



Catalog

2006-2008



STATE FAIR COMMUNITY COLLEGE CATALOG 2006 - 2008

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This catalog is a publication of the Registrar's Office at State Fair Community College. Every effort has been made for it to contain accurate information at the time of publication.

This catalog is not intended to be a contract between you and SFCC. The college reserves the right to make changes in the calendar, the curricula, the faculty, the fees, and to otherwise alter policies and regulations without notice.

CALENDAR FOR 2006-2008

FALL 2006

August 21 Fall Semester Starts
 September 4 Labor Day Holiday
 November 21 (4pm)-24 Thanksgiving Holiday
 December 12-15 Day Finals
 December 11-14 Evening Finals
 December 15 Semester Ends

SPRING 2007

January 1 New Year's Day Holiday
 January 8 Spring Semester Starts
 January 15 Martin Luther King, Jr. Day
 Holiday
 February 19 Presidents' Day Holiday
 March 5-9 Spring Break
 April 6 Spring Holiday
 May 3 Thursday Evening Finals
 May 7-10 Day Finals
 May 7-9 Monday-Wednesday Finals
 May 10 Commencement Rehearsal/
 Semester Ends
 May 11 Commencement

SUMMER 2007

May 28 Memorial Day Holiday
 May 29 Summer Session Starts
 July 4 Independence Day Holiday
 July 23-24 Day and Evening Finals
 July 24 Session Ends

FALL 2007

August 20 Fall Semester Starts
 September 3 Labor Day Holiday
 November 20 (4pm)-23 Thanksgiving Holiday
 December 11-14 Day Finals
 December 10-13 Evening Finals
 December 14 Semester Ends

SPRING 2008

December 31 New Year's Eve Holiday
 January 1 New Year's Day Holiday
 January 9 Spring Semester Starts
 January 21 Martin Luther King, Jr. Day
 Holiday
 February 18 Presidents' Day Holiday
 March 10-14 Spring Break
 March 21 Spring Holiday
 April 30 Wednesday Evening Finals
 May 1 Thursday Evening Finals
 May 5 Class Meeting for Monday
 Evening Classes
 May 6 Tuesday Evening Finals
 May 7 Monday Evening Finals
 May 5-8 Day Finals
 May 8 Commencement Rehearsal/
 Semester Ends
 May 9 Commencement

SUMMER 2008

May 26 Memorial Day Holiday
 May 28 Summer Session Starts
 July 4 Independence Day Holiday
 July 21-22 Day and Evening Finals
 July 22 Session Ends

PRESIDENT'S MESSAGE

Dear Students and Prospective Students:

State Fair Community College (SFCC) is a learning community dedicated to student success. The strength of the college lies in a multi-faceted mission emphasizing smooth transitions to four-year institutions, career development, partnership programs with business and industry, and strong community service and leadership opportunities.

At SFCC, students are engaged in the learning process as full partners. The college provides a wide range of educational opportunities, including academic transfer degrees, technical-occupational programs, general education classes, and non-credit offerings for lifelong learners. Fully accredited by the North Central Association of Colleges and Schools, SFCC has been accepted as a participant in the Academic Quality Improvement Program accreditation process. Our commitment to your success is based on our ability to continually improve our services and meet your educational needs.

At SFCC, partnership programs with business and industry provide relevant, hands-on learning opportunities that lead to career entry and advancement. Extended campus sites, distance learning and online Internet courses offer students even more convenience as they participate in higher education opportunities. High school career and technical programs are provided through the Career and Technical Center located on the Sedalia campus. Dual credit enrollment is available to high school seniors throughout our 14-county service area, and if you attended one of Missouri's designated A+ high schools, you may use your A+ funds to pay for a two-year degree or one-year certificate at SFCC.

Whether you are a recent high school graduate or a returning college student seeking career advancement, at SFCC "We're Here for You!"

Please let us know how we can serve you. We look forward to seeing you on campus!

Best wishes for your successful SFCC experience,



Marsha Drennon, Ed.D.
President

ADMINISTRATION

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Dr. Marsha K. Drennon

Vice President for Student Services

Dr. Michael L. Ash

Vice President for Institutional Advancement

Mary E. McIntosh

Vice President for Educational Technology Services

Robert O. Paulson

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Dr. Brent E. Bates

Dean of Academic Affairs

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Vice President for Finance and Administration

Garry G. Sorrell

Dean of Extended Campus Services

Deborah D. Degan-Dixon



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An Introduction to STATE FAIR COMMUNITY COLLEGE

Welcome to State Fair Community College!

This catalog is designed to help you with planning your educational program. It contains information about programs, admission, and registration.

Descriptions of all current courses that are part of the regular curriculum are included. This includes courses required for general education credits for the Associate of Arts and Associate of Applied Science degrees awarded by the college and career courses that apply to the Professional Certificates and the Associate of Applied Science degrees.

MISSION

State Fair Community College is an accessible, learning-centered institution, enriching its students and community by providing skills, knowledge, and perspectives essential for a changing world.

VISION

State Fair Community College will be an exemplary college dedicated to institutional effectiveness, strengthening communities and partnerships, ensuring student success, valuing people, and practicing continuous quality improvement.

CORE VALUES

We, at State Fair Community College value:
A student-centered learning environment;
administration, faculty and staff who are committed to excellence; the communities and partners we serve; professional development that strengthens the individual and the college community; diversity; communication that is open, thoughtful, and respectful of others' opinions; honesty and integrity; exemplary stewardship of resources; facilities, equipment, and technology that enhance student learning; measuring outcome that support

continuous quality improvement; and having fun and enjoying the work we do on behalf of the students we serve.

GOALS

- Goal 1: Increase student success and retention
- Goal 2: Strengthen and improve teaching and learning
- Goal 3: Develop a culture of continuous quality improvement
- Goal 4: Ensure an institutional climate that values employees
- Goal 5: Improve and expand services at extended campus sites
- Goal 6: Improve public awareness throughout the 14-county service area
- Goal 7: Increase resource diversification and funding

GOVERNANCE

State Fair Community College is a publicly supported comprehensive community college dedicated to offering educational opportunities to the community it serves. The taxing district is composed of the school districts of Benton and Pettis counties and the R-VI School District of Cooper County, Missouri. The college's service area includes 14 counties: Benton, Camden, Carroll, Cole, Cooper, Henry, Hickory, Johnson, Miller, Moniteau, Morgan, Pettis, Saline, and St. Clair.

The college is governed by a six-member Board of Trustees. Members are elected from the district for terms of six years with two members being elected each even-numbered year. The board meets the fourth Monday of each month. Meetings are open to the public.

ACCREDITATION

State Fair Community College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, Illinois, 60602-2504, 800-621-7440.

ADMISSION, REGISTRATION and FEES

ADMISSION PROCEDURES

For First-Time College Students

If you are interested in enrolling for college credit on either a full- or part-time basis and pursuing a degree or certificate, or taking courses to transfer to another institution, you should do the following:

1) Submit an Application for Admission and the application fee. Forms are available in the Student Services Office at the main campus, from site coordinators, or you can apply online at the SFCC Web site.

2) Submit your high school transcript or GED certificate. A final transcript with the date of graduation must be submitted following your high school graduation. It is in the student's best interest to receive a high school diploma or GED before starting college; however, there is another process by which a student's ability-to-benefit can be determined. Students at least 16 years old who are enrolled in a GED program must attain minimum scores on an approved ability-to-benefit test prior to being eligible to enroll. The student is expected to pass the GED exam by the completion of 12 credit hours at SFCC. Detailed information about this admission process is available from the Student Services Office.

3) Take a Placement Exam. A placement exam (ACT, SAT, ASSET, or COMPASS) is required of full-time students and degree-seeking students whether full- or part-time. The ACT is preferred for recent high school graduates. The ASSET or COMPASS is recommended for applicants who are other than traditional high school age.

The ACT and SAT are administered at test centers throughout Missouri and also in other states. You must be registered and pay in advance in order to take a national test. The test dates and registration packets are available from the college or from a high school counselor.

State Fair Community College administers the ASSET and the COMPASS exams free to applicants. The ASSET is a paper and pencil placement exam and is offered on campus at least once each month. The COMPASS is a computerized placement exam given by appointment. Contact the Student Services Office or a site coordinator for specifics.

Placement testing is not required for visiting students with signed approval forms from their home institution except when lacking a prerequisite English or math course; students who have completed 15 semester hours of college-level courses including English Composition I and Intermediate Algebra (or higher level math course), and who have a minimum 2.0 grade point average; non degree-seeking students taking courses for personal enrichment (except when enrolling in English, math, or courses that require a prerequisite in English or math); and students who have completed an associate's or bachelor's degree from an accredited college.

For Transfer Students

Transfer students in good academic standing with the college or university they last attended are eligible for admissions with advanced standing. Transfer students admitted with a cumulative GPA that does not meet SFCC satisfactory academic progress requirements will enter on probation. Students suspended for disciplinary reasons from another college need to obtain an interview with the Vice President for Student Services prior to submitting an application.

Transfer students may apply for admission by submitting the following:

- 1)** An Application for Admission and the application fee;
- 2)** A high school transcript or GED certificate unless you have a college degree;
- 3)** An official transcript from every college attended;
- 4)** Placement test scores unless your college transcript shows the completion of 15 semester hours of college-level courses including completion of English Composition I and Intermediate Algebra (or higher level math course) with grades of C or better.

For International Students

If you are seeking international student admission to the college you need to document or submit the following to be considered for admission:

- 1)** An Application for Admission and the application fee;

- 2) Completion of a secondary education equivalent to graduation from a U. S. high school and a transcript or diploma translated in English;
- 3) An official transcript from all post secondary academic institutions attended that has been translated and evaluated by one of the recognized U.S. transcript evaluation services;
- 4) Proficiency in English as determined by TOEFL (Test of English as a Foreign Language) with a total score of 450 or higher (paper-based) or 133 or higher (computer-based);
- 5) Evidence of financial support for the calendar year.

If you are accepted as an international student, you will need to take a placement exam prior to registration to complete regular student admission requirements.

All required materials must be submitted at least 30 days prior to the beginning of the semester in which you plan to attend. Upon arrival into the community, international student applicants must see the international student advisor in the Student Services Office at the main campus and present the following before s/he may enroll in classes: copy of the I-20 stamped by immigration upon entry into the United States; the I-94; and a passport or approved substitute.

For Non Degree-Seeking Students

If you do not wish to pursue a degree or certificate, or if you do not plan to transfer credits to another institution, you may enroll as a non degree-seeking student. Should you decide later to apply your credits toward a degree or certificate, you may change your status to degree-seeking by declaring a major and taking a placement exam. Non degree-seeking students may apply for admission by submitting the following:

- 1) An Application for Admission and the application fee;
- 2) A high school transcript or GED certificate;
- 3) An official transcript of college credit (in some cases this requirement may be waived depending upon the courses you choose);
- 4) Placement test scores or proof of prerequisites if an English or math course is selected.

For Visiting Students

If you are interested in taking classes to transfer back to your regular college or university, you may be admitted as a visiting student. You must have a minimum grade point average of 2.0 at your home

institution. For admission, visiting students are required to submit the following:

- 1) An Application for Admission and the application fee;
- 2) A Visiting Student form signed by your advisor or registrar at your home institution;
- 3) An official transcript from your home institution showing completion of any prerequisite course and a minimum GPA of 2.0;
- 4) Placement test scores if you wish to take an English or math class and have not received an appropriate grade in the prerequisite course. Visiting students follow SFCC's placement policy. You will need to request that your SFCC transcript be sent to your home institution after you finish the course.

For Students Who Wish to Enroll for Audit

Persons may enroll for audit when they wish to review (have previously completed the course with a grade of **C** or higher at SFCC or another college) or preview a course. They must complete the same admission requirements as non degree-seeking students and must officially enroll, pay regular tuition/fees, and meet any applicable prerequisite requirements. When auditing a course, assignments and tests are not required; however, an instructor may establish and enforce attendance policies. Those who wish to enroll for audit should indicate this at the time of initial enrollment by completing the Request to Audit form in the Registrar's Office. However, if a student decides to audit after the semester/session begins, permission must be obtained from the instructor and the Request to Audit form must be returned to the Registrar's Office within the first four weeks of the semester (first two weeks of a summer session). Audited classes do not count as part of the regular load for financial aid, veteran's certification, nor as hours earned in determining satisfactory academic progress.

For Students Seeking Articulation Credit

Articulation credit is granted to students who have completed courses in a program at a secondary school with which SFCC has an articulation agreement. The student must have **B** grades in the courses which can be articulated, apply for the credit, meet regular student admission requirements, and enroll at the college. The courses are transcribed with credit hours and may apply to a degree or professional certificate.

Specific questions should be directed to the TECH PREP Office at the main campus.

For High School Students Seeking Advanced Credit

Advanced credit may be earned by a high school student who has completed the sophomore year and ranks in the upper 50 percent of his/her high school class or has a cumulative grade point average of 3.0 on a 4.0 scale, has written approval from his/her high school counselor or principal, and submits a current transcript. Placement scores are required for English or math courses. Up to 10 semester hours may be taken during the summer session. During a regular semester, an advanced credit student may enroll in a variable amount of credit depending upon high school principal or counselor recommendation and the approval of the Registrar. The student pays tuition and fees and is not eligible for financial aid. These credits will be transcribed with grades that apply to college GPA.

For High School Students Seeking Dual Credit

Dual credit is earned by enrolling for classes taught at an SFCC campus or at the high school. Students earn college credit and high school credit at the same time. The student must have completed his sophomore year and must have a cumulative grade point average of 3.0 on a 4.0 scale (as required by the Missouri Coordinating Board for Higher Education), be recommended by the high school, and send SFCC his high school transcript. Placement scores are required if English or math is taken. The student or the high school district pays tuition and fees for these classes. The student is not eligible for financial aid while still in high school. These credits will be transcribed with grades that apply to college GPA.

For High School Students Seeking Early College Admission

This permits a high school senior to enter SFCC full time for the final semester of his senior year. Permission to enter early must be secured from the high school counselor or principal. The student must meet regular student admission requirements.

For Students Who Are Home Schooled

Students who are at least 16 years old and have completed a program of home schooling must present one of the following with the SFCC Application for Admission and the application fee:

An official transcript from the correspondence program vendor or from the parent showing courses/credits completed and date of completion; or an official score report from a national ACT Assessment with a minimum composite score of 19; or an official GED certificate; or an official transcript from an accredited college or university that shows the completion of a minimum of 15 semester hours of college level courses with a 2.0 GPA.

For Returning Students

Returning students who have not been enrolled at the college for two years or more must be readmitted in the Student Services Office at the main campus or at a site coordinator's office. The admission files of students who have not attended within five years are destroyed. Transcribed grades earned at SFCC or from previous transfer credit are retained. Students who applied for admission but did not enroll within a year will have their files destroyed. Students will need to submit another application, GED or high school records, college transcripts, and other documents that were in the student's file.

Application Deadlines

For students applying for admission to regular programs of study, it is recommended that application procedures be completed by March 1, if you plan to start in the fall. Applications from new students are accepted up to and through the first week of the semester for non-restricted programs; however, an instructor's signature is necessary to register for a course after a semester/session has started.

Allied health programs are selective admission programs and have specific application deadlines. Check with the Student Services Office for applications and deadlines. Applicants for some programs may be required to enroll in and attend specific preparatory workshops or to complete required prerequisite courses.

REGISTRATION

Information is available prior to the start of each registration period for new, current, and returning students on the college's Web site at www.sfccmo.edu, from the Student Services Office at the main campus, or from a site coordinator at one of the extended campus sites.

RESIDENCY

Residency status for tuition assessment is determined by your permanent legal address at the time you apply for admission. For dependent students under 21, this is the same as their parents' address. There are four classes of residency: In-District Resident; Missouri Resident; Resident of Other States; and International.

The difference in tuition assessed is due to the college district taxes levied and paid by residents of school districts within the SFCC district. Some students (or spouses/parents/guardians) live outside the district but own property in the district. They are classified as a Missouri Resident (out-of-district) but are allowed credit annually for taxes paid to the district.

Resident status does not change during the semester nor during the time a student is continuously enrolled even if the student moves into the district, as long as the primary purpose for the move is to attend SFCC. Occasionally, special circumstances may affect a change in residency status and a request to change residency status should be filed in the Student Services Office. A decision will be made based upon the evidence presented. A copy of the residency policy is published in the Student Handbook/Planner and may be acquired from the college.

The following school districts are in the SFCC district:

Cole Camp R-I
Otterville R-VI
Green Ridge R-VIII
Sedalia 200
Pettis County R-V
Hughesville/Houstonia
Pettis County R-12, Dresden
Smithton R-VI
LaMonte R-IV
Warsaw R-IX
Lincoln R-II

All full-time active duty military personnel stationed on a Missouri military base, their spouse, and dependent children, are considered residents of the district for purposes of tuition assessment. The residency status of recently discharged veterans will be based on legal residency at the time of induction into military service or on residency established during service.

Students who have Permanent Resident Alien status and present a valid identification card from the United States Citizenship and Immigration Services (USCIS) will be granted residency status according to their permanent legal address in the state.

TUITION, FEES AND BOOKS

Three things determine the tuition and fees a student pays each semester: Residency (your permanent legal address), the number of credit hours enrolled and the courses selected. Tuition and fees are subject to change depending upon financial exigency; however, the college's goal is to keep costs as affordable as possible.

Tuition and Fees

Tuition and fees are established by the college's Board of Trustees. They are charged per semester hour. A detailed current tuition and fees listing is available from the college.

Scholarship for Golden Agers

If you are an SFCC district resident age 60 or over, you may enroll for courses and receive a tuition scholarship. You are required to pay the special services fees, applicable lab fees, supplies, and books. You may obtain your Golden Ager identification card at the main campus. The card will also admit you free of charge to performances, dramatic presentations and athletic contests.

Laboratory and Other Fees

Laboratory fees are charged for selected courses and are assessed per semester hour or per course. Other fees are charged for online courses, faxed transcripts, graduation, exit exams, replacement diplomas, nursing pins, etc. A detailed listing of all current fees is available from the college. These fees are subject to changes and additions.

Book Costs

Most courses will require purchasing textbooks. In addition, workbooks, study guides, and other extras may need to be purchased.

Refund of Tuition, Fees and Laboratory Fees

Tuition and fees will be credited to the student's account in full, if the student officially withdraws before the published obligation date.

The petition to withdraw from classes is available in the Student Services Office at the main campus or at a site coordinator's office. All requests for refunds or credits after the refund period has ended must be made in writing to the Vice President for Student Services. If due a refund, a check will be mailed to the student; however, deductions may be made from the refund for any financial obligation due the college.

FINANCIAL AID

The college offers a comprehensive financial aid program funded by federal and state agencies and private organizations. The aid programs include scholarships, grants, loans, and part-time employment. All students receiving federal financial aid must enroll in courses which lead to the completion of the specific degree or major they are pursuing.

Applying for Financial Aid

For scholarships you will need to complete the SFCC Scholarship Application by March 1 for the

following fall award. For most state programs you will need to apply before April 1 for the fall semester. For federal grants, student loans and the work-study program you will need to complete the Free Application for Federal Student Aid (FAFSA). This should be completed before June 1 to ensure all processing is completed before the fall semester starts.

For more information on applying for financial aid, visit the SFCC Web site or review information in the SFCC Financial Aid pamphlet.

Department of Veterans Affairs

State Fair Community College is approved for the enrollment of veterans, survivors, and dependents under Title 38 of the U.S. Code, and selected reservists under Title 10 of the U.S. Code. Students who qualify may receive additional information and assistance from the veterans representative located in the Financial Aid Office. Enrolled veterans receiving benefits are certified to the V.A. on a credit hour basis and rates of payment may vary. All persons seeking V.A. education benefits are required to comply with SFCC's satisfactory academic progress standards.

ACADEMIC PROCEDURES

GENERAL REGULATIONS

Accessibility

State Fair Community College welcomes participants with documented disabilities. The buildings on the campus are handicapped accessible. In order to accommodate special needs, the college requests a 2-week notification by the participant in order to make necessary arrangements. If special accommodations are needed, a longer lead time can be required. Accommodation requests should be submitted to the ACCESS Office, located in the Student Services Office at the main campus. It is the policy of the college not to discriminate on the basis of race, color, religion, gender, sexual orientation, age, disability, ancestry, national origin, or veteran status in its educational programs, activities, or employment as required by law.

Attendance

Students are encouraged to attend all class sessions and to report punctually to promote academic success. When absent, the student is expected to account for the absence to the instructor and to be responsible for all work missed. Students need to refer to the course syllabus provided by each instructor for penalties for absences and for the number of allowable absences before being administratively withdrawn from the course.

Basic Skills/Developmental Courses

Although required of students to prepare them for entering college-level courses, basic skills (BSKL) courses do not apply as credit nor as hours earned toward a degree or certificate. Courses numbered below the 100 level (such as BSKL064 Elementary Algebra) are called "developmental" because they focus on skills that need to be developed to achieve success in the classroom. Based on the results of placement testing, a developmental course may be a prerequisite for a college level course and must be completed with a grade of **P** or **C** to advance to the next course in the sequence.

Online Credit Courses

The college offers online sections of numerous

courses. They follow the standard college calendar. Students must meet standard prerequisites for all courses taken online. Some courses (hybrid) have on-campus meetings or testing. Online courses are not self-paced and there are usually weekly assignment deadlines. There is an extra charge associated with the tuition/fees of an online course and you may need to purchase additional educational CDs or workbooks.

Basic keyboarding skills and access to an operating personal computer with regular access to the Internet and an e-mail address are needed to participate in an online course. Additional requirements can be accessed at the SFCC Web site.

Children in the Classroom

Students and staff members should not bring children to the classroom. A day care program is available at the main campus; however, this is not a drop-in service.

Copyright Policy

State Fair Community College students must comply with provisions of United States Copyright Law (Title 17, U.S. Code) when using copyrighted materials. Full text versions of copyright laws and "Copyright Best Use Practices" can be found in the Proctor Library. The SFCC Copyright Policy is in the Student Handbook/Planner. Failure to comply with copyright laws and guidelines may result in disciplinary action taken against the student.

Classification and Course Load

Students are classified according to hours enrolled and hours completed. Full-time students generally take from 12 to 19 semester hours each 16-week semester of the regular academic year and six to 10 semester hours during each 8-week session. An interview with the Registrar is required for those students who request to exceed the maximum of 19 semester hours during 16-week semesters and 10 semester hours during 8-week sessions. Consideration of the request is given to graduating students and those with a 3.0 cumulative GPA. Part-time students carry 11 semester hours or less during a 16-week semester and five semester hours or less during an 8-week session. Students who register at the Whiteman AFB site attend 8-week

sessions rather than 16-week semesters and are classified full- or part-time under a separate schedule.

Freshmen have completed less than 30 semester hours; sophomores have completed 30 semester hours or more.

Conduct Code

Students admitted to State Fair Community College are expected to conduct themselves at all times as responsible adults in accordance with the interests and regulations of the college.

The college recognizes that students are both citizens and members of the academic community. As citizens, students enjoy the same freedom of speech and assembly, freedom of association, freedom of the press, right of petition, and right of due process that all citizens enjoy.

A complete Student Code of Conduct including the Substance Abuse Policy, Sex Offenses Policy, Firearms Policy, and the Grievance and Appellate Process for student misconduct is found in the Student Handbook/Planner. Copies are available to students at no charge.

Schedule Changes

Courses may be added through the first week of a regular semester. Once the semester/session has started, an instructor's signature is needed to add an open course. You may drop courses until the official last date to withdraw with a grade of **W**. The instructor's signature and last date of attendance is required to drop a course after the first week of the regular semester.

Academic Honesty

State Fair Community College values academic integrity and will not tolerate the following acts by students: Plagiarizing any information and submitting it as one's own work; cheating in any form involving academic work; or falsifying any information provided to the college including forging signatures or tampering with official documents. The complete Academic Honesty Policy, including the penalties and appeals procedure for academic misconduct are in the Student Handbook/Planner.

Course Placement

State Fair Community College requires assessment and mandatory placement to help students succeed. The placement test gauges

proficiency in English, mathematics and reading.

SFCC uses either the ACT, SAT, ASSET, or COMPASS for initial placement in English, reading and math courses. First-time, full-time students who need basic skills English, reading, or math courses will be enrolled in no more than 15 credit hours during their first semester.

Credit-By-Exam and Nontraditional Credit

A credit-by-exam and nontraditional credit policy allows students to earn college credit for knowledge they have acquired. A maximum of 30 semester hours of credit may be earned and applied to a degree or certificate by any combination of the following:

- * **College Level Examination Program (CLEP) and Dantes Subject Standardized Tests (DSST).** SFCC uses American Council of Education (ACE) recommended scores for granting credit. SFCC does not accept CLEP or DSST credit to fulfill requirements for laboratory science or public speaking courses. Students planning to transfer should check with the receiving institution regarding their policy for accepting CLEP or DSST credit.

- * **ACT Assessment Advanced Placement in English and Math.** Up to six hours can be earned with ACT Assessment test scores which place the student in an advanced English or mathematics course.

- * **Advanced Placement Test.** Credit is granted for Advanced Placement Test (AP) scores of three or higher.

- * **Credit for Occupational Testing.** Students can be granted credit applicable to an A.A.S. or Certificate from standardized occupational testing.

- * **Credit for Armed Service Experience.** Credit can be granted for advanced training completed while in the armed services according to ACE (American Council of Education) recommendations. The credit must be appropriate to the degree sought.

- * **Department Exams.** Students can earn 'test-out' credit for occupational courses by following departmental guidelines.

- * **Credit for Work Experience.** Students can earn credit for occupational courses by following departmental guidelines.

Degree Program Statute of Limitations

The college catalog becomes effective starting the fall semester. In general a student may use (for degree requirements) the catalog in effect at initial enrollment or any subsequent catalog so long as it is dated no more than six years prior to the completion of the degree. Students not earning credit at SFCC for four successive semesters (excluding summer) will assume catalog

requirements in effect upon their re-entry date. A student may not continue in the original program of study if the program was discontinued prior to re-entry.

Grade Reports

Final grades are available online after the conclusion of each semester or session. Questions about grades should be directed to the instructor first. Grades not questioned within one semester will stand as recorded. Information about filing a grade appeal is found in the Student Handbook/Planner.

Grades and Credits

Credits are granted on a semester hour basis. The following symbols and points are used:

A	Excellent (4 grade pts per sem hr)
B	Good (3 grade pts per sem hr)
C	Average (2 grade pts per sem hr)
D	Below Average (1 grade pt per sem hr)
F	Failing (no grade pts)
W	Withdrawn (no grade pts)
P	Passing (no grade pts)
N	No Credit—Course Waived
CR	Credit (no grade pts)
AU	Audit
U	Unfinished (computes as an F in GPA)
II	Incomplete individualized instruction
X	Credit neither applies toward a degree or certificate nor figures into GPA

A grade of **U** may be given by an instructor to indicate unfinished work or absence from a scheduled final examination if other work is of passing quality. The grade of **U** must be changed during the following regular semester. Arrangements must be made by the student, with the instructor to complete the work. Until changed, **U** grades remain on the transcript and compute the same as a grade of **F** in the grade point average.

In the occasional circumstance of individualized instruction (such as an internship) where enrollment can span more than one semester, a grade of **II** may be recorded until a final grade is reported by the instructor when the course is finished.

Students taking basic skills courses will see an **X** on their grade report beside the letter grade. This indicates that the credit neither applies toward a degree or certificate nor calculates into GPA. However, the hours are used when calculating semester hours enrolled for most financial aid,

scholarships, insurance policies, veterans' benefits, etc.

Repeating Courses

You may only repeat a course in which you received a grade of **D**, **F** or **U** (including transfer courses). The grade earned for the repeated course will replace the original grade in computing the GPA. Both original and repeated grades are recorded on the transcript.

Pass/Fail Credit

Pass/fail credit is granted for some basic skills courses and short courses. No more than six hours of pass/fail credit may be applied to a degree or certificate, excluding basic skills courses which do not apply to degrees or certificates.

Honors List

A President's list is published at the end of the regular spring and fall semesters. To qualify, a student must complete 12 or more credit hours of college-level courses (excludes basic skills) with a grade point average of 4.0.

A Dean's list is published at the end of the regular spring and fall semesters. To qualify, a student must complete 12 or more credit hours of college-level courses (excludes basic skills) with a grade point average of 3.5 - 3.99.

Academic Standing

To continue enrollment at SFCC, a student must make satisfactory academic progress. Both grades earned and hours attempted and completed are considered.

Grade point average (GPA) is calculated by dividing total graded hours (those receiving a grade of **A**, **B**, **C**, **D**, **F**, or **U**) into the total grade points awarded for those hours. A 2.0 GPA is the minimum requirement for graduation. To maintain minimum satisfactory academic progress requirements, students must meet the following cumulative GPA:

Upon completion of 12 semester hours	1.50 GPA
Upon completion of 24 semester hours	1.75 GPA
Upon completion of 36 semester hours	1.85 GPA
Upon completion of 48 semester hours	2.00 GPA

Students who do not meet the minimum GPA above will be placed on academic probation and hours will be limited. The student who does not

meet the minimum standards the following semester will have the status of continuing probation. Students may remain on continuing probation if their GPA continues to improve; however, failure to show progress can result in academic suspension for a semester.

A student suspended academically for low grades or failure to complete courses may petition for readmission after one semester. Readmission will be approved only if it seems in the best interest of the student and the institution. Students who are readmitted will be on continued probation and may be restricted to limited hours or specific courses. A second academic suspension typically requires one year separation before readmission is considered.

Students admitted to SFCC as transfer students must also meet satisfactory academic progress requirements or they may enter on probation.

Achievement of satisfactory academic progress requirements will restore satisfactory academic standing for any student.

Student Records

A description of all student records which SFCC maintains and their location may be found in the Student Handbook/Planner. Official transcripts are available at no cost from the Registrar's Office at the main campus; however, fax transmissions require an advance payment of \$5. The request for the transcript must be made by the student (with the student's signature) at least 48 hours in advance of need.

Student Right to Know

All students receive a Student Handbook/Planner which includes information about campus safety and security regulations. This information is updated annually and includes a summary of any crimes which have occurred on campus and at extended sites. The Annual Campus Security Report is also available to any prospective student, parent, or other interested person upon request or at the Web site.

The Graduation Rate Survey is available at the college's Web site.

Withdrawal

If you must completely withdraw from the college, notify the Registrar's Office at the main campus or a site coordinator to complete the proper form by the official last date to withdraw for

the semester or session. Failure of any student to withdraw officially may result in a grade of **F** being recorded in all courses in which you were enrolled.

GRADUATION REQUIREMENTS

Students must take the responsibility to apply for a degree/certificate one semester before the completion of that degree/certificate. The college does not automatically award degrees/certificates. For more information, contact the Registrar's Office.

Requirements for a Degree

The college offers two degrees, the Associate of Arts and the Associate of Applied Science. To qualify for a degree you must:

1. Complete 64 semester hours of credit for the A.A. degree. These hours will consist of 42 hours of general education credits, one hour of wellness, and 21 hours of electives to total 64.

For the A.A.S. degree, complete the curriculum required for the specific degree and the general education requirements for the program.

2. Complete, at SFCC, at least the last 12 semester hours of college credit taken toward the degree. If you have been enrolled full time for the previous two consecutive semesters and lack fewer than nine hours to complete the degree, you may request to transfer credit back from an approved college. Approval must be granted by the Registrar prior to taking the transfer credit.

Active duty military who participate in SOC (Serviceman's Opportunity College) may meet different residency requirements under terms of that agreement.

3. Maintain both a minimum cumulative grade point average of 2.0 and an institutional 2.0 grade point average for courses completed at SFCC.

Associate degree nursing students are required to maintain a grade point average of 2.5 in nursing courses.

4. Take an exit examination. Test dates are prior to the end of each semester. Summer completers must take either the previous spring exam or take the exam in the fall following the completion of their courses. The exam is not given in the summer.

5. Do the following: Complete an application for graduation after enrolling for your final semester; pay the graduation and exit examination fees in the Business Office; and

attend commencement. If unusual circumstances do not allow you to attend the Commencement Ceremony, you must request approval in advance for a degree to be conferred in absentia. Request this form from the Registrar's Office at the main campus.

Requirements for a Professional Certificate

The college offers professional certificates in various career areas. To qualify for a certificate you must meet the following requirements:

1. Complete the curriculum required for the specific program for that certificate.
2. Complete, at SFCC, at least the last 12 semester hours of college credit taken toward the certificate.
3. Maintain a minimum cumulative grade point average of 2.0 and an institutional 2.0 grade point average for courses completed at SFCC.
4. Do the following: Complete an application for graduation in the Student Services Office after enrolling for your final semester; pay the graduation fee; and attend commencement. If unusual circumstances do not allow you to attend the Commencement Ceremony, you must request approval in advance for a certificate to be conferred in absentia. Request this form from the Registrar's Office at the main campus.

OTHER GRADUATION REQUIREMENTS

Requirements for Honors Graduation

Academic honors may be granted to Associate of Arts or Associate of Applied Science degree graduates at two levels based upon all courses completed: Graduation with honors for a 3.6 to 3.84 cumulative grade point average and graduation with highest honors for a 3.85 to 4.0 cumulative grade point average. Certificate completers may graduate with distinction with a cumulative grade point average of 3.6.

Honors recognition at Commencement is based upon courses completed and cumulative GPA at the end of the fall semester. Final designation of academic honors will be based upon cumulative GPA at the conclusion of the spring semester.

Requirements for Participation in the Commencement Ceremony

The Commencement Ceremony is held in May each academic year. To participate, students must either have completed all degree or certificate requirements before the commencement date or must be enrolled in sufficient hours (at the time the graduation list is finalized) to expect to complete requirements at the end of spring semester.

Exception to this rule is made for the practical nursing program students who are scheduled to complete their program requirements at the end of the summer session.

Only students with a minimum cumulative grade point average of 2.0 and an institutional 2.0 grade point average for courses completed at SFCC at the end of the fall semester (or the successful completion of all coursework) may participate.

Regardless of when the degree is conferred (presented formally), the actual date that all requirements have been completed will be entered on the transcript as the official graduation date. Diplomas are mailed to graduates in mid-June after a final degree audit is conducted.

STATE FAIR COMMUNITY COLLEGE CATALOG 2006 - 2008

PROGRAMS OF STUDY TABLE OF CONTENTS

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GENERAL EDUCATION

General Education Goals

At State Fair Community College there is the belief that there exists a core of learning experiences, usually known as general education, common to all students. These experiences are of value to all citizens, whatever their occupation or profession. The goals of the general education program of the college are to provide students with the opportunity to formulate an idea and competently express it orally and in writing; gain a broader awareness for intellectual and cultural diversity; use computational skills and scientific methods to solve problems; utilize critical-thinking skills in making decisions and finding solutions; and demonstrate the ability to use contemporary technology. These goals can best be accomplished through exposure to a common core of knowledge, as well as through the opportunity to select courses by individual interests. The general education program of the college also strives to provide students with the required competencies called for by the Missouri Coordinating Board for Higher Education (CBHE).

The CBHE competencies are divided into two parts: Skill Areas (Communicating, Higher-Order Thinking, Managing Information, Valuing) and Knowledge Areas (Social and Behavioral Sciences, Humanities and Fine Arts, Mathematics, Life and Physical Sciences).

General Education Matrix

Skill Area: Communicating

To develop students' effective use of the English language and quantitative and other symbolic systems essential to their success in school and in the world. Students should be able to read and listen critically and to write and speak with thoughtfulness, clarity, coherence, and persuasiveness.

Skill Area: Higher-Order Thinking

To develop students' ability to distinguish among opinions, facts, and inferences; to identify underlying or implicit assumptions; to make informed judgments; and to solve problems by applying evaluative standards.

Skill Area: Managing Information

To develop students' abilities to locate, organize, store, retrieve, evaluate, synthesize, and annotate information from print, electronic, and other sources in preparation for solving problems and making informed decisions.

Skill Area: Valuing

To develop students' abilities to understand the moral and ethical values of a diverse society and to understand that many courses of action are guided by value judgments about the way things ought to be. Students should be able to make informed decisions through identifying personal values and the values of others and through understanding how such values develop. They should be able to analyze the ethical implications of choices made on the basis of these values.

Knowledge Area: Social and Behavioral Sciences

To develop students' understanding of themselves and the world around them through study of content and the processes used by historians and social and behavioral scientists to discover, describe, explain, and predict human behavior and social systems. Students must understand the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others. (Students must fulfill the state statute requirement of the Missouri Constitution.)

Knowledge Area: Humanities and Fine Arts

To develop students' understanding of the ways in which humans have addressed their condition through imaginative work in the humanities and fine arts; to deepen their understanding of how that imaginative process is informed and limited by social, cultural, linguistic, and historical circumstances; and to appreciate the world of the creative imagination as a form of knowledge.

Knowledge Area: Mathematics

To develop students' understanding of fundamental mathematical concepts and their applications. Students should develop a level of quantitative literacy that would enable them to make decisions and solve problems and which could serve as a basis for continued learning. (The mathematics requirement for general education should have the same prerequisite(s) and level of rigor as college algebra.)

Knowledge Area: Life and Physical Science

To develop students' understanding of the principles and laboratory procedures of life and physical sciences and to cultivate their abilities to apply the empirical methods of scientific inquiry. Students should understand how scientific discovery changes theoretical views of the world, informs our imaginations, and shapes human history. Students should also understand that science is shaped by historical and social contexts.

ASSOCIATE OF ARTS DEGREE REQUIREMENTS

GENERAL EDUCATION CORE

COMMUNICATIONS

9 Hours

ENGL101	3
English Composition I	
ENGL102	3
English Composition II	
SPTH101	3
Public Speaking	

SOCIAL AND BEHAVIORAL SCIENCES

9 Hours

Select one course from A. and one from B.

Select 3 more hours from A. or B.

A. Select one course:

*HIST101	3
U.S. History Before 1877	
*HIST102	3
U.S. History Since 1877	
*POLS101	3
American/National Government	

*These courses satisfy the state requirement for credit in Missouri Constitution. Students transferring credit for American history or national government from out-of-state must complete POLS102 Missouri Constitution (1/2 hour).

B. Select one course:

ECON101	3
Principles of Economics I-Macro	
GEOG101	3
World Geography	
HUM108	3
World Civilization Before 1500	
HUM109	3
World Civilization After 1500	
PSY101	3
General Psychology	
PSY102	3
Child Psychology	
SOC100	3
General Sociology	

HUMANITIES AND FINE ARTS

9 Hours

Select one course from each group.

A. Select one course:

LIT101	3
Introduction to Literature	
LIT104	3
Masterpieces Before 1650	
LIT105	3
Masterpieces After 1650	

LIT107

American Literature 3

LIT109

English Literature 3

LIT114

Topics in Literature 3

B. Select one course:

ART101 3

Art Appreciation

ART120 3

Modern Art History

MUS101 3

Music in Western Civilization

MUS103 2

Music History and Literature I

MUS104 2

Music History and Literature II

SPTH107 3

Introduction to Theater

C. Select one course:

AGRI106 3

Global Agriculture

HUM101 3

Introduction to Philosophy

HUM104 3

Living Religions

HUM120 3

American Diversity

SOC102 3

Marriage and Family

POLS103 3

Introduction to Political Science

MATHEMATICS

3 Hours

Select one course:

MATH115 4

College Algebra

MATH116 3

Finite Math

MATH120 3

Trigonometry

MATH122 5

Precalculus Math

MATH125 3

Calculus for Business

MATH130 5

Calculus and Analytic Geometry I

NATURAL SCIENCES **8 Hours**Select 2 science courses. One must be from Group A.

A. Select one course:

BIO112	5
Introduction to Biology w/Lab	
BIO125	5
Biology I w/Lab	
BIO126	5
Biology II w/Lab	
CHEM101	5
Introduction to Chemistry w/Lab	
CHEM113	5
Fundamentals of Chemistry w/Lab	
CHEM123	5
General Chemistry I w/Lab	
EASC101	5
Introduction to Earth Sciences w/Lab	
EASC106	5
Physical Geology w/Lab	
PHYS105	5
College Physics I w/Lab	
PHYS118	5
General Physics I w/Lab	

B. Select another from Group A. or one course from Group B.:

BIO100	3
Introduction to Biological Sciences	
BIO103	3
Human Biology	
BIO105	3
Wildlife Conservation	
BIO204	3
Genetics w/Lab	
BIO207	4
Human Anatomy w/Lab	
BIO208	4
Human Physiology w/Lab	
EASC116	3
Environmental Science	
EASC120	3
Introduction to Astronomy	
PHYS103	3
Introduction to Physical Science	

CORE ELECTIVES **3-4 Hours**Select an additional course or courses from the preceding categories or select from the following courses:

BADM101	3
Introduction to Business	
BADM103	3
Legal Environment of Business	
BADM107	3
Personal Finance	
EDUC101	3
Foundations of Education	

MATH127	3
Business Statistics	
PSY150	3
Educational Psychology	
SOC101	3
Social Problems	
SPAN 101	3
Elementary Spanish I	

GENERAL EDUCATION**MINIMUM TOTAL: 42 Hours****ADDITIONAL DEGREE REQUIREMENTS****WELLNESS** **1 Hour**All students must complete the one credit hour wellness requirement. Select one of the following:

HLTH101	2
Personal Health/Fitness	
PPRO106	2
Introduction to Physical Education in the Elementary School	
PEAC116	1
Building Fitness for Life I	
PEAC117	1
Building Fitness for Life II	
PEAC118	1
Aerobics	
PEAC119	1
Low Impact Aerobics	
PEAC121	1
Women and Health	
PEAC122	1
Applied Wellness	

ELECTIVES **21 Hours**

Additional courses numbered 100 or above may include 12 hours of restricted electives from technical training in the military or from technical courses taken at an accredited college. Additional physical education activity courses (PEAC prefix) may be accepted as elective credit for a maximum of 2 credit hours. Veterans, members of the National Guard, and active duty military personnel may receive two hours of physical education activity elective credit by presenting a copy of their DD214 or similar record.

ASSOCIATE OF ARTS**DEGREE MINIMUM TOTAL: 64 Hours**

ASSOCIATE OF APPLIED SCIENCE AND PROFESSIONAL CERTIFICATE PROGRAMS

PROGRAM	DEGREE	CERTIFICATE	PAGE
ACCOUNTING	X		22
AGRICULTURE	X		23
AGRICULTURE WITH EMPHASIS IN HORTICULTURE	X		24
AUTOMOTIVE TECHNOLOGY	X	X	25
BUILDING MATERIALS MERCHANDISING	X		26
BUSINESS MANAGEMENT WITH MANAGEMENT SPECIALTY	X		27
BUSINESS MANAGEMENT WITH MARKETING AND RETAIL SPECIALTY	X		28
BUSINESS MANAGEMENT WITH OFFICE MANAGEMENT SPECIALTY	X		29
COMPUTER AIDED DRAFTING TECHNOLOGY	X		30
COMPUTER INFORMATION SYSTEMS WITH EMPHASIS IN ACCOUNTING	X		31
COMPUTER INFORMATION SYSTEMS WITH EMPHASIS IN PROGRAMMING	X		32
CONSTRUCTION TECHNOLOGY	X		33
CRIMINAL JUSTICE	X		34
CUSTOM APPLICATOR TECHNOLOGY	X		35
DENTAL HYGIENE	X		36
EARLY CHILDHOOD DEVELOPMENT	X		37
FIRE SCIENCE TECHNOLOGY	X		38
INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN ELECTRICITY/ELECTRONICS	X	X	39
INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL MAINTENANCE	X	X	40
INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL SUPERVISION	X		41
MACHINE TOOL TECHNOLOGY	X	X	42
MARINE TECHNOLOGY	X		43
NETWORK ADMINISTRATION	X		44
NETWORKING WITH EMPHASIS IN PC TECHNICIAN	X		45
NURSING	X	X	46-47
OCCUPATIONAL EDUCATION	X		48
RADIOLOGIC TECHNOLOGY	X		49
SECRETARIAL SCIENCE WITH EMPHASIS IN MEDICAL OFFICE ADMINISTRATION		X	53
MANAGEMENT	X		50
MEDICAL TRANSCRIPTION	X		51
PROCEDURE AND DIAGNOSIS CODING	X		52
SECRETARIAL SCIENCE WITH EMPHASIS IN OFFICE ASSISTING		X	53
WEB DEVELOPMENT	X		54
WELDING TECHNOLOGY		X	55

ASSOCIATE OF APPLIED SCIENCE GENERAL EDUCATION REQUIREMENTS

GENERAL EDUCATION MINIMUM TOTAL 10 Hours

COMMUNICATIONS 3 Hours

ENGL101	
English Composition I	3
ENGL102	
English Composition II	3
ENGL110	
Business Communications	3
ENGL112	
Technical Writing	3

MATHEMATICS 3-4 Hours

MATH101	
Business Math	3
MATH107	
Technical Math I	3
MATH108	
Technical Math II	3
MATH112	
Intermediate Algebra	3
MATH115	
College Algebra	4
MATH116	
Finite Math	3

SOCIAL SCIENCE 3 Hours

*HIST101	
U.S. History Before 1877	3
*HIST102	
U.S. History Since 1877	3
*POLS101	
American/National Government	3

*These courses satisfy the state requirement for credit in Missouri Constitution. Students transferring credit for American history or national government from out-of-state must complete POLS102 Missouri Constitution (1/2 hours).

WELLNESS 1 Hour

All students, except those in Allied Health programs, must complete the one credit hour wellness requirement. Select one of the following:

HLTH101	
Personal Health/Fitness	2
PEAC116	
Building Fitness for Life I	1
PEAC117	
Building Fitness for Life II	1
PEAC118	
Aerobics	1

PEAC119	
Low Impact Aerobics	1
PEAC121	
Women and Health	1
PEAC122	
Applied Wellness	1

GENERAL EDUCATION ELECTIVES

MINIMUM TOTAL

6 Hours

Each A.A.S. degree program includes 6 hours of general education elective courses from two of the following areas:

COMMUNICATING

ENGL101, ENGL102, ENGL110, ENGL112, SPTH101

MATHEMATICS

MATH101, MATH107, MATH108, MATH112, MATH115, MATH116

SOCIAL AND BEHAVIORAL SCIENCES

BADM101, BADM107, ECON101, ECON102, PSY101, PSY102, SOC100

HIGHER ORDER THINKING

BADM103, ENGL102, HUM120, LIT104

VALUING

HUM101, HUM104, HUM120, SOC102

MANAGING INFORMATION

CAPP125, CIS103, ENGL101, ENGL102, HEOC140

LIFE AND PHYSICAL SCIENCE

AGRI108, AGRI118, BIO207, BIO208, CHEM101, CHEM113, PHYS103, PHYS105, PHYS125

HUMANITIES AND FINE ARTS

ART101, HUM101, HUM104, HUM108, HUM109, HUM120, LIT101, LIT104, LIT105, LIT107, LIT109, LIT114, MUS101, SPAN101, SPTH107

TOTAL A.A.S. GENERAL EDUCATION

MINIMUM

16 Hours

On the following pages the program requirements, including the general education requirements, for each A.A.S. degree the college offers are listed. Requirements for Professional Certificates are also listed.

A.A.S. IN ACCOUNTING

The Accounting program prepares students with a foundation in accounting principles, theory and practice, and exposes them to complex problems and relationships in fields of business, cost management, tax and economics. Persons planning a career in accounting should have an aptitude for mathematics; be able to analyze, compare and interpret facts and figures quickly; and make sound judgments based on this knowledge. They must be good at working with people as well as with business systems and computers. Accuracy and the ability to handle responsibility with limited supervision are important. Perhaps most important, accountants should have high standards of integrity. The practical skills you receive from this program will prepare you for a variety of employment opportunities including financial accountant, bookkeeper, income tax preparer, payroll specialist, or cost/management accountant.

General Education Requirements	16 Hours
Communications ENGL101	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

*Courses to complete with a grade of C or higher.

Freshman Year

*ACCT109	Applied Accounting Procedures	3
CAPP125	Microcomputer Applications	3
ENGL101	English Composition I	3
*MATH101	Business Math (or)	
*MATH112	Intermediate Algebra	3
BADM101	Introduction to Business	3
*OADM121	Calculators	1
	Total	16

*ACCT101	Principles of Financial Accounting	3
ENGL110	Business Communications	3
CAPP166	Excel	3
BADM107	Personal Finance	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
	Wellness Course	1
	Total	16

Sophomore Year

*ACCT102	Managerial Accounting	3
*ACCT203	Intermediate Financial Accounting I	3
*ACCT132	Business Taxation	3
ECON101	Principles of Economics I-Macro	3
BADM103	Legal Environment of Business	3
EDUC119	Employment Strategies	1
	Total	16
*ACCT220	Current Topics in Accounting	3
*ACCT137	Introduction to Federal Taxation	3
*ACCT125	Computerized Accounting	3
BSMT125	Human Relations (or)	
SPTH101	Public Speaking	3
*ACCT175	Accounting Internship	4
	Total	16

Degree Total 64

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN AGRICULTURE

Agriculture is one of the largest and most diverse industries in the world. Careers in agriculture are exciting and self-satisfying, the opportunities are numerous and the salaries competitive. If you're interested in agriculture, you are self-motivated, goal-oriented, and take a tenacious, creative approach to problem solving. The technical and business skills you gain at SFCC will give you the advantage whether you work on the family farm or prefer a job in agribusiness. The A.A.S. degree in Agriculture provides a vast assortment of opportunities. Firms supply farmers with fertilizer, seed, feed, fuel, chemicals, machinery, equipment, marketing, credit and supplies. Agribusinesses also produce and buy, process, package, transport, and deliver livestock and products to the consumer. In agribusiness, trained staff familiar with agriculture, marketing, accounting, economics, and public relations is a must. Programs combine instruction with job experience. In addition to regular classroom hours, you'll work for a major industry in the career field you've chosen through an Occupational Internship. These internships give you a unique opportunity to apply the knowledge acquired in class to work situations so you'll be ready to enter the job market.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL110 (or) ENGL112	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

Freshman Year		
AGRI101	Ag Leadership and Issues I	2
ENGL101	English Composition I (or)	
ENGL110	Business Communications (or)	
ENGL112	Technical Writing	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
AGRI120	Soils I	3
AGRI129	General Horticulture	3
AGRI125	Natural Resources	3
	Total	17
AGRI102	Ag Leadership and Issues II	1
AGRI132	Agriculture Economics	3
AGRI127	Farm Chemicals	3
AGRI108	Animal Science	3
AGRI175	Occupational Internship	8
	Total	18
Summer Session		
AGRI175	Occupational Internship	4
Sophomore Year		
AGRI103	Ag Leadership and Issues III	2
	Wellness Course	1
AGRI116	Animal Nutrition	3
AGRI134	Marketing Farm Commodities	3
BSMT110	Salesmanship	3
AGRI138	Ag Business Management	3
AGRI114	Livestock Management	3
	Total	18
AGRI104	Ag Leadership and Issues IV	1
CAPP125	Microcomputer Applications	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
AGRI121	Soils II	3
AGRI136	Ag Credit and Finance	3
AGRI118	Plant Science	3
EDUC119	Employment Strategies	1
	Total	17

Degree Total 74

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN AGRICULTURE WITH EMPHASIS IN HORTICULTURE

Workers in landscaping, groundskeeping, nursery, greenhouse, and lawn service occupations are responsible for the variety of tasks necessary to achieve a pleasant and functional outdoor environment. They also care for indoor gardens and planting in commercial and public facilities. Nursery and greenhouse workers help cultivate plants. Managers make decisions about type and quantity of plants to be grown; purchase seed, fertilizers, and chemicals; hire employees; manage record keeping and marketing; and oversee operations. Landscape contractors usually follow design of a landscape architect to install trees, shrubs, sod, and ornamental features. Groundskeepers maintain a variety of facilities including athletic fields, golf courses, cemeteries, college campuses and parks. The Horticulture program will prepare you for numerous career opportunities with practical experience in a fully equipped greenhouse and internships to enhance the classroom learning experiences.

General Education Requirements	16 Hours	
Communications	3	
ENGL101 (or) ENGL110 (or) ENGL112		
Mathematics	3	
MATH101 (or) MATH112		
Social Science	3	
HIST101 (or) HIST102 (or) POLS101		
Wellness	1	
HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122		
General Education Electives	6	
(As determined by the department and are included in the Program Requirements.)		

Program Requirements

Freshman Year

AGRI101	Ag Leadership and Issues I	2
ENGL101	English Composition I (or)	
ENGL110	Business Communications (or)	
ENGL112	Technical Writing	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
AGRI120	Soils I	3
AGRI129	General Horticulture	3
AGRI118	Plant Science	3
Total		17

AGRI102	Ag Leadership and Issues II	1
AGRI132	Agriculture Economics	3
AGRI127	Farm Chemicals	3
AGRI151	Landscape Design and Maintenance	3
AGRI175	Occupational Internship	8
Total		18

Summer Session

AGRI175	Occupational Internship	4
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Sophomore Year

AGRI103	Ag Leadership and Issues III	2
	Wellness Course	1
AGRI147	Plant Identification	4
AGRI152	Turf Management	4
AGRI138	Ag Business Management	3
AGRI174	Crop and Insect Scouting	2
Total		16

AGRI104	Ag Leadership and Issues IV	1
CAPP125	Microcomputer Applications	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
AGRI125	Natural Resources	3
AGRI136	Ag Credit and Finance	3
AGRI154	Greenhouse Management w/Lab	4
EDUC119	Employment Strategies	1
Total		18

Degree Total 73

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN AUTOMOTIVE TECHNOLOGY

In the Automotive Technology program students learn fundamentals of automotive systems design, operations, diagnosis, and repair. Classroom concepts and theory are applied in the shop environment where troubleshooting, service procedures, estimating, and customer relations are practiced. The ability to diagnose the source of a problem with a vehicle quickly and accurately, one of the mechanic's most valuable skills, requires good reasoning ability and a thorough knowledge of engines and other automotive systems. The automotive industry is changing rapidly with advances in computer components being used throughout vehicles and employment opportunities are expected to be good for individuals who complete formal automotive training programs. The program is certified by the National Automotive Technicians Education Foundation (NATEF), an affiliate of the National Institute of Automotive Service Excellence (ASE) that signifies the program meets uniform standards for instructional facilities, equipment, curriculum, and staff credentials.

Program Requirements

In addition to the General Education Requirements, the following courses must be completed for the degree:

AUTO101	Preventive Maintenance	5
AUTO103	Manual Transmissions, Drivelines and Axles	5
AUTO105	Automatic Transmissions	5
AUTO107	Engine Tune-Up and Emissions	6
AUTO109	Fuel Systems	5
AUTO111	Computerized Engine Control	5
AUTO113	Steering, Suspension and Wheels	5
AUTO115	Automotive Brakes	5
AUTO117	Automotive Electrical Systems	6
AUTO119	Automotive Heating and Air Conditioning	5
AUTO121	Automotive Engines	6
AUTO123	Service Operation Management	3
EDUC119	Employment Strategies	1

General Education Requirements	16 Hours
Communications ENGL112	3
Mathematics MATH107	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives CAPP125 Microcomputer Applications PHYS125 Technical Science	6

Degree Total 78

Professional Certificate in Automotive Mechanics

The certificate requires the completion of all of the AUTO courses listed above and EDUC119 Employment Strategies.

Certificate Total 62

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN BUILDING MATERIALS MERCHANDISING

The Building Materials Merchandising program prepares students for jobs in the wholesale and retail building materials field. Graduates find excellent, well-paying jobs working with professionals—architects, contractors, developers, and building inspectors—to provide materials for varied building projects. This challenging, established career requires technical skills in design, drafting, engineering, marketing, and business management. Employment opportunities exist in wholesale building materials distribution, in retail companies, with lumberyards and home centers management, and with construction companies.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH101	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

*Program Elective
Select 3 hours from ECON101 (or) a course in BADM, BSMT, DRFT (or) MACH

Program Requirements

Freshman Year

ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
MATH101	Business Math	3
BSMT110	Salesmanship	3
CNST101	Construction Materials and Methods I	3
DRFT111	Introduction to Computer Drafting	3
	Total	15

HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
DRFT120	Architectural Drafting	3
CNST103	Construction Materials and Methods II	3
CNST106	Construction Estimation	3
ACCT101	Principles of Financial Accounting	3
	Wellness Course	1
	Total	16

Summer Session

BLDG175	Building Materials Internship	4-8
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Sophomore Year

BSMT120	Advertising	3
CNST113	Construction Management	3
BADM107	Personal Finance (or)	
BADM103	The Legal Environment of Business	3
CAPP125	Microcomputer Applications	3
	*Program Elective	3
EDUC119	Employment Strategies	1
	Total	16

BSMT106	Principles of Marketing	3
CNST162	Construction Safety	3
BSMT125	Human Relations	3
ENGL110	Business Communications	3
PSY101	General Psychology (or)	
SOC100	General Sociology	3
	Total	15

Degree Total 66

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN BUSINESS MANAGEMENT WITH MANAGEMENT SPECIALTY

Students wishing to pursue a degree in Business Management with a specialty in Management should possess leadership and decision-making skills, enjoy analyzing information and implementing solutions in a variety of situations. It is essential that a student possess good communication and human relation skills to be successful. This program requires all students to complete an internship between the first and second year to offer students the experience of employment in a degree-related field. Employment opportunities in this area typically are found in entry-level positions in human resource management, banking, insurance, and entry-level management in areas such as retail, sales, and food service. Many students pursuing this degree are seeking to open their own businesses.

General Education Requirements	16 Hours
Communications ENGL101	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

*Program Electives
Select 6 hours from ACCT, ART, BADM, BSMT, CAPP, CIS, ENGL, HUM, LIT, MATH, OADM, POLS, PSY, SPAN, SOC (or) SPTH

Program Requirements

Freshman Year			
BSMT110	Salesmanship		3
CAPP125	Microcomputer Applications		3
BSMT106	Principles of Marketing		3
MATH101	Business Math (or)		
MATH112	Intermediate Algebra		3
ENGL101	English Composition I		3
	Wellness Course		1
	Total		16
Sophomore Year			
BSMT108	Principles of Management		3
ACCT101	Principles of Financial Accounting		3
ENGL110	Business Communications (or)		
SPTH101	Public Speaking		3
BADM107	Personal Finance		3
BADM101	Introduction to Business		3
	Total		15
Summer Session			
BSMT175	Business Management Internship		4-8
Sophomore Year			
	*Program Elective		3
BADM109	Business Ethics		3
ACCT102	Managerial Accounting		3
HIST101	U.S. History Before 1877 (or)		
HIST102	U.S. History After 1877 (or)		
POLS101	American/National Government		3
BSMT117	Human Resource Management		3
	Total		15
BSMT125	Human Relations		3
BADM103	Legal Environment of Business		3
BSMT130	Business Strategies		3
ECON101	Principles of Economics I-Macro		3
	*Program Elective		3
EDUC119	Employment Strategies		1
	Total		16

Degree Total 66

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN BUSINESS MANAGEMENT WITH MARKETING AND RETAIL SPECIALTY

Students wishing to pursue a degree in Business Management with a specialty in Marketing and Retail should possess good communication, problem-solving, and human relations skills, and be team oriented. It is also helpful if the student enjoys doing research, can be creative, open minded and organized. This program requires all students to complete an internship between the first and second year to offer students the experience of employment in a degree-related field. Employment opportunities in this area typically are found in entry-level positions in retail management, retail sales and supervision, professional sales, marketing, customer service, product distribution, and advertising.

General Education Requirements	16 Hours
Communications ENGL101	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

*Program Electives
Select 6 hours from ACCT, ART, BADM, BSMT, CAPP, CIS, ENGL, HUM, LIT, MATH, OADM, POLS, PSY, SPAN, SOC (or) SPTH

Program Requirements

Freshman Year

BSMT110	Salesmanship	3
CAPP125	Microcomputer Applications	3
BSMT106	Principles of Marketing	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
ENGL101	English Composition I	3
	Wellness Course	1
	Total	16

BSMT108	Principles of Management	3
ACCT101	Principles of Financial Accounting (or)	
ACCT109	Applied Accounting Procedures	3
ENGL110	Business Communications	3
BADM107	Personal Finance	3
BSMT112	Visual Merchandising	3
	Total	15

Summer Session

BSMT175	Business Management Internship	4-8
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Sophomore Year

SPTH101	Public Speaking	3
BSMT120	Advertising	3
BADM109	Business Ethics	3
BSMT117	Human Resource Management	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
	Total	15

BSMT125	Human Relations	3
BADM103	Legal Environment of Business	3
BSMT132	E-Commerce Marketing	3
	*Program Electives	6
EDUC119	Employment Strategies	1
	Total	16

Degree Total 66

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN BUSINESS MANAGEMENT WITH OFFICE MANAGEMENT SPECIALITY

Students wishing to pursue a degree in Business Management with a speciality in Office Management should be good organizers, problem solvers, and planners. They should be detailed-oriented and efficient, computer-literate, and able to express themselves well verbally and in writing. It is also essential they have good human relations skills. An internship in the last semester gives the student the opportunity to apply the knowledge and skills learned to a workplace setting. Employment opportunities for office managers and administrative assistants in this area typically are found in small businesses of all types and in service-providing industries such as banks and insurance agencies.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

*Courses to complete with a grade of C or higher

**Course to complete with a grade of B or higher

Program Requirements

Prerequisite:	*CAPP118 Keyboarding (or test out)	3
Freshman Year		
CAPP125	Microcomputer Applications	3
BSMT110	Salesmanship (or)	
BSMT106	Principles of Marketing	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
*OADM118	Transcription Skills	3
	Wellness Course	1
	Total	16
BSMT108	Principles of Management	3
ACCT101	Principles of Financial Accounting (or)	
ACCT109	Applied Accounting Procedures	3
ENGL110	Business Communications	3
BADM107	Personal Finance	3
*CAPP166	Excel	3
*OADM121	Calculators	1
	Total	16
Summer Session		
*CAPP119	Document Formatting	2
Sophomore Year		
**CAPP122	Keyboarding Skillbuilding	1
*OADM116	Records and Database Management	3
*CAPP160	Word	3
BADM109	Business Ethics	3
BSMT117	Human Resource Management	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
	Total	16
BSMT125	Human Relations	3
BADM103	Legal Environment of Business	3
*CAPP164	Access	3
*OADM134	Office Dynamics for Administrators	3
*OADM176	Office Management Internship	4
EDUC119	Employment Strategies	1
	Total	17

Degree Total 67

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN COMPUTER AIDED DRAFTING TECHNOLOGY

The Computer Aided Drafting Technology program will provide necessary skills and knowledge to obtain employment in the growing, high-demand computer aided drafting field as a designer/drafter in a manufacturing, civil, structural, or architectural environment. The outlook for competent drafters is expected to increase faster than average since all new products and buildings require drawings and specifications to manufacture, build and assemble. The application of drafting and design standards and skills will be examined with the study of basic to advanced concepts in popular computer aided drafting programs. The program is accredited by the National Association of Industrial Technology (NAIT).

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH108 (or) MATH115	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

*Drafting Electives
Select 15 hours from DRFT116, DRFT120, DRFT125, DRFT130, DRFT132, DRFT134, DRFT136, DRFT155, DRFT180 (or) MACH101

**Program Electives
Select 9 hours from CNST, DRFT, IM, MACH, NET (or) WELD

Program Requirements

Freshman Year

MATH107	Technical Math I (or)	
MATH112	Intermediate Algebra	3
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
	Wellness Course	1
INDT102	Technical Prints and Diagrams	3
DRFT111	Introduction to Computer Drafting	3
CAPP125	Microcomputer Applications	3
	Total	16
MATH108	Technical Math II (or)	
MATH115	College Algebra	3-4
ENGL102	English Composition II (or)	
ENGL110	Business Communications	3
DRFT114	Intermediate Computer Drafting	3
PHYS125	Technical Science	4
	*Drafting Elective	3
	Total	16-17

Sophomore Year

HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
DRFT115	Advanced Computer Drafting	3
	**Program Elective	3
	*Drafting Electives	6
EDUC119	Employment Strategies	1
	Total	16
DRFT175	CAD Internship	4
	**Program Electives	6
	*Drafting Electives	6
	Total	16

Degree Total 64

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN COMPUTER INFORMATION SYSTEMS WITH EMPHASIS IN ACCOUNTING

An A.A.S. in Computer Information Systems (CIS) with Emphasis in Accounting is a program that can launch you into an exciting career. Changes in markets and technology have transformed the way companies compete in the global workplace. Businesses are rapidly computerizing their accounting and information systems. Preparing for tomorrow's jobs today requires a new level of skill and dedication. Working with computer information systems demands patience, persistence and the ability to work with extreme accuracy - even under pressure. You will also need to think logically and analytically. As a graduate of SFCC's CIS/Accounting program, you'll have the skills you need to set up and maintain the latest computerized accounting systems. The demand for employees who can apply both accounting and computer skills is increasing daily.

General Education Requirements	16 Hours
Communications	3
ENGL101 (or) ENGL112	
Mathematics	3
MATH101 (or) MATH112	
Social Science	3
HIST101 (or) HIST102 (or) POLS101	
Wellness	1
HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements.)	

**Program Electives - must complete with a grade of C or higher
Select 9 hours from CIS132, CIS151, CIS162, CIS163 (or) WEB116

Program Requirements

*Courses to complete with a grade of C or higher.

Freshman Year		
*WEB113	Web Design	1
*CAPP125	Microcomputer Applications	3
*CIS103	Introduction to CIS	3
*CIS145	Visual Basic	3
*ACCT109	Applied Accounting Procedures	3
	**Program Elective	3
	Wellness Course	1
	Total	17
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
*ACCT101	Principles of Financial Accounting	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
*CAPP166	Excel	3
*CIS185	Project Management	3
	Total	15
Sophomore Year		
*ACCTG132	Business Taxation	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
*CIS124	Database Management (or)	
*CIS152	Programming in Access	3
*ACCT102	Managerial Accounting	3
	**Program Elective	3
	Total	15
*ACCT125	Computerized Accounting	3
*CIS161	Systems Analysis	3
ENGL102	English Composition II (or)	
ENGL110	Business Communications (or)	
SPHTR101	Public Speaking	3
*CIS175	CIS Internship	4
EDUC119	Employment Strategies	1
	**Program Elective	3
	Total	17

Degree Total 64

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN COMPUTER INFORMATION SYSTEMS WITH EMPHASIS IN PROGRAMMING

SFCC offers an A.A.S. in Computer Information Systems with emphasis in Programming to enable you to enter an exciting career field. National and international companies including banks, insurance companies, state agencies, and major programming firms have hired SFCC graduates. You will get hands-on experience in programming with courses in both PC and mainframe environments. COBOL, DB2, CL, RPG, Visual Basic, C, Advanced C++ and JAVA are taught at SFCC, in addition to courses in programming concepts, software and hardware applications, and computer operations. An internship will be an opportunity to apply your knowledge and skills in a real work environment.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

**Program Electives - must complete with a grade of C or higher
Select 9 hours from CIS136, CIS162, CIS163, CIS171,
CIS172, CIS183, NET102, WEB114 (or) WEB116

Program Requirements

*Courses to complete with a grade of C or higher.

Freshman Year

*CAPP125	Microcomputer Applications	3
*CIS103	Introduction to CIS	3
*CIS145	Visual Basic	3
*WEB112	Web Utilities	1
*CIS132	Unix	1
*WEB113	Web Design	1
*ACCT101	Principles of Financial Accounting	3
	Wellness Course	1
	Total	16

ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
*CIS185	Project Management	3
*CIS155	Programming in C	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
	**Program Electives	6
	Total	18

Sophomore Year

*CIS148	Cobol	3
*CIS161	Systems Analysis	3
	**Program Elective	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
*CIS124	Database Management (or)	
*CIS152	Programming in Access	3
*CIS157	Advanced C/C++ Programming	3
	Total	18

*CIS149	Advanced Cobol	3
*CIS151	DB2 Relational Database3	
ENGL102	English Composition II (or)	
ENGL110	Business Communications (or)	
SPTH101	Public Speaking	3
*CIS175	CIS Internship	4
*CIS158	Java	3
EDUC119	Employment Strategies	1
	Total	17

Degree Total 69

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN CONSTRUCTION TECHNOLOGY

The Construction Technology program can provide the knowledge and skills needed to begin a rewarding career in the construction industry. In this program, theory and practical courses are combined to lead to competencies needed to meet employers' needs. Graduates may work with businesses engaged in all areas of construction. The jobs are varied and challenging including: General contractors, construction management, materials suppliers and employment with government agencies. Work environments range from permanent offices to offices at job sites. Studies of future work force needs project a high demand for persons trained in construction technology.

Program Requirements

Freshman Year

ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
MATH108	Technical Math II (or)	
MATH115	College Algebra	3-4
DRFT111	Introduction to Computer Drafting	3
CNST113	Construction Management	3
CNST101	Construction Materials and Methods I	3
	Wellness Course	1
	Total	16-17

General Education Requirements 16 Hours

Communications 3
ENGL101 (or) ENGL112

Mathematics 3
MATH108 (or) MATH115

Social Science 3
HIST101 (or) HIST102 (or) POLS101

Wellness 1
HLTH101, PEAC116, PEAC117, PEAC118,
PEAC119, PEAC121 (or) PEAC122

General Education Electives 6
(As determined by the department and are included in
the Program Requirements.)

*Program Electives
Select 6 hours from BADM, BSMT, CNST, DRFT, ECON,
ELEC, IM, IS, MACH, SPAN (OR) WELD

HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
CAPP125	Microcomputer Applications	3
CNST103	Construction Materials and Methods II	3
INDT102	Technical Prints and Diagrams	3
DRFT120	Architectural Drafting	3
CNST162	Construction Safety	3
	Total	18

Sophomore Year

	Humanities Course	3
CNST142	Building Mechanical Systems	3
CNST106	Construction Estimation	3
ACCT101	Principles of Financial Accounting (or)	
BADM107	Personal Finance	3
BADM101	Introduction to Business (or)	
BSMT108	Principles of Management (or)	
BSMT125	Human Relations	3
EDUC119	Employment Strategies	1
	Total	16

CNST160	Statics and Strength of Materials	3
	*Program Electives	6
ENGL110	Business Communications (or)	
SPTH101	Public Speaking	3
	Science Course - BIO, CHEM, EASC (or) PHYS	3
CNST138	Construction Planning and Scheduling	3
	Total	18

Degree Total 68

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN CRIMINAL JUSTICE

The field of criminal justice offers a wide variety of career opportunities based upon the three components of our legal system - law enforcement, judicial system and corrections. The Criminal Justice program prepares students for careers in law enforcement, probation and parole, juvenile justice, correctional system management, and legal system administration. Theoretical and practical courses, including a supervised occupational experience with an agency, will provide skills and abilities needed for an entry-level career in criminal justice.

General Education Requirements 16 Hours

Communications 3
ENGL101

Mathematics 3
MATH101 (or) MATH112

Social Science 3
POLS101

Wellness 1
HLTH101, PEAC116, PEAC117, PEAC118,
PEAC119, PEAC121 (or) PEAC122

General Education Electives 6
(As determined by the department and are included in
the Program Requirements.)

*Program Elective
Select 3 hours from EDUC123, SOC103, SPAN101,
SPTH101 (or) SPTH105

**Humanities and Fine Arts Course
HUM101, HUM120 (or) POLS103

Program Requirements

Freshman Year

CJ102	Introduction to Criminal Justice	3
CJ109	Juvenile Delinquency	3
ENGL101	English Composition I	3
PSY101	General Psychology	3
CAPP125	Microcomputer Applications	3
	Total	15

CJ111	Introduction to Corrections	3
CJ101	Introduction to Law Enforcement	3
SOC100	General Sociology	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
POLS101	American/National Government	3
	Wellness	1
	Total	16

Sophomore Year

CJ105	Criminal Law	3
CJ107	Criminology	3
ENGL112	Technical Writing	3
HLTH102	First Aid	2
BSMT125	Human Relations	3
	*Program Elective	3
	Total	17

CJ104	Criminal Investigation	3
CJ120	Probation-Parole/Offender Rehabilitation	3
SOC101	Social Problems	3
	**Humanities and Fine Arts Course	3
CJ175	Supervised Occupational Experience	4
EDUC119	Employment Strategies	1
	Total	17

Degree Total 65

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN CUSTOM APPLICATOR TECHNOLOGY

The Custom Applicator Technology program prepares students for employment using computerized equipment to apply chemicals and fertilizers on crops and soil to improve production. Students will study maintenance and operation of the equipment; safe handling of equipment, fertilizer, pesticides, and herbicides; preparation to obtain the state commercial driver's license and to pass state and federal commercial applicator licensing; and business aspects of the career. Mechanical skills and good driving habits are required, and an agricultural background is of benefit. Internships with an agricultural coop or a private business are included in the program and provide the opportunity to use the skills and knowledge learned in the classroom. This unique degree program provides graduates with numerous job offers at graduation.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL110 (or) ENGL112	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

Freshman Year

AGRI101	Ag Leadership and Issues I	2
ENGL101	English Composition I (or)	
ENGL110	Business Communications (or)	
ENGL112	Technical Writing	3
AGRI120	Soils I	3
AGRI165	Basic Maintenance and Operations	3
AGRI157	Equipment Operations I	3
HEOC101	Managing Medical Emergencies	1
	Total	15

AGRI102	Ag Leadership and Issues II	1
AGRI163	Custom Applicator I	3
AGRI161	Ag Industry Equipment Operation	2
AGRI167	CDL Licensing	2
AGRI127	Farm Chemicals	3
AGRI175	Occupational Internship	8
	Total	19

Summer Session

AGRI175	Occupational Internship	6
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Sophomore Year

AGRI103	Ag Leadership and Issues III	2
AGRI174	Crop/Insect Scouting	2
AGRI118	Plant Science	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
AGRI159	Equipment Operations II	3
CAPP125	Microcomputer Applications	3
	Total	16

AGRI104	Ag Leadership and Issues IV	1
AGRI121	Soils II	3
AGRI168	Commercial Applicator Licensing	2
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
AGRI164	Custom Applicator II	3
AGRI158	Pesticide and Fertilizer Equipment	2
	Wellness Course	1
EDUC119	Employment Strategies	1
	Total	16

Degree Total 72

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN DENTAL HYGIENE

The A.A.S. degree in Dental Hygiene signifies that the holder of that degree has been educated to competently enter dental hygiene in all health care settings and to apply for dental hygiene licensure in the state of Missouri. The education of a dental hygienist requires assimilation of knowledge, acquisition of skills and development of judgment through patient care experiences. The practice of dental hygiene emphasizes collaboration among dentists, other hygienists, allied health care professionals, and the patient. The program requires students to engage in diverse, complex and specific experiences essential to the acquisition and practice of essential dental hygiene skills and functions. Unique combinations of cognitive, affective, psychomotor, physical, and social abilities are required to satisfactorily perform these functions. Admission to the program is selective and an informational packet with an application to the program is available from the college.

Program Prerequisite Requirements

Must be completed prior to the start of the program with grades of C or higher:

BIO207	Human Anatomy w/Lab	4
BIO208	Human Physiology w/Lab	4
CHEM101	Introduction to Chemistry w/Lab	5
DH101	Dental Hygiene Prep Workshop (Taken the spring before acceptance into the program as part of the selection process)	1/2
MATH112	Intermediate Algebra	3
BIO121	Microbiology w/Lab	4
General Education Requirements		15 Hours
Communications	ENGL101	3
Mathematics	MATH112	3
Social Science	HIST101 (or) HIST102 (or) POLS101	3
General Education Electives	(As determined by the department and are included in the Program Requirements.)	6

Program Requirements

*Courses can be completed prior to the start of the program.

Freshman Year

DH105	Introduction to Dental Hygiene	6
DH107	Dental Radiography	2
DH***	Oral Anatomy and Histology	2
DH109	Oral Anatomy and Histology Lab	2
*ENGL101	English Composition I	3
DH106	Dental Clinic Emergencies	1
Total		16
DH110	Clinical Dental Hygiene I	6
DH118	Principles of Periodontics	2
DH124	Applied Nutrition and Oral Health Education	2
DH***	Pathology	3
*HIST101	U.S. History Before 1877 (or)	
*HIST102	U.S. History After 1877 (or)	
*POLS101	American/National Government	3
*SPH101	Public Speaking	3
Total		19

Summer Session

DH112	Clinical Dental Hygiene II	5
DH125	Local Anesthesia	3
Total		8

Sophomore Year

DH114	Clinical Dental Hygiene III	8
DH126	Community Dental Health	1
DH130	Pharmacology	2
DH120	Dental Biomaterials w/Lab	2
*PSY101	General Psychology	3
Total		16
DH116	Clinical Dental Hygiene IV	8
DH119	Advanced Periodontics Practicum	1/2
DH127	Community Dental Health Lab	1
DH132	Dental Hygiene Ethics and Legal Issues	2
*SOC100	General Sociology	3
HEOC135	Allied Health Career Development	1/2
Total		15

Degree Total 94 1/2

DH*** These courses are transferred into the program from another institution by arrangement.

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN EARLY CHILDHOOD DEVELOPMENT

The Early Childhood Development program prepares graduates to enter the child care field at several levels. Graduates from the program will be prepared to manage an in-home child care facility, be a teacher in an early childhood classroom or become a director for an early childhood center. Many of the courses in the program are available in the evenings to enable students who are employed in the field to complete a degree and increase their opportunities for advancement.

General Education Requirements	16 Hours
Communications ENGL101	3
Mathematics MATH112 (or) MATH116	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

*Humanities and Fine Arts Course
ART101, HUM120, MUS101 (or) SPTH107

**Program Elective
Select 3 hours from PPRO106, PSY102, PSY104, PSY150,
SOC102, SOC103, SPAN101 (or) SPTH105

Program Requirements

Freshman Year

ECD101	Introduction to Early Childhood	3
ECD103	Child Growth and Development	3
ECD127	Parent/Teacher Interaction	3
ENGL101	English Composition I	3
	*Humanities/Fine Arts Course	3
EDUC145	Computer Technology in Education	3
	Total	18

ECD107	Child Nutrition, Health and Safety	3
ECD109	Observation, Planning and Assessment	3
ECD111	Language Development/Early Literacy	3
SPTH101	Public Speaking	3
MATH112	Intermediate Algebra (or)	
MATH116	Finite Math	3
	Wellness Course	1
	Total	16

Sophomore Year

ECD115	Child Social/Emotional Development	3
ECD117	Creative Expression and Play	3
ECD121	Curriculum Strategies for Early Childhood	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
EDUC104	Children's Literature	3
	Total	15

ECD125	Introduction to Special Individuals	3
PSY101	General Psychology	3
ECD129	Administration in Early Childhood Care	3
ECD175	Child Care Practicum	3
	**Program Elective	3
EDUC119	Employment Strategies	1
	Total	16

Degree Total 65

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN FIRE SCIENCE TECHNOLOGY

The Fire Science Technology program is an instructional program that prepares individuals to perform the duties of fire fighters. It is primarily designed to serve the many fire fighting districts in the college's service area, but courses can be taken by students preparing for a career in fire fighting. Instruction is offered in equipment operation and maintenance, principles of fire science and combustible substances, methods of controlling different types of fires, hazardous materials handling and control, fire rescue procedures, emergency medical response, public relations, and legal regulations.

General Education Requirements	16 Hours
Communications ENGL101	3
Mathematics MATH107 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives CAPP125 Microcomputer Applications ENGL102, ENGL110, ENGL112 (or) SPTH101	6

Program Requirements

In addition to the General Education Requirements, the following courses must be completed for the degree:

FIRE105	Fire Fighter I	4
FIRE106	Fire Fighter II	4
FIRE108	Hazardous Materials Awareness and Operations	3
FIRE110	Fire Officer I	3
FIRE112	Fire Inspector I	3
FIRE114	Public Fire and Life Safety Educator	3
FIRE116	Fire Service Instructor I	3
FIRE118	Fire Apparatus Operator	3
FIRE120	Wildland Fire Fighter Professional	3
FIRE122	Rescue Technician	3
FIRE124	Building Construction	3
FIRE128	Fire Hydraulics	3
HEOC110	Emergency Medical Technician	8
EDUC119	Employment Strategies	1
	*Program Elective	3

Degree Total 66

*Program Elective
Select 3 hours from courses in CNST, MACH, WELD (or)
PHYS125

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN ELECTRICITY/ELECTRONICS

Graduates of our program will be qualified for positions in industry as industrial electricity/electronics technicians; in field service and sales positions; in contracting as equipment installers and repairers; and/or to continue their education for a four-year degree in industrial electronics or engineering. Abstract reasoning abilities, math skills, manual dexterity, and attention to detail and safe procedures are practiced in applying classroom concepts to hands-on training and troubleshooting skills in the lab. Students can obtain a certificate or an A.A.S. degree in the Industrial Technology with emphasis in Electricity/Electronics program. The program is accredited by the National Association of Industrial Technology (NAIT).

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH107	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives PHYS125 Technical Science and an Approved General Education Course	6

Program Requirements

In addition to the General Education Requirements, the following courses must be completed for the degree:

ELEC119	Solid State Devices	3
ELEC126	Digital Principles and Applications	3
ELEC133	Transformers and Motors	3
ELEC150	IEET Integration	3
ELEC152	Power Distribution and Switchgear	3
ELEC154	Industrial Communications	3
ELEC156	Motion Control Systems	3
ELEC158	Process Control	3
INDT104	Electric Fundamentals	3
INDT106	Electrical Power	3
INDT112	Motor Control	3
INDT114	Programming PLCs	3
IM115	Introduction to Systems	3
IM141	Intermediate PLCs	3
EDUC119	Employment Strategies	1
	*Program Electives	6

Degree Total 65

*Program Electives

Select 6 hours from AUTO, CNST, DRFT, ELEC, IM, IS, INDT, NET (or) WELD

PROFESSIONAL CERTIFICATE IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN ELECTRICITY/ELECTRONICS

Program Requirements

ELEC133	Transformers and Motors	3
ELEC150	IEET Integration	3
ELEC152	Power Distribution and Switchgear	3
IM115	Introduction to Systems	3
INDT104	Electric Fundamentals	3
INDT106	Electrical Power	3
INDT112	Motor Control	3
INDT114	Programming PLCs	3
	Program Electives	9
EDUC119	Employment Strategies	1

Certificate Program Electives

Select 9 hours from MATH107, PHYS125, (OR) courses from AUTO, CNST, DRFT, ELEC, IM, INDT, IS, NET, MACH, (or) WELD

Certificate Total 34

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL MAINTENANCE

Today's industries require maintenance technicians capable of understanding the complex issues of manufacturing automation and control, and the repair and maintenance of machines, computer-controlled equipment and mechanical equipment. A solid understanding of many aspects of industrial technology will provide students in the Industrial Maintenance program with skills needed for entry-level employment in industrial settings. Students already employed in industry who need to update their skills with current technology will find flexible course offerings. The program is accredited by the National Association of Industrial Technology (NAIT).

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH108	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives PHYS125 Technical Science and an Approved General Education Course	6

Program Requirements

*Courses to complete with a grade of C or higher

In addition to the General Education Requirements, the following courses must be completed for the degree:

*INDT104	Electric Fundamentals	3
*INDT106	Electrical Power	3
*INDT112	Motor Control	3
*INDT114	Programming PLCs	3
IM105	Industrial Safety	3
IM112	Maintenance Management	3
*IM115	Introduction to Systems	3
*IM126	Industrial Mechanics	3
*IM133	Fluid Power Technology	3
*IM141	Intermediate PLCs	3
EDUC119	Employment Strategies	1
	**Program Electives	16

Degree Total 63

**Program Electives

Select 16 hours from AUTO, CNST, DRFT, ELEC, IM, IS, MACH, MRN (or) WELD

PROFESSIONAL CERTIFICATE IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL MAINTENANCE

Program Requirements

*Courses to complete with a grade of C or higher

*INDT104	Electric Fundamentals	3	*INDT112	Motor Control	3
*INDT106	Electrical Power	3	IM105	Industrial Safety	3
*INDT114	Programming PLCs	3	IM112	Maintenance Management	3
*IM115	Introduction to Systems	3	*IM141	Intermediate PLCs	3
*IM126	Industrial Mechanics	3	MATH108	Technical Math II	3
*IM133	Fluid Power Technology	3	PHYS125	Technical Science	4
			EDUC119	Employment Strategies	1

Certificate Total 38

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL SUPERVISION

The Industrial Technology with emphasis in Industrial Supervision degree is designed to meet the needs of those individuals seeking supervisory opportunities in a manufacturing environment. Individuals currently employed in manufacturing related fields that are seeking professional growth and advancement in their organization can enroll in courses that will provide applied technology and business-related content.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH108	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives CAPP125 Microcomputer Applications ENGL110 Business Communications	6

Program Requirements

In addition to the General Education Requirements, the following courses must be completed for the degree:

ACCT101	Principles of Financial Accounting	3
BADM101	Introduction to Business	3
BADM103	Legal Environment of Business	3
BSMT108	Principles of Management	3
BSMT117	Human Resource Management	3
INDT102	Technical Prints and Diagrams	3
INDT104	Electric Fundamentals	3
INDT114	Programming PLCs	3
IS103	Inventory and Production Control	3
IS111	Quality Management and Control	3
IM105	Industrial Safety	3
IM112	Maintenance Management	3
IM115	Introduction to Systems	3
PHYS125	Technical Science	4
EDUC119	Employment Strategies	1
BSMT175	Industrial Supervision Internship (or) *Program Elective	3-4

Degree Total 63

*Program Elective

Select 3-4 hours from ACCT, ART, BADM, BSMT, CAPP, CIS, ENGL, HUM, LIT, MATH, OADM, POLS, PSY, SPAN, SOC (or) SPTH

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN MACHINE TOOL TECHNOLOGY

The Machine Tool Technology program provides the opportunity to learn the processes of manufacturing and machining with an understanding of specifications, dimensions, materials, finishing, methods of assembly, and shape descriptions required to manufacture a product. The program is designed to prepare students for a variety of machining related occupations such as machine operators, machine sellers, machinists, and tool and die makers. Because of changes in technology, the demand for skilled machinists with communications, design, decision-making and computer skills is increasing. CNC equipment in the machine tool lab is interfaced with the CAD/CAM lab to provide experience in computer-aided manufacturing for students seeking a degree or certificate. The program is accredited by the National Association of Industrial Technology (NAIT).

General Education Requirements	16 Hours
Communications	3
ENGL101 (or) ENGL112	
Mathematics	3
MATH108	
Social Science	3
HIST101 (or) HIST102 (or) POLS101	
Wellness	1
HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements.)	

Program Requirements

Freshman Year

MACH101	Introduction to Machining	4
CAPP125	Microcomputer Applications	3
INDT102	Technical Prints and Diagrams	3
	Wellness Course	1
MATH107	Technical Math I	3
DRFT111	Introduction to Computer Drafting	3
	Total	17
MACH102	Lathe and Milling Machine Operations	4
MATH108	Technical Math II	3
PHYS125	Technical Science	4
MACH115	Heat Treating and Metallurgy	3
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
	Total	17

Sophomore Year

MACH103	Milling and Grinding Machine Applications	4
MACH106	CNC Machining	3
DRFT134	Autodesk Inventor	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
ENGL110	Business Communications	3
	Total	16
MACH104	Advanced Machining	4
MACH109	Advanced CNC Machining	3
EDUC119	Employment Strategies	1
	*Program Elective	3-4
MACH175	Machine Tool Internship	4
	Total	15-16

Degree Total 65

PROFESSIONAL CERTIFICATE IN MACHINE TOOL TECHNOLOGY

Program Requirements

MACH101	Introduction to Machining	4	DRFT111	Introduction to Computer Drafting	3
MACH102	Lathe and Milling Machine Operations	4	MACH106	CNC Machining	3
INDT102	Technical Prints and Diagrams	3	EDUC119	Employment Strategies	1
MACH115	Heat Treating and Metallurgy	3		*Program Elective	3-4
MATH107	Technical Math I	3		*Program Elective	
MATH108	Technical Math II	3		Select course from DRFT, MACH112, MACH180, (or)	
PHYS125	Technical Science	4		WELD	

Certificate Total 34

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN MARINE TECHNOLOGY

The Marine Technology program at SFCC will provide an opportunity for participants to achieve an A.A.S. degree via articulation or experiential credit. Students who have graduated from an accredited marine technology program or have experience in industry may earn up to 46 credit hours toward the degree in Marine Technology. To qualify for the articulated credit, students must provide official transcripts from the accredited technical program, occupational testing scores and/or industry certification. Prospective students should contact the chair of the Applied Science and Technology Department prior to enrollment.

Courses to be taken from SFCC must include:

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH107 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives	6
Select 6 hours from BADM101, ECON101, PHYS103, PHYS125, PSY101 (or) SPTH101	
Additional degree requirement EDUC119 Employment Strategies	1

Program Requirements

The following courses are available for articulation from secondary schools with Marine Technology programs:

MRN109	Marine Cooling Systems	2
MRN111	Marine Lubrication Systems	2
MRN117	Marine Engine Systems Analysis	2
MRN119	Marine Systems Preventive Maintenance	4
MRN121	Marine Power Transfer Systems	4
MRN175	Internship	5

The following courses are available for articulation from post secondary Marine Technology programs, manufacturing certification, validated occupation experience and/or occupational testing:
All courses above plus:

MRN101	Marine Systems Rigging I	6
MRN105	Marine Ignition Systems	3
MRN107	Marine Starter and Charging Systems	2
MRN113	Marine Engine Component and Precision Measuring	3
MRN115	Marine Shop Procedures and Business Operations	2
MRN123	Marine Systems Troubleshooting	3
MRN125	Marine Fuel Systems	4
MRN127	Marine Instrumentation Systems	2
MRN129	Marine Power Trim/Tilt Systems	2

Degree Total 63

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN NETWORK ADMINISTRATION

Typical job titles for the degree are: Systems Administrator, IT Specialist, IT Manager, LAN Administrator, or Network Manager.

Tasks associated with the job may include installation, configuration, and support of a local area network (LAN), a wide area network (WAN), and an Internet system or segment of the network. Maintain and monitor the network hardware and software to ensure network availability to all system users.

The A.A.S. in Network Administration prepares students for a number of certifications: A+, Network+, CCNA, MCP, MCSA, MCSE, MCDBA, the most prestigious being CISCO's CCNA and Microsoft's MCSE. All of our networking instructors hold at least one of these certifications. Students work on the latest versions of software and hardware. The high demand for certified network administrators will continue to increase as the software and hardware become more and more complex.

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH108 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

**Program Electives
Select 12 hours from NET, CIS145, CIS152, CIS158, CIS162, CIS163, ELEC117, INDT104 (or) WEB116.

Program Requirements

*Courses to complete with a grade of C or higher.

Freshman Year

*MATH108	Technical Math II (or)	3
*MATH112	Intermediate Algebra	3
PHYS103	Introduction to Physical Science (or)	3-4
PHYS125	Technical Science	3-4
*CAPP125	Microcomputer Applications	3
*NET102	Networking I (or)	3
*NET150	CISCO Networking	3
ENGL101	English Composition I (or)	3
ENGL112	Technical Writing	3
	Wellness Course	1
	Total	16-17

*NET120	Network Server	3
	**Program Electives	6
*NET151	CISCO Router Basics	3
HIST101	U.S. History Before 1877 (or)	3
HIST102	U.S. History After 1877 (or)	3
POLS101	American/National Government	3
	Total	15

Sophomore Year

*NET126	Network Client	3
*NET130	TCP/IP	3
*NET138	Network Directory Services	3
	**Program Electives	6
ENGL102	English Composition II (or)	3
ENGL110	Business Communications	3
	Total	18
*NET106	Networking II	3
*NET158	Network Firewalls	3
*NET140	PC Hardware	3
*NET142	PC Operating Systems	3
*NET175	Network Administration	3
	Internship	4
EDUC119	Employment Strategies	1
	Total	17

Degree Total 66

Note: Not all courses are offered every semester. Check with the department.

A.A.S. NETWORKING WITH EMPHASIS IN PC TECHNICIAN

The A.A.S. degree with specialization as a PC support technician is designed to train students in PC hardware maintenance and various PC operating systems. Job opportunities include: personal computer technician, microcomputer hardware specialist, or PC maintenance technician. As a PC technician, you will work with computer software and hardware. You will install new software packages, assist users in learning and properly using software packages, and troubleshoot software application problems. You will keep computer PCs up and running, and set up and maintain network computer systems. You will need knowledge of commonly-used concepts, practices and procedures, and rely on instructions and pre-established guidelines to perform the functions of the job and work under immediate supervision. Primary job functions do not typically require exercising independent judgment. A technician typically reports to a project leader or manager.

General Education Requirements 16 Hours

Communications 3
ENGL101 (or) ENGL112

Mathematics 3
MATH108 (or) MATH112

Social Science 3
HIST101 (or) HIST102 (or) POLS101

Wellness 1
HLTH101, PEAC116, PEAC117, PEAC118,
PEAC119, PEAC121 (or) PEAC122

General Education Electives 6
(As determined by the department and are included in the Program Requirements.)

*Program Electives
Select 9 hours from CIS145, NET135, NET136,
NET138, NET152, (OR) NET153

Program Requirements

Freshman Year

MATH108	Technical Math II (or)	
MATH112	Intermediate Algebra	3
PHYS103	Introduction to Physical Science (or)	
PHYS125	Technical Science	3-4
CAPP125	Microcomputer Applications	3
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
NET102	Networking I (or)	
NET150	CISCO Networking	3
	Total	15-16

HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
	Wellness Course	1
ENGL102	English Composition II (or)	
ENGL110	Business Communications	3
NET120	Network Server	3
ELEC119	Solid State Devices	3
	*Program Elective	3
	Total	16

Sophomore Year

NET129	Fundamentals of Voice and Data Cabling	3
ELEC126	Digital Principles and Applications	3
NET126	Network Client	3
NET151	CISCO Router Basics	3
	*Program Elective	3
	Total	15

NET140	PC Hardware	3
NET142	PC Operating Systems	3
NET175	Network Administration Internship	4
EDUC119	Employment Strategies	1
NET106	Networking II	3
	*Program Elective	3
	Total	17

Degree Total 63

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN NURSING

The A.A.S. in Nursing is a bi-level program that prepares the student to complete the requirements for the Professional Certificate in Practical Nursing after the first year (Level 1) and the requirements for the Associate of Applied Science in Nursing after the second year (Level 2). This competency based bi-level curriculum allows students to transition from practical nursing to associate degree nursing in a seamless fashion. An advanced placement option is available for current licensed practical nurses into Year Two (Level 2). The program is approved by the Missouri State Board of Nursing and accredited by the Department of Elementary and Secondary Education.

The program accepts first year students each fall semester. Application may be made upon completion of the nursing program prerequisite courses or the first day of the semester that a student will complete the prerequisite courses. An information packet is available from the Student Services Office at the main campus. Applicants are reviewed by the Nursing Admission Committee based upon the order submitted and admission criteria completed. Applicants will receive a letter regarding admission status following committee review.

Year One students progress to Year Two based upon successful completion of Year One program the previous semester. Successful passing of NCLEX-PN is required for continuation in Year Two prior to the beginning of the second 8-week term of the first semester of Year Two.

Advanced placement students for Year Two (current LPNs) are eligible for either fall or spring admission. Application may be made upon completion of the advanced placement prerequisite courses or the first day of the semester that a student will complete the prerequisite courses. Criteria for admission and prerequisite requirements may be obtained by contacting the Student Services Office at the main campus. Applicants are reviewed by the Nursing Admission Committee based upon the order submitted and admission criteria completed. Applicants will receive a letter regarding admission status following committee review.

MISSION

The mission of the bi-level Associate of Applied Science in Nursing program is to prepare learners to become registered professional nurses in an educational environment that promotes critical thinking, growth of the individual student and a holistic view of health care. The learner is expected to be caring, conscientious, flexible, professional, and accountable for their actions. The education and learning processes of the program promote a seamless transition from level one to level two that results in behavioral change. This approach is most effective as a shared responsibility of faculty and learner.

Prerequisite Courses for Year One (Level One)

Must be completed with grades of C or higher:

BIO207	Human Anatomy w/Lab	4
MATH112	Intermediate Algebra	3
ENGL101	English Composition I	3
NURS121	CPR for Health Care Providers	1/2

Prerequisite Courses for Advanced Placement for Year Two (Level Two)

Must be completed with grades of C or higher:

MATH112	Intermediate Algebra	3
ENGL101	English Composition I	3
NURS121	CPR for Health Care Providers	1/2
BIO208	Human Physiology w/Lab	4
PSY101	General Psychology	3
NURS210	Nursing Transition Course	2

Requirements for Year One (Level One) and Year Two (Level Two) are on the following page.

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN NURSING

Year One (Level One) Professional Certificate in Practical Nursing

Year Two (Level Two) Associate of Applied Science in Nursing.

All Year One (Level One) courses must be completed with grades of C or higher.

*BIO208	Human Physiology w/Lab	4	NURS212	Introduction to Professional Nursing	1 1/2
NURS110	Personal Vocational Concepts	1	NURS214	Complex Health: Mental Health	3
NURS112	Introduction to Psycho-Social Health	2	NURS216	Complex Health: Mental Health Clinical	2
**NURS114	Fundamentals I	2	NURS218	Complex Health: Elimination	2
NURS116	Fundamentals II	2 1/2	NURS220	Complex Health: Nutrition/Metabolic	1 1/2
NURS118	Fundamentals II Clinical	1 1/2	NURS226	Complex Health: Family	2
NURS120	Allied Health Pharmacology	2	NURS228	Complex Health: Family Clinical	1
NURS122	Adult Health I	4	NURS230	Complex Health: Adult Clinical I	1
NURS124	Adult Health II	4	NURS232	Complex Health: Adult Clinical II	3
NURS126	Adult Health Nursing Clinical	3	NURS234	Complex Health: Activity and Rest	3
NURS128	Adult Health III	2	NURS236	Complex Health: Cognitive/Perceptual	2
NURS130	Adult Health Care Coordination Clinical	2	NURS238	Complex Health: Community Management	2
*NURS132	Nutrition	3	NURS240	Complex Health: Community Management Clinical	1
NURS134	Nursing Care for the Childbearing Family	2	NURS242	Professional Nursing Capstone Clinical	1 1/2
NURS136	Childbearing Family Clinical	1 1/2	*HIST101	U.S. History Before 1877 (or)	
NURS140	Nursing Care for the Child Rearing Family	2	*HIST102	U.S. History After 1877 (or)	
NURS142	Child Rearing Family Clinical	1 1/2	*POLS101	American/National Government	3
HEOC135	Allied Health Career Development	1/2	*BIO121	Microbiology w/Lab	4
*PSY101	General Psychology	3	*SPTH101	Public Speaking	3

Certificate Total 54

Degree Total 90 1/2

*Courses can be completed prior to the start of the program.

**Course can be articulated from secondary health occupations programs. Consult the SFCC TECH PREP Director or high school counselor for procedure.

*Courses can be completed prior to the start of the program.

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN RADIOLOGIC TECHNOLOGY

Radiologic Technologists are the only allied health professionals educated in image production, radiation protection, and image evaluation. Although an interdisciplinary team of radiologists, radiologic technologists and support staff plays a critical role in the delivery of health services, it is the radiologic technologist who performs the radiologic examination that creates the images needed for diagnosis. The Radiologic Technology program at SFCC is dedicated to serving the communities of rural Missouri through the preparation of highly competent, registry-eligible medical imaging professionals. The program provides a solid educational base and a thorough professional preparation that will allow the graduate to competitively enter the work force, continue their education in advanced imaging technologies, and/or transfer into baccalaureate degree programs in imaging science. Admission to the program is selective and an informational packet with an application to the program is available from the college.

Program Prerequisite Requirements

*Must be completed prior to the start of the program with grades of C or higher:

BIO207	Human Anatomy w/Lab	4
ENGL101	English Composition I	3
MATH112	Intermediate Algebra	3
MEOF101	Medical Terminology I	3
RAD100	Radiologic Technology Prep Workshop	1/2

General Education Requirements 15 Hours

Communications 3
ENGL101

Mathematics 3
MATH112

Social Science 3
HIST101 (or) HIST102 (or) POLS101

General Education Electives 6
(As determined by the department and are included in the Program Requirements.)

Program Requirements

Freshman Year

RAD102	Orientation to Radiologic Technology	2
RAD120	Radiographic Procedures I	3
RAD122	Radiographic Procedures II	3
RAD130	Radiation Production and Characteristics	3
RAD136	Radiation Protection	2
*BIO208	Human Physiology w/Lab	4
Total		17

RAD106	Clinical Education I	3
RAD124	Radiographic Procedures III	3
RAD142	Trauma and Advanced Imaging	3
RAD128	Patient Care	3
RAD134	Radiographic Exposures and Quality Control	3
Total		15

Summer Session

RAD108	Clinical Education II	3
RAD110	Clinical Education III	3
*SPTH101	Public Speaking	3
Total		9

Sophomore Year

RAD112	Clinical Education IV	3
RAD140	Radiologic Pharmacology	3
RAD144	Radiation Biology	2
RAD146	Imaging Equipment	3
RAD154	Sectional Anatomy	3
Total		14

RAD114	Clinical Education V	3
RAD150	Radiographic Pathology	3
RAD152	Image Analysis	3
RAD170	Preparing for Professionalism	3
*HIST101	U.S. History Before 1877 (or)	
*HIST102	U.S. History After 1877 (or)	
*POLS101	American/National Government	3
Total		15

Degree Total 83 1/2

*Courses can be completed prior to the start of the program.

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN SECRETARIAL SCIENCE WITH EMPHASIS IN MEDICAL OFFICE ADMINISTRATION - MANAGEMENT

The Medical Office Administration degree with emphasis in Management prepares the student to work in any medical setting and provides the student with the knowledge and skills to eventually move into a management position. The management degree introduces the student to all areas of the medical office setting including, but not limited to, transcription, coding, communications, accounting, ethics, records and database management, clinical assisting techniques, medical terminology, body structure and function, pharmacology, and medical office procedures. The culmination of the program is an internship in a medical setting of the student's choice. The outlook for medical office jobs leading to positions in management are excellent.

General Education Requirements	16 Hours
Communications ENGL110	3
Mathematics MATH101	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements)	6
Prerequisite: *CAPP118 Keyboarding	3
*Courses to complete with grades of C or higher.	

Program Requirements

Freshman Year

*MEOF101	Medical Terminology I	3
*HEOC101	Managing Medical Emergencies	1
*MEOF103	Job Shadowing in the Medical Office	1
*OADM121	Calculators	1
*OADM118	Transcription Skills	3
*CAPP125	Microcomputer Applications	3
*MEOF108	Body Structure and Function for Medical Office Administration	3
	Wellness Course	1
	Total	16

*MEOF102	Medical Terminology II	3
*MEOF105	Medical Office Procedures	3
*MEOF118	Procedure and Diagnosis Coding	3
*MEOF125	Medical Skillbuilding	1
MATH101	Business Math	3
*CAPP160	Word	3
*CAPP138	Speech Recognition	1
	Total	17

Sophomore Year

*MEOF107	Medical Transcription	3
*MEOF110	Clinical Assisting Techniques	3
*OADM116	Records and Database Management	3
*ENGL110	Business Communications	3
*MEOF130	Essentials of Pharmacology	2
*BSMT125	Human Relations	3
	Total	17

*MEOF175	Medical Office Internship	3
*MEOF111	Clinical Practicum	1
*BADM109	Business Ethics	3
*ACCT109	Applied Accounting Procedures	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
SPAN101	Spanish I (or)	
HUM120	American Diversity	3
*EDUC119	Employment Strategies	1
ACCT126	Introduction to QuickBooks	1
	Total	18

Degree Total 68

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN SECRETARIAL SCIENCE WITH EMPHASIS IN MEDICAL OFFICE ADMINISTRATION - MEDICAL TRANSCRIPTION

The Medical Office Administration degree with emphasis in Medical Transcription prepares the student to work in various medical office settings, but particularly in the area of medical transcription. The program of study for medical transcription includes training in beginning and advanced medical transcription, including courses in transcription skills, microcomputers, body structure and function, beginning and advanced medical terminology, advanced keyboarding, speech recognition, records and database management, pharmacology, clinical assisting techniques, communications, and ethics. The capstone class for this program of study is an internship in medical transcription. The outlook for medical transcription is excellent, with many medical transcriptionists working from home.

General Education Requirements 16 Hours

Communications ENGL110	3	
Mathematics MATH101	3	
Social Science HIST101 (or) HIST102 (or) POLS101	3	
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1	
General Education Electives (As determined by the department and are included in the Program Requirements)	6	
Prerequisite: *CAPP118 Keyboarding	3	

*Courses to complete with grades of C or higher.

Program Requirements

Freshman Year

*MEOF101	Medical Terminology I	3
*HEOC101	Managing Medical Emergencies	1
*MEOF103	Job Shadowing in the Medical Office	1
*OADM121	Calculators	1
*OADM118	Transcription Skills	3
*CAPP125	Microcomputer Applications	3
*MEOF108	Body Structure and Function for Medical Office Administration	3
	Total	15

*MEOF102	Medical Terminology II	3
*MEOF105	Medical Office Procedures	3
*CAPP119	Document Formatting	2
*MEOF125	Medical Skillbuilding	1
*CAPP160	Word	3
*MEOF107	Medical Transcription	3
*CAPP138	Speech Recognition	1
	Total	16

Sophomore Year

*MEOF112	Advanced Medical Transcription	3
*OADM116	Records and Database Management	3
*ENGL110	Business Communications	3
*MEOF130	Essentials of Pharmacology	2
MATH101	Business Math	3
*BSMT125	Human Relations	3
	Total	17

*MEOF175	Medical Office Internship	4
*BADM109	Business Ethics	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
SPAN101	Spanish I (or)	
HUM120	American Diversity	3
*EDUC119	Employment Strategies	1
*CAPP134	Internet	1
	Wellness Course	1
	Total	16

Degree Total 64

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN SECRETARIAL SCIENCE WITH EMPHASIS IN MEDICAL OFFICE ADMINISTRATION - PROCEDURE AND DIAGNOSIS CODING

The Medical Office Administration degree with emphasis in Procedure and Diagnosis Coding is a rigorous program which prepares the student to sit for and achieve coding certifications. The course of study includes, but is not limited to, beginning and advanced medical terminology, beginning and advanced procedure and diagnosis coding, human biology, human anatomy, human physiology, pharmacology, clinical assisting techniques, microcomputer, communications, ethics, human relations, and medical office procedures. The high point of this program of study is an internship in a procedure and diagnosis setting. The outlook for jobs in procedure and diagnosis coding is outstanding with excellent monetary compensation.

General Education Requirements	16 Hours
Communications ENGL110	3
Mathematics MATH101	3
Social Science HIST101 (or) HIST102 (or) POLS101	3
Wellness HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	1
General Education Electives (As determined by the department and are included in the Program Requirements)	6
Prerequisite: *CAPP118 Keyboarding	3

*Courses to complete with grades of C or higher.

Program Requirements

Freshman Year

*MEOF101	Medical Terminology I	3
*HEOC101	Managing Medical Emergencies	1
*MEOF103	Job Shadowing in the Medical Office	1
*OADM121	Calculators	1
*BIO103	Human Biology	3
*CAPP125	Microcomputer Applications	3
*BSMT125	Human Relations	3
	Wellness Course	1
	Total	16

*MEOF102	Medical Terminology II	3
*MEOF105	Medical Office Procedures	3
*MEOF118	Procedure and Diagnosis Coding	3
MATH101	Business Math	3
*BIO207	Human Anatomy w/Lab	4
*MEOF125	Medical Skillbuilding	1
	Total	17

Sophomore Year

*MEOF119	Advanced Procedure and Diagnosis Coding	3
*BIO208	Human Physiology w/Lab	4
*MEOF130	Essentials of Pharmacology	2
*MEOF110	Clinical Assisting Techniques	3
*OADM116	Records and Database Management	3
*CAPP134	Internet	1
*EDUC119	Employment Strategies	1
	Total	17

*MEOF175	Medical Office Internship	3
*MEOF111	Clinical Practicum	1
*ENGL110	Business Communications	3
*BADM109	Business Ethics	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLS101	American/National Government	3
SPAN101	Spanish I (or)	
HUM120	American Diversity	3
	Total	16

Degree Total 66

Note: Not all courses are offered every semester. Check with the department.

PROFESSIONAL CERTIFICATE IN SECRETARIAL SCIENCE WITH EMPHASIS IN OFFICE ASSISTING

Program Requirements

*Courses to complete with a grade of C or higher.

*CAPP130	Windows	1
*CAPP118	Keyboarding (or test out)	3
OADM123	Professional Business Leadership	1
*CAPP125	Microcomputer Applications	3
*OADM121	Calculators	1
*CAPP119	Document Formatting	2
*OADM116	Records and Database Management	3
BSMT125	Human Relations (or)	
SPTH105	Interpersonal Communications	3
*OADM132	Office Dynamics for Assistants	3
EDUC119	Employment Strategies	1
	Program Electives	9

Program Electives

Choose Group A (or) Group B courses

Group A:		
*CAPP160	Word	3
*OADM118	Transcription Skills	3
*OADM119	Machine Transcription	3
GROUP B:		
*ACCT109	Applied Accounting Procedures	3
*CAPP166	Excel	3
*MATH 101	Business Math	3

Certificate Total 30

PROFESSIONAL CERTIFICATE IN SECRETARIAL SCIENCE WITH EMPHASIS IN MEDICAL OFFICE ADMINISTRATION

Program Requirements

*Courses to complete with grades of C or higher.

First Semester

*CAPP118	Keyboarding	3
*MEOF101	Medical Terminology I	3
*HEOC101	Managing Medical Emergencies	1
*MEOF103	Job Shadowing in the Medical Office	1
*OADM121	Calculators	1
*OADM118	Transcription Skills	3
*CAPP125	Microcomputer Applications	3
	Total	15

Second Semester

*MEOF102	Medical Terminology II	3
*MEOF105	Medical Office Procedures	3
*MEOF118	Procedure and Diagnosis Coding	3
*OADM116	Records and Database Management	3
*ENGL110	Business Communications	3
*EDUC119	Employment Strategies	1
*MEOF125	Medical Skillbuilding	1
	Total	17

Certificate Total 32

Note: Not all courses are offered every semester. Check with the department.

A.A.S. IN WEB DEVELOPMENT

With the explosion of e-commerce, it is estimated that within the next decade most companies will generate a substantial percentage of revenue from online purchases. Even the smallest companies will have a presence on the Web. Companies will be seeking individuals with the ability to create interactive Web sites, which are capable of accessing multiple databases.

SFCC's comprehensive A.A.S. in Web Development was designed to enable graduates to create powerful Web sites. It was created for the individual seeking a career in the world of cyber industry.

General Education Requirements	16 Hours
Communications	3
ENGL101 (or) ENGL 112	
Mathematics	3
MATH101 (or) MATH112	
Social Science	3
HIST101 (or) HIST102 (or) POLSC101	
Wellness	1
HLTH101, PEAC116, PEAC117, PEAC118, PEAC119, PEAC121 (or) PEAC122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements)	

**Program Elective - must complete with a grade of C or higher
Select 3 hours from CIS157, CIS163, NET134 (OR) BSMT132

Program Requirements

*Courses to complete with a grade of C or higher.

Freshman Year

*WEB112	Web Utilities		1
*WEB113	Web Design		1
CAPP125	Microcomputer Applications		3
*CIS103	Introduction to CIS		3
*CIS145	Visual Basic		3
*NET102	Networking I		3
*CIS132	Unix (or)		
*NET127	Fundamentals of Unix		1-3
Total			15-17

ENGL101	English Composition I (or)		
ENGL112	Technical Writing		3
*CIS124	Database Management		3
*CIS155	Programming in C		3
MATH101	Business Math (or)		
MATH112	Intermediate Algebra		3
*CIS162	Advanced Visual Basic		3
	Wellness Course		1
Total			16

Sophomore Year

*WEB114	Web Scripting		3
HIST101	U.S. History Before 1877 (or)		
HIST102	U.S. History After 1877 (or)		
POLS101	American/National Government		3
	**Program Elective		3
*NET120	Network Server		3
*CIS158	Java		3
*CIS161	Systems Analysis		3
Total			18

*WEB118	Web Graphics		3
*WEB120	XML		3
ENGL110	Business Communications		3
*WEB175	Web Development Internship		4
*WEB116	Web Development		3
EDUC119	Employment Strategies		1
Total			17

Degree Total 66

Note: Not all courses are offered every semester. Check with the department.

PROFESSIONAL CERTIFICATE IN WELDING TECHNOLOGY

Depth of training required for entry into the welding occupation depends on the specific needs of employers. Almost every manufacturing industry uses welding at some stage of production or in the repair and maintenance of equipment. Welders may perform manual welding, in which the work is entirely controlled by the welder, or semi-automatic welding in which the welder uses machinery to help perform welding tasks. They generally plan work from drawings or specifications, or by analyzing damaged metal parts, using knowledge of welding and metals. They select and set up welding equipment and examine welds to insure they meet standards or specifications. In some production processes in which work is repetitive and items to be welded are relatively uniform, automated welding is used. In this process, a machine performs the welding tasks and it is monitored by a welding machine operator. The Welding Technology program provides theory and practical lab training to achieve the competencies needed to enter the job market upon the completion of the certificate course requirements.

The courses in this certificate program are offered primarily in the evening. For advising, consult the chair of the Applied Science and Technology Department.

Program Requirements

CNST162	Construction Safety (or)	3
IM105	Industrial Safety	3
MATH107	Technical Math I	3
PHYS125	Technical Science	4
INDT102	Technical Prints and Diagrams	3
WELD101	Welding Tech I	4
WELD102	Welding Tech II	4
WELD103	Welding Tech III	4
WELD104	Welding Tech IV	4
	Program Electives	6
EDUC119	Employment Strategies	1
Program Electives (6 hours minimum)		
DRFT111	Introduction to Computer Drafting	3
DRFT130	Engineering Graphics	3
MACH115	Heat Treating and Metallurgy	3
WELD180	Problems in Welding	3

Certificate Total 36

Note: Not all courses are offered every semester. Check with the department.

**STATE FAIR COMMUNITY COLLEGE
CATALOG 2006 - 2008**

**COURSE DESCRIPTIONS
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Course Descriptions

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COURSE DESCRIPTIONS

ACCOUNTING

ACCT101 PRINCIPLES OF FINANCIAL ACCOUNTING (3)

Prerequisite: Minimum Enhanced ACT English score of 14 (or equivalent placement score) or completion of BSKL010 and minimum math score of 16 (or equivalent placement score) or completion of BSKL061. Introduction to the fundamental principles of financial accounting. Generally accepted accounting principles are used to identify and properly classify the various elements of financial statements and to analyze the effect of business transactions on the earnings, financial position, owners' equity, and cash flows of business entities. (This is the first required accounting course for the A.A. business transfer degree and the second in the series for the A.A.S. Accounting degree. This course is not a substitute for ACCT109).

ACCT102 MANAGERIAL ACCOUNTING (3) Prerequisite: ACCT101 with a grade of C or better. Introduction to the basic accounting methods and processes of managerial and cost accounting. Emphasis on developing and using accounting information related to a manufacturing environment, including management control and decision making. (This is the second required accounting course for the A.A. business transfer degree).

ACCT109 APPLIED ACCOUNTING PROCEDURES (3) Designed to give students who have no previous knowledge of accounting a basic understanding of accounting terminology and procedures used to record, classify, and summarize financial data for sole proprietorship. Coverage includes journalizing and posting business transactions, maintaining the general ledger and checkbook, end-of-period adjustments, closing entries, and preparing financial statements. Students complete an accounting simulation project for a small business and are introduced to basic computerized accounting applications. (Course is required for the A.A.S. Accounting degree and highly recommended for students intending to transfer in accounting. Course is not a substitute for ACCT101).

ACCT125 COMPUTERIZED ACCOUNTING APPLICATIONS (3) Prerequisites: ACCT109 and CAPP125. Hands-on, project-intensive approach to accounting and reporting utilizing computerized accounting programs and software currently used in industry. Emphasis on using a microcomputer to process financial accounting data and prepare financial statements and related reports.

ACCT126 INTRODUCTION TO QUICKBOOKS (1) Course introduces the student to the basic concepts and skills necessary for using QuickBooks and assists the student in becoming a productive user of the software. Emphasis on entering accounts payable/receivable and payroll transactions, completing end-of-year processes, and generating reports to make business decisions.

ACCT132 BUSINESS TAXATION (3) Prerequisite: ACCT101 with a grade of C or better. Introduction to the federal and state laws that affect the start-up of a business, employment practices, payment of wages and salaries, sales tax compliance, benefit plans, worker's compensation, and garnishments.

Emphasis on the use of computerized methods to perform required calculations and prepare state and federal reports.

ACCT137 INTRODUCTION TO FEDERAL TAXATION (3)

Prerequisite: ACCT101 or consent of instructor. Introduction to federal income tax principles and procedures. Emphasis on application of tax laws to solve tax problems, develop tax plans, perform tax research, and prepare required returns.

ACCT175 ACCOUNTING INTERNSHIP (4) Work experience, which includes a training plan of on-the-job experience, tailored to meet student and employer needs. Supervised by a college staff member and a training sponsor of a cooperating business. Must be taken after first year courses are completed and with consent of instructor.

ACCT203 INTERMEDIATE FINANCIAL ACCOUNTING I (3)

Prerequisite: ACCT102 with a grade of C or better. Financial accounting theory and practice are applied to selected topics in accordance with generally accepted accounting principles for financial reporting of corporate entities. Emphasis on preparation of corporate financial statements, revenue recognition, and valuation of receivables, costs of goods sold, and inventory.

ACCT220 CURRENT TOPICS IN ACCOUNTING (3)

Prerequisites: ACCT102 and ACCT203. Accounting theory and practice are applied to selected topics in accordance with generally accepted accounting principles for financial and managerial reporting. Emphasis on development of reporting systems which enhance financial and operational control and management decision making. Course will utilize case studies and current events involving the accounting profession.

AGRICULTURE

AGRI101 AG LEADERSHIP AND ISSUES I (2) Course in leadership is designed to develop an individual's ability to become a team leader. Class activities will include team approach, problem solving, professional growth, and current issues in agriculture.

AGRI102 AG LEADERSHIP AND ISSUES II (1) Prerequisite: AGRI101. Continuation of AGRI101.

AGRI103 AG LEADERSHIP AND ISSUES III (2) Prerequisite: AGRI102. Continuation of AGRI102.

AGRI104 AG LEADERSHIP AND ISSUES IV (1) Prerequisite: AGRI103. Continuation of AGRI 103.

AGRI106 GLOBAL AGRICULTURE (3) A general education course intended for non-agriculture majors only-, credit will not apply to an A.A. degree for agriculture majors. Course introduces the student to economic, political, cultural, and environmental issues that affect food production and distribution in the advancement of societies in developed and developing countries.

AGRI108 ANIMAL SCIENCE (3) Presents principles of animal agriculture essential for a basic understanding of the

animals that are chief producers of food and fiber for human consumption. Specific breeds, animal behavior, anatomy, physiology, reproduction, and nutrition will be included.

AGRI112 LIVESTOCK EVALUATION (3) Course is a study of livestock evaluation in selection of breeding and marketing animals including dairy cattle, beef cattle, swine, and sheep.

AGRI114 LIVESTOCK MANAGEMENT (3) Course is a study of the segments of livestock production which identifies the essential ingredients needed by producers to raise productive and profitable livestock.

AGRI116 ANIMAL NUTRITION (3) Study includes the nutritional needs of livestock and the formulation of feeds, including hormones, antibiotics, minerals, vitamins, and other feed additives.

AGRI118 PLANT SCIENCE (3) Study includes plant and seed development and selection, the cultural practices in the production of common farm crops, and seed and weed identification.

AGRI120 SOILS I (3) Study includes soil development composition, types, usages, soil conservation, cropping systems, and soil improvements.

AGRI121 SOILS II (3) Prerequisite: AGRI120. Study includes soil composition and fertilization practices needed for proper nutrition of plants.

AGRI123 SOIL EROSION AND MANAGEMENT (3)
Prerequisite: AGRI120. Course includes training in surveying soil erosion control through construction of structures and management practices.

AGRI125 NATURAL RESOURCES (3) Course includes the study of natural resources as they relate to our existence and their mutual relationship to each other.

AGRI127 FARM CHEMICALS (3) Course includes the study of the production, distribution, handling, and application of farm chemicals, including insecticides, rodenticides, fungicides, herbicides, and brush killers.

AGRI129 GENERAL HORTICULTURE (3) Course includes study of horticultural crops and the horticultural industry. Study includes plant propagation and vegetable/fruit production.

AGRI132 AGRICULTURE ECONOMICS (3) Study focuses on the factors affecting the income and expenditures of agricultural business, and the methods and systems of buying and selling products.

AGRI134 MARKETING FARM COMMODITIES (3) Course presents theory and practice in marketing livestock and livestock products, analysis of costs and efficiency in grain marketing and processing organizations, and the price-making process.

AGRI136 AG CREDIT AND FINANCE (3) Course emphasizes general principles associated with evaluation of management and use of capital. Will develop an understanding of agricultural finance to help the banker satisfy credit needs of modern agriculture.

AGRI138 AG BUSINESS MANAGEMENT (3) Study includes management functions and economics of agriculture

organizations and operations including input-output analysis, efficient allocations of resources, enterprise combinations, and budget analysis.

AGRI147 PLANT IDENTIFICATION (4) Course includes the study and identification of various landscaping and greenhouse plants.

AGRI151 LANDSCAPE DESIGN AND MAINTENANCE (3)
Prerequisites: AGRI129 and CAPP125 or consent of advisor. A comprehensive study of landscaping including functional and aesthetical aspects of landscaping, maintenance and implementation, and computer aided design (CAD).

AGRI152 TURF MANAGEMENT (4) Prerequisite: AGRI118 and AGRI120. Course focuses on identifying, establishing, and maintaining a turfgrass environment, including cultural practices of different environments.

AGRI154 GREENHOUSE MANAGEMENT W/LAB (4)
Course presents design, environmental control, and equipment found in the greenhouse. Instruction includes principles and practices relative to plant nutrition, pest control, production, handling, and marketing greenhouse production.

AGRI157 EQUIPMENT OPERATIONS I (3) Course presents operation of skid and oscillating loaders, nurse trucks, trailers, spreaders, and other ag business equipment.

AGRI158 PESTICIDE AND FERTILIZER EQUIPMENT (2)
Prerequisite: AGRI165. Course presents principles of calibration, adjustment, maintenance and operation of gas, liquid and granular fertilizer, and pesticide equipment. Acquisition, design, materials flow, handling protective equipment, and personal safety within a chemical/fertilizer plant will be a major class component. Sophomore level course.

AGRI159 EQUIPMENT OPERATIONS II (3) Prerequisite: AGRI157. Calibration, operation and maintenance of Air-Ships, Air-Max, Flex-Air, Terra-Gators, and other similar types of equipment. Includes setup and operation of on-board computer controllers and monitors of both liquid and dry systems.

AGRI161 AG INDUSTRY EQUIPMENT OPERATION (2)
Operation of skid and oscillating loaders, nurse-trucks, trailers, spreaders, and other ag business equipment.

AGRI163 CUSTOM APPLICATOR I (3) The first of two courses to help the student become aware of the responsibilities associated with the career of custom applicator. Course covers professionalism, record keeping, product knowledge, calibration, application, and troubleshooting.

AGRI164 CUSTOM APPLICATOR II (3) Prerequisite: AGRI163. Extends topics covered in Custom Applicator I. Stresses professionalism, safety, application, and agronomic issues. Sophomore level course.

AGRI165 BASIC MAINTENANCE AND OPERATIONS (3)
Course covers the basic components of pesticide and fertilizer equipment such as belts, chains, hydraulic systems, shop tools, hoses, tubing, lubrication, and cooling systems. Maintenance and operation of these systems are stressed.

AGRI167 CDL LICENSING (2) Course is designed to enable students to pass the state Commercial Driver's License exam. Students must qualify for the Class A CDL with all appropriate

endorsements. Priority in enrollment is given to students in the CAT/AG program and enrollment must be approved by the instructor.

AGRI168 COMMERCIAL APPLICATOR LICENSING (2)

Course is designed to complement other courses offered in weed, insect, disease control, and pesticide application to give the students the skills necessary to pass the state and federal examination for commercial applicator licensing. Priority in enrollment is given to students in the CAT/AG program and enrollment must be approved by the instructor.

AGRI174 CROP/INSECT SCOUTING (2) Utilizing real-life crop growing environments, students will learn to identify weeds, insect and disease infestations, determine life cycles, damage symptoms, economic thresholds, and recommended control alternatives.

AGRI175 OCCUPATIONAL INTERNSHIP (2-16) Prerequisite: Minimum cumulative GPA of 2.0 and consent of instructor. Supervised by agricultural staff and designed to assist the student in developing good work habits. Includes training in specific areas unique to the employer and provides basis for career decision for the student.

AGRI180 PROBLEMS IN AGRICULTURE (1-3) Independent study of a special problem in agriculture under the supervision of an agriculture instructor.

ART

ART101 ART APPRECIATION (3) Study of art history from the last of the nineteenth century through the present. Consists of formal lectures, films, slides, gallery and studio visits, assigned readings, as well as hands-on experiences with art materials. Includes the evolution of art by focusing on the major art movements of the past 100 years. Encourages appreciation of visual art through the study of content, design, technique, and criticism of art. Students learn how art changed during this period and how it reflects the dynamics of twentieth century civilization.

ART103 DESIGN I (3) Course includes two three-hour lecture/studio periods each week in which students explore the basic concepts of design through the use of the visual elements. Emphasis is placed on the student becoming able to recognize and manipulate these elements and concepts.

ART104 DESIGN II (3) Prerequisite: ART103. Course includes two three-hour lecture-studio periods each week in which compositional principles of art are explored through a variety of two- and three-dimensional materials. Emphasis is placed on the student solving specific problems creatively.

ART106 WATERCOLOR I (3) Course introduces the materials and techniques of aqua media painting, various preparations of paper, and the use of brushes and other tools. Control of transparent color will be learned through experimentation.

ART107 WATERCOLOR II (3) Prerequisite: ART106. Continuation of Watercolor I with advanced studio experience centered around a series of related paintings.

ART108 WATERCOLOR III (3) Prerequisite: ART107. Includes advanced problems and techniques of aqua media painting.

ART110 PRINTMAKING (3) Course includes two three-hour studio periods each week in which traditional and contemporary methods of printing are explored including wood block, etching and monoprint.

ART112 DRAWING I (3) Entry-level art course is required for all art majors. As a foundation course, emphasis is placed on drawing as an expressive medium. Content is based on a series of perceptual and conceptual assignments designed to force students to reach inside themselves to define, through their work, a sense of artistic self.

ART113 DRAWING II (3) Prerequisite: ART112. The second of a two-course sequence required for all art majors. As a foundation course, emphasis is placed on drawing as an expressive medium. Students search for expression of their own personal artistic identity through a series of process-oriented assignments using various colored media.

ART114 FIGURE DRAWING I (3) The human figure is analyzed in terms of structure, proportion and form. Emphasis is placed on representative as well as conceptual approaches.

ART115 FIGURE DRAWING II (3) Continuation of the study of refining the student's technical skills in drawing. Emphasis is placed on technical skills rendering the figure, as well as conceptual approaches and development.

ART116 PAINTING I (3) Students concentrate on painting as an expressive medium. Course is designed to allow students to explore a variety of subject matter and experiment with painting techniques in a search for personal artistic identity.

ART117 PAINTING II (3) Prerequisite: ART116. Study includes form, color and organization of painting in oils and acrylics with emphasis placed on individual expression.

ART118 PAINTING III (3) Prerequisite: ART117. Offered by appointment only. Students may concentrate in watercolor, oil, acrylics, or mixed media.

ART120 MODERN ART HISTORY (3) Required for art majors and also serves as a humanities course for those interested in modern art. Emphasis is placed on the creative nature of man and how creativity enriches society and the social, economic and political conditions that influenced and constructed modern art. Study begins with the development of impressionism and moves through the major art movements of the late nineteenth and twentieth centuries.

ART122 SCULPTURE I (3) Consists of two three-hour lecture/laboratory periods each week and includes principles of sculptural organization and stresses individual development of three-dimensional forms.

ART123 SCULPTURE II (3) Prerequisite: ART122. A continuation of Sculpture I with the student developing a body of work that is interrelated. Includes exploration of a variety of materials: metal, wood, found objects, etc., with an emphasis placed on individual exploration and development.

ART126 CERAMICS I (3) Course designed to introduce the student to basic clay construction techniques, basic ways of glazing, and firing systems. Emphasis is placed on students acquiring technical proficiency in a variety of constructive methods and glazing techniques.

ART127 CERAMICS II (3) Prerequisite: ART126. Continuation of Ceramics I with students becoming more proficient in construction techniques which are appropriate for their ideas. Emphasis is placed on students developing a body of work that is interrelated.

ART130 FIBER ARTS I (3) Introductory course that explores a variety of traditional and non-traditional mediums and techniques in the fiber arts. Emphasis is placed upon process and investigation.

ART131 FIBER ARTS II (3) Continuation of the study and exploration of traditional and non-traditional mediums and techniques in the fiber arts. Emphasis is placed upon process and further investigation of personal expression as well as development of craftsmanship through the fibers media.

ART180 PROBLEMS IN ART (3) Prerequisite: Must complete courses I and II of desired subject area and have consent of instructor. Includes an independent study of a special problem in art under the supervision of an art instructor. Students will concentrate on a particular medium, subject or source. May be repeated in a different problem area.

AUTOMOTIVE

AUTO101 PREVENTIVE MAINTENANCE (5) Students will develop skills and knowledge required to pass the state safety inspection test and perform jobs usually done in the service bay of a service station.

AUTO103 MANUAL TRANSMISSIONS, DRIVELINES AND AXLES (5) Prerequisite: Completion of shop safety test. Instruction for development of skills and knowledge required to diagnose and repair drivelines. Includes clutch, transmission, drive shaft, differential, axles, wheels, and transaxles.

AUTO105 AUTOMATIC TRANSMISSIONS (5) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair automatic transmissions and automatic transaxles with the use of a service manual.

AUTO107 ENGINE TUNE-UP AND EMISSIONS (6) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair fuel system, ignition system, charging system, cranking system, engine mechanical system, and engine condition.

AUTO109 FUEL SYSTEMS (5) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and service fuel systems. Includes conventional and electronic carburetion and fuel injection systems.

AUTO111 COMPUTERIZED ENGINE CONTROL (5) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair computerized engines. Includes C-3, TBI, EFI, C3I, DIS, and EEC IV computerized systems.

AUTO113 STEERING, SUSPENSION AND WHEELS (5) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair steering and suspension systems.

Includes wheel balance, four-wheel alignment, springs and torsion bar suspension, power steering pump and gears, and rack and pinion steering.

AUTO115 AUTOMOTIVE BRAKES (5) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair brakes, including drum and disc systems, power units, and ABS.

AUTO117 AUTOMOTIVE ELECTRICAL SYSTEMS (6) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and service electrical systems. Includes engine electrical, chassis and body electrical and accessories systems.

AUTO119 AUTOMOTIVE HEATING AND AIR CONDITIONING (5) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair problems related to passenger comfort. Includes both automatic and manual units.

AUTO121 AUTOMOTIVE ENGINES (6) Prerequisite: Completion of shop safety test. Instruction designed to develop skills and knowledge required to diagnose and repair gasoline engines.

AUTO123 SERVICE OPERATION MANAGEMENT (3) Instruction designed to enable the student to better understand the problems encountered in operating a service business.

BASIC SKILLS

Basic skills courses are considered developmental and are designed to assist the student to reach regular college skill levels. These courses do not apply toward any SFCC degree or certificate.

BSKL003 INTRODUCTION TO BASIC SKILLS (3-6) Prerequisite of COMPASS (or equivalent) placement scores in Reading of 65 and below, or in Writing Skills 26 and below, or in Pre-Algebra of 30 and below. Individualized pass/fail course designed for students needing skills necessary for placement into Basic English Lab, Reading or Basic Math Lab. Course may be repeated. Does not apply toward a degree or certificate.

BSKL005 INTENSIVE ENGLISH FOR NON-NATIVE SPEAKERS (3) Course for students whose primary language is not English. This course will cover basic English grammar and usage for academic purposes, as well as speaking, listening, reading and writing skills necessary for academic success. Does not apply toward a degree or certificate.

BSKL010 BASIC ENGLISH LAB (3) Prerequisite: Enhanced ACT English score of 13 or below or equivalent placement score. (Should be taken concurrently with BSKL020 and BSKL015 but may be taken during a prior semester in the event of schedule conflicts.) Pass/fail course is a review of grammar and mechanics. Instruction consists of three lecture and one lab hours per week. Does not apply toward a degree or certificate.

BSKL015 READING (3) Pass/fail course meets for three hours per week to provide systematic instruction for development and improvement of reading/learning/critical thinking skills. Students' placement in the class is determined from college placement test scores: ACT (Reading 18 and below), ASSET

(Reading 41 or below), COMPASS (Reading 80 or below). In order to pass this class students must achieve a minimum level of 12 on the Nelson Denney Reading Achievement Test, as well as be able to comprehend 80 percent of college-level reading material. Students not meeting these requirements will be required to repeat the course the following semester. Does not apply toward a degree or certificate.

BSKL016 TEXTBOOK READING TECHNIQUES (3) Course introduces students to various strategies useful in reading and studying college textbooks. Paired with a general education course, most activity will be focused on the transference of reading skill appropriate for success in the paired course. Does not apply toward a degree or certificate.

BSKL020 INTRODUCTION TO WRITING (3) Prerequisite: Enhanced ACT English score of 18 or below or equivalent placement score. If less than 14 on the Enhanced ACT English — must also enroll in Basic English Lab and Reading. Study of the fundamentals of language, usage, and paragraph writing. Required of students whose placement test scores indicate a need for basic skills instruction. A grade of C or better is required to advance to Composition I, Business Communications, or Technical Writing. Does not apply toward a degree or certificate.

BSKL061 BASIC MATH LAB (3) Prerequisite: Enhanced ACT math score of 15 or below or equivalent placement score. Pass/fail course designed for students needing to review basic math skills to prepare for algebra or business math classes. Topics include basic operations with whole numbers, exponents, LCM and GCF, fractions, decimals, ratio/proportion, unit analysis, percents, and signed numbers. Does not apply toward a degree or certificate.

BSKL064 ELEMENTARY ALGEBRA (3) Prerequisite: Minimum Enhanced ACT math score of 16 or equivalent placement score or BSKL061. A grade of C or better is required to advance to Intermediate Algebra. Topics include rules of exponents, arithmetic basic operations with polynomials, linear equations in one variable, linear inequalities, absolute values in one variable, factoring polynomials, and algebraic fractions. Does not apply toward a degree or certificate.

BIOLOGICAL SCIENCE

BIO100 INTRODUCTION TO BIOLOGICAL SCIENCES (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade C or better. An introductory study of biology that provides students an overview of the basic, unifying concepts in the biological sciences. Topics covered will include, but are not limited to: the nature of science and the scientific method, levels of organization, biochemistry, cell biology, energy production, photosynthesis, genetics, evolution, ecology, and diversity. Can not be taken if already have credit for BIO112.

BIO103 HUMAN BIOLOGY (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade C or better. An introduction to the structure and functioning of the human body and its systems. Topics covered will include, but are not limited to: biochemistry, organization, homeostasis, and structural maintenance of cells, tissues, and organ systems of the human body.

BIO105 WILDLIFE CONSERVATION (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade C or better. Completion of, or concurrent enrollment in, ENGL101 is strongly recommended. An integrated study of wildlife conservation and management that addresses the historical, social, cultural, and scientific aspects of conservation issues. Topics covered will include, but are not limited to: the origin of public attitudes and perceptions regarding wildlife, wildlife values, biethics, and national and international laws conserving wildlife; human impact on biodiversity through habitat destruction and fragmentation, introduction of exotic organisms, diseases, and over-exploitation; population processes and management including threatened and endangered species; ecosystem management applied to the design and management of protected areas.

BIO112 INTRODUCTION TO BIOLOGY W/LAB (5) Prerequisite: BSKL020 and BSKL064 with a grade of C or equivalent placement scores. Course is an introductory study of biology for non-majors that provides an understanding of the basic, unifying concepts in the science and biology. Topics covered will include, but are not limited to: the scientific method, biological chemistry, cell biology, metabolism, genetics, evolution, ecology, and how these subjects relate to humans. This course satisfies only part of the natural science general education requirements and may not be used in conjunction with BIO100, BIO103, or their equivalents, to fulfill these requirements.

BIO121 MICROBIOLOGY FOR ALLIED HEALTH W/LAB (4) Prerequisite: CHEM101, or BIO207 and BIO208, or consent of instructor. Course presents basic principles of infection, immunity and control of infectious microbes. Introduces bacteriology, virology, parasitology, and mycology. Designed for SFCC nursing and allied health majors.

BIO125 BIOLOGY I W/LAB (5) Prerequisite: BSKL020 and BSKL064 with a grade of C or equivalent placement scores. Course is the first semester of a two-semester introduction to biological sciences intended for biology and related majors. Topics covered include the nature and historical context of science, the scientific method and investigative techniques, biological structure and function at a molecular and cellular level, genetics, and the form, function and diversity of plants. Instruction consists of three lecture and four lab hours per week. This course satisfies part of the natural science general education requirements and may not be used in conjunction with BIO100, BIO103, or their equivalents, to fulfill these requirements.

BIO126 BIOLOGY II W/LAB (5) Prerequisite: BSKL020 and MATH112 with a grade of C or equivalent placement scores and BIO112 or BIO125 with a grade of C or better. Course is the second semester of a two-semester introduction to biological sciences intended for biology and related majors. Topics covered include the nature and historical context of science, the scientific method and investigative techniques, organismal biology, taxonomy and systematics, embryology, morphology, life histories, ecology, and evolution. This course satisfies part of the natural science general education requirements and may not be used in conjunction with BIO100, BIO103, or their equivalents, to fulfill these requirements.

BIO130 TOPICS IN BIOLOGY (1-3) Study of a major topic in biology/science. Content changes and may include such topics as biotechnology, ecology, bio-history, evolution, science in science fiction, or history of science. Specific

subjects will be announced each semester in which the course is offered.

BIO204 GENETICS W/LAB (1-3) Prerequisite: BIO100, BIO112, or instructor consent; and a minimum Enhanced score of 19 or equivalent placement score or BSKL020 with a grade C or better; and a minimum Enhanced ACT Math score of 23 or equivalent placement score or MATH112 with a grade C or better. Completion of, or concurrent enrollment in, ENGL101 is strongly recommended. Course is a comprehensive introduction to the fundamental principles of inheritance intended for biology and related majors. Topics covered include, but are not limited to: the nature and historical context of genetics as a part of the life sciences, the physical, biochemical, chromosomal, and cytological bases for inheritance patterns, selection and breeding, probability, and evolution. Instruction consists of two lecture and two lab hours per week.

BIO207 HUMAN ANATOMY W/LAB (4) Prerequisite: BIO100, BIO103, BIO112, high school biology course taken within the previous five years, or consent of instructor. Study of gross and microscopic anatomy of the human organs, tissues, and systems. Human anatomy will include three hours of lecture and one laboratory period of two clock hours per week.

BIO208 HUMAN PHYSIOLOGY W/LAB (4) Prerequisite: BIO207 or consent of instructor. Course presents the basic biological functions of the human body from cell to tissue, tissue to organ, and organ to organ system with attention to the interrelationships at these levels.

BIO280 PROBLEMS IN BIOLOGY (1-3) Independent course presenting the study of a special problem in biology under the supervision of a science instructor.

BUILDING MATERIALS

BLDG175 BUILDING MATERIALS INTERNSHIP (4-8) Provides on-the-job experience. This training plan, developed and supervised jointly by a member of the college staff and the training station sponsor, outlines the basic area of experience. A series of training guides and assignments must be completed.

BLDG180 PROBLEMS IN BUILDING MATERIALS (1-3) Independent study of a special problem in building materials under the supervision of an instructor.

BUSINESS ADMINISTRATION

BADM101 INTRODUCTION TO BUSINESS (3) Introduction to the principles, practices and problems encountered in the general business environment. Emphasis is placed on highlighting the basic functions of accounting, marketing, management, and finance. Course is not recommended for A.A. business transfer majors.

BADM103 THE LEGAL ENVIRONMENT OF BUSINESS (3) Investigation of various legal issues encountered in the business environment. Emphasis is placed on developing an understanding of the court system and specific topics of law including contracts, tort, employment, product liability, and consumer protection.

BADM105 BUSINESS LAW II (3) Prerequisite: BADM103. Instruction includes the law of partnerships, corporations, real property and loans, insurance, security devices, bankruptcy, trust, estate, and government regulations.

BADM107 PERSONAL FINANCE (3) Prerequisite: Minimum Enhanced ACT math score of 16 or equivalent placement score or completion of BSKL061 with a grade of C or better. Designed to teach the students to manage personal income. Student will become familiar with the techniques necessary to make choices when considering major purchases, insurance, borrowing, and other personal finance issues. Topics covered include time value calculations, budgeting, tax planning, banking, insurance, home buying, consumer credit and money management, investment planning, and investment decision making.

BADM109 BUSINESS ETHICS (3) Introduction of ethical issues relating to business and society. The makeup of the course will be to explore issues of corporate social responsibility as well as ethical perspectives in dealing with both external and internal stakeholders. The class will be structured around the discussion of current events, the study of economic, and legal issues in ethics, and the review of case problems.

BUSINESS MANAGEMENT

BSMT106 PRINCIPLES OF MARKETING (3) This is an introductory course emphasizing key concepts and issues underlying the modern practice of marketing. The marketing process is analyzed through the four main decision areas of products and services, distribution, promotion, and pricing.

BSMT108 PRINCIPLES OF MANAGEMENT (3) Prerequisite: Minimum Enhanced ACT score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. This is an introductory course designed as an overview of the theory and practice of management. The concept of management is presented as a discipline as well as a process. The course will cover the evolution of management, its history, and the development of important concepts. It will cover the basic functions of management: planning, organizing, leading, and controlling.

BSMT110 SALESMANSHIP (3) Reviews the fundamental principles of selling combined with the study of consumer behavior and sales techniques. Topics cover areas such as the steps of the sales process, demonstration, closing a sale, and developing goodwill after the sale.

BSMT112 VISUAL MERCHANDISING (3) Study of basic techniques and principles of design as applied to retail store design. Topics include store design, promotion scheduling, window and interior displays, and point-of-purchase displays.

BSMT117 HUMAN RESOURCE MANAGEMENT (3) Prerequisite: BSMT108 or consent of instructor. Examines the role of personnel/human resource management in organizations with emphasis on selecting, developing, and compensating the organization's human resources. Human Resource Management (HRM) consists of the policies, practices and decisions that concern making effective and efficient use of the employees of an organization in order to achieve the organization's objectives.

BSMT120 ADVERTISING (3) Basic study of the principles of advertising as an element in the marketing mix. The students

will study the history and purpose of advertising, research methods, plus the advantages and disadvantages of different media. The students will participate as a member of a group in the creation of an original advertising campaign covering all areas studied in class.

BSMT125 HUMAN RELATIONS (3) Course examines the business organization as a social system. Topics introduced include motivation, diversity, perception, communication, behavior theories, stress management, and group and team dynamics. In-class activities and assessments will be utilized to emphasize topics covered in the text book.

BSMT130 BUSINESS STRATEGIES (3) Prerequisite: Completion of the following Business Management courses: BSMT106, BSMT108, BSMT125, ACCT102, ECON101, ENGL110 or consent of instructor. A challenging capstone course for Business Management majors. Students will draw upon prior courses to solve business problems. Course provides a basic understanding of the total enterprise of businesses, meaning the environment in which it operates its internal condition, and its prospects for success. Course assesses the viability of small and micro business ventures. Emphasis is on business planning process; the management of small enterprises; feasibility studies, formulation of business plans; risk management; and entrepreneurial characteristics.

BSMT132 E-COMMERCE MARKETING (3) An overview of the e-business system. Topics consist of a review of the technologies used to create e-businesses and the communication process in this environment. The class will focus on the fundamentals of creating a Web page, as well as the distribution system in e-business.

BSMT175 BUSINESS MANAGEMENT INTERNSHIP (4-8) Includes training plan of an on-the-job experience tailored to meet the needs of the student. A series of training guides will be completed. Work is supervised by a member of the college staff and a training sponsor employed by the cooperating business.

CHEMISTRY

CHEM101 INTRODUCTION TO CHEMISTRY W/LAB (5) Prerequisite: BSKL064 or equivalent placement test score. Course intended for the non-science major which studies the structure of the atom, the periodic classification to the properties of the elements, and molecular structure. Topics include measurement, formula and equation writing, gas laws, acid-base titrations, solution concentrations, reduction-oxidation reactions, introduction to organic and biological macromolecules. Instruction consists of four lecture and two lab hours per week.

CHEM113 FUNDAMENTALS OF CHEMISTRY W/LAB (5) Prerequisite: MATH112. Preparatory course for science majors that will focus on the fundamentals of chemistry with an emphasis on problem solving with algebra and the scientific method. Topics include measurement, nomenclature, formula and equation writing, stoichiometry, and fundamental chemical properties based upon the periodical table. Instruction consists of four lecture and two lab hours per week.

CHEM123 GENERAL CHEMISTRY I W/LAB (5) Fall only. Prerequisite: One-year high school chemistry and MATH115; or completion of CHEM113 with a grade of B or better. Chemistry course intended for the science major and science-

oriented fields which examines the structure of the atom, periodic classification, molecular structures, chemical reactions, aqueous solutions, and chemical energetics. Instruction includes four lecture and two lab hours per week.

CHEM124 GENERAL CHEMISTRY II W/LAB (5) Spring only. Prerequisites: CHEM123. A continuation of CHEM123, course places emphasis on chemical energetics, entropy, chemical equilibria, reduction-oxidation chemistry, and reaction pathways in organic/biochemistry. Instruction consists of three lecture and four lab hours per week.

CHEM126 ORGANIC CHEMISTRY W/LAB (5) Prerequisite: CHEM113 OR CHEM123. Course will provide an introduction to organic chemistry, bonding in hydrocarbons, alkanes and cycloalkanes, alkenes, alkynes, aromatic compounds, optical isomerism, nucleophilic substitution and elimination, organic halogen compounds, and alcohols, phenols, ethers, and epoxide, aldehydes and ketones, carboxylic acids and derivatives, amines, lipids, carbohydrates, amino acids and proteins, and spectroscopy. Instruction consists of four lecture and two lab hours per week.

CHEM180 PROBLEMS IN CHEMISTRY (1-3) Prerequisite: CHEM101 or CHEM113. Independent study of a special problem in chemistry, under the supervision of a science instructor.

CHILD DEVELOPMENT

ECD101 INTRODUCTION TO EARLY CHILDHOOD (3) Course is an overview of early childhood programs and curricula, historical and present, and an examination of qualities and skills necessary for working with young children. Observation of young children in various classroom settings will be incorporated into the course.

ECD103 CHILD GROWTH AND DEVELOPMENT (3) Provides a general understanding of the physical, social, emotional, language and cognitive development of early childhood, and the importance of the environment and interrelationships on development.

ECD107 CHILD NUTRITION, HEALTH AND SAFETY (3) Presents basic factors that affect child health including basic nutrition, clothing habits, health routines, hygiene, childhood diseases, first aid, and safety. Curriculum includes care facilities factors such as a safe challenging learning environment and licensing requirements.

ECD109 OBSERVATION, PLANNING AND ASSESSMENT (3) Course provides the student with opportunity to understand methods of observing children from birth to age 12, how to plan after observation, and making enhancements to curriculum based on assessment.

ECD111 LANGUAGE DEVELOPMENT EARLY LITERACY (3) Presents the basic use of tools and materials that stimulate imagination, reasoning and concept formation in language developments. Students are given an overview of literacy experiences for young children throughout the day, the continuum of reading and writing development from birth and beyond, and specific ways to incorporate literacy into playing, reading, taking, writing, and learning.

ECD115 CHILD SOCIAL/EMOTIONAL DEVELOPMENT (3) Course is an overview of childhood behavior, interaction/relationships, environments and its effects on social and

emotional development. Behavior and guidance concerns of children and problems facing adolescents and adults are addressed.

ECD117 CREATIVE EXPRESSION AND PLAY (3) Presents the development of creative expressions in the young child through activities such as music, art and dance, and their incorporation into the daily curriculum. The value of children's play and discovery as learning opportunities will be emphasized.

ECD121 CURRICULUM STRATEGIES FOR EARLY CHILDHOOD (3) Course is an examination of techniques, learning activities and materials used to teach young children with an emphasis on planning and implementing a developmentally appropriate curriculum utilizing Constructivist theory.

ECD125 INTRODUCTION TO SPECIAL INDIVIDUALS (3) Presents an introduction to characteristics of exceptional individuals and educational history and theories with exceptional individuals especially children. Student will include effects of disability on adjustment to home, school, community, and on families of young children. It will include an overview of federal and state systems of support for children with special needs.

ECD127 PARENT/TEACHER INTERACTION (3) Course presents the principles of child development with family relationships applied to group and individual work with parents. It is intended to help providers in developing skills that will help them effectively relate to parents. Topics will include: communication techniques, children's fears, discipline, nutrition, and school/community resources.

ECD129 ADMINISTRATION IN EARLY CHILDHOOD CARE (3) Course presents the operation of childcare facility including staff relations, budgeting, ordering, planning, and evaluation of center operations. Early childhood care center ethics, funding opportunities, licensing, curriculum, and parent involvement will be incorporated into this course also.

ECD175 CHILD CARE PRACTICUM (3) Prerequisites: ECD101, ECD103, ECD107 and ECD109. Course delivers practical experience with young children in a supervised childcare center.

COMPUTER AIDED DRAFTING

DRFT111 INTRODUCTION TO COMPUTER DRAFTING (3) Introductory course presents the basic means of generating graphic designs on computer aided drafting (CAD) equipment. Topics include lines, circular arcs, holes, slots, construction lines, labels, pointers, markers, dimensions, library symbols, copying, etc. Intended for students who possess at least basic mechanical drafting skills and features the study of CAD.

DRFT114 INTERMEDIATE COMPUTER DRAFTING (3) Prerequisite: DRFT111 or consent of instructor. Designed to provide practical applications progression between the introductory and advanced computer aided drafting courses. Features the study of AutoCAD.

DRFT115 ADVANCED COMPUTER DRAFTING (3) Prerequisite: DRFT114 or instructor's consent. Designed for the user of CAD systems. Students will design specialized menus, develop symbol libraries, complete working on drawings, plus draw and shade three-dimensional objects.

DRFT116 COMPUTER DRAFTING PROGRAMMING (3) Prerequisite: DRFT115. Designed as a continuation of computer drafting study.

DRFT120 ARCHITECTURAL DRAFTING (3) Includes the exploration of building materials and methods used in residential building construction. Learning to read architectural blueprints and drawing various detail sections and plans using AutoCAD software.

DRFT125 ARCHITECTURAL DESKTOP (3) Prerequisite: DRFT114, or DRFT120, or consent of instructor. Course includes instruction in the use of AutoCAD Architectural Desktop to develop architectural working drawings for residential or commercial structures. Previous knowledge of 2D AutoCAD drawing and editing commands using layouts is required.

DRFT130 ENGINEERING GRAPHICS (3) Prerequisite: DRFT115. CAD-based introduction to basic principles of machine drawing, geometrical descriptions, orthographic projections, and dimensions.

DRFT132 MECHANICAL DESKTOP (3) Prerequisite: DRFT111. Instruction in the use of AutoCAD Mechanical Desktop which is a 3D feature-based parametric solid modeler that allows you to create complex 3D parametric models and to generate 2D views from those models.

DRFT134 AUTODESK INVENTOR (3) Autodesk Inventor mechanical design software is an assembly-centric solid modeling (3D) and drawing production (2D) system built with unique adaptive technologies. The primary goal of this course is to assist the beginner and intermediate user to learn and master Autodesk Inventor.

DRFT136 CAD/CAM (3) Programming of CNC machines (Wire EDM) utilizing CAD/CAM for design and generation of part geometry. CAM graphic verification of tool path. Generate programs using a CAM post processor.

DRFT155 3D STUDIO VIZ (3) Instruction includes creating and communicating designs in a real-time 3D visualization environment.

DRFT175 CAD INTERNSHIP (4) Prerequisite: DRFT115. The internship will be a working experience supervised by a person at the sponsoring firm. The college will provide an outline of the basic requirements, but most internships also require an outline of experiences unique to the particular internship site. The college instructor will work with the site sponsor to help the student improve CAD and teamwork skills. The student submits progress reports and a final report documenting the work experience.

DRFT180 PROBLEMS IN COMPUTER DRAFTING (1-3) Prerequisite: DRFT115. Independent study of special problems in computer drafting under instructor supervision.

COMPUTER APPLICATIONS

CAPP110 INTRODUCTION TO KEYBOARDING (1) Individualized course which provides the student with a mastery of touch-typing. Emphasis is placed on developing speed and accuracy through instruction, guided practice, and timed writings. Optional test out.

CAPP112 SPECIAL PROBLEMS IN BASIC KEYBOARDING - A CONTINUATION (1) Designed to bridge the gap between the completion of Introduction to Keyboarding and the beginning of Basic Keyboarding. Class is for students who have credit for Introduction to Keyboarding and need additional skill for employment or need the equivalent of the next level of instruction. Business documents, as well as increased speed and accuracy, are the focus of the class.

CAPP114 BASIC KEYBOARDING (2) Individualized course which provides the student with a mastery of touch-typing. The keying of mailable business letters, memos and reports is included. Optional test out.

CAPP116 SPECIAL PROBLEMS IN KEYBOARDING - A CONTINUATION (1) Designed to bridge the gap between the completion of the beginning of Basic Keyboarding and the beginning of Document Formatting. Class is for students who have credit for Basic Keyboarding and need additional skill for employment or need the equivalent of the next level of instruction. Business documents, as well as increased speed and accuracy, are the focus of the class.

CAPP118 KEYBOARDING (3) Individualized course provides the beginning student with a mastery of touch-typing and an introduction to basic formats of letters, memos, tables, and reports. Optional test out.

CAPP119 DOCUMENT FORMATTING (2) Prerequisite: CAPP118. Individualized course which includes processing various business and professional documents and forms. Emphasis is placed on accuracy, speed development and ability to follow directions. Optional test out.

CAPP122 KEYBOARDING SKILLBUILDING (1) Individualized course designed to improve keyboarding accuracy and increase keyboarding speeds required in Introduction to Keyboarding, Basic Keyboarding, Keyboarding, or Document Formatting. To meet the requirement for graduation, Office Management degree candidates must achieve a grade of B and Office Assisting certificate candidates must achieve a grade of C.

CAPP124 INTRODUCTION TO THE PERSONAL COMPUTER (1) Pass/fail course is designed for those with very limited or no computer experience. Emphasis is placed on keyboard and mouse usage, the Windows operating system, file storage, and software options. Includes hands-on instruction in the computer lab.

CAPP125 MICROCOMPUTER APPLICATIONS (3) Prerequisite knowledge: CAPP114 or CAPP118 recommended or demonstrated keyboard proficiency. Operations of personal computers through the use of Microsoft Office Professional software are presented. Applications include fundamentals of spreadsheets, word processing, and database management. Includes hands-on instruction in the computer lab.

CAPP130 WINDOWS (1) Instruction demonstrates the proficient use of Microsoft Windows for IBM-compatible personal computers. Includes hands-on instruction in the computer lab.

CAPP134 INTERNET (1) Course is an introduction to the internet. Includes hands-on practice in the computer lab.

CAPP136 POWERPOINT (1) Prerequisite: CAPP130 or equivalent skills. Course demonstrates the use of multimedia

software, PowerPoint, and multimedia equipment. Includes hands-on instruction in the computer lab.

CAPP138 SPEECH RECOGNITION (1) Course offers an alternative to traditional keyboard input. Using this technique can increase productivity and reduce repetitive stress injuries. The student will learn techniques to speak to the computer to input text using a microphone and speech recognition software.

CAPP140 OUTLOOK (1) Prerequisite: Basic knowledge of computers and Windows. Students will learn the basic e-mail and scheduling functions of Outlook, a component of MS Office. Includes hands-on instruction in the computer lab.

CAPP160 WORD (3) Prerequisite: CAPP125 taken within the last five years of continuous enrollment or MOUS. Proficient level certification in Word or test out credit for Micros (Word portion only) with Microsoft Office software. Course is designed for Windows users who seek further knowledge of the word processing program, Microsoft Word. Includes hands-on instruction in the computer lab.

CAPP162 DESKTOP PUBLISHING (3) Prerequisite: CAPP125 taken within the last five years of continuous enrollment or MOUS and CAPP118 recommended. Introduction to the basics of electronic page layout using professional publishing software including Adobe Illustrator, Adobe Photoshop, Adobe PageMaker, and Quark XPress. The student also gains valuable skills in image scanning and manipulation and merging text and graphics.

CAPP164 ACCESS (3) Prerequisite: CAPP125 taken within the last five years of continuous enrollment or MOUS. Proficient level certification in Access or test out credit for Micros (Access portion only) with Microsoft Office Software. Course is designed for Windows users who seek further knowledge of the database program, Access. Includes hands-on instruction in the computer lab.

CAPP166 EXCEL (3) Prerequisite: CAPP125 taken within the last five years of continuous enrollment or MOUS. Proficient level certification in Excel or test out credit for Micros (Excel portion only) with Microsoft Office software. Course is designed for Windows users who seek further knowledge of the spreadsheet program, Excel. Includes hands-on instruction in the computer lab.

COMPUTER INFORMATION SYSTEMS

CIS103 INTRODUCTION TO CIS (3) Course teaches the skills necessary to understanding the logic of computer programming design and structure. Students will be presented effective tools needed to enhance their knowledge of using the latest innovations in technology.

CIS124 DATABASE MANAGEMENT (3) Course implements the relational database management system tasks. Topics include creation of databases, storing, list and display, indexing, report generating, creating labels, constructing screens, programming skills, control structures, menus, multifile programming, and special techniques. Includes hands-on instruction in the computer lab.

CIS132 UNIX (1) Instruction demonstrates the proficient use of a multi-task, multi-user disk operating system. Includes hands-on instruction in the computer lab.

CIS136 CONTROL LANGUAGE PROGRAMMING (1) Course prepares students to be able to interface between computer programs and to run jobs.

CIS143 CIS CONCEPTS/LOGIC DESIGN (3) Course will cover basic programming structure and logic. Course will discuss the mechanics that take place with both software and hardware that affect the creation and running of a project.

CIS145 VISUAL BASIC (3) Course provides an introduction to programming within a graphical environment. Application development will focus on the process of designing, building and maintaining projects that may be used within a business setting. The end product will increase the efficiency and productivity of the organization.

CIS148 COBOL (3) Business computer programming course will use a minicomputer environment. Instruction will include data editing, arithmetic calculations, If/Then structures, tab manipulations, and searches.

CIS149 ADVANCED COBOL (3) Prerequisite: CIS148. Advanced Cobol programming techniques are presented in this course. Instruction covers tables, file handling, etc., through appropriate programming assignments.

CIS151 DB2 RELATIONAL DATABASE (3) Prerequisite: CIS148. Course to prepare students for programming in the DB2 environment. DB2 is a relational database. A substantial portion of the course will use SQL statement.

CIS152 PROGRAMMING IN ACCESS (3) Course is for users who seek further knowledge of the database program, Access. Programming will be an integral part of the instruction. Course includes hands-on instruction.

CIS155 PROGRAMMING IN C (3) Programming language C is introduced as an application programming language. Top-down program development methodologies are discussed. Students learn different C language features to develop application programs.

CIS157 ADVANCED C/C++ PROGRAMMING (3) Prerequisite: CIS155. Course presents advanced C/C++ programming techniques.

CIS158 JAVA (3) Introduction to object-oriented programming with a major emphasis in developing GUI based applications for business problems and Web pages.

CIS161 SYSTEMS ANALYSIS (3) Content includes the analysis and identification of multi-user computer system development. Documentation of systems requirements is stressed.

CIS162 ADVANCED VISUAL BASIC (3) Prerequisite: CIS145. Course is for the experienced Visual Basic programmer who would like to program commercially in Visual Basic. Extensive use of file handling is involved. The course covers object linking and multiple document interfaces.

CIS163 SQL SERVER (3) Prerequisite: CIS145. Course is designed to teach extensive database administration. As databases are an integral part of interactive Web design, the course will be helpful for commercial Web development.

CIS169 ADVANCED JAVA (3) Prerequisite: CIS158. Project oriented programming course which builds upon the knowledge presented in CIS158. Topics will include database

connectivity, sockets, advanced GUI programming, multi-threading, and data structures.

CIS171 CICS (3) Prerequisite: CIS183, CIS148, CIS172, CIS151. Course uses the mainframe to teach an online environment. Students will work with screen files as they write interactive programs.

CIS172 IDMS (3) Prerequisite: CIS183, CIS148. Course uses the IDMS database to provide a solid foundation in a hierarchal database. Course will cover concepts, theory and data structure of IDMS, while designing and writing IDMS/ Cobol applications.

CIS175 CIS INTERNSHIP (4-8) Includes a minimum of 160 clock hours of supervised work experience that allows the student to apply CIS operation and programming theory. Must be taken during the last year of study.

CIS179 PROGRAMMING PROJECT (4) Must be taken during the last semester of study before completion of the CIS degree. Includes individually designed assignment that requires the student to develop and test a program, and document program results.

CIS180 PROBLEMS IN COMPUTER INFORMATION SYSTEMS (1-3) Independent study of a special problem in computer systems arranged under the supervision of a CIS instructor.

CIS182 MAINFRAME COBOL (3) Prerequisite: CIS183. Computer programming course using the mainframe environment to code, edit and run Cobol programs. Instruction will include coding arithmetic calculations, condition statements, control breaks, and copybook.

CIS183 MAINFRAME OS INTERFACES (3) Course provides a basic understanding of JCL, TSO and ISPF. Class exercises will include writing JCL programs for the purpose of executing the run of other programs. Emphasis is placed on editing files and productivity tools. Students will learn to access system resources, edit and execute under TSO/ISPF.

CIS185 PROJECT MANAGEMENT (3) Course to assist students to adapt to the change taking place in the programming field. The course will assist students in writing specifications and in understanding project time for outsourcing.

CONSTRUCTION TECHNOLOGY

CNST101 CONSTRUCTION MATERIALS AND METHODS I (3) Provides a survey of the field of construction, and will encourage the student to pursue a career in construction. Overview of the field of construction and study of the materials and methods of construction. Students who complete CNST101 and 103 will have studied topics in Construction Materials and Methods in all 16 of the CSI (Construction Specification Institute) master format groups.

CNST103 CONSTRUCTION MATERIALS AND METHODS II (3) Course will continue the study of materials and methods of construction used in all areas of construction begun in CNST101. Students who complete both courses will have studied topics in Construction Materials and Methods in all 16 of the CSI (Construction Specification Institute) master format groups.

CNST106 CONSTRUCTION ESTIMATION (3) Examines the methods used in construction estimation. Conceptual as well as detailed estimating will be examined. Quantity takeoff methods dealing with length, area and volume will be used. Costs for material, labor and equipment will be covered. Estimation software will be used in this course. Cost data from publication services such as Means and Dodge Reports will also be used. The course will require the completion of a commercial cost estimate.

CNST113 CONSTRUCTION MANAGEMENT (3) Topics covered include: the construction industry, types of construction, careers in construction, construction contracts, legal structure of construction companies, project planning, project bidding, equipment productivity, people productivity, construction labor issues, construction estimation, construction materials, and construction safety.

CNST138 CONSTRUCTION PLANNING AND SCHEDULING (3) Covers the concepts of: activity definition, activity duration, bar charts, network diagrams, ordering activities, critical path analysis, early and late start/finish time, I and J nodes, assigning resources and costs, expediting a project, precedence diagrams, accurately determining activity durations, time in contract provisions, project monitoring and control, CPM in dispute resolution, and computer scheduling.

CNST140 CONSTRUCTION METHODS (3-6) Students will study the methods used to install various construction materials broken down into the 16 major methods of the Construction Specification Institute (C.S.I.) format. These areas include: site work, concrete, masonry, metals, woods and plastics, moisture and thermal control, doors and windows, finishes, specialties, equipment, furnishings, special construction, mechanical, and electrical.

CNST142 BUILDING MECHANICAL SYSTEMS (3) Basic understanding of the components and design of major building mechanical systems. Will include: water supply, water drainage, private sewage disposal, heating and cooling, solar energy, electrical systems, lighting, fire protection, sound control, and systems to move people (elevators and escalators).

CNST160 STATICS AND STRENGTH OF MATERIALS (3) The first section of this course is a study of the effects of forces acting on rigid bodies at rest. In this section the student will study: forces and force systems, truss analysis, center of gravity, moment of inertia, stress, strain, shear, bending, moments, beam design, column design, and connection. The second portion will deal with strength of materials. The student will examine the structural properties of various construction materials (for example, steel, concrete, wood, and plastic). The student will find engineering data from various standard sources and apply this information to beam column and connection problems.

CNST162 CONSTRUCTION SAFETY (3) Students will study construction accidents and safety. Additional topics will include: liability and safety regulation, OSHA, safety standards and codes, promoting safety, safety appraisal on the job site, accident investigations, fall prevention, toxic construction materials, fire, excavation safety, heavy equipment safety, vibration, and noise.

CNST175 CONSTRUCTION MANAGEMENT INTERNSHIP (4-8) The student will read materials to prepare them for construction jobsite management. The student, instructor and employer will develop a training program. The instructor will

monitor the student's progress during the internship. The student will complete weekly progress reports and maintaining an internship manual.

CRIMINAL JUSTICE

CJ101 INTRODUCTION TO LAW ENFORCEMENT (3) Examines the history of policing in the United States and an overview of the relationship between law enforcement and the American society. This will include an examination of the duties of law enforcement officers, the operations of police agencies, police-community relations, the police sub-culture, and the need for police objectives to conform to constitutional procedures.

CJ102 INTRODUCTION TO CRIMINAL JUSTICE (3) The history, development and function of the criminal justice system in America. Will examine the three major components of the system - police, courts and corrections - as well as their interrelationships.

CJ104 CRIMINAL INVESTIGATION (3) Prerequisite: CJ102. Theory, methods and procedures of criminal investigation with attention given to its historical origins, the investigator, organization and management of the investigative function, and various investigative methods such as crime scene investigation, techniques of interviewing, collection of evidence, suspect development, and case preparation.

CJ105 CRIMINAL LAW (3) Prerequisite: CJ102. Examines criminal, common and statutory law with its application to the criminal justice system. Emphasis will be placed on the classification of crime and criminal behavior including the necessary elements and mental states of criminal acts. Will also examine criminal acts based on Missouri criminal statutes.

CJ107 CRIMINOLOGY (3) Prerequisite: CJ102. Examines the various theories of criminal behavior and crime causation as well as the problems of treatment, corrections, and control of crime. Will also look at patterns of crime, research methods, and the response to criminal behavior.

CJ109 JUVENILE DELINQUENCY (3) Examines the origins, philosophy and objectives of the juvenile justice system in America including the concept of juvenile delinquency and its causes, juvenile case dispositions and juvenile detention procedures. Will place close attention on the organization, function, and jurisdiction of juvenile justice agencies and the application of the Missouri Juvenile Code.

CJ111 INTRODUCTION TO CORRECTIONS (3) History, development, and present components of both institutional and community-based corrections in America.

CJ120 PROBATION-PAROLE/OFFENDER REHABILITATION (3) Prerequisite: CJ111. Examination of the various community-based corrections and rehabilitation programs within the criminal justice system including probation and parole supervision as well as their impact on the offenders, victims and community.

CJ175 SUPERVISED OCCUPATIONAL EXPERIENCE IN CRIMINAL JUSTICE (4) Prerequisite: CJ102 or CJ111. This course provides students with the opportunity to observe and experience the operation of a selected agency within the criminal justice system. This program will require the student to spend a minimum of 160 hours with the agency during the semester as well as the completion of other requirements for

the instructor. This course does not meet as a regular class but does require correspondence with the instructor. Additional requirements for participation in this course include (1) student must be seeking a degree in criminal justice at State Fair Community College and (2) have completed at least two semesters of course work including a minimum of nine hours of approved criminal justice classes including CJ102 or CJ111. Students interested in this course should contact the Criminal Justice Program Coordinator prior to enrolling to ensure all criteria are understood and have been met.

CJ180 PROBLEMS IN CRIMINAL JUSTICE (1-3) Prerequisite: CJ102 and permission of Criminal Justice Program Coordinator. Independent study of a special problem in criminal justice under the direct supervision of a criminal justice instructor.

DENTAL HYGIENE

DH101 DENTAL HYGIENE PREP WORKSHOP (1/2)

Designed to inform potential students of all aspects of the dental hygiene program and review program requirements. Taken the spring before acceptance into the program as part of the selection process.

DH105 INTRODUCTION TO DENTAL HYGIENE (6) Course is designed to acquaint the student with the role of a dental hygienist and provide the background knowledge and skills necessary to function in subsequent dental hygiene clinical courses. Basic principles of instrumentation, infection control and patient communication are presented in this course.

DH106 DENTAL CLINIC EMERGENCIES (1) Course presents procedures to properly control bleeding, choking, possible broken bones, and other common medical emergencies as well as emergencies specific to the dental office. Information is also included concerning emergency medications used in the dental office. Adult, child and infant CPR, choking, and child and adult AED are included. Upon successful completion of this course, the student will receive certification from the American Red Cross for First Aid and certification from the American Heart Association for Healthcare Provider CPR/AED.

DH107 DENTAL RADIOGRAPHY (2) Prepares the student with the skills necessary for exposing and processing dental radiographs. Biological and safety procedures are discussed and skills are practiced on mannequins prior to proceeding with clinical patient exposures. Students are also introduced to the basics of interpreting landmarks and technique errors on dental radiographs. Concurrent enrollment in Introduction to Dental Hygiene.

DH109 ORAL ANATOMY AND HISTOLOGY LAB (2) Course consists of a lab manual with handouts and activities that are congruous with the lecture. Grading is based upon tooth identification through ID tests and several projects, including a skull project where the student will be drawing arteries and veins on a skull as well as molding with clay.

DH110 CLINICAL DENTAL HYGIENE I (6) Prerequisite: DH105. Course is designed to apply the basic principles of dental hygiene instrumentation and patient treatment in a clinical setting. The principles of ultrasonic scaling, instrument sharpening and patient education will be introduced and built upon as the semester progresses. The student will also refine calculus detection. The student will be introduced to the concept of complete data assessment and use of the data to formulate patient care plans. Gingival, plaque and bleeding indices will be used to describe patient conditions. The clinical method of instruction and evaluation is competency-based.

DH112 CLINICAL DENTAL HYGIENE II (5) Prerequisite: DH110. Course continues skill development in the provision of dental hygiene care. Administration of local anesthesia is added to the skills to be developed. Students continue to develop care plans which emphasize data assessment, analysis of risk factors and sequencing of care. The classroom portion will emphasize the management of medically compromised patients. The clinical method of instruction and evaluation is competency-based.

DH114 CLINICAL DENTAL HYGIENE III (8) Prerequisite: DH112. Course continues skill development in the provision of dental hygiene care. Emphasis will be on the treatment of periodontally advanced cases. The classroom portion will deal with the management of patients with special physical, mental, social and emotional needs, and continuation of content regarding patients with medically compromised conditions. The clinical method of instruction and evaluation is competency-based.

DH116 CLINICAL DENTAL HYGIENE IV (8) Prerequisite: DH114. Dental hygiene skills will be perfected in this course. Non-surgical periodontal techniques and other supplemental care procedures will be emphasized in the classroom. Students will be encouraged to make clinical decisions based on the evidence and will learn to critically evaluate the literature. Didactic instruction will be case-based. The clinical method of instruction and evaluation is competency-based.

DH118 PRINCIPLES OF PERIODONTICS (2) Biological and clinical aspects of periodontal health and pathology. An introduction to the supporting structures of the teeth will provide the foundation for understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist's role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined. The student will be immersed in a variety of educational settings and evaluation techniques through classroom cooperative learning and topic presentation as well as synthesis of knowledge with an actual clinic patient.

DH119 ADVANCED PERIODONTICS PRACTICUM (1/2)

Course gives the dental hygiene student a firsthand experience in specialty practices of periodontics. Area periodontics and general practitioners will give of their time and expertise to guide the student through actual surgical procedures, such as periodontal surgery and implantology to solidify the conceptualization of the classroom experience.

DH120 DENTAL BIOMATERIALS W/LAB (2) Students will study the chemistry of biomaterials used in the oral cavity and how to discern what products to use when taking impressions, creating study models, polishing resin or alloy filling, and delivering dental sealants. Students will use alginate materials to take an impression and resins to produce a dental sealant. Other activities include personal mouth protection devices, placing a rubber dam, polishing an amalgam, mixing cements, dental alloys and impression materials, as well as using periodontal dressing and removing sutures.

DH124 APPLIED NUTRITION AND ORAL HEALTH EDUCATION (2) Course will present the sources and uses of nutrients and provide a biochemistry background for the metabolism of these dietary components. The course will prepare the dental hygiene student to fulfill his/her role in oral health education as it relates to patient home care habits, motivation and dietary effects on the oral cavity.

DH125 LOCAL ANESTHESIA (3) Course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia. Included are content areas in anatomy, physiology, pharmacology, and emergency management. Laboratory sessions provide actual experiences in administration of local anesthetics.

DH126 COMMUNITY DENTAL HEALTH (1) Provides a study of the principles of public health and the methods used in assessing, planning, implementing, and evaluating dental health programs. In addition, content will include basic principles of research.

DH127 COMMUNITY DENTAL HEALTH LAB (1)
Prerequisite: DH126. This course will allow the student to apply the basic principles of assessing, planning, implementing, and evaluating a community dental health program. The student will participate in health fairs, screenings, educational programs, and table clinic presentation. Two hours of community lab activities per week.

DH130 PHARMACOLOGY (2) Provides basic drug terminology, general principles of drug interactions, routes of administration, adverse reactions, and drugs that alter dental treatment. Emphasis will be placed on knowledge of drugs in the understanding of a patient health history and development of a care plan.

DH132 DENTAL HYGIENE ETHICS AND LEGAL ISSUES (2)
Designed to provide the student with knowledge of professional development, ethics and jurisprudence as related to clinical practice. Topics will include the basic principles of ethics, conflict management, state dental laws, and legal liabilities of health care professionals.

EARTH SCIENCE

EASC101 INTRODUCTION TO EARTH SCIENCES W/LAB (5)
Introduction to the earth sciences, not as merely academic subjects isolated from daily affairs, but as being relative to contemporary problems. Study of geology, astronomy, meteorology, and oceanography is directed to student taking course for cultural rather than professional reasons. Lab includes introduction to minerals and rocks, plant and animal fossils, fundamental principles of weather, and basic astronomy. Local field trips are included. Instruction consists of four lecture and two lab hours per week.

EASC106 PHYSICAL GEOLOGY W/LAB (5) Provides an understanding of the forces which were active in the formation of the earth, the processes whereby the surface of the earth is sculptured, the identity of earth materials, with the location and value of the earth's resources. Laboratory includes a study of minerals and rocks and the interpretation of topographic and geologic maps. Local field trips are included. Instruction consists of four lecture and two lab hours per week.

EASC116 ENVIRONMENTAL SCIENCE (3) Non-lab course introduces environmental concepts and problems. Topics will include basic ecology, human population ecology, natural resources, and pollution. Students are to learn how man interacts with his environment.

EASC120 INTRODUCTION TO ASTRONOMY (3)
Prerequisite: One year of high school algebra or its equivalent. Non-lab course is an introduction to our present knowledge of

the universe. Topics include the solar system, stellar astronomy and the structure of the universe.

EASC180 PROBLEMS IN EARTH SCIENCE (1-3) Independent study of a special problem in earth science under the supervision of a science instructor.

ECONOMICS

ECON101 PRINCIPLES OF ECONOMICS I — MACRO (3) May be taken concurrently with ECON102. Introduction to principles underlying the operation of modern industrial countries with an analysis of many economic problems common to all countries. Special attention given to law of supply and demand, diminishing returns, and comparative cost—as well as to problems of inflation, international trade, agriculture, labor and management, taxation, and investment opportunities.

ECON102 PRINCIPLES OF ECONOMICS II — MICRO (3)
Prerequisite: ECON101 or concurrent enrollment in ECON101. Examines the application of economic principles to specific areas: cost curves of individual firms, special problems of agriculture, international trade, taxation, income distribution, and economic growth.

ECON180 PROBLEMS IN ECONOMICS (1-3) Independent study of a special problem in economics under the supervision of a social science instructor.

EDUCATION

EDUC101 FOUNDATIONS OF EDUCATION (3) Prerequisite: ENGL101 with a grade of C or better. Designed for majors in education who have completed at least one semester of study including English Composition I. This is an introductory course of public education in the United States with an emphasis placed on its development, organization and administration.

EDUC102 INTRODUCTORY FIELD EXPERIENCE (1-2)
Prerequisite: EDUC101 or taking concurrently. Includes introductory experiences in the classroom that provide opportunities for becoming involved with students and teachers in the school setting. Taken in conjunction with Foundations of Education.

EDUC104 CHILDREN'S LITERATURE (3) Intensive introduction to various genres of literature for children and ways of presenting literature in the preschool, elementary school or middle school.

EDUC115 SUCCESS 100 (1) Designed to enable new students to make a smooth transition into college life and ultimately be successful with their educational and career goals. Topics include building relationships with students and instructors, orientation to working with Blackboard, learning the resources available to students, and strategies for successful learners. Course uses a variety of teaching methods and interactive activities.

EDUC117 CAREER CHOICE (1) Primarily intended for the college student who is undecided about a college major or related career plans. Emphasis upon making connections between self and the world of work and between academic and career planning.

EDUC119 EMPLOYMENT STRATEGIES (1) Prerequisite: Completion of 20 credit hours of degree program core courses. Course is designed to help a student develop employment search skills and career growth potential. The student will go through the job search process step-by-step. Resumes will be constructed. Guest speakers, group activities and mock interviews will be utilized. This course is required for all A.A.S. and professional certificate candidates.

EDUC123 COLLEGE SKILLS (3) Designed to enhance the college learning experience and prepare students for personal and professional success. Concepts presented include: time management, managing change, setting and achieving goals, and thinking in ways to create success. Note-taking, library research, test taking, and study skills are also included.

EDUC130 EMERGING LEADERS TRAINING (1) Leadership theories and resources will be explained in an interactive manner with a variety of session leaders. In addition to coursework, a 20-hour community service component is required.

EDUC132 SERVICE LEARNING AND CIVIC ENGAGEMENT (3) Course combines 40 hours of guided volunteer service and civic engagement with seminar sessions and independent research that enable students to consider the ways in which both rural and urban communities address the critical needs of citizens. To ensure that the course work is relevant to each student's field of study, the student is encouraged to complete the hours with organizations related to his or her field. Students will complete the rural study in Sedalia or in their own communities. The urban study will be conducted over the college spring break. The cost of the trip is charged to the student as a lab fee for the course.

EDUC140 INTRODUCTION TO TEACHING ONLINE (3) Introductory course is designed to assist faculty in developing classes that are either fully-Webbed or Web-assisted. Provides instruction for very basic course planning and will focus on topics such as methods, strategies, techniques, trends, and terminology used in instruction in general and online education in particular. Articles will be assigned for reading and discussion, and preliminary documents for teaching online classes will be created.

EDUC141 INTRODUCTION TO TEACHING WITH BLACKBOARD (1) Introductory course is designed to assist faculty in learning how to use the Blackboard Management program for facilitating Web-based and Web-assisted classes. Topics will include using the various components of the software as well as uploading and editing documents, getting technical assistance and managing information. In addition, issues pertinent to online education will be discussed.

EDUC145 COMPUTER TECHNOLOGY IN EDUCATION (3) Provides education majors or trainers with the ability to teach basic microcomputer application skills for the purpose of facilitating and enhancing student learning. Issues regarding cultural diversity, integration of technology into curriculum, ergonomics, and assessment will be addressed. Additional topics to be included are word processing, spreadsheets, databases, presentation software, smart boards, telecommunications, and readings in educational technology.

ELECTRONICS

ELEC117 ANALOG/DIGITAL (3) Covers the basic principles involving the use of (1) analog integrated operational

amplifiers in signal generation applications (2) integrated A/D, D/A converters and their applications, (3) shift registers and their applications, and (4) control and timing circuits and their applications.

ELEC119 SOLID STATE DEVICES (3) Comprehensive overview of solid state devices, their basic principles and applications; the composition and operating characteristics of diodes, transistors, SCRs, DIACs, TRIACs, and solid state transducers; the application of solid state devices in rectification of AC into DC, power supply filters, voltage regulation, industrial relays, sensors, and alarm systems. Students will install, build and troubleshoot circuits with solid state devices.

ELEC126 DIGITAL PRINCIPLES AND APPLICATIONS (3) Overview of the basic principles and applications of digital logic systems. Topics to be covered are the numbering systems of decimal, hexadecimal, octal, BCD, and binary; Boolean algebra and its application in digital logic circuits; the basic logic and truth tables for AND, OR, NAND, NOR, EXCLUSIVE OR, EXCLUSIVE NOR, and INVERTER logic gates; the construction and application of FLIP-FLOPS, TIMERS, COUNTERS, AND REGISTERS as individual circuits as well as in combinational circuits. Students will build, test and troubleshoot a project incorporating all of the logic circuits and information covered in the course.

ELEC150 IEET INTEGRATION (3) Course will evaluate student's skill and ability to design, develop and troubleshoot a simulated manufacturing production system. Students will build a working production system in a simulated workplace environment stressing teamwork and troubleshooting skills. The goal is to prepare a student for entry into the work force as an IEET technician.

ELEC152 POWER DISTRIBUTION AND SWITCHGEAR (3) Course will cover the installation, operation, inspection, and maintenance of industrial power systems. Course will look at power distribution; switchgear and switchboard assemblies; motor control centers; voltage, current and instrument transformers; feeder circuits and busways; switches and circuit breakers; protective devices; regulating devices; and neutral and grounding systems. The National Electric Code (NEC) will be referenced as a guide for the proper wiring installation and operation of electrical power systems.

ELEC154 INDUSTRIAL COMMUNICATIONS (3) Course will cover the installation, operation, inspection, and maintenance of industrial communication networks using serial RS232, Ethernet and data bus. It will examine various interface devices used in communication and integration of these devices with computers, PLCs and Web-enabled technology.

ELEC156 MOTION CONTROL SYSTEMS (3) Course will cover the installation, principle of operation, and application of integrated motion and sequential control devices. Study of the hardware and software architecture used in servo drives, motors and actuators to allow integrated motion in machine control. Provides in-depth training in multiple programming, installation and diagnostics tools used in motion control systems.

ELEC158 PROCESS CONTROL (3) Covers the dynamics of automatic controls used in industrial processes utilizing conventional feedback control by proportional, integral, and derivative (PID Loops) modes of feedback. Examines the installation, operating principles, applications, and maintenance of the single-loop control devices and also the programming of the software used in PID Loops.

ELEC180 PROBLEMS IN INDUSTRIAL ELECTRICITY/ELECTRONICS TECHNOLOGY (1-3) Independent study of a special problem or a research project in the field of industrial electricity/electronic technology under the supervision of an electronics instructor.

ENGLISH

ENGL101 ENGLISH COMPOSITION I (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. This course emphasizes writing as a process of drafting and revising. Assignments include source-based essays that focus on the management of printed and online information. Peer evaluation and individual conferences with the instructor are employed. Traditional classroom and computer-assisted sections, designated CAI, as well as Web-based sections are offered each semester.

ENGL102 ENGLISH COMPOSITION II (3) Prerequisite: Minimum Enhanced ACT English score of 30 or completion of ENGL101 with a grade of C or better. Combining the techniques of process writing learned in English Composition I with an emphasis on critical reasoning, students research printed and online information as the basis for their writing. Assignments include a problem-solving essay, an evaluation essay and a research paper. Peer evaluation and individual conferences with the instructor are employed. Traditional classroom and computer-assisted sections, designated CAI, as well as Web-based sections are offered each semester.

ENGL106 CREATIVE WRITING (3) This elective course includes study and practice in the techniques of writing poetry, fiction, nonfiction, and/or drama. Emphasis is placed on the recognition of those techniques in published works and the utilization of them in student's own writing. Peer evaluation and individual conferences with the instructor are employed.

ENGL108 APPLIED ENGLISH GRAMMAR (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade of C or better. Provides a thorough review of English grammar from multiple perspectives and includes analysis of the language strategies used by both classical and contemporary writers. Purpose is to strengthen language skills for prospective teachers, journalists, and others for whom a strong language background is occupationally significant.

ENGL110 BUSINESS COMMUNICATIONS (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade of C or better and CAPP125 taken within the last five years of continuous enrollment or MOUS. Students will learn effective communication techniques and demeanor as applied in business situations. Topics may include various business letters (such as good news, bad news, persuasion, goodwill, and cover letters), oral presentations, telecommunications, international communications, listening, nonverbal communications, interview skills, and grammar review.

ENGL112 TECHNICAL WRITING (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade of C or better. Explores the theory and practice of workplace writing, emphasizing both practical applications and individual/collaborative decision-making. Includes practice in writing instructions, proposals and reports.

ENGL180 PROBLEMS IN WRITING (1-3) Independent study of a special problem in the area of research-based writing or creative writing under the supervision of an instructor in the department.

FIRE SCIENCE

FIRE105 FIRE FIGHTER I (4) AND FIRE 106 FIRE FIGHTER II (4) Based on the National Fire Protection Association 1001, "Standard for Fire Fighter Professional qualifications," some of the content covered includes fire service orientation, safety, fire behavior, tools of the trade, rescue, ventilation, salvage, self-contained breathing apparatus, portable fire extinguishers, emergency medical care, fire control, water supply, and fire prevention. Performance requirements and practical skills necessary to perform fire fighter duties are also covered. Individuals successfully completing the courses and meeting the requirements of Missouri Division of Fire Safety will be eligible for certification as Fire Fighter I and II by the Division of Safety.

FIRE108 HAZARDOUS MATERIALS AWARENESS AND OPERATIONS (3) Chemical characteristics and reactions related to the storage, transportation, and handling of hazardous materials. Covers vital practices such as planning procedures, establishing policies, and the application of procedures to incidents, personal protective equipment, decontamination, safety, and communications. Individuals successfully completing this course and meeting the requirements of the Missouri Division of Fire Safety will be eligible for state certification to Hazardous Materials Operations level by the Division of Fire Safety.

FIRE110 FIRE OFFICER I (3) Identifies the professional levels of competence required for fire department officers. Course follows NFPA code 1021 which identifies the performance requirements necessary to perform the duties of a fire officer and specifically identifies four levels of progression.

FIRE112 FIRE INSPECTOR I (3) Identifies the professional levels of competence required for fire inspectors. It specifically covers the requirements for knowledge and the progression through levels of competency.

FIRE114 PUBLIC FIRE AND LIFE SAFETY EDUCATOR (3) Identifies the professional levels of competence required of public fire educators. It specifically covers the requirements for knowledge and a progression through three levels of competency.

FIRE116 FIRE SERVICE INSTRUCTOR I (3) Study of professional levels of competence required of fire service instructors including development and delivery of effective training programs to fire service personnel. Individuals successfully completing this course and meeting the requirements of Missouri Division of Fire Safety will be eligible for certification as Fire Service Instructor I by the Division of Fire Safety.

FIRE118 FIRE APPARATUS OPERATOR (3) Identifies the professional levels of competence required of the fire apparatus driver/operator including the NFPA 1002 standards.

FIRE120 WILDLAND FIRE FIGHTER PROFESSIONAL (3) Identifies the minimum job performance requirements for wildfire incident related duties of a fire fighter and officer. This standard is applicable to all personnel who respond to wildfires.

FIRE 122 RESCUE TECHNICIAN (3) Establishes the minimum job performance requirements necessary for fire service and other emergency response personnel who perform technical rescue operations.

FIRE 124 BUILDING CONSTRUCTION (3) Examination of building codes and requirements, building types and building materials. Study will aid in the decision-making process related to fire prevention and fire control.

FIRE 128 FIRE HYDRAULICS (3) Study of water distribution systems as related to fire protection and suppression. The principles of fluid dynamics, measurement of fluid flow, water supply requirements, fluid movement and velocities, and other factors involved in calculating pump pressure are identified.

FRENCH

FREN101 ELEMENTARY FRENCH I (5) Students will develop the four basic skills of language communication: listening, speaking, reading, and writing. Course includes an introduction to the French culture.

FREN102 ELEMENTARY FRENCH II (5) Prerequisite: FREN101 or two years of high school French. Students will continue development of language communication: listening, speaking, reading, and writing. Includes a continuation of culture appreciation.

FREN103 INTERMEDIATE FRENCH (3) Prerequisite: FREN102 or three years of high school French. Students continue to develop communication skills and through varied reading assignments will become acquainted with literature and history of the French people.

FREN104 READINGS IN FRENCH (3) Prerequisite: FREN103 or three to four years of high school French. Students continue the study of communication skills and the acquisition of French culture through varied reading assignments.

FREN105 BASIC CONVERSATIONAL FRENCH I (3) Students will develop the four basic skills of language communication: listening, speaking, reading, and writing. Course also introduces the French culture.

FREN106 BASIC CONVERSATIONAL FRENCH II (3) Prerequisite: FREN105. Continuation of Basic Conversational French I. This course continues the inquiry into the French culture as well as the presentation of the four areas of a foreign language: listening, speaking, reading, and writing.

GEOGRAPHY

GEOG101 WORLD GEOGRAPHY (3) Survey of the major topical elements of geography with additional emphasis on environmental awareness and place-name geography. Designed for prospective elementary and social studies teachers, as well as general education students.

GEOG103 INTRODUCTION TO GPS/GIS (3) Introduction to GPS/GIS is a project oriented survey course of Global Positioning Systems (GPS) and Geographic Information Systems (GIS). A portfolio of projects will be assembled and evaluated. These projects will include a student selected project.

HEALTH

HLTH101 PERSONAL HEALTH/FITNESS (2) Presents a basic knowledge of physical fitness and personal fitness, the human body, personal hygiene, food and nutrition, diet and weight control, mental health; alcohol, narcotics and drug abuse education, protection against communicable diseases, and other health hazards. Course fulfills wellness requirement for A.A. or A.A.S.

HLTH102 FIRST AID (2) Study of first aid practice and theory for common emergencies. Incorporates theory and practice from the American Red Cross that includes first aid of common emergencies and CPR training.

HEALTH OCCUPATIONS

HEOC101 MANAGING MEDICAL EMERGENCIES (1) Presents procedures to properly handle bleeding, choking, possible broken bones, and other common medical emergencies. CPR instruction approved by the American Red Cross is included. Upon successful completion of the Basic Cardiac Support training and first aid, cards of verification are awarded.

HEOC110 EMT (EMERGENCY MEDICAL TECHNICIAN) TRAINING (8) Course covers emergency medical aspects and techniques used by EMTs who provide emergency care in the pre-hospital environment set forth by the Bureau of Emergency Medical Services of the state of Missouri. Course will cover modules relating to CPR, airway management, anatomy and physiology, and trauma.

HEOC135 ALLIED HEALTH CAREER DEVELOPMENT (1/2) Designed to help the learner to develop career potential. The learner will go through the job search process step-by-step. Guest speakers, group activities and mock interviews will be utilized and resumes will be constructed. Internet sites to assist in resume writing and job searches will be explored.

HEOC140 TECHNOLOGY IN HEALTH CARE (3) Course focuses on providing a foundation of information management and processing principles used to support the data, information and knowledge needs in the provision and delivery of nursing and health care. Examines using technology to improve the quality of health care as it is delivered to the client, utilized by the provider, and needed to meet the mission of an institution.

HEOC180 PROBLEMS IN HEALTH OCCUPATIONS (1-3) Independent study of a special problem in allied health under the supervision of an allied health instructor.

HISTORY

HIST101 U S HISTORY BEFORE 1877 (3) Survey of the political, economic and social development of the United States from its European origins through the Reconstruction Process. A study of the Missouri Constitution is included to meet the state's requirements in Senate Bill No. 4.

HIST102 U S HISTORY SINCE 1877 (3) Survey of the political, economic, social, and military development of the United States from 1877 to the present. A study of the

Missouri Constitution is included to meet the state's requirements in Senate Bill No. 4.

HIST180 PROBLEMS IN HISTORY (1-3) Independent study of a special problem in history under the supervision of a social science instructor.

HUMANITIES

HUM101 INTRODUCTION TO PHILOSOPHY (3)

Introductory course in philosophy is a survey of the history, persons and perspectives related to the theory of the nature, methods and limits of knowledge. The student will be challenged to deal with concepts such as reality, truth, ethics, reason, and metaphysics.

HUM104 LIVING RELIGIONS (3) Survey of living religions of the world. Study will focus on Buddhism, Hinduism, Islam, Judaism, and Christianity.

HUM108 WORLD CIVILIZATION BEFORE 1500 (3) Survey of the political, social, military, cultural, and religious history of Europe, Asia and Africa from prehistoric man to 1500.

HUM109 WORLD CIVILIZATION AFTER 1500 (3) Survey of the political, social, military, cultural, economic, and ideological history of Europe, Asia and Africa from 1500 to the end of the 20th century.

HUM120 AMERICAN DIVERSITY (3) Overview of global and American diversity resulting from cultural interactions, especially in the areas of art, government, economics, and religion, as well as a historical perspective. Students will gain a greater understanding of diversity from an individual and community perspective. Intended for education majors.

INDUSTRIAL MAINTENANCE

IM104 WIRING METHODS (3) Based on the general requirements of the National Electrical Code (NEC). Students learn to understand and apply the code to general industrial applications, wiring and protection, wiring methods and materials, and general equipment.

IM105 INDUSTRIAL SAFETY (3) Comprehensive study of requirements and programs of 29 CFR 1910. Application of safe work practices to industrial maintenance and manufacturing. Machine guarding, confined space, lockout/tagout, HAZCOM, electrical and fire safety, PPE, and more. Additional topics selected based on student interest and industry emphasis.

IM112 MAINTENANCE MANAGEMENT (3) Study of contemporary maintenance management practices, statistical applications, Total Productive Maintenance, reliability-based procedures, predictive (PDM) and preventive (PM) maintenance, CMM systems, nondestructive testing, project management.

IM115 INTRODUCTION TO SYSTEMS (3) Introduction to the devices and components of industrial automation, sensors, switches, fluid power components, and combination of technologies in the systems of manufacturing and industrial processes. Primary emphasis on interpreting line diagrams and troubleshooting control circuits.

IM126 INDUSTRIAL MECHANICS (3) Principles and applications of industrial mechanics. Tools, hardware, installation and maintenance of bearings, gear systems, belt drives, mechanical drives, principles of lubrication, vibration, and alignment

IM133 FLUID POWER TECHNOLOGY (3) Principles and applications of fluid power technology in industrial systems. Operation, troubleshooting and maintenance of hydraulic and pneumatic pressure, flow, directional control, and electrical devices, conduits, pumps, compressors, actuators and ancillary devices, conditioning, and filtration of fluids. Critical thinking and analytical skills are emphasized.

IM135 PRINCIPLES OF REFRIGERATION (3) Study of the principles of refrigeration, refrigerants, components, types of systems, operation, electrical controls, troubleshooting, servicing, and maintenance. Critical thinking and analytical skills are emphasized.

IM141 INTERMEDIATE PLCs (3) A study of the interface between machine and controller, advanced programming functions, and troubleshooting. Emphasis on developing programs and interfacing with industrial type devices. A strong background or previous coursework in PLCs is necessary.

IM142 ADVANCED PLCs (3) Programming with RSLogix 5000, this class is designed for students who already understand RSLogix 500 and are ready for to advance to "Tag" based programming. An introduction to industrial communications concepts is included. This course will prepare students for success in ELEC 154 Industrial Communications.

IM175 INDUSTRIAL MAINTENANCE INTERNSHIP (4) Application of work skills in a supervised environment. Companies that sponsor internships provide the supervision. The college provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. The student is required to apply through the college to the company for the internship. Provides the student an opportunity to demonstrate work skills, work ethics and the ability to work with others. The student will submit written progress reports and a final report.

INDUSTRIAL SUPERVISION

IS103 INVENTORY AND PRODUCTION CONTROL (3) Study of production planning, scheduling, follow-up, and control of raw material, parts, and finished goods inventories.

IS111 QUALITY MANAGEMENT AND CONTROL (3) Prerequisite: BSMT108. Study of quality management principles and quality control procedures. Students will study quality management from a historical perspective as well as current quality management techniques. Production quality control methods such as sampling, inspecting and testing used to insure accuracy and high standards in production quality will be studied.

INDUSTRIAL TECHNOLOGY

INDT102 TECHNICAL PRINTS AND DIAGRAMS (3) Introduction to the prints and diagrams of technologies in construction and manufacturing. Includes symbols and prints utilized in construction, drafting, electrical, machining, and welding.

INDT104 ELECTRIC FUNDAMENTALS (3) Introduction to DC and AC electrical theory, Ohm's Law, electrical quantities and values, electromagnetism, series, parallel and combination circuits, inductance, and capacitance.

INDT106 ELECTRICAL POWER (3) Use of electrical power in industry. Motors, controls, generators, and transformers; single and three phase applications, WYE and DELTA systems.

INDT112 MOTOR CONTROLS (3) Course is designed to teach students how to construct, troubleshoot and isolate malfunctions in various types of control circuits, motor starters, application, and installation of control devices; basic principles, operation, components, and application of AC drives.

INDT114 PROGRAMMING PLCs (3) An introduction to hardware and software of Programmable Logic Controllers. Course is designed to instruct students in the operating system of PLCs, configuration of hardware and communications, number systems, logic circuits, and basic programming.

INDT130 APPLICATIONS IN INDUSTRIAL PROBLEM SOLVING (1-4) Designed to allow industry to utilize an instructor to facilitate actual problems or improvements with a class of students or with company employees.

LITERATURE

LIT101 INTRODUCTION TO LITERATURE (3) Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Study of fiction, poetry and drama. Special attention is given to literary terminology and critical analysis. Recommended but not required as a preparation for other courses in literature.

LIT104 MASTERPIECES BEFORE 1650 (3) Fall only. Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Students will examine selected works of continental European literature in translation from ancient, medieval and Renaissance movements. Incorporates a thematic approach and a video-discussion format.

LIT105 MASTERPIECES AFTER 1650 (3) Spring only. Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Students will examine selected works of various Asian, African and European literature in translation, as well as English literature, from modern periods. Takes a global approach to appreciating literary classics.

LIT107 AMERICAN LITERATURE (3) Spring only—ALT. YRS. Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Thematic study of major American authors and works from the Colonial Period to the present, emphasizing development of concepts that have shaped American life and literature.

LIT109 ENGLISH LITERATURE (3) Spring only—ALT. YRS. Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Study of major English authors and works from Beowulf to the present.

LIT114 TOPICS IN LITERATURE (3) Minimum Enhanced ACT

English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Includes the study of a major writer, a literary type, or a theme in literature. Specific subjects are announced each semester in which the course is offered.

LIT180 PROBLEMS IN LITERATURE (1-3) Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Independent study of a special problem in literature under the supervision of an instructor in the department.

MACHINE TOOL

MACH101 INTRODUCTION TO MACHINING (4) Introduction to measuring tools used for work in machining or inspection. Introduces the proper setup and use of drilling machines, band saws and lathes. Applications include outside diameter turning, threading and tapering. Areas of study include safety, blueprint interpretation, hand tools, layout, and various gauges to complete and inspect a job.

MACH102 LATHE AND MILLING MACHINE OPERATIONS (4) Prerequisite: MACH101. Continuation in the application of lathe operations including: inside diameter turning, threading and tapering. Introduces the proper use and setup of milling machines. Applications include squaring the machine and indicating angle pieces. Areas of study include: safety, blueprint interpretation, and the selection of cutters, feeds, and speeds.

MACH103 MILLING AND GRINDING MACHINE APPLICATIONS (4) Prerequisite: MACH102 or consent of instructor. Continuation of milling machine operations including: dividing heads, precise movement of machines, turntable operations, and keyways. Introduces surface grinders in squaring procedures. Areas of study include safety, blueprint interpretation and proper setup and use of milling attachments.

MACH104 ADVANCED MACHINING (4) Prerequisite: MACH103 or consent of instructor. Introduces the use of the sine bar and sine plates on milling machines and surface grinders. Will present advanced applications of lathes, mills, grinders, and drill presses. Advanced projects will be timed. Areas of study include estimation of project time and bidding process.

MACH106 CNC MACHINING (3) Prerequisite: MACH104 or industrial experience and instructor consent. Provides fundamental technical information and some practical experience necessary for programming, editing and operating numerically controlled machine tools.

MACH109 ADVANCED CNC MACHINING (3) Prerequisite: MACH106. Provides technical information and considerable practical experience in preparation, setup and operation of wire EDM and CNC lathe. Digitizing on vertical machining center will be introduced. Tryout of programs, editing and improving programs will be emphasized.

MACH112 MACHINE TOOL EQUIPMENT REPAIR (4) Prerequisite: MACH106 or consent of instructor. Designed to teach correct procedures for repair and maintenance of machine tools. Study includes safety, repair and replacement of worn parts; diagnosis and repair of hydraulics, pneumatics and electrical components.

MACH 114 STATISTICAL PROCESS CONTROL (3) Designed around the process of plotting production results to determine if both product and process meet company standards. Encourages prevention, as opposed to detection of defects, in helping to eliminate costly repairs and scrap.

MACH 115 HEAT TREATING AND METALLURGY (3) Knowledge of heat treatable steel and alloys will be presented in this course. Study of the operation of heat treating and drawing furnaces, quenching mediums, color spectrum, and hardness testing is included. Students will become familiar with the process involved in making iron and steel, non-carbon diagrams and identification of ferrous and nonferrous metals.

MACH 175 MACHINE TOOL INTERNSHIP (1-8) Prerequisite: Consent of instructor. Provides opportunity to work with skilled machinist, to better understand skills and knowledge needed and to determine how student likes actual machine tool work.

MACH 180 PROBLEMS IN MACHINE TOOL (1-3) Independent study of a special problem in machine tool technology under the supervision of a machine tool instructor.

MARINE TECHNOLOGY

MRN 101 MARINE SYSTEMS RIGGING I (6) Beginning with the completion of the shop safety prerequisite, tools, boat and trailer handling, and progressing through the rigging process, course provides a foundation of information and skills for a marine career.

MRN 105 MARINE IGNITION SYSTEMS (3) Outboard, inboard, inboard/outboard, and personal watercraft ignition systems are explored in this course.

MRN 107 MARINE STARTER AND CHARGING SYSTEMS (2) This course follows the progression of starter and charging systems in the outboard, inboard/outboard and the personal watercraft.

MRN 109 MARINE COOLING SYSTEMS (2) Pressure and volume water pumps, pumps in the gear housing, pumps mounted on the engines, and circulating pumps are a few of the systems used in the cooling process.

MRN 111 MARINE LUBRICATION SYSTEMS (2) Course begins with the manual mixing of oil and fuel to provide lubrication, and progresses into the different automatic oiling systems. Power steering and tilt/trim lubricant requirements are clarified.

MRN 113 MARINE ENGINE COMPONENT AND PRECISION MEASURING (3) Course provides the technician with the skills to determine if an engine component is reusable.

MRN 115 MARINE SHOP PROCEDURES AND BUSINESS OPERATIONS (2) Properly completing a repair order is the first document in the process of providing proper communication with the customer, keeping track of the unit(s) brought in for service, recording the diagnosis and repair process, and the date promised for repair completion.

MRN 117 MARINE ENGINE SYSTEMS ANALYSIS (2) A long-lived engine begins with the proper break-in procedure. Each manufacturer has a recommended procedure to follow and

explain to the customer. Compression and leak-down tests are procedures to analyze powerhead systems and diagnose problems before major disassembly.

MRN 119 MARINE SYSTEMS PREVENTIVE MAINTENANCE (4) Nodding maintenance, winterizing and de-winterizing, trailer brake and bearing maintenance, and battery maintenance are a few of the maintenance items the technician must be responsible to complete.

MRN 121 MARINE POWER TRANSFER SYSTEMS (4) Transom plate and adapter systems, couplers, upper gearcase, driveshaft housing, jet pumps, gear housings, strut bearings, and surface-piercing drive systems are a sampling of the systems that are part of the course.

MRN 123 MARINE SYSTEMS TROUBLESHOOTING (3) Correct troubleshooting techniques have basics that must be consistently applied. As the systems have become more sophisticated, manufacturer supplied troubleshooting charts can save time and frustration.

MRN 125 MARINE FUEL SYSTEMS (4) The course will cover the complexities of marine fuel systems and automatic oiling systems.

MRN 127 MARINE INSTRUMENTATION SYSTEMS (2) Systems have complex sending units; some that are multifunctional gauges and senders, so time must be spent understanding the different manufacturer systems and sending units.

MRN 129 MARINE POWER TRIM/TILT SYSTEMS (2) Course will enable students to understand how hydraulic pumps can manage the pressure that is possible in a hydraulic system. Troubleshooting systems is part of the course.

MRN 175 INTERNSHIP (5) The internship consists of 320 working hours at an approved marine facility.

MASS COMMUNICATION

MCOM 101 INTRODUCTION TO MASS MEDIA (3) Presents a basic overview of the scope and role of the mass media in society. Course integrates media aids with creative assignments and field trips to help students become informed media consumers and gain cultural and global perspectives on the communication industry.

MCOM 112 INTRODUCTION TO PUBLIC RELATIONS (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or completion of BSKL020 with a grade of C or better. Overview of the principles and practice of public relations in private and public organizations. Includes analysis of how various organizations' communication philosophy and practices impact their productivity and effectiveness in society.

MCOM 114 NEWS REPORTING I (3) Prerequisite: BSKL020 or consent of instructor. Includes the examination of news value, rights and responsibilities of the press, news gathering and reporting techniques, leads, interviewing, style, and specialized articles.

MCOM 115 NEWS REPORTING II (3) Prerequisite: MCOM 114 or consent of instructor. Application of concepts and methods learned in News Reporting I, exploration of skills in researching and writing in-depth articles and interaction with community leaders and media professionals are included.

MCOM117 PRACTICAL JOURNALISM (1) Prerequisite: ENGL101 and/or consent of instructor. Students will do writing, editing and/or photography assignments. One hour credit each term for maximum of three hours.

MCOM180 PROBLEMS IN MASS COMMUNICATION (1-3) Independent study of a special problem in mass communication under the supervision of an instructor in the department.

MATHEMATICS

MATH101 BUSINESS MATH (3) Prerequisite: Minimum Enhanced ACT math score of 16 or equivalent placement score or BSKL061. Practical approach to understanding the application of mathematics within the business environment. Emphasis is placed on developing mathematical solutions to problems in the areas of marketing, accounting, finance, and banking. This course satisfies the math requirement for selected A.A.S. degrees and professional certificates but will not satisfy the A.A. math requirement.

MATH107 TECHNICAL MATH I (3) Prerequisite: Minimum Enhanced ACT math score of 16 or equivalent placement score or BSKL061 with a grade of P. Topics include: scientific notation, variation, proportion, applied geometry, basic algebraic manipulations, and angles, sides, triangle relationships. Course will stress applications to practical problems as they apply to trade. This course will not satisfy the A.A. math requirement.

MATH108 TECHNICAL MATH II (3) Prerequisite: Minimum Enhanced ACT math score of 20 or equivalent placement score or MATH107. Topics include signed numbers, formulas, algebraic functions, and trigonometry relationships. Course will stress applications to practical problems as they apply to trade. This course will not satisfy the A.A. math requirement.

MATH112 INTERMEDIATE ALGEBRA (3) Prerequisite: Minimum Enhanced ACT Math Score of 20 or equivalent placement score or BSKL064 with a grade of C or better. Topics include: properties of the real number system, scientific notation, equations and inequalities involving absolute value, graphs of linear equations and inequalities in the plane, systems of equations in two unknowns, rational exponents and radicals, radical equations, imaginary and complex numbers, quadratic equations and inequalities, and conic sections. Designed to prepare students for College Algebra, Finite Math, Introduction to Discrete Mathematics, or Precalculus Math. This course satisfies the math requirement for selected A.A.S. degrees. This course will not satisfy the A.A. math requirement.

MATH115 COLLEGE ALGEBRA (4) Prerequisite: Minimum Enhanced ACT Math Score of 23 or equivalent placement score or MATH112 with a grade of C or better. Topics include: properties of functions and their graphs, variation, synthetic division, zeros of polynomial functions, the fundamental theorem of algebra, graphs of rational functions, properties of logarithms, logarithmic and exponential equations, exponential growth and decay, linear systems in more than two variables, matrices and determinants, arithmetic and geometric sequences, and the binomial theorem. This course will satisfy the A.A. math requirement.

MATH116 FINITE MATH (3) Prerequisite: Minimum Enhanced ACT Math Score of 23 or equivalent placement

score or MATH112 with a grade of C or better. College-level mathematics course suitable for students whose major does not require College Algebra for a more advanced mathematics course such as calculus. Topics include: applications of linear functions, matrix algebra, linear programming with the simplex algorithm, theory of finite sets with applications of Venn diagrams, combinatorial analysis, and probability theory. This course will satisfy the A.A. math requirement.

MATH120 TRIGONOMETRY (3) Fall only. Prerequisite or taking concurrently: MATH115. Designed for students whose major requires trigonometry or for students planning to take calculus. Topics include: radius vector, right triangle and unit circle definitions of trigonometric functions; trig identities, graphs, inverse trigonometric functions, trigonometric equations, DeMoivre's Theorem, and conics. This course will satisfy the A.A. math requirement.

MATH122 PRECALCULUS MATH (5) Prerequisite: EITHER (1) Minimum Enhanced ACT math score of 23 or equivalent placement score, (2) MATH112 with a grade of C or better, or (3) MATH115 with a grade of C or better. Topics include: algebraic, exponential, logarithmic, and trigonometric function; trigonometric identities, trigonometric equations and other selected topics of algebra. This course will satisfy the A.A. math requirement.

MATH125 CALCULUS FOR BUSINESS (3) Prerequisite: MATH115 with a grade of C or better or minimum Enhanced ACT math score of 29 or equivalent placement score. A brief treatment of elementary calculus with applications to business and economics. Topics include: limits and continuity, derivatives and integrals of algebraic, exponential and logarithmic functions, compound interest, cost revenue and profit functions, and elasticity of demand. This course will satisfy the A.A. math requirement.

MATH127 BUSINESS STATISTICS (3) Prerequisite: MATH115, MATH116, or MATH118 with a grade of C or better. Emphasizes data analysis, data production and statistical inference. Topics include: descriptive statistics, normal distributions, correlation and regression, design of samples and experiments, the central limit theorem, control charts, confidence intervals, and significance tests. This course will not satisfy the A.A. math requirement.

MATH130 CALCULUS AND ANALYTIC GEOMETRY I (5) Spring only. Prerequisite: Minimum Enhanced ACT math score of 29 or equivalent placement score or MATH122 with a grade of C or better, or MATH115 and MATH120—each with a grade of C or better. Topics include: limits, continuity, derivatives and integrals of algebraic and transcendental functions, and appropriate applications. This course will satisfy the A.A. math requirement.

MATH131 CALCULUS AND ANALYTIC GEOMETRY II (5) Fall only. Prerequisite: MATH130 with a grade of C or better. Topics include: parametric and polar coordinates, methods of integration, series, and conic sections, and application of these topics.

MATH132 CALCULUS AND ANALYTIC GEOMETRY III (5) Spring only. Prerequisite: MATH131 with a grade of C or better. Topics include: parametric equations of lines and curves in space, vectors, calculus of vector functions, multivariable, differential and integral calculus; introduction to vector analysis and differential equations and application of these topics.

MATH134 DIFFERENTIAL EQUATIONS (3) Prerequisite: MATH132 with a grade of C or better. Course presents linear differential equations with application, series solutions and LaPlace transforms. This course will not satisfy the A.A. math requirement.

MATH180 PROBLEMS IN MATH (1-3) Independent study of a special problem in mathematics under the supervision of a mathematics instructor.

MEDICAL OFFICE

MEOF101 MEDICAL TERMINOLOGY I (3) Acquaints student with the technical language used in various medical areas and is part of the degree requirement for secretarial students with a medical emphasis. Students will concentrate on the pronunciation, spelling and definitions of selected medical terms, plus how medical terms are made up of prefixes, suffixes and root words.

MEOF102 MEDICAL TERMINOLOGY II (3) Prerequisite: MEOF101. Continuation of Medical Terminology I. Enables students of health-related fields to more fully understand and communicate the language of medicine. Topics include: the review of patient case histories, abbreviation of medical terms, laboratory and pharmaceutical term review, and a concentrated in-depth study of definitions, pronunciations and spellings of terms used in specialty areas of health-related institutions.

MEOF103 JOB SHADOWING IN THE MEDICAL OFFICE (1) Introduces first semester Medical Office Administration majors to the functions, routines and atmospheres of five different kinds of medical offices through observation.

MEOF105 MEDICAL OFFICE PROCEDURES (3) Prerequisites: CAPP118, and preferably MEOF101. Introduces students to administrative office procedures needed by medical office secretaries. Course work includes several projects typical of those duties performed by a medical office secretary.

MEOF107 MEDICAL TRANSCRIPTION (3) Prerequisites: MEOF101, CAPP118, OADM118, and CAPP160 or concurrent enrollment. Individualized course provides extensive machine transcription of medical dictation including case histories, operative reports, etc. Transcription is done on personal computers. Emphasis is placed on proofreading, spelling, typing speed, accuracy, and mailability of medical documents. Students will further develop their medical vocabulary as they transcribe medical reports. Transcription materials align with the American Association of Medical Transcription standards.

MEOF108 BODY STRUCTURE AND FUNCTION FOR MEDICAL OFFICE ADMINISTRATION (3) Prerequisite: MEOF101 preferred. Emphasizes the complimentary nature of human body structure and functions; homeostatic regulating mechanisms; and the interaction between humans and their environments including metabolic processes, responses to stress, pathological disorders, and phases in the human life cycle.

MEOF110 CLINICAL ASSISTING TECHNIQUES (3) Prepares the medical secretary with basic medical office assisting skills needed in most physicians' offices. Legal implications and personal and patient safety are also emphasized. (Requirements beyond this course are also required for A.A.M.A. certification.)

MEOF111 CLINICAL PRACTICUM (1) Prerequisites: MEOF110 and consent of instructor. On-the-job experience provides an opportunity to work in a medical office. Students are responsible to an instructor who evaluates their performance.

MEOF112 ADVANCED MEDICAL TRANSCRIPTION (3) Prerequisites: MEOF107 (and all prerequisites), CAPP118 and CAPP134. Individualized course to provide extensive machine transcription of advanced medical dictation with a focus on increasing typing speed and accuracy, proofreading, spelling, and mailability of various medical documents. The course is designed to refine transcription skills to a competitive level by providing realistic, challenging dictated reports.

MEOF118 PROCEDURE AND DIAGNOSIS CODING (3) Course for medical office employees and Medical Office Administration majors with an emphasis placed on accurate coding for maximum reimbursement. Extensive discussion and practice with ECD-9-CM diagnostic and procedural coding. An overview of insurance processing and CPT-4 coding will be presented.

MEOF119 ADVANCED PROCEDURE AND DIAGNOSIS CODING (3) Prerequisites: MEOF118, CAPP134, BIO103, BIO207, BIO 208 and consent of instructor. Course for medical office employees and Medical Office Administration students who wish to specialize in procedure and diagnosis coding. Insurance claim completion and processing will be discussed and students will acquire an advanced knowledge of current procedural (CPT-4) as well as diagnosis coding (ICD-9-CM) through practical experience in reading, interpreting and coding medical records, with emphasis placed on interpreting medical data.

MEOF125 MEDICAL SKILLBUILDING (1) Prerequisite: MEOF101 and CAPP118. Individualized course to improve keyboarding accuracy and to increase keyboarding speeds required for medical transcription. To meet requirements for graduation, Medical Office Administration degree candidates must achieve a grade of B and certificate candidates must achieve a grade of C.

MEOF130 ESSENTIALS OF PHARMACOLOGY (2) Content provides basic concepts of pharmacology. Students will gain an understanding of drug categories, their actions and commonly used drugs in each category. For medical office majors only.

MEOF175 MEDICAL OFFICE INTERNSHIP (3-4) Prerequisites: MEOF101, and CAPP118. Instructor approval required. Provides an opportunity to gain experience by working in a medical setting. Students are responsible to an instructor who evaluates their performance.

MUSIC

MUS101 MUSIC IN WESTERN CIVILIZATION (3) Introductory course concerned with the elements of music, the important musical masterpieces and the significant composers. A portion of the class time is devoted to listening to recordings of selected performers. Not open to music majors or minors.

MUS103 MUSIC HISTORY AND LITERATURE I (2) Humanities course (for music majors only) which surveys music history and literature from various musical style periods. Instrumental and vocal/choral genres and major composers will be studied. A significant portion of class time will be

devoted to listening to recordings of appropriate music, composers and performers.

MUS104 MUSIC HISTORY AND LITERATURE II (2)

Prerequisite: MUS103. Survey of music history and literature is a continuation of Music History and Literature I.

MUS112 SMALL ENSEMBLE-INSTRUMENTAL (1)

Prerequisite: Admission by permission of instructor. Perform and study music written specifically for small instrumental music ensembles.

MUS115 MUSIC THEORY AND AURAL TRAINING I (4) Basic music materials including music notation, structural triads, choral progressions, and melodic analysis are presented. Will study sight singing, solfege, keyboard skills, and/or musical dictation coordinated with appropriate music theory level.

MUS116 MUSIC THEORY AND AURAL TRAINING II (4)

Prerequisite: MUS115 or permission of instructor. Training includes: primary and secondary substitution triads and seventh chords; introduction of altered chords, modulation and cadential figures. Students continue improvement in sight singing, solfege, keyboard skills, and/or musical dictation coordinated with appropriate music theory level.

MUS117 MUSIC THEORY AND AURAL TRAINING III (4)

Prerequisite: MUS116 or permission of instructor. Study of harmony through its application in music literature and various periods. Will study late 19th century harmonic functions and counterpoint. Students continue improvement in sight singing, solfege, keyboard skills, and/or musical dictation coordinated with appropriate music theory level.

MUS118 MUSIC THEORY AND AURAL TRAINING IV (4)

Prerequisite: MUS117 or permission of instructor. Continues the study of harmony. Introduces contemporary music practices and techniques and composition in small forms for vocal and instrumental ensembles. Students continue improvement in sight singing, solfege, keyboard skills, and/or musical dictation coordinated with appropriate music theory level.

MUS119 JAZZ BAND (1) Prerequisite: Consent of instructor.

A select ensemble which performs jazz literature representing traditional, as well as most current forms of jazz.

MUS120 JAZZ BAND II (1) Prerequisite: MUS119. Second enrollment in Jazz Band.

MUS121 JAZZ BAND III (1) Prerequisite: MUS120. Third enrollment in Jazz Band.

MUS122 JAZZ BAND IV (1) Prerequisite: MUS121. Fourth enrollment in Jazz Band.

MUS136 APPLIED INSTRUMENTAL LESSONS I (1-2)

Prerequisite: Consent of instructor. Performance-oriented study of the technique and literature associated with a specific musical instrument.

MUS137 APPLIED INSTRUMENTAL LESSONS II (1-2)

Prerequisite: MUS136. Second enrollment in Instrumental Lessons.

MUS138 APPLIED INSTRUMENTAL LESSONS III (1-2)

Prerequisite: MUS137. Third enrollment in Instrumental Lessons.

MUS139 APPLIED INSTRUMENTAL LESSONS IV (1-2)

Prerequisite: MUS138. Fourth enrollment in Instrumental Lessons.

MUS140 GUITAR CLASS I (2) Practical study of the guitar designed for beginning students with less than one year of experience.

MUS141 GUITAR CLASS II (2) Prerequisite: MUS140 or consent of instructor. Designed to allow the student to continue studying guitar beyond Guitar Class I.

MUS145 PIANO CLASS I (2) Study of the piano, especially for students who have had no previous training.

MUS146 PIANO CLASS II (2) Prerequisite: MUS145 or consent of instructor. Second enrollment in Piano Class.

MUS147 PIANO CLASS III (2) Prerequisite: MUS146 or consent of instructor. Third enrollment in Piano Class.

MUS148 PIANO CLASS IV (2) Prerequisite: MUS147 or consent of instructor. Fourth enrollment in Piano Class.

MUS150 APPLIED PIANO LESSONS I (1-2) Private piano lessons for students having at least one year of piano class or permission of the instructor. Intended only for serious piano students.

MUS151 APPLIED PIANO LESSONS II (1-2) Prerequisite: MUS150. Second enrollment in Piano Lessons.

MUS152 APPLIED PIANO LESSONS III (1-2) Prerequisite: MUS151. Third enrollment in Piano Lessons.

MUS153 APPLIED PIANO LESSONS IV (1-2) Prerequisite: MUS152. Fourth enrollment in Piano Lessons.

MUS155 VOICE CLASS I (2) Study of vocal techniques and beginning vocal performance. Open to any interested students.

MUS156 VOICE CLASS II (2) Prerequisite: MUS155 or consent of instructor. Second enrollment in Voice Class.

MUS160 APPLIED VOICE LESSONS I (1) Private voice lessons for students having at least one year of voice class or permission of the instructor. Intended only for serious vocal students.

MUS161 APPLIED VOICE LESSONS II (1) Prerequisite: MUS160. Second enrollment in Voice Lessons.

MUS162 APPLIED VOICE LESSONS III (1) Prerequisite: MUS161. Third enrollment in Voice Lessons.

MUS163 APPLIED VOICE LESSONS IV (1) Prerequisite: MUS162. Fourth enrollment in Voice Lessons.

MUS165 CONCERT CHORALE I (1 1/2) This large ensemble performs the finest of chorale literature and representative works in various styles of chorale composition. Open to all who enjoy singing.

MUS166 CONCERT CHORALE II (1 1/2) Prerequisite: MUS165. Second enrollment in Concert Chorale.

MUS167 CONCERT CHORALE III (1 1/2) Prerequisite: MUS166. Third enrollment in Concert Chorale.

MUS168 CONCERT CHORALE IV (1 1/2) Prerequisite: MUS167. Fourth enrollment in Concert Chorale.

MUS170 SMALL ENSEMBLE I (1) Prerequisite: Consent of instructor. Perform and study music written specifically for smaller vocal ensembles.

MUS171 SMALL ENSEMBLE II (1) Prerequisite: MUS170. Second enrollment in Small Ensemble.

MUS172 SMALL ENSEMBLE III (1) Prerequisite: MUS171. Third enrollment in Small Ensemble.

MUS173 SMALL ENSEMBLE IV (1) Prerequisite: MUS172. Fourth enrollment in Small Ensemble.

MUS175 CHAMBER SINGERS I (1) A select small chamber choir of mixed voices that performs chamber music from all historical periods.

MUS176 CHAMBER SINGERS II (1) Prerequisite: MUS175. Second enrollment in Chamber Singers.

MUS177 CHAMBER SINGERS III (1) Prerequisite: MUS176. Third enrollment in Chamber Singers.

MUS178 CHAMBER SINGERS IV (1) Prerequisite: MUS177. Fourth enrollment in Chamber Singers.

MUS180 PROBLEMS IN MUSIC (1-3) Independent study of a special problem in music under the supervision of a music instructor.

MUS185 SHOW CHOIR I (2) Prerequisite: Audition by appointment. Students selected for the SFCC Show Choir perform in college and community concerts as well as tours, clinics and performance venues.

MUS186 SHOW CHOIR II (2) Prerequisite: MUS185. Second enrollment in Show Choir.

MUS187 SHOW CHOIR III (2) Prerequisite: MUS186. Third enrollment in Show Choir.

MUS188 SHOW CHOIR IV (2) Prerequisite: MUS187. Fourth enrollment in Show Choir.

NETWORKING

NET102 NETWORKING I (3) Use and implementation of local area networks and network design.

NET106 NETWORKING II (3) Presents the concepts of network security using the objectives covered in the certification test. Firewalls, viruses, physical security, server and client security, and preventing unauthorized attacks will be discussed.

NET120 NETWORK SERVER (3) Prerequisite: NET102 or consent of instructor. Course will cover the current popular server operating system. Topics include planning of a network, installation of hardware and software, management, client accounts, and troubleshooting. Course will be structured to the requirements for certification.

NET126 NETWORK CLIENT (3) Prerequisite: NET102 or consent of instructor. Study of the operating system used on today's workstations. Installation, administration, configuring files, security, local and network printing will be presented from a network administrator's viewpoint. Troubleshooting and networking the operating system will be included.

NET127 FUNDAMENTALS OF UNIX (3) Utilization of the UNIX operating system commands and, in the hands-on exercise, basic Sun Microsystems' Solaris TM operating environment commands. Students will be introduced to the Common Desktop Environment (CDE—graphical interface between different environments). Intended for new users of UNIX. Fundamental command-line features of the Solaris environment including file system navigation, file permissions, the vi text editor, command shells, and basic network use will be covered.

NET128 ADVANCED FUNDAMENTALS OF UNIX (3) Teaches the advanced management of the UNIX operating system commands and, in the hands-on exercise, advanced Sun Microsystems' Solaris TM operating environment commands. Students learn routing features and use TCP/IP in a UNIX environment. Students will create a WAN topology using UNIX systems.

NET129 FUNDAMENTALS OF VOICE AND DATA CABLING (3) Focuses on cabling issues related to data and voice connections and provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, as well as signal transmission. Students will develop skills in reading network design documentation, par list set up and purchase, pulling and mounting cable, cable management, choosing wiring closets and patch panel installation and termination, as well as installing jacks and cable testing.

NET130 TCP/IP-NT SERVER ENTERPRISE (3) Covers the theory and application of an entire collection of protocols with applications for performing tasks such as e-mail, file transfers and terminal emulation. Packet structure and interpretation of data fields, network analysis and internetwork connectivity will be covered.

NET134 WEB SERVER (3) Covers the installation, management and applications of a Web server. Students will create a Web page to be published on class Web site. No prior Web page knowledge is required. Web security will also be discussed.

NET135 SQL SERVER SYSTEM ADMINISTRATION (3) Prerequisite: NET120 or consent of instructor. How to install, configure and administrate SQL Server. Topics covered include: configuring database options (capacity, connectivity, and performance); automating data transfer and manipulation with Data Transformation Services (DTS) packages; using SQL Server replication services; managing security (authentication, logins, permissions, and alerts); monitoring and fine-tuning system performance; performing backups and restorations; clustering databases; supporting SQL Server in a clustered environment; implementing disaster recovery; and optimizing clustering performance.

NET136 EXCHANGE SERVER ADMINISTRATION (3)

Prerequisite: NET120 or consent of instructor. Installing, configuring and administering Microsoft Exchange Server. Configure Microsoft Directory Services, administer groups and public folder solutions for Exchange Server. Deployment of mail clients such as Outlook and Outlook Web Access, as well as configuring recipient objects for e-mail, instant messaging and chat will also be covered. Learn to troubleshoot messaging connectivity and how to resolve problems with clients, routing, foreign mail systems, and links between servers. Additional topics covered include: enhanced Exchange Server Security using v.3 certificates, virtual servers, and Key Management Server; optimizing messaging, collaboration and calendaring services; managing the Microsoft Web Storage System; and developing a backup and recovery plan for system and user data.

NET137 INTERNET SECURITY AND ACCELERATION

SERVER (3) Prerequisite: NET120 or consent of instructor. Student will learn to install the ISA Server and set up hosting roles, VPNs, dial-up connections, and an H.323 Gatekeeper. Additional topics will include: creating and administering access control and bandwidth policies; configuring clients for secure network address translations, firewall software and other services; managing arrays of multiple ISA Servers; applying forward and reverse caching for faster Web connectivity; monitoring server performance with alerts, logs, reports, and performance counters; and troubleshooting problems with access, network usage and security.

NET138 NETWORK DIRECTORY SERVICES (3) Prerequisite: NET120 or consent of instructor. The planning, configuring and administration of Network Directory Services and infrastructure on a LAN. Topics include the installation and configuration of Domain Name System (DNS); the administration of the network users' environment and software using group policies; Remote Installation Services (RIS); management of users, groups, shared folders, and network resources; implementing network security and security troubleshooting; and monitoring and optimizing the Directory Services.

NET140 PC HARDWARE (3) Presents Microcomputer architecture, I/O, and systems operation. Other topics include peripherals, diagnostics, drives, memory, and maintenance procedures. Laboratory consists of troubleshooting selected computer systems.

NET142 PC OPERATING SYSTEMS (3) Study of computer operating systems to include Windows, Linus and DOS, with requirements of necessary hardware and known problems and features. Laboratory consists of installation, maintenance and repair of operating systems.

NET150 CISCO NETWORKING (3) Online, instructor assisted beginning class in networking. Different LAN topologies, network devices, OSI layers, LAN installation, and considerations for implementation will be covered. Student will design, install and implement a network in the lab.

NET151 CISCO ROUTER BASICS (3) Prerequisite: NET 150. Introduction to the basic implementation and operation of network routers used in computer networks. Instructor lead and online instruction will be used in the material delivery. Lab will consist of installing, configuring and operating routers in a working network.

NET152 CISCO SWITCHING BASICS (3) Presents protocols used with CISCO routers and other devices on a small or large

network. Material will be presented as online instruction with instructor assistance. Student will setup, configure and operate a router in the LAN environment.

NET153 CISCO WAN (3) Prerequisite: NET 152. Covers the networking environment as applied to a Wide Area Network, with Point-to-Point Protocol, ISDN, and Frame Relay will be used in a WAN with case studies of different applications. Student will implement a WAN and manage a network.

NET158 NETWORK FIREWALLS (3) Prerequisites: NET106, NET151 and NET152. Course will cover the functions, features and configuration of a firewall as applied in a network. Covers the setup, management, traffic filtering, and VPNs. Students will configure and implement firewalls to protect the network from external threats. Hands-on course work is included in the course.

NET175 NETWORK ADMINISTRATION INTERNSHIP (4)

Designed for practical application in the operations of a network. Provides on-the-job training work experience in the area of computer networks. Student will be supervised and evaluated by the instructor.

NET180 NETWORKING PROJECT (1-3) Independent study of a special problem in Networking under the supervision of a CIS instructor.

NURSING

NURS110 PERSONAL VOCATIONAL CONCEPTS (1) A required course for the PN certificate eligible first year nursing student. Course is mandated by Missouri State Board of Nursing, and the requirements are outlined in the Missouri State Board of Nursing Statutes for the PN student. Course introduces behavioral concepts important to the nurse. History, role identification, responsibility, and legal aspects of the licensed practical nurse (and registered nurse) are included.

NURS112 INTRODUCTION TO PSYCHO-SOCIAL HEALTH (2) Introductory course assists the new nursing learner in basic concepts of wellness and illness, caring, communication techniques, and growth and development across the life cycle. Special circumstances, such as the impact of violence and abuse as well as the grieving process on the individual and family, will be explored during this class. Special treatment modalities such as medications will be discussed with regard to concepts of mental health.

NURS114 FUNDAMENTALS I (2) Course presents basic nursing skills that every nurse must master to provide competent nursing care. The course integrates knowledge from physical and behavioral sciences with clinical nursing skills.

NURS116 FUNDAMENTALS II (2 1/2) Course presents more advanced nursing skills that every nurse must master to provide competent nursing care. The nursing process is stressed as the framework for administering nursing care. Physical assessments, basic concepts of elimination, activity, rest, IV therapy (including electrolytes and osmolarity), medication administration, and technical skills are learned and practiced in this course. Classroom discussion, clinical simulation and lab practice are part of this course.

NURS118 FUNDAMENTALS II CLINICAL (1 1/2) Clinical course relates the concepts learned in Fundamentals II to the

clinical setting. The learner will apply the basic nursing skills learned such as providing nursing care, performing a physical assessment, practicing communication techniques, and performing technical skills in the clinical setting. Documenting care provided will also be expected.

NURS120 ALLIED HEALTH PHARMACOLOGY (2) Course introduces the allied health learner to the basic principles of pharmacology. Basic pharmacodynamic and pharmacokinetic principles of the most common drug classifications and selected drugs will be explored.

NURS121 CPR FOR HEALTH CARE PROVIDERS (1/2) Teaches health care providers how to recognize and respond to life-threatening emergencies such as respiratory arrest, cardiac arrest and foreign-body airway obstruction in infants, children and adults. The skills necessary to respond to these emergencies are demonstrated and practiced during the class.

NURS122 ADULT HEALTH I (4) Basic nursing course addresses principles and nursing care for clients experiencing alterations in the respiratory, skin, hematological, and the immune system, as well as clients with surgery and cancer.

NURS124 ADULT HEALTH II (4) Basic nursing course addresses principles and nursing care for clients experiencing alterations in neurological, cardiovascular and gastrointestinal systems, as well as the client who has developed diabetes mellitus. Basic strategies for leadership and conflict resolution are included.

NURS126 ADULT HEALTH NURSING CLINICAL (3) Clinical course applies the basic nursing concepts to the clinical site setting. The learner will provide nursing care to the client and family with altered health status, relating laboratory findings, medications, and client response. IV therapy will be utilized in this clinical course.

NURS128 ADULT HEALTH III (2) Basic nursing course addresses principles and nursing care for clients experiencing alterations in endocrine, sensory, musculoskeletal, and renal systems.

NURS130 ADULT HEALTH CARE COORDINATION CLINICAL (2) Clinical course capstones the first year's basic skills that include leadership, conflict resolution, coordinating client care, and applying basic nursing principles across the lifespan.

NURS132 NUTRITION (3) Essential nutrient digestion, absorption, metabolism, and excretion are emphasized. Molecular formulas of protein, carbohydrates and fats will be discussed as part of nutrition metabolism. Diet analysis and current issues in nutrition will aid the learner in applying the basic concepts to everyday situations throughout the life cycle.

NURS134 NURSING CARE FOR THE CHILDBEARING FAMILY (2) Course focuses on uncomplicated health care and wellness promotion for the family during the reproductive years including the newborn, the postpartum mother, the laboring client, and gynecological issues.

NURS136 CHILDBEARING FAMILY CLINICAL (1 1/2) The learner will participate in community and hospital activities to develop skills in family-centered care of the new family and the client with gynecological alterations. The learner will have learning opportunities to provide/observe labor and delivery, postpartum, newborn, and post operative gynecological care.

NURS140 NURSING CARE FOR THE CHILD REARING FAMILY (2) Course focuses on children and their families. Family-centered nursing care for the child experiencing transition through developmental stages and alterations in body systems or health promotion activities will be topics for discussion. There will be a variety of classroom activities.

NURS142 CHILD REARING FAMILY CLINICAL (1 1/2) The learner will participate in community and hospital activities to develop skills in family-centered care of children. Experiences will include health promotion activities in the community and nursing care of ill children in the hospital setting.

NURS210 NURSING TRANSITION COURSE (2) Prerequisite: Acceptance to Year Two of the Associate Degree Nursing program. Course will orient the advanced placement student to State Fair Community College's philosophy and outcome-based curriculum and acknowledge current competencies. This course will also prepare the advanced placement student for transition to the ADN program. Opportunities will be provided to review and strengthen competencies in pharmacology (including dosage calculations), IV starts and maintenance, physical assessment, and more. Completion of the course with a C or better is required to continue in the ADN program.

NURS212 INTRODUCTION TO PROFESSIONAL NURSING (1 1/2) Course enhances the learner's current leadership and management abilities. The course includes discussions of leadership styles as well as the differences and similarities between leadership and management in the role of the Registered Nurse in various health care settings with diverse populations and cultures.

NURS214 COMPLEX HEALTH: MENTAL HEALTH (3) Course focuses on the nurse's role in promoting psychosocial integrity for the client and family/significant others. The course will cover areas related to coping mechanisms, crisis intervention, therapeutic communication, and psychopathology. The learner will be able to describe the nurse's role in supporting the client and family/significant others through stressful events or with the management of acute or chronic mental illness. A variety of classroom activities will be utilized.

NURS216 COMPLEX HEALTH: MENTAL HEALTH CLINICAL (2) Course focuses on the nurse's role in an inpatient mental health setting. The learner will participate in, and lead, therapeutic groups as well as assist in managing the care of a number of clients in an inpatient mental health facility.

NURS218 COMPLEX HEALTH: ELIMINATION (2) Course explores the complex features of selected diseases and disorders affecting the process of elimination. The topics will be discussed within the framework of Gordon's Functional Health patterns and utilize the nursing process to explore the Registered Nurse's role in the more complex issued of care and management of the diseases and disorders affecting elimination. These discussions will also incorporate selected advanced concepts of pathophysiology which includes specific diagnostic procedures and nursing responsibilities, diet and pharmacological therapies, gerontological considerations, and also client and family teaching.

NURS220 COMPLEX HEALTH: NUTRITION/METABOLIC (1 1/2) Course explores the complex features of selected diseases and disorders affecting the processes of nutrition and metabolism. The topics will be discussed within the framework of Gordon's Functional Health patterns and utilize the nursing process to explore the Registered Nurse's role in the more

complex issues of care and management of the diseases and disorders affecting nutrition and metabolism. These discussions will also incorporate selected advanced concepts of pathophysiology which includes specific diagnostic procedures and nursing responsibilities, diet and pharmacological therapies, gerontological considerations, and also client and family teaching.

NURS226 COMPLEX HEALTH: FAMILY (2) Course advances the learner's ability to provide more complex care for newborn, pediatric and obstetric clients with complicated issues or who are at high risk for developing complications.

NURS228 COMPLEX HEALTH: FAMILY CLINICAL (1) Clinical relates the learner's advanced knowledge with the ability to apply it in the clinical setting. The learner will provide care for the family in situations of high risk or with complicated health issues to the newborn, pediatric or obstetric client. This clinical will build upon the classroom discussions in Complex Health: Family. Clinical settings will include inpatient obstetrics and pediatrics.

NURS230 COMPLEX HEALTH: ADULT CLINICAL I (1) In this clinical, the learner will begin to utilize and apply the leadership and management principles explored in the Introduction to Professional Nursing course. The learner will also manage clients with complex health care needs.

NURS232 COMPLEX HEALTH: ADULT CLINICAL II (3) Inpatient clinical course which focuses on managing clients with complex health care needs. The learner will manage care for clients in ICU, ER and step-down units. There will be an emphasis on problem-solving, advanced physical assessment techniques and time management activities. Application of these principles will be demonstrated in the appropriate clinical settings.

NURS234 COMPLEX HEALTH: ACTIVITY AND REST (3) Course explores the complex features of selected diseases and disorders affecting activity and rest, which include, but are not limited to; oxygenation, respiration and alterations in hemodynamic functioning. The topics will be discussed within the framework of Gordon's Functional Health patterns and utilize the nursing process to explore the Registered Nurse's role in the more complex issues of care and management of the diseases and disorders affecting activity and rest. These discussions will also incorporate selected advanced concepts of pathophysiology which includes specific diagnostic procedures and nursing responsibilities, diet and pharmacological therapies, gerontological considerations, and also client and family teaching.

NURS236 COMPLEX HEALTH: COGNITIVE/PERCEPTUAL (2) Course explores the complex features of selected diseases and disorders affecting cognitive and perceptual functioning. The topics will be discussed within the framework of Gordon's Functional Health patterns and utilize the nursing process to explore the Registered Nurse's role in the more complex issues of care and management of the diseases and disorders affecting cognitive and perceptual functioning. These discussions will also incorporate selected advanced concepts of pathophysiology which includes specific diagnostic procedures and nursing responsibilities, diet and pharmacological therapies, gerontological considerations, and also client and family teaching.

NURS238 COMPLEX HEALTH: COMMUNITY MANAGEMENT (2) Course addresses community health and wellness resources and strategies that will assist the client in

achieving a greater level of wellness. Current trends in providing care in the community setting as well as the impact of technology in achieving results will be explored. Health prevention screenings and client and community education are utilized to promote community wellness.

NURS240 COMPLEX HEALTH: COMMUNITY MANAGEMENT CLINICAL (1) Course applies the knowledge gained from Complex Health: Community Management in the clinical setting. This clinical has sites in the community setting and addresses safety concerns, community health and wellness and case management strategies.

NURS242 PROFESSIONAL NURSING CAPSTONE CLINICAL (2) Course allows the learner to demonstrate mastery of the clinical skills of assessment, documentation, teaching, medication knowledge and administration, prioritization, time management, and communication with clients, families, staff, and peers. Mastery of leadership, management, legal and ethical principles of delegation of the registered nurse in various community and acute care settings is also expected.

OFFICE ADMINISTRATION

OADM116 RECORDS AND DATABASE MANAGEMENT (3) Designed to help the student manage paper, film and computer records and to solve records and database management problems faced by employees in a variety of office occupations. Microsoft Access software is used in completion of computer projects.

OADM118 TRANSCRIPTION SKILLS (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKL020 with a grade of C or better. Consists of a concentrated drill and discussion of business English usage, punctuation and style as applied to transcription of business correspondence.

OADM119 MACHINE TRANSCRIPTION (3) Prerequisites: CAPP118, OADM118, and CAPP160 or concurrent enrollment. Individualized course designed to reinforce the students' abilities in spelling, vocabulary, punctuation, grammar, listening, formatting, and decision-making. Practical applications of transcription rules are used to clarify and supplement the information introduced. Students will learn machine transcription techniques through extensive transcription on personal computers.

OADM121 CALCULATORS (1) Prerequisite: MATH101 suggested. Individualized course designed to teach touch operation of 10-key printing/display calculators along with their special timesaving features. Emphasis is placed on speed and accuracy.

OADM123 PROFESSIONAL BUSINESS LEADERSHIP (PBL) (1) Applied course in professional leadership to bring business and education together in a positive working relationship.

OADM132 OFFICE DYNAMICS FOR ASSISTANTS (3) Prerequisites: OADM116, OADM119 or CAPP166 with ACCT109, or concurrent enrollment. Capstone course for Office Assisting professional certificate. Course includes activities and information in human relations, personal and professional qualities, decision-making, office supervision, incoming and outgoing mail, minutes, office procedures, work ethics, time management, appearance, record keeping, office organization, personnel management, and demeanor.

OADM134 OFFICE DYNAMICS FOR ADMINISTRATORS (3)
Prerequisites: OADM116, CAPP160, CAPP164, CAPP166, ACCT109, or concurrent enrollment. Capstone course for the A.A.S. in Business Management with Office Management Specialty. Course includes activities and information in human relations, personal and professional qualities, decision-making, office supervision, incoming and outgoing mail, minutes, office procedures, work ethics, time management, appearance, record keeping, office organization, personnel management, and demeanor.

OADM176 OFFICE INTERNSHIP (4) Prerequisite: OADM134 or concurrent enrollment and approval of program advisor. An on-the-job work experience which provides the student the opportunity to work in an office environment. Students are evaluated by the instructor and employer.

PHYSICAL EDUCATION ACTIVITY

*PEAC courses that may be repeated. Only two semester hours of PEAC courses may be applied to an A.A. degree as electives.

PEAC102 RECREATIONAL VOLLEYBALL (1) Presents basic skills to utilize the mechanical principles related to movement for efficient performance of volleyball skills, practice and competition.

PEAC103 BADMINTON (1) Designed to develop the skills required to play badminton.

PEAC104 RECREATIONAL GAMES (1) Development of skills, knowledge, rules, and appreciation of activities such as horseshoes, shuffleboard, table tennis, badminton, etc.

PEAC105 BOWLING I (1) History, fundamental skills, techniques, rules, strategy, and safety skills of bowling.

PEAC106 BOWLING II (1) Prerequisite: PEAC105. Extensive study of bowling skills, game strategy, history, rules, league play, and value of the game. Students will learn to score pin combinations in the correct manner.

PEAC108 GOLF (1) Presents choice and use of all clubs - both irons and woods. History, rules, scoring, strategy, and etiquette of the game are taught. Practice skills in putting, chipping, pitching, approaching, and driving.

PEAC109 ARCHERY (1/2-1) Presents the techniques of target archery and field archery. Rules, scoring, terminology, equipment, etiquette, and safety skills are stressed.

PEAC110 ADVANCED ARCHERY (1/2-1) Prerequisite: PEAC109. Continuation of study in techniques of target and field archery.

PEAC112 TENNIS (1) Course to acquaint the student with basic knowledge and skills appropriate to perform in tennis.

PEAC114 SQUARE AND FOLK DANCE (1) Introduction to the different dance skills including their locomotor, rhythmic and directional patterns and structures. Students participate in practice and etiquette in South American and couple-mixer type dances.

PEAC116 BUILDING FITNESS FOR LIFE I (1) Course offers a comprehensive plan for utilizing fitness training as a means to lifetime wellness. Students explore nutritional needs, stress

management and prevention of disease. Course fulfills wellness requirement for A.A. or A.A.S.

PEAC117 BUILDING FITNESS FOR LIFE II (1) Prerequisite: PEAC116. Course expands the student's knowledge and ability to develop a comprehensive plan of lifetime wellness utilizing fitness training. Course fulfills wellness requirement for A.A. or A.A.S.

PEAC118 AEROBICS* (1) Complete fitness program designed to combine exercise and fun. Course fulfills wellness requirement for A.A. or A.A.S.

PEAC119 LOW IMPACT AEROBICS* (1- 1 1/2) Fitness program is designed for anyone who wants to minimize the risk of injury but still enjoy an aerobic workout. Course fulfills wellness requirement for A.A. or A.A.S.

PEAC121 WOMEN AND HEALTH (1) This "What you don't know will hurt you" course is designed to provide the individual with the tools to improve a woman's health status. Historical trends in health care regarding women are discussed as well as methods for facilitating change. Personal choices and their affect on health and well-being are identified. Topics include, but are not limited to: reproductive and gynecological concerns; nutrition, exercise; weight loss; bone health; women's concerns; heart disease, sexuality; and abuse. Course fulfills wellness requirement for A.A. or A.A.S.

PEAC122 APPLIED WELLNESS (1) A different type of physical education activity class that can be enjoyed by any or all students on campus regardless of age or physical condition. It is designed to provide students with theoretical and practical experiences focusing on the relationship of lifestyle to productivity and quality of life. Course fulfills wellness requirement for A.A. or A.A.S.

PEAC124 VARSITY BASKETBALL—MEN* (1) Participation in the men's varsity basketball program.

PEAC125 VARSITY BASKETBALL—WOMEN* (1) Participation in the women's basketball program.

PEAC128 VARSITY VOLLEYBALL* (1) Participation in the women's varsity volleyball program.

PHYSICAL EDUCATION — PROFESSIONAL

PPRO101 SPORTS OFFICIATING I (2) Includes lectures, readings, class discussions, and field experience in the officiating of fall sports—football, soccer, basketball, etc.

PPRO102 SPORTS OFFICIATING II (2) Includes lectures, readings, class discussions, and field experience in the officiating of spring sports—softball, baseball, volleyball, etc.

PPRO104 CARE AND PREVENTION OF ATHLETIC INJURIES (3) Introduction to athletic training and its administrative procedures and problems. Includes prevention and care of injuries and other special considerations.

PPRO106 INTRODUCTION TO PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL (2) Recommended for sophomore physical education majors and elementary education majors. The study of special methods and materials to be used in the teaching of elementary school physical education. Topics include: class organization and teaching

procedures and opportunities for integrating the physical education program with the school curriculum. Course fulfills wellness requirement for A.A. degree.

PPRO108 PHILOSOPHY OF SPORTS (2) Study of motivation, skill and physical learning behaviors in physical education and athletics. Special problems of coaching athletics— specifically dealing with motivational, mental and behavioral problems.

PPRO180 PROBLEMS IN PROFESSIONAL PE (1-3) Independent study of a special problem in professional physical education under the supervision of a physical education instructor.

PHYSICAL SCIENCE

PHYS103 INTRODUCTION TO PHYSICAL SCIENCE (3) Recommended: High school level algebra. Introductory course that covers the basic concepts of chemistry, physics and astronomy. Not open to students with college credit in PHYS105 or higher level course.

PHYS105 COLLEGE PHYSICS I W/LAB (5) Fall only. Prerequisite: Minimum Enhanced ACT math score of 23 or equivalent placement score, MATH112, or consent of instructor. Designed to meet the requirements of the various pre-professional courses. Topics include mechanics, wave motion and heat. Instruction consists of four lecture and two lab hours per week.

PHYS106 COLLEGE PHYSICS II W/LAB (3) Spring only. Prerequisite: PHYS105. Continuation of Elementary College Physics I. Covers electricity, magnetism, optics, and modern physics. Instruction consists of two lecture and two lab hours per week.

PHYS118 GENERAL PHYSICS I W/LAB (5) Fall only. Prerequisite: MATH130. Corequisite: MATH131. First course in calculus-based physics for the science and engineering student. Topics include mechanics, oscillatory motion and thermodynamics. Instruction consists of four lecture and two lab hours per week.

PHYS119 GENERAL PHYSICS II W/LAB (5) Spring only. Prerequisite: PHYS118 with a grade of C or better. Continuation of General Physics I. Topics in the field of electromagnetism will be covered. Instruction consists of four lecture and two lab hours per week.

PHYS125 TECHNICAL SCIENCE (4) Prerequisite: MATH107. Designed to help students develop a better understanding of physics as it applies to the operation of machinery. Topics include: measurement, applied geometry, mechanics, fluids, waves, simple machine, energy and power, heat and temperature, electricity, and magnetism. For automotive, machine tool and welding majors. Will not satisfy A.A. degree science requirement.

PHYS180 PROBLEMS IN PHYSICS (1-3) An independent study of a special problem in physics under the supervision of a science instructor.

POLITICAL SCIENCE

POLS101 AMERICAN/NATIONAL GOVERNMENT (3) Survey course of the American government and political

system. Particular attention is given to the government's origins, politics, the branches of government, and policy making. The Missouri Constitution is included to meet the requirements of Senate Bill No. 4.

POLS102 MISSOURI CONSTITUTION (1/2) Designed to meet requirements of Senate Bill No. 4. Intended for students testing out of history or government courses or transferring from another state. Course is available on an individual basis.

POLS103 INTRODUCTION TO POLITICAL SCIENCE (3) Study of the nature of government, politics, the state, relations among states or nations, and the areas of political science. Students will make a preliminary examination of governmental institutions and selected political theories with an emphasis on basic principles, concepts and characteristics. Does not meet requirements of Senate Bill No. 4.

POLS175 POLITICAL SCIENCE INTERNSHIP (4) Prerequisite: Instructor approval required. On-the-job work experience provides an opportunity for the student to work in a state government office.

POLS180 PROBLEMS IN POLITICAL SCIENCE (1-3) Independent study of a special problem in political science under the supervision of a political science instructor.

PSYCHOLOGY

PSY101 GENERAL PSYCHOLOGY (3) Introduction to the scientific study of behavior and the mental processes. Includes a survey of historic and current theories and theorists in the field including Freud, Jung, Adler, Maslow, Rogers, and the behaviorists. Students investigate and discuss these areas: neurology, sensation and perception, consciousness, learning, motivation, personality development, emotional disorders, human sexuality, and psychometrics.

PSY102 CHILD PSYCHOLOGY (3) Investigation into the interaction of biological and environmental factors affecting the physiological, intellectual and emotional development of the child from conception through adolescence.

PSY104 PSYCHOLOGY OF PERSONAL ADJUSTMENT (3) Overview of the major theories, concepts and principles in psychology that can be applied to personal and social adjustment. Topics include: self-esteem, motivation, stress management, and others. Students will learn practical skills that will enhance their ability to effectively deal with life's challenges.

PSY150 EDUCATIONAL PSYCHOLOGY (3) Course is for those students considering teaching as a career field. Course will explore a number of theoretical issues related to the art and science of teaching. Practical teaching competencies will also be discussed including classroom management, motivation and assessment.

PSY180 PROBLEMS IN PSYCHOLOGY (1-3) Independent study of a special problem in psychology under the supervision of a psychology instructor.

RADIOLOGIC TECHNOLOGY

RAD100 RADIOLOGIC TECHNOLOGY PREP WORKSHOP (1/2) To inform potential students of all aspects of the

radiologic technology program and review program requirements. A test is administered to evaluate essential academic skills.

RAD102 ORIENTATION TO RADIOLOGIC TECHNOLOGY

(2) Course provides the student with an overview of the foundations in radiologic technology and the practitioner's role in the health care delivery system. The student will prepare to become an active member of that health care delivery system and also gain an appreciation for the professional organizations and their functions.

RAD106 CLINICAL EDUCATION I (3) Supervised clinical rotations will be performed in basic areas of radiologic technology at assigned clinical sites. Clinical Education provides the student with the opportunity to practice the skills and theory taught in the classroom. The "Five Steps to Clinical Competency" allow the student to progress in competency exams, while practicing patient care and professionalism. Exam performance, professionalism skills and critical thinking will be evaluated in this course. Clinical Education will be conducted 16 hours per week.

RAD108 CLINICAL EDUCATION II (3) Supervised clinical rotations will be performed in basic and specialty areas of radiologic technology at assigned clinical sites. Clinical Education provides the student with the opportunity to practice the skills and theory taught in the classroom. The "Five Steps to Clinical Competency" allow the student to progress in competency exams, while practicing patient care and professionalism. Exam performance, professionalism skills and critical thinking will be evaluated in this course. Clinical Education will be conducted 16 hours per week.

RAD110 CLINICAL EDUCATION III (3) Students will progress from basic to more advanced rotations at assigned clinical sites. Clinical Education provides the student with the opportunity to practice the skills and theory taught in the classroom. The "Five Steps to Clinical Competency" allow the student to progress in competency exams, while practicing patient care and professionalism. Exam performance, professionalism skills and critical thinking will be evaluated in this course. Clinical Education will be conducted 24 hours per week.

RAD112 CLINICAL EDUCATION IV (3) Advanced clinical rotations will be performed in radiologic technology at assigned clinical sites. Clinical Education provides the student with the opportunity to practice the skills and theory taught in the classroom. The "Five Steps to Clinical Competency" allow the student to progress in competency exams, while practicing patient care and professionalism. Exam performance, professionalism skills and critical thinking will be evaluated in this course. Clinical Education will be conducted 24 hours per week.

RAD114 CLINICAL EDUCATION V (3) Advanced clinical rotations will be performed in radiologic technology at assigned clinical sites. Students will satisfactorily complete all required competencies. Clinical Education provides the student with the opportunity to practice the skills and theory taught in the classroom. The "Five Steps to Clinical Competency" allow the student to progress in competency exams, while practicing patient care and professionalism. Exam performance, professionalism skills and critical thinking will be evaluated in this course. Clinical Education will be conducted 24 hours per week.

RAD120 RADIOGRAPHIC PROCEDURES I (3) Students will learn and practice the proper steps in the completion of radiographic exams. Radiographic anatomy, radiation protection and patient care skills are reinforced. Students are introduced to basic film critique. This course will cover exams of the chest, abdomen and extremities. This course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better.

RAD122 RADIOGRAPHIC PROCEDURES II (3) Students will learn and practice the proper steps in the completion of radiographic exams. Radiographic anatomy, radiation protection and patient care skills are reinforced. Students are introduced to basic film critique. This course will cover exams of the thorax and spine, as well as contrast studies. This course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better.

RAD124 RADIOGRAPHIC PROCEDURES III (3) Students will learn and practice the proper steps in the completion of radiographic exams. Radiographic anatomy, radiation protection, and patient care skills are reinforced. Students are introduced to basic film critique. This course will cover exams of the skull and facial bones. This course is a portion of the five steps to clinical competency and must be completed with a score of 85% or better.

RAD128 PATIENT CARE (3) Provides the student with the knowledge and skill to effectively monitor, assess and care for patients in the diagnostic imaging environment. Instruction will focus on the basic concepts of routine and emergency patient care procedures, infection control, standard precautions, and the legal and ethical aspects of professional radiologic technology.

RAD130 RADIATION PRODUCTION AND CHARACTERISTICS (3) Students gain knowledge of electricity, electromagnetic theory, circuitry, x-ray generation, production, interaction, and the basic characteristics of natural radiation.

RAD134 RADIOGRAPHIC EXPOSURES AND QUALITY CONTROL (3) Students learn the factors involved in quality image production, the correlation of these factors and their control. The steps, chemistry and equipment involved in processing radiographic film will be included. Students will identify and evaluate acceptable limits for equipment operation.

RAD136 RADIATION PROTECTION (2) Student radiologic technologists must be able to protect patients and themselves from overexposure to radiation. Students learn about dose limits for radiation workers, proper shielding for patients and exam rooms, as well as radiation monitors and detectors.

RAD140 RADIOLOGIC PHARMACOLOGY (3) Course provides the student with an overview of the foundations of pharmacology, including pharmacokinetics, pharmacodynamics, pertinent laws, and safety issues. Students will gain an understanding of drug categories, their actions, and commonly used drugs in each category. Additionally, this course will emphasize contrast media commonly used in medical imaging, routes of administration and venipuncture techniques.

RAD142 TRAUMA AND ADVANCED IMAGING (3) Course builds on the positioning knowledge developed in the Radiographic Procedures courses. Advanced imaging

techniques and approaches for imaging injured patients will be discussed. Radiographic anatomy, radiation protection and patient care skill will continue to be stressed. This course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better.

RAD144 RADIATION BIOLOGY (2) Students will learn about the varieties of interactions between ionizing radiation and living cells. Acute and chronic effects of radiation are described.

RAD146 IMAGING EQUIPMENT (3) Presents information about various recording media, emphasizing fluoroscopy, image intensification and automatic exposure devices. Advanced imaging modalities will also be discussed, including: computed tomography, digital radiography, ultrasound, magnetic resonance imaging, mammography, special procedures, nuclear medicine, and radiation therapy.

RAD150 RADIOGRAPHIC PATHOLOGY (3) Introductory course on pathology provides student with basic understanding of disease processes as they relate to radiographic procedures. It will include facts, etiology, symptoms, treatments, and radiographic appearance of many diseases and discuss how one must adjust the radiographic technique for each of these disorders.

RAD152 IMAGE ANALYSIS (3) Students use their knowledge of anatomy, positioning and exposure factors to critique radiographs and determine if radiographs are of proper diagnostic quality. After a judgment is made, the student must determine which factors require change.

RAD154 SECTIONAL ANATOMY (3) Students apply knowledge of systemic human anatomy to determine the sectional relationships of human organs, vessels and tissues. Knowledge of cross-sectional anatomy reinforces prior anatomical knowledge and leads to a greater understanding of modalities such as CT, MR and ultrasound.

RAD170 PREPARING FOR PROFESSIONALISM (3) Integration of all aspects of diagnostic radiologic technology with emphasis on procedures, technique, radiation protection, positioning, radiographic anatomy, and patient care. A series of review tests will be given, enabling the students to identify their strengths and weaknesses. Students will prepare for employment through development of resumes and practice interviews. They will also explore advanced health care degrees and the managerial opportunities available to radiologic technologists.

RAD180 PROBLEMS IN RADIOLOGIC TECHNOLOGY (1-3) Independent study of a special problem in radiologic technology under the supervision of a radiologic technology instructor.

SOCIOLOGY

SOC100 GENERAL SOCIOLOGY (3) Introduction to the basic principles, concepts, research strategies, and empirical findings representative of the field today. Explores the relationships of individuals and groups in the context of broader social patterns. Establishes a basis for further study in the field. Course topics may include gender and racial inequality, deviance, economic and political institutions, social mobility, and concepts related to current social and cultural change.

SOC101 SOCIAL PROBLEMS (3) Prerequisite: SOC100. Examines objective social conditions that have been defined as social problems. The course focuses on gaining factual and theoretical knowledge to build better explanations for the existence and persistence of social problems in light of social controls and democratic values. Topics covered include racial inequality, gender stratification and poverty.

SOC102 MARRIAGE AND FAMILY (3) Explores the role of the individual in marriage and the family, functions of dating and courtship, variations in family forms, and marriage breakdown and alteration are also examined. Topics to be briefly covered include the nature of family as a demographic, historic, ideological, economic, and legal entity.

SOC103 INTRODUCTION TO SOCIAL WORK (3) Provides the student with background knowledge of the field, an overview of social problems and social services and methods of social work practice.

SOC180 PROBLEMS IN SOCIOLOGY (1-3) Independent study of a special problem in sociology under the supervision of a sociology instructor.

SPANISH

SPAN101 ELEMENTARY SPANISH I (3) Prerequisite: Minimum Enhanced ACT English score of 19, a COMPASS score of 65, ASSET score of 42 or completion of BSKL020 with a grade of C or better. This introductory class is designed for students who have had no exposure to the language. Students who have successfully completed one or two years of high school Spanish should enroll in Elementary Spanish II. Students will be engaged in the four basic skills: listening, reading, writing, and speaking in order to communicate effectively in Spanish.

SPAN102 ELEMENTARY SPANISH II (3) Prerequisite: SPAN101 or successful completion of one or two years of high school Spanish. As a continuation of Elementary Spanish I, students will continue to develop their knowledge and skills with increased emphasis on oral comprehension and writing.

SPAN103 INTERMEDIATE SPANISH I (3) Prerequisite: SPAN102 or three or more years of high school Spanish. Students enrolled in this course are expected to have developed a basic knowledge of the Spanish language and culture through the practice of listening, speaking, reading, and writing in prerequisite high school or college. This class will emphasize more fluent conversation as well as more proficient writing skills.

SPAN104 INTERMEDIATE SPANISH II (3) Prerequisite: SPAN103 or equivalent. A continuation of Intermediate Spanish I, this course is designed to help students achieve proficiency in the language with emphasis on conversation and writing skills.

SPEECH AND THEATER

SPTH101 PUBLIC SPEAKING (3) Study and practice of basic techniques involved in generating, designing, delivering, and evaluating ideas for speech situations facing adults of our society.

SPTH103 SMALL GROUP COMMUNICATION (3) Presents the communication process as it relates to small group

behavior, including the study of principles, methods and forms of discussion used in small groups.

SPTH105 INTERPERSONAL COMMUNICATION (3) Presents theories, principles and techniques of communication as they apply to one-to-one, small groups and conference interaction.

SPTH107 INTRODUCTION TO THEATER (3) Introductory hands-on course where students examine the major contributors to the theatrical event: the director, actor, scene designer, and lighting designer.

SPTH110 STAGECRAFT AND LIGHTING (3) Basics of set construction, painting, scene design, lighting design, and wood shop safety. Students will be required to spend 30 clock hours outside class time with direct involvement in operation of specialized theater equipment. Required course for speech and theater majors and minors.

SPTH111 ACTING I (3) Intensive study of the techniques of acting with concentration on bodily movement, balance, diction, voice, and characterization.

SPTH113 BASIC ORAL INTERPRETATION (3) Includes development of the voice as an instrument of expression and analysis and performance of basic interpretive material and forms of literature.

SPTH115 THEATER PRACTICUM (1/2-2) Includes student participation in plays, either in performance or backstage work. No more than four credit hours of Theater Practicum may be applied toward an Associate of Arts degree.

SPTH119 STAGE MAKEUP (3) Provides a hands-on look at stage makeup. Students will learn the basics of corrective, old age and effects makeup and what is required in creating a character.

SPTH180 PROBLEMS IN SPEECH OR THEATER (1-3) An independent study of a special problem in speech or theater under the supervision of a fine arts instructor.

WEB DEVELOPMENT

WEB112 WEB UTILITIES (1) Students will discover the increased functionality and flexibility of creating effective Web content. The fundamental utilities of creative Web pages will be presented. Course will explore the vast areas of Web programming. Attention will be given to concepts most commonly encountered when using utility software.

WEB113 WEB DESIGN (1) Comprehensive look at the basic tools used for creating successful and practical Web pages through the use of Web design tools. Course is the foundation for Web page design. Course presents knowledge of Web design to prepare students for other courses and the job market. No previous knowledge of HTML or Web design is needed.

WEB114 WEB SCRIPTING (3) This course covers the use and implementation of client-side scripting languages to create interactive Web-based applications. Students will use VBScript, JavaScript and other scripting languages as appropriate to create dynamic Web applications.

WEB116 WEB DEVELOPMENT (3) Course is designed as a capstone course for students who have completed Database

Management and Visual Basic.Net. The course is designed around the completion of a group project which will have an Access database processed using Active Server Pages Technology. Students should already have a strong understanding of Access and Visual Basic because the new concepts covered in this course will mainly address the Web development aspects of the applications.

WEB118 WEB GRAPHICS (3) Course provides extensive instruction into the creation and manipulation of graphics files through the software package Adobe Photoshop. Course is aimed at the Photoshop beginner who wants to create sophisticated graphics while having fun. Subjects covered will include an overview of the Photoshop screen, the toolbox, palettes, and the option bar. Special emphasis on text, layers and photo treatment will also be discussed.

WEB120 XML (3) Course covers the use and implementation of XML standards in Web page creation. XML is a language for storing and delivering information on the Web. Students will learn the basic concepts of XML and how to apply these to develop dynamic HTML documents that maximize the use of browser capabilities.

WEB175 WEB DEVELOPMENT INTERNSHIP (4) Provides on-the-job work experience in Web development. Student will be supervised and evaluated by the instructor.

WELDING

WELD101 WELDING TECHNOLOGY I (4) Basic course beginning with instruction in the technical knowledge and skills required for oxyacetylene cutting, oxyacetylene welding and shielded metal arc welding. A minimum of two lecture hours per week will include subjects such as safety, metallurgy, welding equipment, and other technical knowledge applicable to the welding industry.

WELD102 WELDING TECHNOLOGY II (4) Prerequisite: WELD101. Basic course introducing plasma arc cutting for use in sheet metal and structural use in shop and field. Shielded metal arc welding is reviewed. Gas metal arc welding is introduced and used in various positions. Lecture will include subjects such as safety, metallurgy, welding equipment, and other technical knowledge applicable to welding industry.

WELD103 WELDING TECHNOLOGY III (4) Prerequisite: WELD102. Advanced technical welding course structured for specialized welding operations requiring a high degree of skill. The victor plate bender is used for multiple pass welding. Shielded metal arc welding and gas tungsten-Arc welding is studied and demonstrated. All welds are mastered for flat, horizontal, vertical, and overhead welding positions.

WELD104 WELDING TECHNOLOGY IV (4) Prerequisite: WELD103. Advanced technical welding course structured primarily for specialized welding operations requiring a high degree of skill. Students will study and master pipe welding with both shielded metal arc welding and gas-tungsten arc welding in various positions tested by the bend test.

WELD180 PROBLEMS IN WELDING (1-8) An independent study of a special problem in welding under the supervision of a welding instructor.

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NOTES

