This course includes on-the-job training necessary to fulfill the U.S. Department of Labor required hours developed for completion of the journeyman certification. Students will work at a sponsoring site and document hours and work processes.

(667 Practicum Hrs.)

HCM:954 Hospitality Practicum IV

2.5 cr.

This course includes on-the-job training necessary to fulfill the U.S. Department of Labor required hours developed for completion of the journeyman certification. Students will work at a sponsoring site and document hours and work processes.

(667 Practicum Hrs.)

HCM:955 Hospitality Law I

2 cr.

This course is designed to train the student in preventative legal management, ethics and the law, contracts, and the importance of proper organizational structure.

(39.6 Lec. Hrs.)

HCM:956 Hospitality Lab III

3 cr.

This course will build on the foundation of customer service, front desk operations, catering and events planning, maintenance, and guest services that will be emphasized at the advanced level in this course.

(118.8 Lab Hrs.)

HCM:958 Workplace Spanish for Hospitality Management

4 cr.

This course emphasizes conversation in Spanish using relevant contemporary situations. Situations to be presented will be determined following an assessment of student's background and needs.

Listening comprehension is highly emphasized.

(59.4 Lec. Hrs./39.6 Lab Hrs.)

HCM:959 Hospitality Practicum VI

2.5 cr.

This course includes on-the-job training necessary to fulfill the U.S. Department of Labor required hours developed for completion of the journeyman certification. Students will work at a sponsoring site and document hours and work processes.

(667 Practicum Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

HUMANITIES

HUM:110 Changes and Choices 3 cr.

Changes and Choices offers students an opportunity to explore ways in which the Humanities are integral in their personal and work lives, especially as they face change and make decisions. (59.4 Lec. Hrs.)

INDUSTRIAL TECHNOLOGY

IND:102 Manufacturing Processes 3 cr.

An introductory course covering the machines, materials and processes used in a wide variety of industries. The course will emphasize the machining process used to produce machine parts, as well as systems used to control the processes. The course will include lecture and hands-on lab activities, as well as site visitations to reinforce the course content. (39.6 Lec. Hrs./59.4 Lab Hrs.)

IND:111 Industrial Study, Mechanical Systems 1 cr.

This course teaches the student general industrial safety practices. The topics include electrical safety, lockout tagout procedures, confined entry, NPFA symbols, and personal safety. (19.8 Lec. Hrs.)

IND:129 Interpreting Pneumatics and Hydraulics Drawings 1 cr.

This course covers methods of visualizing and interpreting views and dimensions of basic pneumatics and hydraulic drawings as well as interpretation of symbols. (19.8 Lec. Hrs.)

IND:131 Interpreting Machine Drawings 1 cr.

This course covers the design and graphic representation of basic machine parts such as gears, cams, castings and stampings, simple mechanisms, piping drawing and welding representation. Students will work on reading machine drawings from actual production drawings. (19.8 Lec. Hrs.)

IND:133 Interpreting Electrical and Electronic Drawings 1 cr.

This course covers methods of presenting and interpreting basic electrical and electronic drawings including block diagrams, schematic diagrams, component identification, logic diagrams, printed wiring boards, lighting, motor controls, power distribution and generation. (19.8 Lec. Hrs.)

IND:134 Blueprint Reading 2 cr.

This course presents an overview of methods used in presenting and interpreting a variety of industrial blueprints and schematics. Topics will include engineering drawings in the machine and electrical fields, construction blueprints including structural, fabrication and erection drawings, piping drawings and architectural drawings. (19.8 Lec. Hrs./59.4 Lab Hrs.)

IND:136 Process Control I 3 cr.

This course is an introduction to process control. The students will learn about the four major areas of process control: measuring with sensors, controllers, process adjustments and the processes to be controlled. (39.6 Lec. Hrs./39.6 Lab Hrs.)

IND:137 Process Control II 3 cr.

This course is a continuation of Process Control I. The students will study automatic process control and computerized process control systems. In the laboratory the students will apply the principles learned in the classroom. (39.6 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: IND:136.

IND:143 Motors and Drives 3 cr.

The student enrolled in Motors and Drives will learn the fundamentals of industrial motor control and power electronics. The topics covered include: AC and DC motors, thyristors, variable frequency drives, DC motor control and power distribution. Laboratory assignments help to illustrate the subjects discussed in the classroom. (39.6 Lec. Hrs./39.6 Lab Hrs.)

IND:146 Hydraulic Power Systems 2 cr.

A study of fluid power technology using liquid as the transfer media. Complete hydraulic systems are studied including power sources, reservoirs, pumps, lines, valves and actuators. (19.8 Lec. Hrs./59.4 Lab Hrs.)
Prerequisite: MAT:720 or MAT:073 or MAT:121.

IND:147 Pneumatic Power Systems 2 cr.

An introduction to the principles of fluid power technology using air or gas as the transfer media. Basic principles are introduced. Complete pneumatic systems are studied including power sources, compressors, lines, valves and actuators. (19.8 Lec. Hrs./59.4 Lab Hrs.)

IND:148 Mechanisms 3 cr.

The application of principles and practical problem solving involving hydraulics, pneumatics, cams, gears and gear trains, belt drives and other industrial devices. Topics include hydraulic and pneumatic theory, drive train component alignment, motion concepts and velocities. Laboratory will enhance the students' understanding. (39.6 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite: IND:149.

IND:149 Applied Mechanics 3 cr.

This course is designed to introduce the fundamentals of mechanics and to build confidence in the students in applying mechanics principles to solve problems. Having successfully completed this course the student will be able to: Explain the fundamental principles of static mechanics; solve static systems; distinguish between stress, strain, force, work, energy and power; describe Newton's Laws of motion and solve applied problems; solve simple dynamics and kinematics problems. (39.6 Lec. Hrs./39.6 Lab Hrs.)
Prerequisite/Co-requisite: MAT:748.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

IND:158 Sheet Metal Fabrication 3 cr.

A study of some of the more common problems encountered during installation and modifications, particularly the mechanical and field fabrication problems involved in duct work, piping and electrical work. Introduction to the use of sheet metal tools, edges, seams and locks. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: IND:134.

Co-requisites: IND:133 and IND:129.

IND:159 Bearings and Lubrication 2 cr.

A study of friction, force and lubrication of industrial equipment, preventive maintenance, troubleshooting and replacement of bearings. (19.8 Lec. Hrs./59.4 Lab Hrs.)

IND:188 Mechatronic Applications 3 cr.

Mechatronics is the result of a union of several fields, including electronics, mechanics, pneumatics, hydraulics and others. This course will help students to function effectively in situations where they are required to work on equipment and systems outside of but related to their main discipline. In the lab students will interface between systems gaining understanding of how different technologies interact. (39.6 Lec. Hrs./39.6 Lab Hrs.)

IND:221 Metallurgy 3 cr.

This course is designed to provide the student with: (1) a working knowledge of metallurgical terminology; (2) the conceptual background of material type; (3) an understanding of mechanical properties and test methods; and (4) a background in heat treatment and property modification. The course will cover an introduction to metals, properties of metals, manufacturing processes, iron and steel, standard steels, heat treatment and other metals. (39.6 Lec. Hrs./59.4 Lab Hrs.)

IND:222 Geometric Tolerancing and Dimensioning 3 cr.

This course introduces the student to the fundamentals of geometric tolerancing and dimensioning concepts as adopted by the American National Standards Institute (ANSI) and published by the American Society of Mechanical Engineers for engineering and related documentation. (59.4 Lec. Hrs.)

IND:310 ISO 9000 3 cr.

Statistical methods for quality control and other industrial problems will be studied. The course will include development of sampling plans, control charts and quality/cost studies. ISO 9000 is a quality assurance program, designed to allow businesses to install a formal, standardized system to govern the procedural steps of any manufacturing process. The course will explain the system needed to identify, monitor and record the proper steps which support the order entry, manufacture and testing of products to ensure that compliance with agreed customer or product specification requirements are consistently met. (59.4 Lec. Hrs.)

INTERIOR DESIGN

INT:116 Materials I 4 cr.

The focus of this course is the study of natural and man-made fibers. Specific units of study will cover the properties, terminology, production methods, finishing treatments, and weaves of natural and man-made fibers. Various aspects of fibers used in the interior environment will be explored. (79.2 Lec. Hrs.)

INT:120 Materials II 3 cr.

This course is a study of the materials used in interiors, including the criteria for evaluation and selection of materials and procedures for estimating quantities. (59.4 Lec. Hrs.)

Prerequisite: BUS:110 or any 100 level or greater math course.

INT:127 History of Decorative Arts I 3 cr.

This course examines the history of interior design from Renaissance to the 1800s. Art, furniture, architecture, fabric and accessories are discussed. (59.4 Lec. Hrs.)

Prerequisite: INT:301.

INT:131 Interiors I 4 cr.

Students will be introduced to the specialty area of residential design through client need analysis and design concept writing. Projects will include the development of floor plan drafting skills, space planning, room elevations, furniture and surface treatment selection and specification, finish schedules and sample board presentations. (59.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: INT:302, INT:301, INT:310 and INT:116.

INT:134 Marketing for Interior Designers 3 cr.

This course teaches the fundamentals of marketing, sales and working with the public. The general structure of a marketing plan will be discussed and understanding of the world market place. Students will prepare sales presentations for the class. (59.4 Lec. Hrs.)

INT:140 Presentation Graphics 3 cr.

This course is a study of drawing and rendering techniques for interiors. Marker and colored pencil application for drawings will be presented. Students will learn to draw two-point and one-point perspectives, room interiors and furniture sketches. There will be an introduction to the use of computer-generated drawings to facilitate presentations. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: INT:302 and INT:310.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

INT:205 Kitchen and Bath Design and Lighting 4 cr.

This course is designed in three segments presenting procedures in lighting design, electrical planning, light quantity and quality analysis and fixture selection. The second segment focuses on kitchen space planning and design utilizing detail drawing, cabinet specification and appliance selection. Bath design is the final segment teaching appliance placement, space planning and contemporary design.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: INT:120, INT:131 and INT:140.

INT:209 3-D CAD for Interior Designers 3 cr.

This is a beginning level course designed for interior design students and/or professionals. The course will upgrade and enhance their technical drawing skills by introducing them to computer-aided drafting and 3-D model program. The course will use current CAD training hardware and software which is comparable to the equipment used in the local interior design field. The 3-D program will enable the interior design student to quickly create 3-D drawings, such as isometric and perspective views.

(39.8 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: INT:140.

INT:210 Interiors II 3 cr.

This course is designed to expand students' experience in residential design. Students will design for complex interior problems integrating previous coursework.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: INT:120, INT:127, INT:131, INT:140, and INT:205.

INT:215 History of 20th Century Art and Architecture 4 cr.

This course surveys painting, sculpture, architecture and interior design from 1910 to the present time. Emphasis is placed on the inter-relatedness of these four art forms as they evolve and on their reflection of events and values of the period. The course is presented through slide lectures and field trips to local and regional art museums and architectural sites.

(79.2 Lec. Hrs.)

INT:228 History of Decorative Arts II 3 cr.

This course examines the history of interior design from 1800 to 1910. Art, furniture, architecture, fabric and accessories are discussed.

(59.4 Lec. Hrs.)

Prerequisite: INT:127.

INT:230 Interiors III 3 cr.

This course presents students with advanced residential problems and light commercial design problems. Students will research a historical design and learn techniques in historic restoration. Problems will emphasize adaptive use concepts.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: INT:210 and INT:205.

INT:261 Codes for Interiors 2 cr.

Codes are an essential part of all building interiors. Local, state and federal codes impact most new and remodeled interiors. Interior designers need a working knowledge of these codes to provide safe, accessible designs. This course defines codes and provides students with a working knowledge of these requirements.

(19.8 Lec. Hrs.)

Prerequisite: INT:205.

Co-requisite: INT:313.

INT:301 Design Fundamentals 3 cr.

This course examines the creative design process, the elements and the principles required to execute an original idea. Projects emphasize elements of line, shape, pattern, texture and value. The course also presents a survey of the history of design ornament starting in ancient civilization to the Renaissance.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

INT:302 Color Theory 3 cr.

The study of color as a significant design element encompasses the principle of color as a component of white light, the nature of color sensation, and the psychological effects of color. Working with colored pencils and markers, the student develops an understanding of color relationships. Experiments with color mixing and rendering of fabrics gives the student opportunities to apply the color principles of hue, value, intensity, simultaneous contrast and color harmony.

(39.6 Lec. Hrs./59.4 Lab Hrs.)

INT:310 Architectural Graphics 4 cr.

In this course basic drafting skills will be learned through various elementary scale drawing exercises. These exercises will prepare the student for the completion of a full set of drawings for a residence.

Lectures will present blueprint reading, construction systems and details, floor plan evaluations and housing styles.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

INT:313 Contract Design 4 cr.

Students will study the specialty area of contract design which may include office design, related commercial interiors/store design, restaurant design, hotel/hospitality design and/or medical/hospital design.

Projects will develop and incorporate the skills of concept writing, space planning/bubble diagrams, developing project programs/specifications, matrix development, systems furnishings, lighting/reflected ceiling plans, presentation/rendering graphics and furniture section-cuts/construction graphics. This course will provide an introductory level of skills/information needed for integration into the contract design field.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: INT:205 and INT:209.

INT:920 Field Project 1-4 cr.

Students will find placement in a work experience related to interior design. The field project will provide students on-the-job experience with an interior design firm. Students will observe experienced professionals in the work setting and will be introduced to the skills, knowledge and concepts required of a professional interior designer. Classroom lectures and discussions will give individuals the opportunity to share in the variety of experiences offered in each firm. The lecture component will present the professional requirements and ethical standards expected in the field.

(10.8 Lec. Hrs./145.2 Lab. Hrs.)

Prerequisite: INT:120, INT:127, INT:130, INT:140.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

INT:929 Independent Study 1-2 cr.

This course allows students to investigate one to two areas of design-related study. Individualized student/instructor interaction is the mode of delivery. Students are encouraged to select a study which better prepares them for a specific career field. (19.8 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: INT:131, INT:140, INT:134

INTERPRETER TRAINING

ITP:121 Introduction to Interpreting 4 cr.

Introduces basic knowledge and application of skills necessary for an individual to interpret accurately with emphasis on interpreting theory with opportunities to apply the concepts learned from the text and lecture.

(59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ASL:151.

ITP:122 Introduction to Interpreting II 4 cr.

This course gives the student a fundamental background in the theoretical and practical aspects of interpretation/transliteration, focusing on skill development in the classroom on three levels: prepared (rehearsed), simultaneous and consecutive. (59.4 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ITP:121.

ITP:126 Orientation to Deafness 4 cr.

This course examines the historical aspects of the field of deafness. Topics include the history of deaf education, notable deaf persons, various deaf organizations and their significance, the mechanics of hearing, and causes and effects of hearing loss. (79.2 Lec. Hrs.)

ITP:131 Social Aspects of Deaf Culture 4 cr.

Deaf Culture examines the various cultural aspects of the deaf community. It presents the interrelationship of language and culture along with a study of socialization, norms and values. (79.2 Lec. Hrs.)

ITP:135 Introduction to Language 3 cr.

This course is designed to introduce students to the linguistic features of language. Students will first learn the characteristics common to all languages and the basic descriptive tools of linguistics. Origins, properties, and word formation systems and syntactic systems as they apply to all languages, but especially to English and ASL, will be covered. This will prepare the students to apply this information to the study of ASL as a language and its unique linguistic properties. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ITP:141.

ITP:141 English Vocabulary/Grammar for Interpreters 4 cr.

This course focuses on developing and expanding student competence in vocabulary comprehension and expressions that parallel American Sign Language. Coursework assists students in the improvement of their understanding and application of the semantic aspects of both languages. (59.4 Lec. Hrs./59.4 Lab Hrs.)

ITP:211 Interpreting Skills Lab 3 cr.

Interpreting Skills Lab is designed to provide the students with an ongoing interpreting skills experience in a safe environment under instructional supervision. This will include interpreting in a variety of simulated settings with immediate feedback from the instructor. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ITP:253.

Co-requisite: ASL:281.

ITP:230 Transliteration I 4 cr.

This course examines the various sign language codes used in the educational programs of North America. It focuses on understanding methodology as well as skill and vocabulary building in the system. (59.4 Lec. Hrs./59.4 Lab Hrs.)

ITP:231 Transliteration II 3 cr.

Transliteration II will continue to develop the skills begun in Transliteration I. Emphasis will be placed on speed, accuracy, skill and continued vocabulary building within the English-based sign systems. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: ITP:230.

ITP:253 Practical Issues 3 cr.

Emphasizes important aspects of interpreting that deal with various settings and situations. It also provides opportunities to observe professional interpreters performing their tasks. This course will give the student a general understanding and exposure to a variety of interpreting situations and how to interpret them. (39.6 Lec. Hrs./59.4 Lab Hrs.)

Prerequisites: ITP:121 and ASL:251.

ITP:941 Practicum 2 cr.

Practicum consists of field experience that provides advanced training for interpreting students giving them the opportunity to apply learned concepts and skills in actual interpreting situations with professional supervision. This on-the-job experience is the final phase of training prior to entrance into the field of professional interpreting. (198.0 Co-op Hrs.)

Prerequisite: Student must complete this course in their last semester of studies in the Interpreter Training program or consent of instructor or academic advisor must be obtained.

Co-requisite: ITP:253.

LITERATURE

LIT:105 Children's Literature 3 cr.

Designed primarily for the student planning to enter elementary-level teaching. The student will develop an understanding of why and what children read and develop criteria for the selection of material for children's recreational and curriculum enrichment. (59.4 Lec. Hrs.)

Prerequisite: ENG:111 or ENG:105.

ENG:106 and a general education literature course recommended.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

MANAGEMENT

MGT:101 Principles of Management 3 cr.

Designed to explain to the student the history and development of management theory and practice. Classical, behavioral and scientific schools of management philosophy are examined. Components of organizations and how they must be integrated at all levels in an organization in order to produce an effective and efficient system are presented. (59.4 Lec. Hrs.)

MGT:110 Small Business Management 3 cr.

Designed for the student interested in more knowledge in the area of small business management. Emphasis is on the essential concepts and techniques related to the managerial problems of a small firm. (59.4 Lec. Hrs.)

MGT:130 Principles of Supervision 3 cr.

Emphasis is placed on the managerial directing functions, including the necessary supervisory qualities, duties and responsibilities. Attention is also given to contemporary supervisory approaches to supervision; the supervisor's relationship to the total management environment; self-management; and the supervisor's relationship to the individual employee and the work group. (59.4 Lec. Hrs.)

MGT:142 Problems and Issues in Supervision and Management 3 cr.

A study of contemporary business topics (i.e., leadership, problem solving, decision making, Japanese management) as viewed by local business and industry executives. (59.4 Lec. Hrs.)

MGT:145 Human Relations in Management 3 cr.

Emphasis is placed on human relations problems in motivation and relationships with peers, subordinates and supervisors, dynamics of effective group interaction and research in the behavioral science area. (59.4 Lec. Hrs.)

MGT:151 Management Communications I 3 cr.

A writing course that prepares the student for the types of written communication essential to management and supervision success. (59.4 Lec. Hrs.)

MGT:165 Principles of Quality 3 cr.

This course provides a basic introductory understanding of the key principles of Total Quality Management (TQM) - leadership, information and analysis, planning, human resources, processes, results and customer satisfaction. (59.4 Lec. Hrs.)

Prerequisite: MGT:101.

MGT:210 Management Decision-Making 3 cr.

This is a capstone "big-picture" course. It cuts across the whole spectrum of business and management. The center of attention is the total enterprise - the industry and competitive environment in which it operates, its long-term direction and strategy, its resources and competitive capabilities, and its prospects for success. Students will role play as managers answering such questions as what should managers do, and do well, to make the company a winner. Students will integrate the skills and knowledge they've acquired in previous courses in working real-world cases drawn from actual businesses. (59.4 Lec. Hrs.)

MANUFACTURING

MFG:105 Machine Shop Measuring 3 cr.

This course will cover a variety of precision measurement devices that are used in manufacturing processes. These devices include machinists scales, dividers, spring calipers, combination square, hermaphrodite calipers, calipers (vernier, dial, and digital), micrometers, depth micrometers, surface gauge, dial indicators, gauge blocks, height gauges and sine bar. Emphasis will be placed on how the student will accurately use these devices in the laboratory situation. (19.8 Lec. Hrs./79.2 Lab Hrs.)

MFG:111 Machinery Handbook 1 cr.

The Machinery Handbook is the number one reference and application guidebook used by machinists of all levels in modern manufacturing. General information, using math tables, gear/thread information and speed/feeds will be covered. (19.8 Lec. Hrs.)

MFG:112 Drills and Saws 2 cr.

This course will develop the primary skills and knowledge necessary to use basic drill presses and saws in the laboratory situation. Areas of instruction will include sharpening drill bits, drilling, reaming, counterbore, spotface, countersink, hand/power tapping and types/uses of saws. Students will be able to properly operate manual and automatic drilling operations using simple and larger radial drill presses, as well as cutting metals and materials to length for further machining operations by operating both horizontal and vertical band saws. Various drill and saw projects will strengthen the proper use of these tools. (19.8 Lec. Hrs./39.6 Lab Hrs.)

MFG:113 Vertical/Horizontal Mills 5.5 cr.

Upon completion of this course, students will be able to demonstrate competencies in all facets of manual milling operations. Students will be able to master the basic and advanced skills to operate both vertical/horizontal mills. Various topics covered in this course will include align vise, head, flycutter and end mill, tilt head and turn vise, drill, tap, ream, rotary table, saw slot on horizontal, sine plate, offset boring head, indexing head, keyways, dividing heads, gear cutting, universal indexing head, 5 C collet holders and dovetails. Special concentration will be placed on the set-up and safe operation of all milling machines with a heavier emphasis placed upon vertical milling machine operation in preparation for CNC Milling Center programming and operation. Various milling projects will strengthen the proper use of this equipment. (39.6 Lec. Hrs./138.6 Lab Hrs.)

Prerequisite: MFG:105.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

MFG:114 Surface Grinding 2.75 cr.

Students enrolled in this course will begin with development of basic off-hand and flat stock grinding techniques in both wet and dry applications and will progress to the more complex techniques used in grinding. Special attention will be placed on set-up including jigs and fixtures applications. Hands-on projects will enhance student's ability to incorporate optical comparators for final finishing and polishing of precision grinding application. Various grinding projects will strengthen the proper use of this equipment.

(19.8 Lec. Hrs./69.3 Lab Hrs.)

Prerequisite: MFG:105.

MFG:115 Lathe Work 4.5 cr.

This course will develop the theoretical and hands-on skills necessary to efficiently and productively operate all types of engine lathes. Students will begin with the basic skills and knowledge development of speeds, feeds, materials, cutting tools and basic turning techniques and will continue to refine their skills to include lathe tooling, facing, aligning lathe centers, turning, grooving/parting, cut radius/external tapers, knurling, boring internal tapers and internal/external threads. Students will progress from the basic manual lathes through the larger industrial DRO lathes and will polish their skills on turret lathe operation in preparation for CNC lathe programming and operation. Various lathe projects will strengthen the proper use of this equipment.

(19.8 Lec. Hrs./138.6 Lab Hrs.)

Prerequisite: MFG:105.

MFG:116 Carbide Tooling 1 cr.

This course will introduce the student to the history and advances of carbide tooling. Indexable inserts, drilling/milling/turning with carbide tools, basic tooling applications of carbides and coated carbide tools are also covered. Students will develop the necessary skills to understand and effectively utilize different types of machine tooling.

(9.9 Lec. Hrs./19.8 Lab Hrs.)

MFG:117 Cylindrical Grinding 1.5 cr.

This course will introduce the student to proper use and application of cylindrical grinders in manufacturing settings. Topics covered will include parallel grinding and external/internal tapers methods.

(9.9 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MFG:105, MFG:114.

MFG:118 Machine Tool Project 4 cr.

This course will provide the student with the opportunity to integrate all skills gained in manual machining courses to design, build, produce variety of parts using the equipment and tools in the manufacturing setting. Special attention and emphasis will be placed upon accuracy and proper use of equipment/tools following safe work practices in the lab situation.

(19.8 Lec. Hrs./18.8 Lab Hrs.)

Prerequisites: MFG:105, MFG:112, MFG:115, MFG:113, MFG:114 and MFG:117.

MFG:140 Geometric Dimensioning and Tolerances 1 cr.

This course will cover the basic principles of geometric dimensioning and tolerances (GD&T), interpreting GD&T symbols, interpreting form and orientation tolerances, profile, runout and location tolerances as it relates to manufacturing settings.

(9.9 Lec. Hrs./18.8 Lab Hrs.)

Prerequisite: MFG:192.

MFG:151 CNC Fundamentals 1 cr.

This course will introduce students to the Cartesian Coordinate System. Students will concentrate on the use of G codes for tool movements and will make the calculations necessary to identify correct tool locations. A basic knowledge of geometry and trigonometry is necessary to be successful.

(9.9 Lec. Hrs./59.4 Lab Hrs.)

Prerequisite: MFG:105.

MFG:186 Plant Safety 1 cr.

This course is fundamental to the safe operation of all machine tools within industrial application. Students will develop the basic skills and knowledge necessary to work safely within all aspects of the manufacturing industry. Basic safety, electrical safety, chemical health hazards, forklift safety and machine tool safety will be covered.

(19.8 Lec. Hrs.)

MFG:190 Metallurgy 2 cr.

All ferrous and non-ferrous metals have unique characteristics making their machining unique and individual. This course will teach the basic theory of metals and their characteristics from their differences in hardness, brittleness and durability, resistance to corrosion, and machinability and welding. Basic understanding of metallurgy is essential if machinists and welders are to employ the correct techniques and operational sequences to produce quality parts and products efficiently and effectively.

(19.8 Lec. Hrs./39.6 Lab Hrs.)

MFG:192 Blueprint Reading 3 cr.

This course will cover introduction to engineering drawings, multi-view drawings, sectional views, dimensions and tolerances and part feature specification.

(59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

MFG:196 Materials and Processes in Manufacturing 2 cr.

An introductory course that will give the student a knowledge of important areas of production processes that deal with the most common materials used in industry and an understanding of some of the basic principles and theory behind the selection of certain materials and processes for certain industrial applications. (39.6 Lec. Hrs.)

MFG:200 Electric Discharge Machines (EDM) 1 cr.

This course is designed to further refine the student's CNC programming and implementation skills as applied to the utilization of Electric Discharge Machines (EDM). Students will build on previous skills and knowledge in all facets of machining to learn the operation and application of tool making and machining through wire feed Electric Discharge Machining. Various EDM projects will strengthen the proper use of this equipment. (39.6 Lab Hrs.)

Prerequisite: MF:150.

MFG:203 Manufacturing Processes 3 cr.

This course is designed to give the student a basic understanding of machine practices and processes. Topics of discussion will include machine tools, measuring tools, bench tools, frills and saws, grinding, lathes and mills. Other topics will include types and characteristics of materials, machinability and heat-treating. Students will spend most of their time in the lab performing hands-on projects. (19.8 Lec. Hrs./79.2 Lab Hrs.)

MFG:205 CNC Milling Programming 2 cr.

This course will introduce students to Computer Numeric Control (CNC) programming concepts in manufacturing settings. Topics covered include circular interpolation, manual program units, drilling, tapping, boring canned cycles, conversational programming units for milling operations, as well as verifying new programs and understanding advanced programming techniques. Various projects will strengthen the proper use, programming and troubleshooting of the equipment in the manufacturing setting. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MFG:221.

MFG:212 CNC Turning Operator 2 cr.

This course introduces students to the proper use of Computer Numeric Control (CNC) turning centers in the manufacturing setting. Topics covered include programming codes/manual codes, reading Electrical Industrial Association (EIA) and International Organization for Standardization (ISO) part programs, reading conversational part programs, loading/storing/activating part programs, tool offsets/tool data entry, machine start up, program restarting process planning for new jobs, work holding devices, installing new tools and entering tool life data, establishing program zero and entering tool offset data and establishing the safe index point. Various projects will strengthen the proper use and troubleshooting of this equipment in the manufacturing setting. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MF:150.

MFG:221 Milling Operator 2 cr.

This course will introduce students to the proper use of Computer Numeric Control (CNC) machining centers in the manufacturing setting. Topics covered include programming codes/manual codes, reading Electrical Industrial Association (EIA) and International Organization for Standardization (ISO) part programs, reading conversational part programs, loading/storing/activating part programs, tool offsets/tool data entry, machine start up, program restarting, process planning for new jobs, work holding devices, installing new tools and entering tool life data, establishing program zero and entering tool offset data. Various projects will strengthen the proper use and troubleshooting of this equipment in the manufacturing setting. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MF:150.

MFG:223 CAD/CAM 2 cr.

This course is designed to develop the skills necessary to author, apply and troubleshoot CNC programs in, as well as operate, basic CNC equipment, including CNC Turning/Milling Centers. Design and programming skills will be developed utilizing HAAS Fanuc control trainers for application on both types of machining centers, with students progressing from rudimentary to advanced CNC machining projects on both HAAS Turning and Milling Centers. Other topics such as mastercam working environment, overview of CAD/CAM processes, modifying existing geometry, tooling fundamentals, 2-D tool paths on mill/lathe, creating lathe geometry and improving CAD files will strengthen the proper use and understanding of CAD/CAM equipment in laboratory situations. (19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisites: MFG:186 and MFG:192.

MFG:224 Coordinate Measuring Machine (CMM) 1 cr.

This course will emphasize the proper use of Coordinate Measuring Machine (CMM) to qualify and inspect parts for various manufacturing processes. Statistical Process Control (SPC) is also covered. Various CMM hands-on projects will strengthen the proper use of this equipment. (39.6 Lab Hrs.)

Prerequisites: MFG:186 and MFG:192.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

MFG:229 CNC Project 2 cr.

This course will provide the student with the opportunity to integrate all skills gained in CNC programming and machining courses to design, build, produce variety of parts using the equipment and tools in the manufacturing setting. Special attention and emphasis will be placed on accuracy and proper use of equipment/tools following safe work practices in the lab situation.

(79.2 Lab Hrs.)

Prerequisite: MFG:239, MFG:205.

MFG:239 CNC Lathe Programming 2 cr.

This course will introduce students to Computer Numeric Control (CNC) programming concepts in manufacturing settings. Topics covered include calculating and entering program units, understanding advanced programming techniques, drilling/grooving/boring canned cycles, turning, threading, facing canned cycles, machining the first piece for a new program for lathe operations. Various projects will strengthen the proper use, programming, troubleshooting of this equipment in the manufacturing setting.

(19.8 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MFG:212.

MARKETING

MKT:110 Principles of Marketing 3 cr.

Develops an integrated, analytical and managerial approach to the study of marketing. Principles of the psychological, social, political and economic forces are analyzed as relative to marketing. Strategy of marketing is based on the consumer-oriented concept.

(59.4 Lec. Hrs.)

MKT:140 Principles of Selling 3 cr.

Presents information regarding careers in selling, sales management, preparation needed for selling and sales presentations. Films and presentation by professional sales personnel enhance the learning experience.

(59.4 Lec. Hrs.)

MKT:150 Principles of Advertising 3 cr.

Explains the economic functions of advertising, its value and use in business. Analysis of consumer motivation, presentation of advertising and the effectiveness of various media is presented. Assignments give practice in effective advertising methods.

(59.4 Lec. Hrs.)

MKT:160 Principles of Retailing 3 cr.

Presents the character and significance of retailing in our economy. Examines the principles and applications of strategic planning in retail areas such as ownership, organization, consumer behavior, trading area, merchandise planning and financial management.

(59.4 Lec. Hrs.)

MKT:181 Customer Service Strategies 2 cr.

This course is designed to introduce students to the concepts of customer service and to help them learn the skills and techniques necessary to provide excellent service to the internal and external customers of the organization for which they work. These skills are vital for every job since identifying and satisfying customer needs are essential parts of every business organization.

(39.6 Lec. Hrs.)

MATHEMATICS

MAT:047 Math for Nursing 3 cr.

This course is designed for pre-nursing students who need to improve arithmetic skills. This course builds on basic math skills and incorporates math computation skills necessary in the healthcare field. Emphasis is on understanding systems of measurement and conversions - metric, apothecary, household and other systems of measurement essential for the pre-nursing student. Topics include: whole number review, decimals, fractions, ratios and proportions, percents, formulas, household and metric measurement, basic algebra and word problems. The course is recommended for students whose scores on assessment or diagnostic tests indicate a need for supplemental work in math.

(59.4 Lec. Hrs.)

MAT:104 Applied Math Topics 3 cr.

Presents algebra and geometry applied to specific trade applications. Mathematical ideas and procedures will be presented first, followed by application within the various trades.

(59.4 Lec. Hrs.)

MAT:117 Math for Elementary Teachers 3 cr.

This course is designed for elementary education majors. Topics in this course include mathematical reasoning, logic, sets, number theory, integers, fractions and rational numbers, decimals, percents, statistics, measurement, and transformations.

(59.4 Lec. Hrs.)

Prerequisites: MAT:73 Elementary Algebra II or knowledge equivalent to two years of high school algebra (Algebra I and II)

MAT:121 College Algebra 4 cr.

A college-level algebra course for students majoring in business, the social sciences or liberal arts; and math students as indicated by placement measures. The course is designed to review previously developed concepts and techniques and to prepare for future study in mathematics. Topics include: review of numbers, expressions, and solving equations and inequalities; graphing equations and inequalities; functions including polynomials, absolute value, greatest integer; exponential and logarithmic functions; systems of equations; matrices; permutations; combinations; and the Binomial Theorem. Enrichment topics may include ellipses and hyperbolas; relations as mappings; the study of the Rational Root Theorem and the Fundamental Theorem of Algebra; curve sketching; and probability. Graphics calculator required.

(79.2 Lec. Hrs.)

Prerequisite: MAT:073 or 2 years of high school algebra and minimum math placement scores as determined by individual campus faculty.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

MAT:142 Technical Mathematics I 1.5 cr.

This course is the first of two courses designed to communicate the mathematic principles, concepts and manipulative skills that are needed in basic science and technology. The course will cover arithmetic, scientific notations, engineering notation, significant digits, algebra, solving literal equations, units of measure, solving problems, English and metric linear measurement units, geometry, trigonometry, and compound angles. (29.7 Lec. Hrs.)

Prerequisites: None

MAT:143 Technical Mathematics II 1.5 cr.

This course is the second in a series of two designed to communicate mathematic principles, concepts and manipulative skills that are needed in basic science and technology. This course will also prepare the student for further study in mathematics. Topics of discussion include Factoring and Algebraic Fractions, Systems of Linear Equations, Quadratic Equations and Exponents and Radicals. (29.7 Lec. Hrs.)

Prerequisites: MAT:142

MAT:144 Technical Mathematics III 1.5 cr.

This course is designed to follow Technical Mathematics II. Topics of discussion will include Exponentials and Logarithms Trigonometric Functions, Oblique Triangles and Vectors, and Graphing Trigonometric functions. Special interest will be placed on the application of subjects covered in class. (29.7 Lec. Hrs.)

Prerequisites: MAT:143

MAT:145 Technical Mathematics IV 1.5 cr.

This course is designed to follow Technical Mathematics III. Topics of discussion will include Trigonometric Formulas and Identities, Complex Numbers, Matrices, and Basic Statistics. Special interest will be placed on the application of subjects covered in class. (29.7 Lec. Hrs.)

Prerequisites: MAT:144

MAT:156 Statistics 3 cr.

Introductory statistics course for business, economics, mathematics, science and social science students. The course deals with obtaining, presenting and organizing statistical data. Topics covered include descriptive measures, probability, probability distributions, binomial distributions, normal distributions, sampling estimates, confidence intervals, hypothesis testing, chi-square test, and linear regression and correlation. Graphics calculator required. (59.4 Lec. Hrs.)

Prerequisite: Knowledge equivalent to MAT:073.

MAT:720 Industrial Math and Measurement I 3 cr.

Designed to give the student a basic knowledge of applied mathematics and the understanding of how it relates to the manufacturing industry. Also will prepare the student for further study in mathematics. Topics include basic math operations, English and metric linear measurement units and instruments, algebraic operations, plane geometry, trigonometry, compound angles and numerical control. (59.4 Lec. Hrs.)

MAT:721 Industrial Math and Measurement II 3 cr.

This course is designed to follow Industrial Math and Measurement I as it covers more advanced areas of applied mathematics using trigonometry, algebra and geometry. Specific areas of emphasis are basic linear equations, graphing, exponents and scientific notation, roots and radicals, quadratic equations, logarithms and advanced trigonometry. Use of a scientific calculator will be emphasized as well as industry-related application problems. (59.4 Lec. Hrs.)

Prerequisite: MAT:720.

MAT:722 and MAT:723 Industrial Math and Measurement I/A and I/B 1.5 cr. each

Designed to give the student a basic knowledge of applied mathematics and the understanding of how they relate to the manufacturing industry. Also will prepare the student for further study in mathematics. Topics include basic math operations, English and metric linear measurement units and instruments, algebraic operations, plane geometry, trigonometry, compound angles and numerical control. (29.7 Lec. Hrs. each course)

Prerequisites: MAT:722 - None.
MAT:723 - MAT:722.

MAT:724 and MAT:725 Industrial Math and Measurement II/A and II/B 1.5 cr. each

This course is designed to follow Industrial Math and Measurement I as it covers more advanced areas of applied mathematics using trigonometry, algebra and geometry. Specific areas of emphasis are basic linear equations, graphing, exponents and scientific notation, roots and radicals, quadratic equations, logarithms and advanced trigonometry. Use of a scientific calculator will be emphasized as well as industry-related application problems. (29.7 Lec. Hrs. each course)

Prerequisites: MAT:724 - MAT:723.
MAT:725 - MAT:724.

MAT:733 Math for Manufacturing Technologies A 1.5 cr.

This course will cover use of fractions, decimals, exponents and percentages as they apply to manufacturing applications. It will also introduce the use of algebraic formulas. (29.7 Lec. Hrs.)

MAT:734 Math for Manufacturing Technologies B 1.5 cr.

This course will cover algebraic equations, ratios and proportions, geometric shapes, and machine shop trigonometry. (29.7 Lec. Hrs.)

MAT:743 Technical Math 3 cr.
The first of a two-course sequence designed to communicate the mathematics principles, concepts and manipulative skills needed in basic science and technology. Covers the areas of basic algebra and trigonometry. (59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

MAT:748 Technical Math II 3 cr.

The second of a two-course sequence designed to communicate the mathematics principles, concepts and manipulative skills needed in basic science and technology.

Covers the areas of advanced algebra.

(59.4 Lec. Hrs.)

Prerequisite: MAT:743.

MAT:767 Applied Math for MIT Majors 3 cr.

This course prepares Information Technology students for the types of mathematical problems they will encounter in their career including number systems, conversions, formulas and reasoning. Logical steps to problem solving will be emphasized.

(59.4 Lec. Hrs.)

Prerequisite: MAT:041.

PRACTICAL NURSING

PNN:165/166 Nursing Fundamentals Modules A and B 10 cr.

(PNN:165 - 5 cr.; PNN:166 - 5 cr.)

This course is the initial course in the nursing curriculum. The course introduces the core concept of caring as it relates to the practice of nursing. This course acquaints the student with the therapeutic use of self in caring for clients across the life span. Additionally, the concepts of health, environment, person and nursing are presented as the supporting structure to practice. The nursing process, critical thinking, communication and adaptation are introduced as contributing concepts that are essential to the art of holistic caring. The course is structured to facilitate acquisition of knowledge, techniques and professional values necessary to basic nursing care. The course includes the psychosocial and interpersonal concerns of the nurse and client in the therapeutic environment. Basic interventions for the client with specific health needs are included. Various health care facilities are used including acute and long-term care facilities. This course is offered in two modules. Module A is a prerequisite to Module B.

(118.8 Lec. Hrs./237.6 Clinical Hrs.)

Prerequisites: PNN:210, PNN:165.

Co-requisites: BIO:168; PNN:210/211; PSY:111.

PNN:210/211 Principles of Pharmacology, Modules A and B 2 cr.

(PNN:210 - 1 cr.; PNN:211 - 1 cr.)

Presents basic principles of pharmacology and their relationship to nursing. Drugs are viewed either as assisting the body in homeostasis, assisting the process of adaptation when change is necessary, or as protection against environmental hazards. From these basic concepts, pharmacological maintenance and regulation of body functions are discussed. Drug categories are discussed according to drug prototypes. This allows students to draw inferences about other drugs in the same category. Emphasis is placed on nursing responsibilities in drug therapy including SAFE administration of ALL drugs. This course is offered in two modules. Module A is a prerequisite to Module B.

(39.6 Lec. Hrs.)

PNN:511/512 Concepts in Clinical Nursing I 9 cr.

(PNN:511 - 4 cr.; PNN:512 - 5 cr.)

This course builds on basic concepts and techniques learned in Nursing Fundamentals. It is the second nursing course in the Practical Nursing curriculum. In addition, this course contributes to the foundation of the Associate Degree Nursing curriculum. Emphasis will be placed on adaptation to common stressors, the resulting health-illness responses and the transformation of caring into therapeutic nursing interventions. A life span approach to health restoration and rehabilitation will be used. The course is structured to integrate prior and concurrent knowledge and techniques. Professional behaviors conducive to a therapeutic environment are emphasized. Clinical experience is provided in acute and long-term care facilities. This course is offered in two modules. Module A is a prerequisite to Module B.

(99.0 Lec. Hrs./237.6 Clinical Hrs.)

Prerequisites: BIO:186, PNN:210/211, PNN:165 and PSY:111.

Co-requisites: BIO:151, BIO:172 and PSY:121.

PNN:641 Transition to Practice 6 cr.

Transition to Practice is an exit course for practical nurses which builds on concepts taught in previous nursing courses. The concepts of caring, health, environment, person and nursing are closely examined. Emphasis is placed on meeting the spiritual, psychosocial, emotional and physical needs of clients, by the practical nurse team member. In addition, nursing care specific to elderly clients is presented. This course affords the student an opportunity to examine current trends in health care delivery and legislation. Consequently the student will be prepared to assume the role of a licensed practical nurse.

(79.2 Lec. Hrs./118.8 Clinical Hrs.)

Prerequisites: BIO:168, B:173, B:151, PSY:111, PSY:121, PNN:210, PNN:211, PNN:165, PNN:166, PNN:511, PNN:512.

Co-requisite: ENG:105.

PSYCHOLOGY

PSY:111 Introduction to Psychology 3 cr.

An examination of the fundamentals of behavior. Designed to familiarize students with human behavior, how it is studied and the applications of the results of that study. Theoretical issues, comprehension of research findings and research techniques will also be examined.

(59.4 Lec. Hrs.)

PSY:121 Developmental Psychology 3 cr.

Designed to provide the student with an understanding of the process and interrelationship of physical, emotional, intellectual and social evolution in the individual. Attention is given to these human potentials throughout the life cycle from conception to death.

(59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

PSY:213 Industrial and Organizational Psychology 3 cr.

A study of psychology as a guide to the relationship of people in industry. Designed to help each student develop an awareness of needs, sentiments and attitudes toward self and others in an organizational setting. Organizational problems are anticipated and preventive means are studied.
(59.4 Lec. Hrs.)

PSY:223 Child and Adolescent Development 3 cr.

Deals with the interplay of biological factors, human interactions, cultural forces and social structure which shape the growing child from conception to adolescence.
(59.4 Lec. Hrs.)

PHYSICAL SCIENCE

PHS:176 Physical Geology 4 cr.

A survey course in physical geology, including the earth's dynamic systems, weathering of rocks, erosion processes, the theory of plate tectonics, volcanism, evolution of ocean basins, resources and environmental problems. Emphasis in lab is on the study of common minerals and rocks.
(59.4 Lec. Hrs./39.6 Lab. Hrs.)

PHYSICS

PHY:130 Applied Physics I 2 cr.

The first of two classes, this is an intensive applied math and physics experience. The content covered will be reinforced with a highly "hands-on" approach. This course will discuss the mathematics behind the physics as well as a discussion on technical measurements and vectors. Additional topics include translation equilibrium and friction, torque, and rotational equilibrium, uniform acceleration and Newton's Laws.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MAT:142.

PHY:135 Applied Physics II 2 cr.

The first of two classes, this is an intensive applied math and physics experience. The content covered will be reinforced with a highly "hands-on" approach. This course will focus on such topics as work, energy and power, impulse and momentum, uniform circular motion, rotation of rigid bodies, simple machines and properties of fluids.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: PHY:130.

PHY:173 and PHY:174 Applied Physics I/A and I/B 1.75 cr. each

An intensive applied math and physics experience. The content covered will be reinforced with a highly "hands-on" approach, applying concepts across the four primary energy systems, while strengthening each participant's math skills. Topics covered will include force, work, rate, resistance and power/force transformers.
(19.8 Lec. Hrs./29.7 Lab Hrs. each course)

Prerequisites: PHY:173 - MAT:723.
PHY:174 - PHY:173.

PHY:175 and PHY:176 Applied Physics II/A and II/B 1.75 cr. each

A continuation of concepts developed and delivered in Applied Physics I/A and I/B. It is an intensive applied math and physics course. Course content is delivered through application labs as well as traditional methods. Concepts will again be applied over the four primary energy systems. Main units of coverage will be momentum, waves, energy converters, transducers, radiation, optical systems and time constants.
(19.8 Lec. Hrs./29.7 Lab Hrs. each course)

Prerequisites: PHY:175 - PHY:174.
PHY:176 - PHY:175.

PHY:181 Applied Physics I 3 cr.

An intensive applied math and physics experience. The content covered will be reinforced with a highly "hands-on" approach, applying concepts across the four primary energy systems, while strengthening each participant's math skills. Topics covered will include force, work, rate, resistance, energy, power and force transformers.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: MAT:720.

PHY:182 Applied Physics II 3 cr.

A continuation of concepts developed and delivered in Applied Physics I. It is an intensive applied math and physics course. Course content is delivered through application labs as well as traditional methods. Concepts will again be applied over the four primary energy systems. Main units of coverage will be momentum, waves, energy converters, transducers, radiation, optical systems and time constants.
(39.6 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: PHY:181.

RADIOLOGIC TECHNOLOGY

RAD:100 Introduction to Radiography and Patient Care 5 cr.

This course will introduce the student to the history of radiology and radiologic technology. The student will learn of the hospital, its structure, medical knowledge necessary to provide safe patient care including communication skills, legal and ethical issues in medicine, body mechanics, patient transfer, medical terminology, valuing diversity, standard precautions and radiography as a profession. The student will observe in the radiology department four hours per week in the final half of the semester.
(59.4 Lec. Hrs./79.2 Lab Hrs.)

RAD:123 Radiographic Procedures I 5 cr.

This course familiarizes the first-semester student with patient positioning and common terms and procedures performed in the radiology department. Procedures to be studied and simulated in the energized laboratory include upper and lower extremity, chest, gastrointestinal, abdominal and urinary tract radiography. Preparation, precautions and administration of contrast media will be explored. Radiographic critique will be integrated throughout the course.
(79.2 Lec. Hrs./39.6 Lab Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

RAD:143 Radiographic Procedures II 5 cr.

This course is designed to study radiographic anatomy and procedures of the shoulder and pelvic girdles, bony thorax, spine and skull. Students will simulate these procedures in the energized laboratory. Emphasis will be given to those procedures that are most commonly performed in the radiology department. Radiographic film critique will be integrated throughout the course. (79.2 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: RAD:123.

RAD:183 Special Procedures 3 cr.

An integrated study of detailed anatomy, physiology and radiographic procedures including the use of special equipment. Special emphasis is placed on the radiographic procedures related to the circulatory and nervous system. The scientific principles and uses of computerized tomography, digital angiography, magnetic resonance, ultrasonography and nuclear medicine are discussed. Students will apply these principles during clinical practicum and special rotations. Preparation, precautions and administration of contrast media will be explored. (59.4 Lec. Hrs.)

Prerequisite: RAD:143.

RAD:210 Clinical Education I 4 cr.

The radiography student will be assigned to a clinical affiliate. Students will be thoroughly oriented to the operation of the hospital and radiology department. Students will observe, assist with and gradually perform under direct supervision, procedures learned in Radiographic Procedures I. They will learn routine procedures performed in the assigned clinical affiliate and apply procedures introduced in Imaging. Film critique will be integrated throughout the course. Students will meet requirements and competencies in the areas specified in the clinical procedure manual. (316.8 Clinical Practicum Hrs.)

Prerequisites: RAD:123, RAD:350 and RAD:100.

RAD:220 Clinical Education II 3 cr.

The student will be assigned to the same clinical affiliate as in Clinical Education I. Students will continue to perform radiographic procedures with indirect supervision on those exams where competency has been achieved. Emphasis will be placed on routine procedures learned in Radiographic Procedures I and II. Film critique will be integrated throughout the course. Students will meet requirements and competencies in the areas specified in the clinical procedure manual. The student will complete rotations in ultrasound, nuclear medicine and radiation therapy. (201.6 Clinical Practicum Hrs.)

Prerequisite: RAD:210.

RAD:300 Radiographic Exposure 4 cr.

This course explores the principles of equipment operation, phototimers and manual techniques. The factors affecting radiographic quality and the methods for maintaining good radiographic quality are investigated. Many learning experiences are provided in the energized laboratory. (59.4 Lec. Hrs./39.6 Lab Hrs.)

Prerequisite: RAD:350.

RAD:350 Imaging 3 cr.

This course explores the principles of automatic processing, digital radiography, image intensification and fluoroscopy. Film characteristics and composition, screens, grids are investigated. Learning experiences are provided in the energized laboratory when appropriate. (39.6 Lec. Hrs./39.6 Lab Hrs.)

RAD:500 Clinical Education III 6 cr.

The student will be assigned to a different clinical affiliate where he/she will be oriented to the hospital and radiology department. Under indirect supervision, the student will perform routine procedures where competency has been achieved as assigned. With direct supervision, the student will achieve competencies in radiographic procedures as specified in the clinical manual. Film critique will be integrated throughout the course. The student will complete rotations in computed tomography, mammography, magnetic resonance imaging and cardiac catheterization. (475.2 Clinical Practicum Hrs.)

Prerequisite: RAD:220.

RAD:510 Clinical Education IV 6 cr.

The student will be assigned to the same clinical affiliate as Clinical Education III and continue to perform routine procedures with indirect supervision where competency has been achieved. Film critique will be integrated throughout the semester. Students will meet requirements as specified in the clinical procedures manual. (475.2 Clinical Practicum Hrs.)

Prerequisite: RAD:850.

RAD:540 Clinical Education V 3 cr.

Students will be assigned to the same clinical affiliate as in Clinical Education IV. Students will continue to perform radiographic procedures with minimal supervision and attain competency in all radiographic procedures as specified in the clinical procedure manual. (201.6 Clinical Practicum Hrs.)

Prerequisite: RAD:510.

RAD:750 Radiographic Pathology 3 cr.

This course focuses on the common diseases and abnormalities of organs and systems as they relate to radiography. The anatomy and physiology of each system will be reviewed preceding the discussion of that system's diseases. Proper learning and understanding of the material will be facilitated by experience in performing radiographic procedures and film evaluation, including the concept of the changes in technique required to compensate for density differences produced by the underlying pathologic conditions. (59.4 Lec. Hrs.)

Prerequisites: RAD:183 and RAD:220.

RAD:760 Film Evaluation I 2 cr.

This is the first of a two-part course. This course is designed to emphasize principles of film evaluation as it relates to technique, collimation, shielding, positioning and radiographic quality. "Radiograph rejects" are studied in detail. Procedures to improve their diagnostic quality are emphasized, including the use of existing diagnostic exams to demonstrate desirable films. (39.6 Lec. Hrs.)

Prerequisites: RAD:183 and RAD:220.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

RAD:790 Film Evaluation II 2 cr.

This is a continuation of a two-part course. This course is designed to emphasize principles of film evaluation as it relates to techniques, collimation, shielding, position and radiographic quality. "Radiograph rejects" are studied in detail. Procedures to improve their diagnostic quality are emphasized, including the use of existing diagnostic exams to demonstrate desirable films. (39.6 Lec. Hrs.)

Prerequisite: RAD:760.

RAD:800 Physics for Radiographers 3 cr.

This course explores the physical concepts of energy, the structure of matter, electrostatics, electrodynamics, magnetism, electromagnetism, electric generators and motors, the principles of electricity as it relates to x-ray circuits, rectification and x-ray production. X-ray tubes, rating charts and interaction of x-rays with matter are also discussed in detail. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Prerequisites: RAD:760, RAD:850 and RAD:750.

RAD:850 Radiation Protection and Biology 3 cr.

This course explores the history and biological effects of ionizing radiation. Different methods of radiation measurement, detection and protection are discussed. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

Prerequisites: RAD:760, RAD:850 and RAD:750.

RAD:890 Quality Assurance 1 cr.

This course explores the theory and practice of quality assurance in the diagnostic radiology department. The use of quality assurance test tools, interpretation of results and management of a quality assurance program through record keeping are investigated in the laboratory. (9.9 Lec. Hrs./19.8 Lab Hrs.)

Prerequisites: RAD:800, RAD:850, RAD:790 and RAD:510.

RAD:946 Seminar 2 cr.

This course is designed to provide the student with the opportunity to explore state-of-the-art technology, computer fundamentals and computer applications in radiology. The student will also be given the opportunity for the re-examination of previously learned material and based on pre-assessment, certain topics will be selected for discussion. (39.6 Lec. Hrs.)

(39.6 Lec. Hrs.)

Prerequisites: RAD:800, RAD:850, RAD:790 and RAD:510.

READING

RDG:140 Technical Reading 3 cr.

This course is designed to assist the student who is required to read technical materials in his/her career choice. New technological changes require constant updating through reading books, professional journals and magazines. Emphasis will be on improving comprehensive reading skills, technical vocabulary, reading rate and study skills. This is an elective course for vocational-technical students. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

SPEECH

SPC:112 Public Speaking 3 cr.

Introduction to the principles of public speaking with emphasis on performance and listening. Experience in the basic process and principles of public speaking, audience analysis, selection and organization of speech material, style and delivery. Practice in delivery and preparation of informative and persuasive extemporaneous speeches. (39.6-59.4 Lec. Hrs.)

(39.6-59.4 Lec. Hrs.)

SPC:122 Interpersonal Communication 3 cr.

This course will help students become more aware of who they are and how they relate to and communicate with other people. Elements will include self-esteem, disclosure, perception, listening, verbal and nonverbal communication, persuasion, assertiveness, coping with conflict and managing relationships. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

SPC:170 Professional Communication 3 cr.

Practice and theory in professional speaking. Experience in informational persuasive communication through reports, group discussion, interviews and conference management. (59.4 Lec. Hrs.)

(59.4 Lec. Hrs.)

SOCIOLOGY

SOC:110 Introduction to Sociology 3 cr.

The basic premise of sociology is that life is not lived individually, but in groups, through the symbols, the language, the roles we play, the culture the group has developed and the meanings the group has to offer. This course will introduce a framework of thinking that involves social structure, function, interaction and conflict, with respect to family, education, the economy, government and religion. (59.4 Lec. Hrs.)

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

STUDENT DEVELOPMENT

SDV:174 Critical and Creative Thinking 3 cr.

Provides training in thinking, decision-making, problem analysis and problem solving. The students will apply critical and creative thinking strategies to problems in a variety of personal, occupational and cultural situations. (59.4 Lec. Hrs.)

TRUCK DRIVING

TDT:110 Commercial Drivers License Regulations 2 cr.

The Commercial Motor Vehicle Safety Act of 1986 (CMVSA) placed more stringent requirements on licensing of all commercial truck drivers. This course is designed to deliver all of the needed information to take and pass the Commercial Drivers License General Knowledge Written Exams in the states of Illinois and Iowa. Along with the Commercial Drivers License required material will be units on log books and first aid training. (39.6 Lec. Hrs.)

TDT:130 Commercial Vehicle Operation 7 cr.

Professional Commercial Motor Vehicle Operators not only need the necessary information to be successful, but they must be able to operate the tractor-trailer combination in a proficient and safe manner. This course continues to deliver the information necessary to become a commercial vehicle operator and also develops the skills and techniques essential to the safe and professional operation of a commercial vehicle. Information also includes training and certification in Basic Cardiac Life Support. (39.6 Lec. Hrs./297 Lab Hrs.)
Prerequisite: TDT:110.

WELDING

WEL:124 Maintenance Welding 3 cr.

Designed for the basic needs of the manufacturing student, including instruction and practice in gas cutting and welding, brazing, arc welding in various positions and basic MIG welding. Topics covered also include safe use of welding equipment and machinery, abrasive cut-off saws, shears, grinders and various tools common to the welding field. Designed to teach the student how to weld with different electrodes in all positions. Emphasis is on the E-6010 and E-7018 electrodes. The student safely sets up welding equipment, learns how to adjust it and how to operate it, and how to weld and braze in all four positions. The learning experience is also enhanced by cutting freehand with the cutting torch and operating semi-automatic cutting equipment. (19.8 Lec. Hrs./118.8 Lab Hrs.)

WEL:126 Shielded Metal Arc Welding-Basic 4.75 cr.

This course covers basic Shielded Metal Arc Welding procedures in the flat position. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. (12 Lec. Hrs./128 Lab Hrs.)

WEL:127 Shielded Metal Arc Welding - Modules 1.25 cr.

Selected modules from WEL:126 course will be taught in this course. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. (9.9 Lec. Hrs./29.7 Lab Hrs.)
Co-requisites: WE:186 or instructor's approval.

WEL:129 Gas Metal Arc Welding-Basic 4.25 cr.

This course covers safety and Metal Inert Gas (MIG) welding techniques in horizontal, vertical and overhead positions. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. (8 Lec. Hrs./120 Lab Hrs.)

WEL:132 Flux Core Arc Welding 2.25 cr.

This course covers safety and flux core arc welding techniques. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. (9.9 Lec. Hrs./69.3 Lab Hrs.)
Prerequisites: WEL:126, WEL:129 and MFG:186.

WEL:133 Gas Tungsten Arc Welding 2.5 cr.

This course covers safety and tungsten inert gas (GAS) in the flat position. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. (9.9 Lec. Hrs./79.2 Lab Hrs.)
Prerequisites: WEL:126, WEL:129 and MFG:186.

CAREER TECHNOLOGY - COURSE DESCRIPTIONS

WEL:136 Oxy-Acetylene Welding and Cutting 4.25 cr.

This course covers safety and Oxy-Acetylene Welding and Cutting techniques. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. Variable credits are awarded in this course.

(12 Lec. Hrs./112 Lab Hrs.)

Prerequisites: WEL:126 and WEL:129.

WEL:137 Oxy-Acetylene Welding and Cutting-Modules 0.5 cr.

Selected modules from WEL:136 will be covered. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting. Variable credits are awarded in this course.

(6.9 Lec. Hrs./5.9 Lab Hrs.)

Prerequisites: WEL:126, WEL:129 and MFG:186 or Instructor's Approval.

WEL:215 Shielded Metal Arc Welding - Advanced I 5 cr.

This course covers basic advanced shielded metal arc welding procedures in variety of positions. Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting.

(9.9 Lec. Hrs./178.2 Lab Hrs.)

Prerequisite: WEL:126.

WEL:216 Shielded Metal Arc Welding - Advanced II 4.5 cr.

This course continues with the advanced concepts and techniques covered in the Shielded Metal Arc Welding (Advanced I - WEL:215 course). Variety of hands-on projects/experiments integrates and reinforces theoretical concepts in the laboratory setting.

(9.9 Lec. Hrs./158.4 Lab Hrs.)

Prerequisite: WEL:215

WEL:217 Gas Metal Arc Welding - Advanced 1.25 cr.

This course covers advanced metal inert gas (MIG) welding techniques in a variety of positions. Electrode selection, power source and welding distortion control using arc-welding process are emphasized. Numerous hands-on projects/experiments integrate and reinforce theoretical concepts in the laboratory setting.

(9.9 Lec. Hrs./29.7 Lab Hrs.)

Prerequisite: WEL:129.

WEL:219 Layout and Fabrication 3 cr.

This course includes the computation and development of sketch outs of various geometries and special fabrication techniques in cutting, fitting, clamping and tacking. The lab project requires the use of fabrication equipment.

(19.8 Lec. Hrs./79.2 Lab Hrs.)

Prerequisites: WEL:216 and WEL:217.

WEL:331 Welding Fundamentals 2 cr.

This course is designed especially for auto technology and diesel technology students. The welding processes that will be studied are those that are currently being used in auto and truck repair centers. Competencies that will be developed are intended to provide entry-level skills. This course is not designed to provide the skills required for welding certification.

(19.8 Lec. Hrs./59.4 Lab Hrs.)

WEL:949 Topics in Welding 1-6 cr.

Students with basic welding knowledge and skills may develop specialized courses of study to meet their individual needs.

(39.6-237.6 Lab Hrs.)

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