



State Fair Community College



**2004-2006
Catalog**



STATE FAIR COMMUNITY COLLEGE CATALOG 2004 - 2006

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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 2004 - 2006

FALL 2004

August 23	Semester Begins
September 6	Labor Day Holiday
November 23-26	Thanksgiving Holiday
December 17	Semester Ends

FALL 2005

August 22	Semester Begins
September 5	Labor Day Holiday
November 22-25	Thanksgiving Holiday
December 16	Semester Ends

SPRING 2005

January 10	Semester Begins
January 17	Martin Luther King, Jr. Day Holiday
February 21	Presidents' Day Holiday
March 21-25	Spring Break
May 12	Semester Ends
May 13	Commencement

SPRING 2006

January 9	Semester Begins
January 16	Martin Luther King, Jr. Day Holiday
February 20	Presidents' Day Holiday
March 13-17	Spring Break
April 14	Spring Holiday
May 11	Semester Ends
May 12	Commencement

SUMMER 2005

May 31	Session Begins
July 4	Independence Day Holiday
July 26	Session Ends

SUMMER 2006

May 30	Session Begins
July 4	Independence Day Holiday
July 25	Session Ends

PRESIDENT'S MESSAGE

Dear Students and Prospective Students:

We are honored to know that you are interested in attending State Fair Community College. *We're Here for You!* is our commitment to your success as a student, a community member, and a citizen of this great country. Learning is our top priority here at State Fair Community College and your success is our number one goal.

Education is society's most hopeful enterprise - hopeful because through education we prepare students of all ages for a future not yet fully understood. That future will be crowded with faces unlike those we see today, shaped by technological advances now barely imagined, shared with competitors and collaborators both familiar and new, and filled with challenges both anticipated and unforeseen.

To be prepared for that future, State Fair Community College students will experience an array of learning options. You will meet a special kind of teacher - one who expects, demands, sets the sights, raises the bar; one who coaches, cajoles, encourages, incites and motivates; one who finds one more way to explain, one more moment to demonstrate, one more opportunity to engage; one who reaches out, lifts up, pushes from behind, pulls from just ahead, learns alongside; one who connects the dots, captures the imagination, one who corrects the grammar, one who is unafraid to touch a shoulder, a heart, a mind; remembers your name, and one who listens to the story and understands the circumstances.

We ARE here for you! My greatest pleasure will be to present your diploma to you and to shake your hand during graduation ceremonies. You will have accomplished a significant goal and we will be very pleased to have contributed to your success.

Best wishes,



Marsha K. 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 Development

Mary E. McIntosh

Chief Information Officer

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Vice President for Educational Services

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Dean of Academic Affairs

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Vice President for Business Affairs

William E. Dey

Dean of Extended Campus Services

Deborah D. Degan-Dixon

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Vice President

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President

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Secretary

An Introduction to STATE FAIR COMMUNITY COLLEGE

Welcome to State Fair Community College!

This catalog of courses and services is designed to help you with planning your educational program. It contains information about programs, admission, and registration; financial costs and financial aid; and services to assist you in making the most of your opportunities at SFCC.

Descriptions of all current courses that are part of the regular curriculum are included. This includes those 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.

VISION

State Fair Community College will be an exemplary learning community college — focused on building communities, ensuring student success, valuing people, and practicing continuous quality improvement.

PHILOSOPHY

State Fair Community College is dedicated to a belief in the inherent value of each individual and that higher education can enable the citizens of our district and service region to develop their talents, reach their educational goals, and become life-long learners who make a positive contribution to their community.

MISSION

State Fair Community College is committed to serving the community by providing accessible, quality educational programs and services.

GOALS

1) Educational Programs and Services: To offer higher educational programs which include a core of general education and lead to associate degrees and certificates; and to offer other educational programs including vocational-technical education for area secondary school students, customized training, and continuing education classes and services.

2) Educational Excellence: To encourage excellence in instruction, services, and student academic achievement through a program of staff development which promotes quality and innovative practices and up-to-date technology; to encourage excellence in student academic achievement through effective instruction and assessment; and to ensure a reputable standing with area employers and with other educational institutions in order to facilitate smooth articulation to and from college programs.

3) Student Support: To help students achieve educational and career objectives by providing programs in developmental education, adult literacy, General Educational Development (GED), and Adult Education and Family Literacy (AEL); by providing career and educational assessment, counseling, and advisement; and by providing assistance with job placement and student data services.

4) Accessibility: To maintain a policy of open admissions, low cost fees, and financial aid services; to provide programs and services which enable persons who have socio-economic needs or disabling conditions to reach their career or academic goals; to provide accessible child care services; and to provide flexible scheduling and delivery systems for on- and off-campus courses.

5) Community Enrichment: To promote cultural, economic, and recreational enrichment of the service area by extending college facilities and resources to the community and by providing extra-curricular activities for students.

6) Marketing: To maintain a marketing program which promotes ethical enrollment management, projects the college's image in the community as an institution of integrity, and

encourages citizens to avail themselves of the opportunities of higher education.

7) Governance: To promote participation of the staff and community in college governance through the organizational structure and a climate of open communications.

8) Resources: To develop and manage available financial and human resources in a planned, efficient, and responsive manner which enhances the educational mission of the institution.

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 comprised 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 fourteen 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.



PROGRAMS and SERVICES

At State Fair Community College, courses and programs are designed to prepare individuals for careers, to earn credits toward transferring, or to explore personal interests.

The programs and services which the college has to offer you include: a general education curriculum if you are interested in completing an Associate of Arts degree; lower division courses of your higher education if you plan to transfer to a baccalaureate degree institution; career programs if you are planning to seek employment after a Professional Certificate or an Associate of Applied Science program; continuing education classes to develop personal, social, cultural, intellectual, or occupational skills or interests; and assistance to define your goals and determine the best opportunities for you.

ASSOCIATE OF ARTS

If you plan to complete a baccalaureate degree, you will find that the Associate of Arts degree from State Fair Community College will give you a solid foundation for upper division courses when you transfer. Also, counselors and advisors will assist you in planning your courses to meet the requirements of the college major you select. If you have not yet decided what you want to major in or if you want to keep your options open, career counseling is available. You will have the time and the opportunity to take different courses and still stay on schedule to complete a degree.

When receiving the Associate of Arts degree, (awarded at the main campus and the Whiteman Air Force Base site), students will have met all lower division general education requirements of colleges and universities in Missouri that have accepted the guidelines of the Coordinating Board for Higher Education. Credits earned at SFCC are accepted at all state colleges, universities, and most private institutions.

ASSOCIATE OF APPLIED SCIENCE AND PROFESSIONAL CERTIFICATES

If a career program is your objective, you will find programs that emphasize occupational and technical courses designed to prepare you for employment in the career of your choice. Most professional certificate programs can be applied toward the Associate of Applied Science degree if a student decides to continue after completion of a certificate program. Some programs are offered only at the main campus or at an extended campus site. Counselors and faculty advisors are available to help you determine which career program may be right for you.

EXTENDED CAMPUS SERVICES

State Fair Community College endeavors to involve area citizens with the college and to offer programs for the educational needs of individuals and groups at locations that are accessible to students. Extended campus courses and services are offered at various locations throughout the college's fourteen county service area. These include courses applicable to degrees or certificates, credit and non-credit short courses, dual credit courses for high school juniors and seniors, interactive television (ITV), and Web courses. The Schedule of Classes published in the spring and fall includes information on all current extended campus offerings and detailed information on how to contact personnel at each site for enrollment. In addition, the SFCC Web site includes up-to-date schedule changes and directions to each extended campus site.

STUDENT SERVICES

Student Services Office

The Student Services Office, in the Hopkins Building at the main campus, is the college's center for all types of information a student may require. The office provides information about

career planning, counseling, job placement, financial aid, scholarships, student housing, food service, student activities, accommodation for special needs, and general information. Admissions, registration, and records are also part of this office.

Academic Support Services

Students needing assistance/tutoring in academic courses at the main campus will find instructor and peer tutors available in the Student Achievement Center in the Yeater Learning Center during the day and evening hours. Computers are available in the center for word processing for preparing assignments. Academic support services vary from site to site.

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 two-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 Vocational Special Needs 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.

Bookstore

The bookstore is a convenient and attractive facility located in the Stauffacher Center at the main campus. The bookstore stocks textbooks and school supplies as well as college logo clothing and gift items. Books and required course supplies can also be ordered by mail, fax or on the Web.

Computer Services

State Fair Community College has made a strong commitment to provide electronic information services to its students. The college believes in the educational value of such services to support academic learning. Computer labs at the main campus are located in the Fielding Technical Center and the Yeater Learning Center. Internet access is available through workstations in the

Learning Resources Center (library) in the Yeater Learning Center. Hours of availability are posted. For access to computer services at other locations, contact the local site coordinator.

Counseling and Advising

Counseling is provided to enhance the educational learning experience. Counseling services assist students in making educational and career decisions compatible with their aptitudes and help them solve personal problems. Counselors are available to aid students in making the best use of educational opportunities. Counselors and advisors help students choose courses to meet individual needs and set realistic goals. They also provide support and understanding for students who may have problems of a personal nature.

Career Planning and Placement

Career planning services are designed to assist students with decisions about a major or career and provide up-to-date occupational and educational information. The services available include courses such as Career Choice, College Success, and Employment Strategies.

Job placement services are available to alumni and current students. Contact the Student Services Office at the main campus for details.

Daum Museum of Contemporary Art

The Daum Museum of Contemporary Art features a distinctive style and beautiful spaces. Nine galleries on three levels contain the permanent collection as well as curated exhibits. The galleries face a 33-foot enclosed atrium, showcasing a 6-by-10-foot chandelier by international glass artisan Dale Chihuly. An open-air courtyard provides a wonderful space for exhibiting outdoor works.

The museum is named for retired Sedalia physician and art collector Dr. Harold F. Daum, who donated \$4 million to the college, including his personal collection of paintings and sculptural clay worth an estimated \$2.5 million.

Daycare Services

Excellent, affordable child care is available at the main campus for college staff members and students.

Food Service

The Backstage Cafe is located in the Parkhurst Commons of the Stauffacher Center at the main campus. It provides students with facilities for refreshment, grill, and specialty food service. It offers a variety of meal plans for your convenience at an affordable cost.

Health Services

The college has neither health services nor a school nurse at any campus. Health needs should be addressed to a private physician, the local health center, or a hospital. Emergency needs can be met by calling 911.

Learning Resources Center

The Donald C. Proctor Library is located in the west end of the Yeater Learning Center at the main campus. The library has approximately 44,000 books, 290 periodical subscriptions, 1900 videotapes, 650 records, 1500 cassette tapes, 60 compact discs, and 285 kits. A video player and a cassette tape/CD/record player with headphones is available. Internet and MOREnet access is available on the library's twenty-four computers. The library's holdings are in a shared library catalog called QUEST. Books can be requested online from Missouri libraries outside of QUEST by searching the MOBIUS Union Catalog. Full-text magazine articles on the EBSCOhost and SIRS electronic databases can be read and/or printed. A library handbook is available at the circulation desk. Students, faculty, staff and service area patrons are eligible to borrow materials from the library.

Fred E. Davis Multipurpose Center

The 57,000-square-foot building includes a gymnasium with two basketball/volleyball courts with seating for more than 1,800; a 180-yard cushioned walking track; a second-floor multiple-use room with rubberized flooring for aerobics, dance classes and other activities; a weight and fitness room; two seminar/class rooms and one conference room; two interactive television (ITV) classrooms; administrative offices; and classrooms for the Dental Hygiene program.

Steps to Attaining Success

Steps to Attaining Success (SAS) is a program designed to assist college students attain baccalaureate degrees. It is funded by a federal grant as a Student Support Services program, one

of the TRiO programs established under Title IV of the Higher Education Act of 1965. SAS serves students who are first generation college students (parents or guardians did not earn baccalaureate degrees) and/or low income as defined by federal guidelines of earning no more than 150 percent of the poverty level of taxable income. SAS also serves students who have learning or physical disabilities.

TRiO programs help to eliminate the barriers that first generation, low income students or students with disabilities face in earning college degrees. SAS provides counseling and mentoring, assistance in choosing a major, online tutoring, supplemental instruction in traditionally difficult classes, financial aid assistance, and transfer assistance to a four year institution.

Two-thirds of the SAS students must have a disability or come from families with incomes within the federal guidelines where neither parent holds a baccalaureate degree. The remaining one-third may qualify in only one category. Students who qualify for Pell grants generally qualify under the income guidelines.

Student Housing

State Fair Community College has housing for male and female students at the main campus. Each room is equipped with a bed, study carrel, dresser, and wardrobe for each student, with two students per room. Also available in each room is a sink, medicine cabinet and refrigerator/freezer/microwave unit. In addition to public access TV, telephone, study rooms, and laundry, there are options in each room for cable TV and telephone connections at additional cost. A deposit is required with a housing application.

ADDITIONAL SERVICES

State Fair Community College also offers free classes to any person over 16 years of age, not in school, and who has not graduated from high school to prepare for the General Education Development (GED) examination. The Adult Education and Family Literacy (AEL) program provides instruction in English for non-English speaking adults.

The State Fair Career and Technical Center for high school juniors and seniors from in-district high schools offers courses in numerous

occupational programs. The programs prepare students to enter the job market following graduation or to provide the foundation to pursue a vocational or technical degree or certificate.

The Assessment Center provides vocational and placement testing services at the main campus and throughout the service area for business, industry, and students.

The TECH PREP Office works with high schools and area vocational technical centers to develop articulation agreements which enable SFCC students to receive college credit for comparable courses completed with grades of 'B' or higher while in high school or in an adult vocational program.

The college also offers Upward Bound, a grant program to assist first generation college-bound students attending Smith-Cotton High School. The grant is focused on increasing participants' grade point averages and increasing ACT scores. Upward Bound also aids participants and their families with the college enrollment process. The program goal is to ensure a successful college experience for each participant.

STUDENT ACTIVITIES

A.D.N. Club

Students enrolled in the Associate of Applied Science in Nursing program are members of the A.D.N. Club. The objectives of this club are to promote high personal standards and encourage leadership and fellowship among members.

Ag Club

The Ag Club works in the community to promote and develop leadership, educational advancement, and group participation of members at the local, state, and national level. Members participate in state and national conventions where awards and scholarships are earned.

Art Club

If you have an interest in art or in an art major, you'll be interested in the Art Club. The club offers exposure to and experiences with the visual arts through field trips to studios, museums, galleries, area college galleries and art departments. The club helps with the visiting artist and lecturer series and the college's exhibition series.

Athletics

Most students cite the athletic programs as a big plus at the college. They may participate in varsity sports, in intramurals, as cheerleaders, or as spectators.

Campus Fellowship

This is an interdenominational, evangelical organization for SFCC students and staff. Its activities include a weekly Bible study, a daily prayer meeting, as well as any form of outreach that benefits the campus and the community. Members attend periodic conferences and training programs sponsored by Inter-Varsity Christian Fellowship, to which Campus Fellowship is affiliated.

CAT/AG Club

The Custom Applicator Technology Club works in the community to promote knowledge and enjoyment of the global industry of custom application. Skills that members may obtain from the CAT/AG Club are leadership skills, a better understanding of the industry, a sense of determination, and what it feels like to be part of a team.

Cheerleaders

Supporting the teams and contributing to the spirit at SFCC, the cheerleaders perform at the college's home games. Any student with an interest in cheering is encouraged to try out for the squad.

Fine Arts

Concerts, dramatic and musical productions, lectures, and film festivals are scheduled throughout the year. A juried student art exhibit is displayed each spring in the Goddard Gallery in the Stauffacher Center.

Horticulture Club

All students enrolled in the Associate of Applied Science in Horticulture program are members of the Horticulture Club. This club takes an active role in campus beautification, community service, and school activities. The main focus is increasing community awareness and education concerning the importance of agriculture.

Lambda Alpha Epsilon

The American Criminal Justice Association is a national co-ed fraternal organization, devoted to the furtherance of professionalism in all areas of the criminal justice spectrum—law enforcement, prosecution, defense, courts, corrections, and juvenile justice. The SFCC chapter (Alpha Omega Rho Phi) improves student learning through educational activities while promoting ethics, intellectual achievement, and leadership. It strives to create a greater understanding between the community and the profession, and provides a unified voice for criminal justice students.

Phi Beta Lambda

Affiliated with the state and national organizations, the Phi Beta Lambda chapter works to develop strong, assertive leadership in future business men and women. Business students participate in group projects conducted under the guidance of persons in education, business, and the professions. Students learn how to compete honorably with their colleagues on state and national levels; how to hold office and direct the affairs of the group; how to work with representatives of other organizations; and how to engage in individual and group business enterprises. All this is for the purpose of teaching and training future business men and women in community life.

Phi Theta Kappa

This international honor society for community and junior colleges was organized as a chapter at SFCC in the spring of 1986. Students are eligible to join after completing 12 semester hours with a cumulative grade point average of 3.5. Phi Theta Kappa members who meet certain criteria of participation may be eligible to wear a Phi Theta Kappa stole at Commencement.

Photography Club

Membership is open to all students and employees, as well as residents of the college's service area. The club's main goal is to promote knowledge and enjoyment of the global language of photography.

SFCC Players

Drama productions at the college provide opportunities for those with theatrical and/or musical interests both as performers and in the

backstage crafts. A dramatic production is scheduled each semester in the Stauffacher Center for the Fine Arts.

Student Ambassadors

Student Ambassadors serve as representatives of SFCC by participating in campus tours, recruiting activities, the Commencement Ceremony and Honors Convocation. Students who enjoy meeting new people are encouraged to apply by providing a faculty recommendation and a request for an interview to the club sponsor. Ambassadors receive a scholarship for their weekly work requirement.

Student Government

The Student Government Association is a constitutionally organized student senate. As a collective group of diverse clubs and student interests, SGA provides an organization interested in organizing campus activities and addressing issues of concern for students. It provides an opportunity for members to work with others to develop organizational and leadership skills. SGA remains active on the state level by attending and hosting state meetings of the Missouri Community College Association-Student Government.

Student Practical Nursing Association

Membership consists of all practical nursing students. Objectives are to promote high personal standards and encourage leadership and fellowship among members. These objectives are obtained by various activities throughout the year.

Vocal Music

The "Almost Famous Singers" is the college's premier performance group. The group is composed of 20-25 students, and is by audition only. The group performs at concerts on campus, community events, and various tours. Auditions are held each May at which time music scholarships are awarded as well as show choir membership.

The SFCC Concert Chorale performs standard choral repertoire for the December and May concerts, and for other special college events.

ADMISSION, REGISTRATION, and FEES

If you have a diploma from an accredited high school or a certificate showing satisfactory completion of the General Education Development (GED) examination, you are eligible for admission to State Fair Community College. Students without a diploma or GED may be admitted under ability-to-benefit procedures.

In addition, some juniors and seniors in high school may take college-level courses through the dual credit or advanced credit programs. A recommendation from a high school principal or counselor is required.

Transfer students in good academic standing with the college or university they last attended are eligible for admission with advanced standing. Quarter credit hours transfer to SFCC with a two-thirds conversion equivalency. 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.

Due to limited facilities, admission to some career programs is restricted. Also, standards have been developed for admission to some programs to ensure that those who are admitted have the study skills and knowledge required to succeed.

ADMISSION PROCEDURES

For Regular 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 at the SFCC Web site.

2) Submit a copy of your high school transcript or GED test scores. 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. If you are transferring to SFCC, an official copy of your transcript(s) should be forwarded from your college registrar's office.

3) Take a Placement Exam. A placement exam (ACT, 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 national ACT Assessment is 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 math, 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 previously completed an associate's or bachelor's degree from an accredited college.

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) A 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 admissions 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. This may be right for you if you want to take courses for your personal interest at home or on the job. 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 test scores;
- 3) Copies of previous college credit (in some cases this requirement may be waived depending upon the courses you choose);

- 4) A copy of 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) A copy of your 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 a copy of 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 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 an eight-week 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 (a maximum of 15 hours) is granted to students who have completed high

school courses in a program 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, 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 nine 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 a 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/her sophomore year, 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/her 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/her 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 transcript or 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 a semester or more can update their admission information 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. This will enable you to participate in a new student orientation and registration session. 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 these programs are also required to enroll in and attend specific preparatory workshops, and to complete required prerequisite courses.

REGISTRATION

First-time students and those new to the college who complete all admission requirements are invited to attend a new student orientation and registration session. Sessions are scheduled prior to the fall and spring semesters. As a new student, you are encouraged to attend the earliest orientation and registration date possible. Your college orientation and early registration provide a better selection of classes and an awareness of the resources and services you will need to succeed.

Returning students and late applicants can find registration dates, times, and special instructions in the SFCC Schedule of Classes, by contacting the Student Services Office at the main campus, by contacting a site coordinator or by going to the SFCC Web site.

RESIDENCY

Your residency status for tuition is determined by your permanent legal address at the time you apply for admission. For students under 21, this is the same as their parents' address. There are four classes of residency for tuition: 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.

Residents whose permanent legal address is within one of the following school districts are considered residents of 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 type. 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 tuition type and residency 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.

If you pre-enroll, tuition and fees are due and must be paid by the fee payment deadline in order to hold your classes. This deadline is published in the SFCC Schedule of Courses before each registration period and printed on your statement. **Failure to pay tuition and fees on time or to have your financial aid paperwork in order by the scheduled date can result in course schedules being deleted.** Students will then need to enroll again. In the event extenuating circumstances prevent you from meeting your obligations, contact the Business Office in advance of the due date.

Accommodation will be made if possible.

After the fee payment deadline has passed,

tuition and fees must be paid at the time of registration. In addition to cash, check, or money order, fees may be paid by MasterCard or VISA.

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.

Waiver for Cheerleaders

If you are selected to be a college cheerleader, the tuition and special services fees for the course, Aerobics—Cheerleaders, are waived.

Waiver of In-District Tuition—Golden Agers

If you are a SFCC district resident age 60 or over, you may enroll for courses with tuition waived. You are required to pay all the special services fees, applicable lab fees, supplies and books. You may obtain your Golden Ager identification card from the Development Office 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 exam, 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 withdraws before classes begin. Thereafter, the following refund schedule applies:

<u>8-week Session</u>	<u>16-wk Semester</u>	<u>Refund</u>
2nd day	1st week	100%
4th day	2nd week	75%
6th day	3rd week	50%

Whiteman AFB - 1st week 100%

The petition to withdraw from classes is available in the Student Services Office at the main campus or in the 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 Business Affairs. 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

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 1st for the following fall award. For most state programs you will need to apply before April 1st 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 1st 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 Student Handbook/Planner or the SFCC Financial Aid pamphlet.

Satisfactory Academic Progress

To be eligible for financial assistance, students must meet the following satisfactory academic progress requirements set by the college.

Attempted Hours	Must Complete At Least
12 or more hours	9 hours
11 hours	8 hours
10 hours	7 hours
6-9 hours	6 hours
5 or fewer hours	All hours enrolled

Length of Time You May Receive Financial Aid

Federal financial aid regulations provide for assistance up to 150 percent of program length, i.e., there is a maximum number of credit hours for which assistance can be awarded. Students pursuing an associate's degree may attempt up to a maximum of 96 credit hours. Students pursuing a certificate may attempt up to a maximum of 48 credit hours. Programs with unusually high credit hour requirements (such as nursing) will be

allowed a higher maximum.

If a student changes majors, he or she should request a degree/certificate evaluation be completed by their advisor or the Registrar to establish limits for remaining financial aid eligibility.

Upon reaching the maximum allowable eligibility, students may continue to enroll at SFCC, but must do so without federal financial aid. Should extenuating circumstances contribute to loss of eligibility, a written appeal may be submitted by the student to the Financial Aid Office.

Grade Point Average (GPA)

Students on financial assistance must maintain cumulative grade point averages as follows in order to continue to receive assistance.

Hours Completed	Minimum Cumulative GPA
12 hours	1.50
24 hours	1.75
36 hours	1.85
48 hours	2.00

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. Developmental or basic skills courses, ungraded credit (P or CR) or AU, W, WP, WF, and II are not included. A 2.0 GPA is the minimum requirement for graduation.

Students who attend the college without financial assistance, and then apply for assistance, will have to meet the satisfactory academic progress requirements as if they had received assistance from the beginning of their attendance.

Financial Aid Probation

A student whose cumulative GPA is less than the required minimum GPA shown on the above chart for the number of credit hours completed and/or fails to complete the required number of hours per hours attempted (see satisfactory academic progress chart above), will be placed on financial aid probation in the succeeding academic term. Probation still allows the student to receive financial aid.

Financial Aid Suspension

Students on probation whose GPA at the conclusion of the probationary term is less than the required cumulative GPA as shown on the chart for the number of credit hours completed, and/or who failed to complete the required number of hours per the satisfactory academic progress chart during the probationary term, will be suspended from financial aid benefits. Students who are suspended will not be eligible to receive any federal financial aid (Pell grant, student loans, work study, or Supplemental Educational Opportunity Grant). Once students regain a satisfactory GPA, and/or complete a minimum of six (6) semester hours successfully without any federal financial assistance, they will have their financial aid eligibility reinstated for the following semester.

In addition, students whose cumulative attempted hours exceed the maximum time frame will be suspended from financial aid benefits. Students who have graduated with a certificate or an associate degree and plan to pursue another certificate or associate degree should check with the Financial Aid Office to see if they are eligible to receive financial assistance.

Financial Aid Appeals Process

Students may appeal the denial of financial assistance by written request to the Financial Aid Office. Students should explain any mitigating circumstances concerning their academic performance.

Withdrawal From Classes

If a student wishes to withdraw, the student should contact the Registrar's Office or the site coordinator's office and complete a withdrawal form to begin the withdrawal process. This procedure will enable the college to properly calculate and refund the maximum possible institutional charges. The date used when calculating the refund will be the date of withdrawal documented by the Registrar's Office. The exception would be in instances when the student's last documented date of attendance was significantly earlier than the withdrawal date.

State Fair Community College's refund policy exists for calculating refund of institutional charges. The federal "Return of Title IV Funds" formula dictates the amount of Federal Title IV Aid (Pell grant, Supplemental Education Opportunity Grant, and student loans) that must be returned to the

federal government by the school and the student. The federal formula is applicable to a student receiving federal aid other than Federal Work Study if that student withdraws on or before the 60 percent point in time in the semester. The student may also receive a refund of institutional charges through SFCC's refund policy. The amount of refund of institutional charges will be the greater of the amount the school must return to the Federal Title IV programs or the amount determined by SFCC's refund policy.

The federal formula requires a return of Title IV aid if the student received federal financial assistance in the form of a Pell grant, Supplemental Educational Opportunity Grant, or Federal Stafford Student Loan and withdrew on or before completing 60 percent of the semester. The percentage of Title IV aid to be returned is equal to the number of calendar days remaining in the semester divided by the number of calendar days in the semester. Scheduled breaks of more than four consecutive days are excluded.

If funds are released to a student because of a credit balance on the student's account, the student may be required to repay some of the federal aid if the student withdraws.

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.

Work

Employment under the Federal Work Study program and other job opportunities are available to students. Current minimum wages are paid. SFCC follows a policy of nondiscrimination and equal employment opportunity.

ACADEMIC PROCEDURES

GENERAL REGULATIONS

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 they are required of students to prepare them for entering college level courses. Basic Skills (BSKIL) courses do not apply as credit nor as hours earned toward a degree or certificate. Courses numbered below the 100 level (such as BSKIL064 Elementary Algebra) are called "developmental" because they focus on skills that need to be developed in order 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. Online courses are indicated in the Schedule of Classes and on Campus Web with the word WEB following the course title. They follow the standard college calendar. Students must meet standard prerequisites for all courses taken online. Some courses may require periodic on-campus meetings or testing. They 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.

You will need basic keyboarding skills and access to an operating personal computer with regular access to the Internet and an e-mail address 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 their children to the classroom. An on-campus day care program is available, 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 6 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 5 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 Conduct Code 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 and the first two days of an eight-week session. 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, core skills required in the general education curriculum and technical programs.

SFCC uses either the ACT, ASSET, or COMPASS for initial placement in English, reading and math courses. First time full-time students who place in basic skills English, reading or math courses according to their placement scores will be enrolled in no more than 15 credit hours during their initial semester. This enrollment includes needed basic skills classes and selected college-level classes recommended by the college faculty.

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).** These examinations provide an opportunity to demonstrate acquired knowledge and earn credit for it. 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 6 hours can be earned with ACT Assessment test scores which place the student in an advanced course.

* **Advanced Placement Test.** Credit is granted for Advanced Placement Test (AP) scores of 3 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. Generally 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 grade reports are available at the conclusion of each semester or session. Questions about grades should be directed to the instructor first. Grades not questioned within one semester

(excluding summer session) 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)
WF	Withdrawn Failing
WP	Withdrawn Passing
AU	Audit
U	Unfinished (computes as an F in GPA)
II	Incomplete individualized instruction
@	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 and arrangements made by the student, directly with the instructor, to complete the work. Until changed, 'U' grades remain on the transcript and calculate the same as '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 report is made the semester in which the course is finished.

Students taking basic skills courses will see an @ 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 repeat a course in which you received a grade of 'D,' 'F,' or 'U'. 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. Developmental or basic skills courses, ungraded credit (P or CR) or AU, W, WP, WF, and II are not included. 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. 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 \$5.00. The actual request for the transcript must come from the student in writing with the student's signature at least 48 hours in advance of need. Unofficial transcripts are available at the SFCC Web site. Transcripts with end-of-semester grades are usually available the second week following the semester's end.

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. These dates are in the SFCC Schedule of Classes, the SFCC Handbook/Planner and the SFCC Student Bulletin. 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 43 hours of general education credits plus 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 9 hours to complete the degree, you may request to transfer credit back from an approved college. Approval must be granted in writing 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 a minimum cumulative grade point average of 2.0 and a 2.0 average for work 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. No exam is 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.
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 GPA of 2.0 at the end of the fall semester (or the successful completion of all coursework) may participate.

Irrespective 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 2004 - 2006

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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.

Courses:	BIO204	MATH118
	CHEM101	MATH120
	ENGL101	PHYS103
	ENGL102	PHYS105
	MATH115	SPHTR101
	MATH116	

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.

Courses:	ART120	ENGL102
	BIO105	HUMAN120
	BSADM103	LIT104
	EDUC101	PSYCH150

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.

Courses:	ENGL101	ENGL102
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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.

Courses:	HUMAN101	POLSC103
	HUMAN104	SOC102
	HUMAN120	

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 requirements to the United States and Missouri Constitutions.)

Courses: BSADM101 HUMAN109
 ECON101 POLSC101
 GEOG101 PSYCH101
 HIST101 PSYCH102
 HIST102 SOC100
 HUMAN108

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.

Courses: ART101 LIT107
 ART120 LIT109
 HUMAN108 LIT114
 HUMAN109 MUSIC101
 HUMAN120 MUSIC103
 LIT101 MUSIC104
 LIT104 SPAN 102
 LIT105 SPHTR107

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.)

Courses: MATH115 MATH125
 MATH116 MATH127
 MATH118 MATH130
 MATH122

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.

Courses: BIO100 CHEM101
 BIO103 CHEM123
 BIO105 EASC101
 BIO112 EASC106
 BIO120 EASC116
 BIO124 EASC120
 BIO204 PHYSC103
 BIO207 PHYSC105
 BIO208 PHYSC118

ASSOCIATE OF ARTS DEGREE REQUIREMENTS

GENERAL EDUCATION CORE	43 Hours	LIT107	
		American Literature	3
COMMUNICATIONS	9 Hours	LIT109	
ENGL101		English Literature	3
English Composition I	3	LIT114	
ENGL102		Topics in Literature	3
English Composition II	3	B. Select one course:	
SPHTR101		ART101	
Public Speaking	3	Art Appreciation	3
		ART120	
SOCIAL AND BEHAVIORAL SCIENCES	9 Hours	Modern Art History	3
Select one course from A. and one from B.		MUSIC101	
Select 3 more hours from A. or B.		Music in Western Civilization	3
A. Select one course:		MUSIC103	
HIST101*		Music History and Literature I	2
U.S. History Before 1877	3	MUSIC104	
HIST102*		Music History and Literature II	2
U.S. History Since 1877	3	SPHTR107	
POLSC101*		Introduction to Theater	3
American/National Government	3	C. Select one course:	
*These courses satisfy the state requirement for credit		HUMAN101	
in Missouri Constitution. Students transferring credit for		Introduction to Philosophy	3
American history or national government from out-of-		HUMAN104	
state must complete POLSC102 Missouri Constitution		Living Religions	3
(1/2 hour).		HUMAN120	
B. Select one course:		American Diversity	3
ECON101		SOC102	
Principles of Economics I-Macro	3	Marriage and Family	3
GEOG101		POLSC103	
World Geography	3	Introduction to Political Science	3
HUMAN108			
World Civilization Before 1500	3	MATHEMATICS AND NATURAL SCIENCES 12 Hours	
HUMAN109		Select one mathematics course and 2 science courses to	
World Civilization After 1500	3	total 12 hours.	
PSYCH101		Mathematics—select one course:	
General Psychology	3	MATH115	
PSYCH102		College Algebra	4
Child Psychology	3	MATH116	
SOC100		Finite Math	3
General Sociology	3	MATH118	
		Introduction to Discrete Math	3
HUMANITIES AND FINE ARTS	9 Hours	MATH120	
Select one course from each group.		Trigonometry	3
A. Select one course:		MATH122	
LIT101		Precalculus Math	5
Introduction to Literature	3	MATH125	
LIT104		Calculus for Business	3
Masterpieces Before 1650	3	MATH130	
LIT105		Calculus and Analytic Geometry I	5
Masterpieces After 1650	3		

Science—select 2 science courses. One must be from Group A.

A. Select one course:

BIO112	5
General Biology w/Lab	
BIO120	5
General Botany w/Lab	
BIO124	5
General Zoology w/Lab	
CHEM101	5
Introduction to Chemistry w/Lab	
CHEM123	5
General Chemistry I w/Lab	
EASC101	5
Introduction to Earth Sciences w/Lab	
EASC106	5
Physical Geology w/Lab	
PHYSC105	5
College Physics I w/Lab	
PHYSC118	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	
PHYSC103	3
Introduction to Physical Science	

CORE ELECTIVE

3 Hours

Select an additional course from the preceding categories or select one of the following courses:

BSADM101	3
Introduction to Business	
BSADM103	3
Legal Environment of Business	
EDUC101	3
Foundations of Education	
MATH127	3
Business Statistics	
PSYCH150	3
Educational Psychology	
SPAN 101	3
Elementary Spanish I	

WELLNESS

1 Hour

All students must complete the one credit hour wellness requirement. Select one of the following:

HLTH101	2
Personal Health/Fitness	
PEPRO106	2
Introduction to Physical Education in the Elementary School	
PEACT116	1
Building Fitness for Life I	
PEACT117	1
Building Fitness for Life II	
PEACT118	1
Aerobics	
PEACT119	1
Low Impact Aerobics	
PEACT121	1
Women and Health	
PEACT122	1
Applied Wellness	

Minimum Total

43 Hours

REQUIREMENTS FOR THE ASSOCIATE OF ARTS DEGREE:

General Education Core	43 hours
Electives**	21 hours

**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 (PEACT 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.

TOTAL ASSOCIATE OF ARTS DEGREE MINIMUM:

64 Hours

Self-advising worksheets for numerous transfer majors are available from advisors, counselors, and online to assist students who plan to transfer the A.A. degree for majors such as:

Accounting	History
Agriculture	Mathematics
Art	Music
Business	Nursing-Bachelor's
Computer Science	Pre-Health
Conservation	Sciences
Construction	Biological
Criminal Justice	Physical
Education	Social Sciences
English	Theater
Engineering	

ASSOCIATE OF APPLIED SCIENCE AND PROFESSIONAL CERTIFICATE PROGRAMS

PROGRAM	DEGREE	CERTIFICATE	PAGE
ACCOUNTING	X		30
AGRICULTURE	X		31
AGRICULTURE WITH EMPHASIS IN HORTICULTURE	X		32
AUTOMOTIVE TECHNOLOGY	X	X	33
BUILDING MATERIALS MERCHANDISING	X		34
BUSINESS MANAGEMENT WITH MANAGEMENT SPECIALTY	X		35
BUSINESS MANAGEMENT WITH MARKETING AND RETAIL SPECIALTY	X		36
COMPUTER AIDED DRAFTING TECHNOLOGY	X		37
COMPUTER INFORMATION SYSTEMS WITH EMPHASIS IN ACCOUNTING	X		38
COMPUTER INFORMATION SYSTEMS WITH EMPHASIS IN PROGRAMMING	X		39
CONSTRUCTION TECHNOLOGY	X		40
CRIMINAL JUSTICE	X		41
CUSTOM APPLICATOR TECHNOLOGY	X		42
DENTAL HYGIENE	X		43
EARLY CHILDHOOD DEVELOPMENT	X		44
FIRE SCIENCE TECHNOLOGY	X		45
INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN ELECTRICITY/ELECTRONICS	X	X	46
INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL MAINTENANCE	X	X	47
INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL SUPERVISION	X		48
MACHINE TOOL TECHNOLOGY	X	X	49
MARINE TECHNOLOGY	X		50
NETWORK ADMINISTRATION	X		51
NETWORKING WITH EMPHASIS IN PC TECHNICIAN	X		52
NURSING, PRACTICAL		X	53
NURSING, ASSOCIATE DEGREE	X		54
OCCUPATIONAL EDUCATION	X		55
RADIOLOGIC TECHNOLOGY	X		56
SECRETARIAL SCIENCE WITH EMPHASIS IN MEDICAL OFFICE ADMINISTRATION MANAGEMENT	X	X	61 57
MEDICAL TRANSCRIPTION	X		58
PROCEDURE AND DIAGNOSIS CODING	X		59
SECRETARIAL SCIENCE WITH EMPHASIS IN OFFICE ADMINISTRATION	X	X	60, 61
WEB DEVELOPMENT	X		62
WELDING TECHNOLOGY		X	63

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
MATH118	
Introduction to Discrete Math	3

SOCIAL SCIENCE

3 Hours

HIST101*	
U.S. History Before 1877	3
HIST102*	
U.S. History After 1877	3
POLSC101*	
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 POLSC 102 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
PEACT116	
Building Fitness for Life I	1
PEACT117	
Building Fitness for Life II	1
PEACT118	
Aerobics	1

PEACT119	
Low Impact Aerobics	1
PEACT121	
Women and Health	1
PEACT122	
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, SPHTR101

MATHEMATICS

MATH101, MATH107, MATH108, MATH112, MATH115, MATH116, MATH118

SOCIAL AND BEHAVIORAL SCIENCES

BSADM101, BSADM107, ECON101, ECON102, PSYCH101, PSYCH102, SOC100

HIGHER ORDER THINKING

BSADM103, ENGL102, HUMAN120, LIT104

VALUING

HUMAN101, HUMAN104, HUMAN120, SOC102

MANAGING INFORMATION

CAPP125, CIS103, ENGL101, ENGL102, HEOCC140

LIFE AND PHYSICAL SCIENCE

AGRI108, AGRI118, BIO207, BIO208, CHEM101, PHYSC103, PHYSC105, PHYSC125

HUMANITIES AND FINE ARTS

ART101, HUMAN101, HUMAN104, HUMAN108, HUMAN109, HUMAN120, LIT101, LIT104, LIT105, LIT107, LIT109, LIT114, MUSIC101, SPAN101, SPHTR107

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

*Courses which must be completed with a grade of 'C' or higher.

Freshman Year

*ACCTG101	Principles of Financial Accounting	3
CAPP125	Microcomputer Applications	3
ENGL101	English Composition I	3
*MATH101	Business Math (or)	
*MATH112	Intermediate Algebra	3
BSADM101	Introduction to Business	3
*OFADM121	Calculators	1
	Total	16

ACCTG126	Introduction to QuickBooks	1
*ACCTG100	Applied Accounting Procedures	2
CAPP166	Excel	3
*ACCTG102	Managerial Accounting	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
ENGL110	Business Communications	3
EDUC119	Employment Strategies	1
	Wellness Course	1
	Total	17

Sophomore Year

*ACCTG103	Intermediate Financial Accounting I	3
*ACCTG107	Business Taxation	3
ECON101	Principles of Economics I-Macro	3
*ACCTG125	Computerized Accounting Applications	3
BSMGT125	Human Relations (or)	
SPHTR101	Public Speaking	3
	Total	15

*ACCTG104	Intermediate Financial Accounting II	3
*ACCTG117	Introduction to Federal Taxation	3
*ACCTG106	Cost Accounting	3
BSADM103	Legal Environment of Business	3
*ACCTG175	Accounting Internship	4
	Total	16

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) POLSC101	3
Wellness HLTH101, PEACT116, PEACT117, PEACT118, PEACT119, PEACT121 (or) PEACT122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

Freshman Year

AGRI103	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

AGRI103	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
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Sophomore Year

AGRI103	Ag Leadership and Issues III	2
	Wellness Course	1
AGRI116	Animal Nutrition	3
AGRI134	Marketing Farm Commodities	3
BSMGT110	Salesmanship	3
AGRI138	Ag Business Management	3
AGRI114	Livestock Management	3
	Total	18

AGRI103	Ag Leadership and Issues IV	1
CIS103	Introduction to CIS (or)	
CAPP125	Microcomputer Applications	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
AGRI121	Soils II	3
AGRI136	Ag Credit and Finance	3
AGRI118	Plant Science	3
EDUC119	Employment Strategies	1
	Total	17

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.

Program Requirements

General Education Requirements	16 Hours
Communications	3
ENGL101 (or) ENGL110 (or) ENGL112	
Mathematics	3
MATH101 (or) MATH112	
Social Science	3
HIST101 (or) HIST102 (or) POLSC101	
Wellness	1
HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements.)	

Freshman Year		
AGRI103	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
AGRI103	Ag Leadership and Issues II	1
AGRI132	Agriculture Economics	3
AGRI127	Farm Chemicals	3
AGRI115	Landscape Design and Maintenance	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
AGRI147	Plant Identification	4
AGRI152	Turf Management	4
AGRI138	Ag Business Management	3
AGRI174	Crop and Insect Scouting	2
	Total	16
AGRI103	Ag Leadership and Issues IV	1
CIS103	Introduction to CIS (or)	
CAPP125	Microcomputer Applications	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	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

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives	6
CAPP125 Microcomputer Applications	
PHYS125 Technical Science	

Professional Certificate in Automotive Mechanics

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

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	3
ENGL101 (or) ENGL112	
Mathematics	3
MATH101	
Social Science	3
HIST101 (or) HIST102 (or) POLSC101	
Wellness	1
HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements.)	

Program Requirements

Freshman Year

ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
MATH101	Business Math	3
BSMGT110	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)	
POLSC101	American/National Government	3
DRFT120	Architectural Drafting	3
CNST103	Construction Materials and Methods II	3
CNST106	Construction Estimation	3
ACCTG101	Principles of Financial Accounting	3
	Wellness Course	1
	Total	16

Summer Session

BLDGM175	Building Materials Internship	4-8
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Sophomore Year

BSMGT120	Advertising	3
CNST113	Construction Management	3
BSADM107	Personal Finance (or)	
BSMGT130	Business Strategies	3
CAPP125	Microcomputer Applications	3
	Approved Program Elective	3
EDUC119	Employment Strategies	1
	Total	16

BSMGT106	Principles of Marketing	3
CNST162	Construction Safety	3
BSMGT125	Human Relations	3
ENGL110	Business Communications	3
PSYCH101	General Psychology (or)	
SOC100	General Sociology	3
	Total	15

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 (or) ENGL112	3
Mathematics MATH101 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

Freshman Year

BSMGT110	Salesmanship	3
CAPP125	Microcomputer Applications	3
BSMGT106	Principles of Marketing	3
MATH101	Business Math (or)	
MATH112	Intermediate Algebra	3
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
	Wellness Course	1
	Total	16

BSMGT108	Principles of Management	3
ACCTG101	Principles of Financial Accounting	3
ENGL110	Business Communications (or)	
SPHTR101	Public Speaking	3
BSADM107	Personal Finance	3
BSADM101	Introduction to Business	3
	Total	15

Summer Session

BSMGT175	Business Management Internship	4
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Sophomore Year

	Approved Program Elective	3
BSADM109	Business Ethics	3
ACCTG102	Managerial Accounting	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
BSMGT117	Human Resource Management	3
	Total	15

BSMGT125	Human Relations	3
BSADM103	Legal Environment of Business	3
BSMGT130	Business Strategies	3
ECON101	Principles of Economics I-Macro	3
	Approved Program Elective	3
EDUC119	Employment Strategies	1
	Total	16

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 relation 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.

Program Requirements

General Education Requirements	16 Hours	BSMGT108	Principles of Management	3
Communications	3	ACCTG101	Principles of Financial Accounting (or)	
ENGL101 (or) ENGL112		ACCTG100	Applied Accounting Procedures (and)	
Mathematics	3	ACCTG126	Introduction to QuickBooks	3
MATH101 (or) MATH112		ENGL110	Business Communications	3
Social Science	3	BSADM107	Personal Finance	3
HIST101 (or) HIST102 (or) POLSC101		BSMGT112	Visual Merchandising	3
Wellness	1		Total	15
HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122		Summer Session		
General Education Electives	6	BSMGT175	Business Management Internship	4
(As determined by the department and are included in the Program Requirements.)		Sophomore Year		
		SPHTR101	Public Speaking	3
		BSMGT120	Advertising	3
		BSADM109	Business Ethics	3
		BSMGT117	Human Resource Management	3
		HIST101	U.S. History Before 1877 (or)	
		HIST102	U.S. History After 1877 (or)	
		POLSC101	American/National Government	3
			Total	15
		BSMGT125	Human Relations	3
		BSADM103	Legal Environment of Business	3
		BSMGT132	E-Commerce Marketing	3
			Approved Program Electives	6
		EDUC119	Employment Strategies	1
			Total	16

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) POLSC101	3
Wellness HLTH101, PEACT116, PEACT117, PEACT118, PEACT119, PEACT121 (or) PEACT122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

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)	
POLSC101	American/National Government	3
DRFT115	Advanced Computer Drafting	3
	**Approved Program Elective	3
	*Drafting Electives	6
EDUC119	Employment Strategies	1
	Total	16
DRFT175	CAD Internship	4
	**Approved Program Electives	6
	*Drafting Electives	6
	Total	16

*Drafting Electives

Select 15 hours from DRFT116, DRFT120, DRFT125, DRFT130, DRFT132, DRFT134, DRFT136, DRFT155, DRFT180, MACH101

**Approved Program Electives

Select 9 hours from courses in CNST, DRFT, INMNT, MACH, NET (or) WELD

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 to 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
MATH115 (or) MATH116 (or) MATH118	
Social Science	3
HIST101 (or) HIST102 (or) POLSC101	
Wellness	1
HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements.)	

**Approved Program Electives ACCTG100, CAPP166, CIS132, CIS136, CIS140, CIS151, CIS158, CIS162, CIS163, CIS171, CIS172, CIS183, CIS185, WEB114, WEB116

Program Requirements

*Courses which must be completed with a grade of 'C' or higher.

Freshman Year		
*CAPP125	Microcomputer Applications	3
*CIS103	Introduction to CIS (or)	
*CIS143	CIS Concepts/Logic Design	3
*CIS145	Visual Basic	3
*CIS133	MS-DOS (or)	
*CAPP130	Windows (or)	
*CIS132	UNIX	1
*CIS135	AS-400 Utilities	1
*ACCTG101	Principles of Financial Accounting	3
	Wellness Course	1
	Total	15
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
*ACCTG125	Computerized Accounting	3
*ACCTG102	Managerial Accounting	3
CIS147	RPG	3
MATH115	College Algebra (or)	
MATH116	Finite Math (or)	
MATH118	Introduction to Discrete Mathematics	3-4
	**Approved Program Elective	3
	Total	18-19
Sophomore Year		
*CIS148	COBOL	3
*ACCTG107	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)	
*CIS151	DB2 Relational Database (or)	
*CIS152	Programming in Access	3
	**Approved Program Elective	3
	Total	15
*CIS149	Advanced COBOL	3
*CIS161	Systems Analysis	3
ENGL102	English Composition II (or)	
ENGL110	Business Communications (or)	
SPHTR101	Public Speaking	3
*CIS175	CIS Internship	4
	**Approved Program Elective	3
EDUC119	Employment Strategies	1
	Total	17

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 3
ENGL101 (or) ENGL112

Mathematics 3
MATH115 (or) MATH116 (or) MATH118

Social Science 3
HIST101 (or) HIST102 (or) POLSC101

Wellness 1
HLTH101, PEACTION116, PEACTION117, PEACTION118,
PEACTION119, PEACTION121 (or) PEACTION122

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

**Approved Program Electives CIS136, CIS156, CIS162, CIS163, CIS171, CIS172, CIS183, CIS185, NET102, WEB114, WEB116

Program Requirements

*Courses which must be completed with a grade of 'C' or higher.

Freshman Year

*CAPP125	Microcomputer Applications	3
*CIS103	Introduction to CIS (or)	
*CIS143	CIS Concepts/Logic Design	3
*CIS145	Visual Basic	3
*CIS133	MS-DOS	1
*CIS132	UNIX	1
*CIS135	AS-400 Utilities	1
*ACCTG101	Principles of Financial Accounting	3
	Wellness Course	1
	Total	16

ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
*CIS147	RPG	3
*CIS155	Programming in C	3
MATH115	College Algebra (or)	
MATH116	Finite Math (or)	
MATH118	Introduction to Discrete Mathematics	3-4
	**Approved Program Elective	6
	Total	18-19

Sophomore Year

*CIS148	COBOL	3
*CIS161	Systems Analysis	3
	**Approved Program Elective	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
*CIS157	Advanced C/C++ Programming	3
	Total	18

*CIS149	Advanced COBOL	3
*CIS151	DB2 Relational Database	3
ENGL102	English Composition II (or)	
ENGL110	Business Communications (or)	
SPHTR101	Public Speaking	3
*CIS175	CIS Internship	4
*CIS158	JAVA	3
EDUC119	Employment Strategies	1
	Total	17

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 workforce needs project a high demand for persons trained in construction technology.

General Education Requirements	16 Hours
Communications	3
ENGL101 (or) ENGL112	
Mathematics	3
MATH108 (or) MATH115	
Social Science	3
HIST101 (or) HIST102 (or) POLSC101	
Wellness	1
HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	
General Education Electives	6
(As determined by the department and are included in the Program Requirements.)	
Construction Special Topics Electives	
CNST138, CNST175, DRFT114, DRFT115, DRFT130, DRFT180, INMNT104, INMNT105, INMNT126, INMNT133, INMNT135, MACH101 (or) other approved technical courses relating to construction.	

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

HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
ENGL110	Business Communications (or)	
SPHTR101	Public Speaking	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
CNST113	Construction Management	3
ACCTG101	Principles of Financial Accounting (or)	
BSADM107	Personal Finance	3
BSADM101	Introduction to Business (or)	
BSMGT108	Principles of Management (or)	
BSMGT125	Human Relations	3
EDUC119	Employment Strategies	1
	Total	16

CNST160	Statics and Strength of Materials	3
	Construction Special Topics Elective	3
CAPP125	Microcomputer Applications	3
	Science Course - BIO, CHEM, EASC (or)	
	PHYS	3
CNST138	Construction Planning and Scheduling	3
	Approved Elective	3
	Total	18

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 ENGL101	3
Mathematics MATH101 (or) MATH112	3
Social Science POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

Freshman Year

CJUST102	Introduction to Criminal Justice	3
CJUST109	Juvenile Delinquency	3
ENGL101	English Composition I	3
PSYCH101	General Psychology	3
CAPP125	Microcomputer Applications	3
Total		15

CJUST111	Introduction to Corrections	3
CJUST101	Introduction to Law Enforcement	3
SOC100	General Sociology	3
MATH101	Business Math (or)	3
MATH112	Intermediate Algebra	3
POLSC101	American/National Government	3
	Wellness	1
Total		16

Sophomore Year

CJUST105	Criminal Law	3
CJUST107	Criminology	3
ENGL112	Technical Writing	3
HLTH102	First Aid	2
BSMGT125	Human Relations	3
	Approved Elective	3
Total		17

CJUST104	Criminal Investigation	3
CJUST120	Probation-Parole/Offender Rehabilitation	3
SOC101	Social Problems	3
	Humanities and Fine Arts Course	3
CJUST175	Supervised Occupational Experience	4
EDUC119	Employment Strategies	1
Total		17

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 3
ENGL112

Mathematics 3
MATH101

Social Science 3
HIST101 (or) HIST102 (or) POLSC101

Wellness 1
HLTH101, PEACTION116, PEACTION117, PEACTION118,
PEACTION119, PEACTION121 (or) PEACTION122

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

Program Requirements

Freshman Year

AGRI103	Ag Leadership and Issues I	2
ENGL112	Technical Writing	3
AGRI120	Soils I	3
AGRI165	Basic Maintenance and Operations	3
AGRI157	Equipment Operations I	3
HEOCC101	Managing Medical Emergencies	1
	Total	15

AGRI103	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	3
AGRI159	Equipment Operations II	3
CAPP125	Microcomputer Applications	3
	Total	16

AGRI103	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)	
POLSC101	American/National Government	3
AGRI164	Custom Applicator II	3
AGRI158	Pesticide and Fertilizer Equipment	2
	Wellness Course	1
EDUC119	Employment Strategies	1
	Total	16

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

A.A.S. IN DENTAL HYGIENE

The A.A.S. 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
BIO208	Human Physiology w/Lab
CHEM101	Introduction to Chemistry w/Lab
DH101	Dental Hygiene Prep Workshop
MATH112	Intermediate Algebra
NURSD121	Microbiology w/Lab

General Education Requirements	15 Hours
Communications ENGL101	3
Mathematics MATH112	3
Social Science HIST101 (or) HIST102 (or) POLSC101	3
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

DH*** - These courses will be transferred into the program from another institution by arrangement.

Freshman Year

DH105	Introduction to Dental Hygiene	6
DH107	Dental Radiography	2
DH***	Oral Anatomy and Histology	2
DH109	Oral Anatomy and Histology Lab	1
*ENGL101	English Composition I	3
*HEOCC101	Managing Medical Emergencies	1
	Total	15

DH110	Clinical Dental Hygiene I	6
DH***	Dental Biomaterials	1
DH120	Biomaterials Lab	1
DH118	Principles of Periodontics	3
*HIST101	U.S. History Before 1877 (or)	
*HIST102	U.S. History After 1877 (or)	
*POLSC101	American/National Government	3
*SPHTR101	Public Speaking	3
	Total	17

Summer Session

DH112	Clinical Dental Hygiene II	6
DH124	Applied Nutrition and Oral Health Education	2
DH***	Local Anesthesia	3
	Total	11

Sophomore Year

DH114	Clinical Dental Hygiene III	8
DH126	Community Dental Health	1
DH130	Pharmacology	2
DH***	Pathology	3
*PSYCH101	General Psychology	3
	Total	17

DH116	Clinical Dental Hygiene IV	8
DH127	Community Dental Health Lab	1
DH132	Dental Hygiene Ethics and Legal Issues	1
*SOC100	General Sociology	3
HEOCC135	Allied Health Career Development	1/2
	Total	13 1/2

*Courses which 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 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 POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

Freshman Year			
ECD101	Introduction to Early Childhood		3
ECD103	Child Growth and Development		3
ENGL101	English Composition I		3
	Humanities/Fine Arts Course		3
CAPP125	Microcomputer Applications		3
	Total		15
Sophomore Year			
ECD107	Child Nutrition, Health and Safety		3
ECD109	Observation, Planning and Assessment		3
ECD111	Language Development/Early Literacy		3
SPHTR101	Public Speaking		3
MATH112	Intermediate Algebra (or)		3
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
POLSC101	American/National Government		3
PSYCH101	General Psychology		3
LIT111	Children's Literature		3
	Total		18
ECD125	Introduction to Special Individuals		3
ECD127	Parent/Teacher Interaction		3
ECD129	Administration in Early Childhood Care		3
ECD175	Child Care Practicum		3
	Approved Elective		3
EDUC119	Employment Strategies		1
	Total		16

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives CAPP125 Microcomputer Applications ENGL102, ENGL110, ENGL112 (or) SPHTR101	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
HEOCC110	Emergency Medical Technician	8
EDUC119	Employment Strategies	1
	Approved Elective	3

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	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:

ELEC117	Analog/Digital	3
ELEC119	Solid State Devices	3
ELEC126	Digital Principles and Applications	3
ELEC150	IEET Integration	3
ELEC152	Power Distribution and Switchgear	3
ELEC154	Industrial Communications	3
ELEC156	Motion Control Systems	3
ELEC158	Process Control	3
INDT102	Technical Prints and Diagrams	3
INDT104	Electric Fundamentals	3
INDT106	Electrical Power	3
INDT112	Motor Control	3
INDT114	Programming PLC's	3
INMNT141	Programmable Logic Controllers II	3
EDUC119	Employment Strategies	1
	Program Electives	6
	(choose other courses with prefix of AUTO, DRFT, INDMT, INMNT, MACH, NET (or) WELD)	

PROFESSIONAL CERTIFICATE IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN ELECTRICITY/ELECTRONICS

Program Requirements

ELEC119	Solid State Devices	3	Certificate Program Electives
ELEC150	IEET Integration	3	Choose 6 hours of ELEC courses and 6 additional hours
ELEC152	Power Distribution and Switchgear	3	from ELEC117, ELEC126, ELEC154, ELEC156, ELEC158,
INDT104	Electric Fundamentals	3	MATH107, MATH108, PHYS125, any other courses with
INDT106	Electrical Power	3	prefix of AUTO, DRFT, INDMT, INMNT, MACH, (or) WELD
INDT112	Motor Control	3	
INDT114	Programming PLC's	3	
	Program Electives	12	
EDUC119	Employment Strategies	1	

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	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:

INDT102	Technical Prints and Diagrams	3
INDT104	Electric Fundamentals	3
INDT106	Electrical Power	3
INDT112	Motor Control	3
INDT114	Programming PLC's	3
INMNT104	Wiring Methods	3
INMNT105	Industrial Safety	3
INMNT112	Maintenance Management	3
INMNT115	Introduction to Systems	3
INMNT126	Industrial Mechanics	3
INMNT133	Fluid Power Technology	3
INMNT135	Principles of Refrigeration	3
INMNT141	Programmable Logic Controllers II	3
MACH101	Introduction to Machining	4
WELD101	Welding Technology I	4
EDUC119	Employment Strategies	1

PROFESSIONAL CERTIFICATE IN INDUSTRIAL TECHNOLOGY WITH EMPHASIS IN INDUSTRIAL MAINTENANCE

Program Requirements		Program Electives			
INDT104	Electric Fundamentals	3	Choose three of the following courses:		
INDT106	Electrical Power	3	INDT102	Technical Prints and Diagrams	3
INDT114	Programming PLC's	3	INDT112	Motor Control	3
INMNT115	Introduction to Systems	3	INMNT104	Wiring Methods	3
INMNT126	Industrial Mechanics	3	INMNT105	Industrial Safety	3
INMNT133	Fluid Power Technology	3	INMNT112	Maintenance Management	3
MATH108	Technical Math II	3	INMNT135	Principles of Refrigeration	3
PHYS125	Technical Science	4	INMNT141	Programmable Logic Controllers II	3
	Program Electives	9-11	MACH101	Introduction to Machining	4
EDUC119	Employment Strategies	1	WELD101	Welding Technology I	4

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives	6
CAPP125 Microcomputer Applications	
ENGL110 Business Communications	

Program Requirements

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

ACCTG101	Principles of Financial Accounting	3
BSADM101	Introduction to Business	3
BSADM103	Legal Environment of Business	3
BSMGT108	Principles of Management	3
BSMGT117	Human Resource Management	3
INDT102	Technical Prints and Diagrams	3
INDT104	Electric Fundamentals	3
INDT114	Programming PLC's	3
INDMT103	Inventory and Production Control	3
INDMT111	Quality Management and Control	3
INMNT105	Industrial Safety	3
INMNT112	Maintenance Management	3
INMNT115	Introduction to Systems	3
PHYSC125	Technical Science	4
EDUC119	Employment Strategies	1
BSMGT175	Industrial Supervision Internship (or) Approved Program Elective	3-4

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) POLSC101

Wellness 1
HLTH101, PEACT116, PEACT117, PEACT118,
PEACT119, PEACT121 (or) PEACT122

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)	
POLSC101	American/National Government	3
ENGL110	Business Communications	3
	Total	16

MACH104	Advanced Machining	4
MACH109	Advanced CNC Machining	3
EDUC119	Employment Strategies	1
	**Approved Program Elective	3-4
MACH175	Machine Tool Internship	4
	Total	15-16

PROFESSIONAL CERTIFICATE IN MACHINE TOOL TECHNOLOGY

Program Requirements

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

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 with SFCC:

General Education Requirements	16 Hours
Communications ENGL101 (or) ENGL112	3
Mathematics MATH107 (or) MATH112	3
Social Science HIST101 (or) HIST102 (or) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives	6

In addition, EDUC119 Employment Strategies for 1 credit is required.

Program Requirements

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

MRNTC109	Marine Cooling Systems	2
MRNTC111	Marine Lubrication Systems	2
MRNTC117	Marine Engine Systems Analysis	2
MRNTC119	Marine Systems Preventive Maintenance	4
MRNTC121	Marine Power Transfer Systems	4
MRNTC175	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:

MRNTC101	Marine Systems Rigging I	6
MRNTC105	Marine Ignition Systems	3
MRNTC107	Marine Starter and Charging Systems	2
MRNTC113	Marine Engine Component and Precision Measuring	3
MRNTC115	Marine Shop Procedures and Business Operations	2
MRNTC123	Marine Systems Troubleshooting	3
MRNTC125	Marine Fuel Systems	4
MRNTC127	Marine Instrumentation Systems	2
MRNTC129	Marine Power Trim/Tilt Systems	2

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

A.A.S. IN NETWORK ADMINISTRATION

The Network Administration degree 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. The versatility of SFCC graduates makes them outstanding network administrators. 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 MATH115 (or) MATH116 (or) MATH118	3
Social Science HIST101 (or) HIST102 (or) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements.)	6

Program Requirements

*Courses which must be completed with a grade of 'C' or higher.

Freshman Year

*MATH115	College Algebra (or)		
*MATH116	Finite Math (or)		
*MATH118	Introduction to Discrete Mathematics	3-4	
PHYS103	Introduction to Physical Science (or)		
PHYS125	Technical Science	3-4	
*CAPP125	Microcomputer Applications	3	
*NET102	Networking I	3	
ENGL101	English Composition I (or)		
ENGL112	Technical Writing	3	
	Wellness Course	1	
	Total		16-18

*NET120	Network Server		
	**Approved Program Electives		6
*NET151	CISCO Router Basics		3
HIST101	U.S. History Before 1877 (or)		
HIST102	U.S. History After 1877 (or)		
POLSC101	American/National Government	3	
	Total		15

Sophomore Year

*NET126	Network Client		
*NET130	TCP/IP-NT Server Enterprise		3
*NET138	Network Directory Services		3
	**Approved Program Electives		6
ENGL102	English Composition II (or)		
ENGL110	Business Communications	3	
	Total		18

*NET106	Networking II		
*NET134	Web Server		3
*NET140	PC Hardware		3
*NET142	PC Operating Systems		3
*NET175	Network Administration Internship		4
EDUC119	Employment Strategies	1	
	Total		17

**Approved Program Electives
Select a minimum of 12 credit hours:
Any other NET course, CIS145, CIS152, CIS158, CIS162, CIS163, ELEC117, INDT104 (or) WEB116.

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, PC maintenance technician. As a PC technician, you will be working with computer software and hardware. You will be installing new software packages, assisting users in learning and properly using software packages, and troubleshooting software application problems. You will be keeping computer PCs up and running and setting up and maintaining 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
MATH115 (or) MATH116 (or) MATH118

Social Science 3
HIST101 (or) HIST102 (or) POLSC101

Wellness 1
HLTH101, PEACTION116, PEACTION117, PEACTION118,
PEACTION119, PEACTION121 (or) PEACTION122

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

Program Requirements

Freshman Year

MATH115	College Algebra (or)	
MATH116	Finite Math (or)	
MATH118	Introduction to Discrete Mathematics	3-4
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	15-17

HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	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
	**Approved Program Elective	3
	Total	16

Sophomore Year

NET129	Fundamentals of Voice and Data Cabling	3
CIS133	MS-DOS	1
ELEC126	Digital Principles and Applications	3
NET126	Network Client	3
NET151	CISCO Router Basics	3
	**Approved Program Elective	3
	Total	16

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

**Approved Program Electives

CIS145	Visual Basic	
NET135	SQL Server System Administration	
NET136	Exchange Server Administration	
NET138	Network Directory Services	
NET152	CISCO Router Protocols	
NET153	CISCO WAN	

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

PROFESSIONAL CERTIFICATE IN PRACTICAL NURSING

The Practical Nursing certificate signifies that the holder of that certificate may apply for licensure in the state of Missouri as a Licensed Practical Nurse and has been educated to competently enter nursing practice in all health care settings under the direction of registered nurse or a person licensed by the state regulatory board to prescribe medications and treatments. The education of a practical nurse requires the acquisition of substantial specialized skill, the assimilation of knowledge and the ability to make appropriate judgments in health care settings. The practice of practical nursing emphasizes collaboration among physicians, nurses, allied health care professionals, and the patient. The curriculum leading to the certificate in Practical Nursing requires students to engage in diverse, complex, and specific experiences essential to the acquisition and practice of essential nursing skills and functions. Unique combinations of cognitive, affective, psychomotor, physical and social abilities are required to satisfactorily perform these functions. The program is accredited by the Department of Elementary and Secondary Education and approved by the Missouri State Board of Nursing. Admission to the program is selective and applicants are selected based on completing prerequisites, pre-entrance examination scores and references. An informational packet with an application to the program is available from the Student Services Office at the main campus.

Prerequisite Courses

These courses, if needed based upon placement scores, must be completed with grades of 'C' or higher:

BSKIL020	Introduction to Writing (and)
BSKIL015	Reading
BSKIL064	Elementary Algebra (or)
MATH101	Business Math
NURSP130	Practical Nurse Prep Workshop (Attendance is mandatory)

Program Requirements

Fall Semester		
BIO207	*Human Anatomy w/Lab	4
BIO208	*Human Physiology w/Lab	4
NURSP101	Personal-Vocational Concepts	2
NURSP106	Nutrition	3
NURSP110	Administration of Medications	2 1/2
NURSP108	**Fundamentals of Nursing I	3
NURSP109	Fundamentals of Nursing II	7
NURSP112	Medical-Surgical Nursing I	3
	Total	28 1/2
Spring Semester		
NURSP113	Medical-Surgical Nursing II	14
NURSP118	Maternity-Newborn Nursing	5
NURSP120	Pediatric Nursing	5
NURSP121	CPR for Health Care Providers	1/2
HEOCC135	Allied Health Career Development	1/2
NURSP105	Personal Community Living	3
	Total	28
Summer Session		
NURSP116	Gerontological Nursing	4 1/2
NURSP114	Medical-Surgical Nursing III	8 1/2
	Total	13

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

**Course which can be articulated from secondary vocational health occupations programs - consult with the SFCC TECH PREP Director or high school counselor.

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

A.A.S. IN NURSING

The curriculum for the A.A.S. degree in Nursing is planned so that a qualified Licensed Practical Nurse who is a graduate of any accredited school of practical nursing may add a minimum of one year to their previous education. It will also be necessary to satisfy SFCC requirements for an A.A.S. degree. Upon completion of all required courses, the student will be qualified to apply to take the State Board of Nursing Examination for Registered Nurses. Various learning experiences are conducted in classrooms and laboratories at SFCC, Bothwell Regional Health Center, Golden Valley Memorial Hospital, Royal Oaks, and Cox Medical Center in Springfield, Missouri. Various other selected community resources are utilized. The program is accredited by the Department of Elementary and Secondary Education and approved by the Missouri State Board of Nursing. Admission to the program is selective and applicants are accepted on the basis of transcripts of previous education, pre-entrance examination scores and references. An informational packet with an application to the program is available from the Student Services Office at the main campus.

Prerequisite Courses

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

BIO208	Human Physiology w/Lab
CHEM101	Introduction to Chemistry
ENGL101	English Composition I
MATH112	Intermediate Algebra
NURSD101	Career Mobility

Program Requirements

Spring Semester

NURSD110	Integrated Nursing	16
PSYCH101	*General Psychology	3
NURSD121	*Microbiology w/Lab	4
	Total	23

Summer Session

NURSD112	Psychiatric Nursing	6
SPHTR101	*Public Speaking	3
HEOCC135	Allied Health Career Development	1/2
	Total	9 1/2

Fall Semester

NURSD124	Family Nursing	10
NURSD125	Leadership and Community Health Trends and Issues in Nursing	6 1/2
HIST101	*U.S. History Before 1877 (or)	
HIST102	*U.S. History After 1877 (or)	
POLSC101	*American/National Government	3
	Total	19 1/2

*These courses may be completed before the program begins and may be transferred from any accredited college. PSYCH101 must be completed before the summer session begins.

General Education Requirements 15 Hours

Communications 3
ENGL101

Mathematics 3
MATH112

Social Science 3
HIST101 (or) HIST102 (or) POLSC101

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

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 mission of 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 workforce, 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
ENGL101	English Composition I
MATH112	Intermediate Algebra
MEOFF101	Medical Terminology I

General Education Requirements 15 Hours

Communications 3
ENGL101

Mathematics 3
MATH112

Social Science 3
HIST101 (or) HIST102 (or) POLSC101

General Education Electives 6

(As determined by the department and are included in the Program Requirements.)

Program Requirements

Freshman Year

RAD106	Clinical Education I	3
RAD102	Orientation to Radiologic Technology	2
RAD120	Radiographic Procedures I	3
RAD128	Patient Care	3
RAD130	Radiation Production and Characteristics	3
*BIO208	Human Physiology w/Lab	4
Total		18

RAD108	Clinical Education II	3
RAD122	Radiographic Procedures II	3
RAD136	Radiation Protection	2
RAD134	Radiographic Exposures and Quality Control	3
*SPHTR101	Public Speaking	3
Total		14

Summer Session

RAD110	Clinical Education III	3
RAD124	Radiographic Procedures III	3
RAD140	Radiologic Pharmacology	3
Total		9

Sophomore Year

RAD112	Clinical Education IV	3
RAD142	Trauma and Advanced Imaging	3
RAD144	Radiation Biology	2
RAD146	Imaging Equipment	3
*HIST101	U.S. History Before 1877 (or)	
*HIST102	U.S. History After 1877 (or)	
*POLSC101	American/National Government	3
Total		14

RAD114	Clinical Education V	3
RAD150	Radiographic Pathology	3
RAD152	Image Analysis	3
RAD154	Sectional Anatomy	3
RAD170	Preparing for Professionalism	3
Total		15

*Courses which 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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements)	6

Program Requirements

Prerequisite: CAPP118 Keyboarding 3
Must complete ENGL110, CAPP118, and all program major courses with grades of 'C' or higher.

Freshman Year

MEOFF101	Medical Terminology I	3
HEOCC101	Managing Medical Emergencies	1
MEOFF103	Job Shadowing in the Medical Office	1
OFADM121	Calculators	1
OFADM118	Transcription Skills	3
CAPP125	Microcomputer Applications	3
MEOFF108	Body Structure and Function for Medical Office Administration	3
	Wellness Course	1
	Total	16

MEOFF102	Medical Terminology II	3
MEOFF105	Medical Office Procedures	3
MEOFF118	Procedure and Diagnosis Coding	3
MEOFF125	Medical Skillbuilding	1
MATH101	Business Math	3
CAPP160	Word	3
CAPP138	Speech Recognition	1
	Total	17

Sophomore Year

MEOFF107	Medical Transcription	3
MEOFF110	Clinical Assisting Techniques	3
OFADM116	Records and Database Management	3
ENGL110	Business Communications	3
MEOFF130	Essentials of Pharmacology	2
BSMGT125	Human Relations	3
	Total	17

MEOFF175	Medical Office Internship	3
MEOFF111	Clinical Practicum	1
BSADM109	Business Ethics	3
ACCTG100	Applied Accounting Procedures	2
ACCTG126	Introduction to QuickBooks	1
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
SPAN101	Spanish I (or)	
HUMAN120	American Diversity	3
EDUC119	Employment Strategies	1
	Total	17

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.

Program Requirements

Prerequisite: CAPP118 Keyboarding 3
Must complete ENGL110, CAPP118, and all program major courses with grades of 'C' or higher.

Freshman Year			
MEOFF101	Medical Terminology I		3
HEOCC101	Managing Medical Emergencies		1
MEOFF103	Job Shadowing in the Medical Office		1
OFADM121	Calculators		1
OFADM118	Transcription Skills		3
CAPP125	Microcomputer Applications		3
MEOFF108	Body Structure and Function for Medical Office Administration		3
	Total		15

General Education Requirements	16 Hours
Communications ENGL110	3
Mathematics MATH101	3
Social Science HIST101 (or) HIST102 (or) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements)	6

MEOFF102	Medical Terminology II		3
MEOFF105	Medical Office Procedures		3
CAPP120	Document Formatting		3
MEOFF125	Medical Skillbuilding		1
CAPP160	Word		3
MEOFF107	Medical Transcription		3
CAPP138	Speech Recognition		1
	Total		17

Sophomore Year			
MEOFF112	Advanced Medical Transcription		3
OFADM116	Records and Database Management		3
ENGL110	Business Communications		3
MEOFF130	Essentials of Pharmacology		2
MATH101	Business Math		3
BSMGT125	Human Relations		3
	Total		17

MEOFF175	Medical Office Internship		4
BSADM109	Business Ethics		3
HIST101	U.S. History Before 1877 (or)		
HIST102	U.S. History After 1877 (or)		
POLSC101	American/National Government		3
SPAN101	Spanish I (or)		
HUMAN120	American Diversity		3
EDUC119	Employment Strategies		1
CAPP134	Internet		1
	Wellness Course		1
	Total		16

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) POLSC101	3
Wellness HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122	1
General Education Electives (As determined by the department and are included in the Program Requirements)	6

Program Requirements

Prerequisite: CAPP118 Keyboarding 3
Must complete ENGL110, CAPP118, and all program major courses with grades of 'C' or higher.

Freshman Year

MEOFF101	Medical Terminology I	3
HEOCC101	Managing Medical Emergencies	1
MEOFF103	Job Shadowing in the Medical Office	1
OFADM121	Calculators	1
BIO103	Human Biology	3
CAPP125	Microcomputer Applications	3
BSMGT125	Human Relations	3
	Wellness Course	1
	Total	16

MEOFF102	Medical Terminology II	3
MEOFF105	Medical Office Procedures	3
MEOFF118	Procedure and Diagnosis Coding	3
CAPP134	Internet	1
MATH101	Business Math	3
BIO207	Human Anatomy w/Lab	4
	Total	17

Sophomore Year

MEOFF119	Advanced Procedure and Diagnosis Coding	3
BIO208	Human Physiology w/Lab	4
MEOFF130	Essentials of Pharmacology	2
MEOFF110	Clinical Assisting Techniques	3
OFADM116	Records and Database Management	3
EDUC119	Employment Strategies	1
	Total	16

MEOFF175	Medical Office Internship	3
MEOFF111	Clinical Practicum	1
ENGL110	Business Communications	3
BSADM109	Business Ethics	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
SPAN101	Spanish I (or)	
HUMAN120	American Diversity	3
	Total	16

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

A.A.S. IN SECRETARIAL SCIENCE WITH EMPHASIS IN OFFICE ADMINISTRATION

Are you a good organizer—detailed and efficient? Can you take the initiative? Do you deal well with people? Can you express yourself well, verbally and in writing? Then a degree in Secretarial Science with Emphasis in Office Administration may be a good choice to provide the knowledge, skills and confidence to gain new or enhanced employment in a wide variety of electronic, automated offices. Completion of a 160-clock hour internship will give you the opportunity to apply the knowledge and skills you have learned to a real work setting. Office administration is a fast growing occupation, and the job outlook is good.

General Education Requirements 16 Hours
*Courses which must be completed with a grade of 'C' or higher.

Communications 3
*ENGL110

Mathematics 3
*MATH101

Social Science 3
HIST101 (or) HIST102 (or) POLSC101

Wellness 1
HLTH101, PEACTION116, PEACTION117, PEACTION118,
PEACTION119, PEACTION121 (or) PEACTION122

General Education Electives 6
BSADM101 Introduction to Business
BSADM103 Legal Environment of Business

Program Requirements

Prerequisite: *CAPP118 Keyboarding (or test out) 3
*Courses which must be completed with a grade of 'C' or higher.

*OFADM121	Calculators	1
*CAPP120	Document Formatting	3
*CAPP125	Microcomputer Applications	3
OFADM123	Professional Business Leadership	1
BSMGT125	Human Relations (or)	
SPHTR105	Interpersonal Communication	3
*OFADM116	Records and Database Management	3
EDUC119	Employment Strategies	1
*OFADM118	Transcription Skills	3
*CAPP160	Word	3
*CAPP166	Excel	3
*ACCTG100	Applied Accounting Procedures	2
*ACCTG126	Introduction to QuickBooks	1
*CAPP164	Access	3
*OFADM119	Machine Transcription	3
CAPP138	Speech Recognition	1
CAPP140	Outlook (or)	
CAPP132	Lotus Notes	1
WEB108	FrontPage	1
*OFADM134	Office Dynamics for Administrators	3
*OFADM176	Office Internship	4
	Approved Program Electives	6

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	
MATH115 (or) MATH116 (or) MATH118		
Social Science	3	
HIST101 (or) HIST102 (or) POLSC101		
Wellness	1	
HLTH101, PEACTION116, PEACTION117, PEACTION118, PEACTION119, PEACTION121 (or) PEACTION122		
General Education Electives	6	
(As determined by the department and are included in the Program Requirements)		

Program Requirements

*Courses which must be completed with a grade of 'C' or higher.

Freshman Year		
CAPP125	Microcomputer Applications	3
*CIS103	Introduction to CIS	3
*CIS145	Visual Basic	3
*WEB110	HTML	1
*NET102	Networking I	3
*CIS132	UNIX (and)	
*CIS133	MS-DOS (or)	
*NET127	Fundamentals of UNIX	2-3
	Total	17-18
Sophomore Year		
ENGL101	English Composition I (or)	
ENGL112	Technical Writing	3
*CIS124	Database Management (or)	
*CIS152	Programming in Access	3
*CIS155	Programming in C	3
MATH115	College Algebra (or)	
MATH116	Finite Math (or)	
MATH118	Introduction to Discrete Mathematics	3-4
*CIS162	Advanced Visual Basic	3
	Wellness Course	1
	Total	16-17
Junior Year		
*WEB114	Web Scripting	3
HIST101	U.S. History Before 1877 (or)	
HIST102	U.S. History After 1877 (or)	
POLSC101	American/National Government	3
	**Approved Program Elective	3
*NET120	Network Server	3
*CIS158	JAVA	3
*CIS161	Systems Analysis	3
	Total	18
Senior Year		
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
**Approved Program Electives		
CIS157	Advanced C/C++ Programming	
CIS163	SQL Server	
NET134	Web Server	

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

BSMGT117	Human Resource Management (or)	
BSMGT125	Human Relations	3
MATH107	Technical Math I	3
PHYSC125	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 hour minimum)	
DRFT111	Introduction to Computer Drafting	3
DRFT130	Engineering Graphics	3
MACH115	Heat Treating and Metallurgy	3
WELD180	Problems in Welding	3

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

**STATE FAIR COMMUNITY COLLEGE
CATALOG 2004 - 2006**

**COURSE DESCRIPTIONS
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Course Descriptions

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COURSE DESCRIPTIONS

ACCOUNTING

ACCTG100 APPLIED ACCOUNTING PROCEDURES (2)

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 will complete an accounting simulation project for a small business. (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 ACCTG101).

ACCTG101 PRINCIPLES OF FINANCIAL ACCOUNTING (3)

Prerequisite: Minimum Enhanced ACT English score of 14 (or equivalent placement score) or completion of BSKIL010 and minimum math score of 16 (or equivalent placement score) or completion of BSKIL061. 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 A.A.S. Accounting degree. This course is not a substitute for ACCTG100).

ACCTG102 MANAGERIAL ACCOUNTING (3) Prerequisite: ACCTG101 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).

ACCTG103 INTERMEDIATE FINANCIAL ACCOUNTING I (3)

Prerequisite: ACCTG102 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.

ACCTG104 INTERMEDIATE FINANCIAL ACCOUNTING II (3)

Prerequisite: ACCTG103 with a grade of 'C' or better. Continuation of ACCTG103. 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 financing and investing activities, income taxes, earnings per share, and accounting changes.

ACCTG106 COST ACCOUNTING (3) Prerequisite: ACCTG102. In-depth study of the basic concepts and tools associated with traditional and contemporary cost management information systems. Emphasis on development and application of cost accounting methods for financial reporting, product costing, budgeting and operational control.

ACCTG107 BUSINESS TAXATION (3) Prerequisite:

ACCTG101 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.

ACCTG117 INTRODUCTION TO FEDERAL TAXATION (3)

Prerequisite: ACCTG101 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.

ACCTG125 COMPUTERIZED ACCOUNTING APPLICATIONS (3)

Prerequisites: ACCTG100, ACCTG126 and CAPP125. Hands-on, project-intensive approach using Peachtree Accounting for Windows and Microsoft Excel. Emphasis on using a microcomputer to process financial accounting data and prepare financial statements and related reports.

ACCTG126 INTRODUCTION TO QUICKBOOKS (1)

Prerequisites: ACCTG100 or ACCTG101 or concurrent enrollment. 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 setting up a business system, entering accounts payable/receivable and payroll transactions, completing end-of-year processes, and generating reports to make business decisions.

ACCTG175 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. May be taken after first year courses are completed.

AGRICULTURE

AGRI103 AG LEADERSHIP AND ISSUES (1-2) 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. A total of 6 credit hours is required.

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) Prerequisite: AGRI108. 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, 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 and CHEM101 or consent of advisor. 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 manufacture, handling, distribution and application of farm chemicals, including insecticides, rodenticides, fungicides, herbicides, and brush killers.

AGRI129 GENERAL HORTICULTURE (3) Prerequisite: CHEM101 or consent of advisor. 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) Prerequisite: AGRI129. 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)
Prerequisite: AGRI129. 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. Student intended to qualify for commercial driver's license.

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) This course is designed to enable students to pass the state Commercial Driver's License. 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) The 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) Prerequisite: AGRI127. 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.

AGRI 180 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. Technical facility is not so much the goal as the student's search for expression of their personal artistic identity. 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. Ideas and the expression of those ideas are of the utmost importance.

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) For all art majors—students will concentrate on painting as an expressive medium. Technical facility is important; however, the 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 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 all of the major art movement 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.

BSKIL003 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.

BSKIL005 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.

BSKIL010 BASIC ENGLISH LAB (3) Prerequisite: Enhanced ACT English score of 13 or below or equivalent placement score. (Should be taken concurrently with BSKIL020 and BSKIL015 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 3 lecture and 1 lab hours per week. Does not apply toward a degree or certificate.

BSKIL015 READING (3) Pass/fail course meets for 3 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% 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.

BSKIL016 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.

BSKIL020 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.

BSKIL061 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.

BSKIL064 ELEMENTARY ALGEBRA (3) Prerequisite: Minimum Enhanced ACT math score of 16 or equivalent placement score or BSKIL061. 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 BSKIL020 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 BSKIL020 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 BSKIL020 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 GENERAL BIOLOGY W/LAB (5) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKIL020 with a grade 'C' or better. Completion of, or concurrent enrollment in, ENGL101 is strongly recommended. An introductory study of biology that provides students an in-depth understanding of the basic, unifying concepts in the biological sciences. Topics covered will include, but are not limited to: the nature and historical context of science, the scientific method, levels of organization, biochemistry, cell biology, energy production, photosynthesis, genetics, evolution, ecology, and diversity. Instruction consists of 4 lecture and 2 lab hours per week. Can not be taken if already have credit for BIO100.

BIO120 GENERAL BOTANY W/LAB (5) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKIL020 with a grade 'C' or better. Completion of, or concurrent enrollment in, ENGL101 is strongly recommended. An introduction to botanical sciences intended for biology and related majors through a fundamental study of plants and other non-animal kingdoms. Topics covered include, but are not limited to: the nature and historical context of science, the scientific method, levels of organization, biochemistry, cell biology, energy production, photosynthesis, genetics, evolution, ecology, diversity, morphology, lifecycles, and physiology. Instruction consists of 3 lecture and 4 lab hours per week.

BIO124 GENERAL ZOOLOGY W/LAB (5) Prerequisite: BIO112, BIO120, or instructor consent, and a minimum Enhanced ACT English score of 19 or equivalent placement score or BSKIL020 with a grade of 'C' or better. Completion of, or concurrent enrollment in, ENGL101 is strongly recommended. An introductory survey of animal phyla and heterotrophic protists intended for biology and related majors. Topics covered include, but are not limited to: the nature and historical context of science, the scientific method, taxonomy and systematics, embryology, morphology, life histories, physiology, ecology, and evolution.

BIO130 TOPICS IN BIOLOGY (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, history of science. Specific subjects will be announced each semester in which the course is offered.

BIO204 GENETICS W/LAB (3) Prerequisite: BIO100, BIO112, BIO120, or instructor consent; and a minimum Enhanced score of 19 or equivalent placement score or BSKIL020 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 2 lecture and 2 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

BLDGM175 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.

BLDGM180 PROBLEMS IN BUILDING MATERIALS (1-3) Independent study of a special problem in building materials under the supervision of an instructor.

BUSINESS ADMINISTRATION

BSADM101 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.

BSADM103 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.

BSADM105 BUSINESS LAW II (3) Prerequisite: BSADM103. Instruction includes the law of partnerships, corporations, real property and loans, insurance, security devices, bankruptcy, trust, estate and government regulations.

BSADM107 PERSONAL FINANCE (3) 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.

BSADM109 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 case problems.

BUSINESS MANAGEMENT

BSMGT106 PRINCIPLES OF MARKETING (3) Introduction to the process of planning marketing programs for goods and services. Topics covered are marketing management, planning, environmental strategies, market segmentation, market research, consumer buying behavior, product life cycles, pricing, advertising, sales, distribution channels, wholesaling, retailing and international marketing.

BSMGT108 PRINCIPLES OF MANAGEMENT (3) Prerequisite: Minimum Enhanced ACT score of 19 or equivalent placement score or completion of BSKIL020 with a grade of 'C' or better. Presents the management functions of planning, organizing, leading, and controlling. Focuses on application of management principles of realistic situations managers encounter as they attempt to achieve organizational objectives.

BSMGT110 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. The students will gain knowledge of the sales process through impromptu sales presentations, review of case problems, and video taped gadget and business-to-business sales presentations.

BSMGT112 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. The students gain knowledge and experience through the construction of informal and formal window displays, observations, critiques, and review of display principles.

BSMGT117 HUMAN RESOURCE MANAGEMENT (3) Prerequisite: BSMGT108 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. Important HRM activities include analyzing jobs and writing job descriptions, recruiting and hiring employees, motivating and evaluating the job performance of employees, providing training, determining pay and benefits, ensuring safety and health, and complying with employment-related laws and regulations.

BSMGT120 ADVERTISING (3) Basic but comprehensive 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.

BSMGT125 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.

BSMGT130 BUSINESS STRATEGIES (3) Prerequisite: Completion of the following Business Management courses: BSMGT106, BSMGT108, BSMGT125, ACCTG102, 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. The course provides a management simulation exercise in which students make critical managerial decisions based upon the situations that arise in operating competitive business enterprises. Upon completion of the simulation, students should be able to perform the variety of analytical and decision-making requirements that will be faced in business. The course also 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.

BSMGT132 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. Multiple Web sites will be explored to gather information on the processes involved in this new form of marketing. Web site enhancements will be introduced, discussion of security and legal issues, review of information and data collection, plus the advantages and disadvantages as well as the competitive dynamics of doing business in this field will be discussed.

BSMGT175 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: BSKIL064 or equivalent. It is highly recommended the student has had or is enrolled in MATH112. Study of the structure of the atom, the periodic classification to the properties of the elements, and molecular structure. Topics include: Measurement, formula and equation writing, stoichiometry, gas laws, acid-base titrations, solution concentrations, and some redox. Instruction consists of 4 lecture and 2 lab hours per week.

CHEM123 GENERAL CHEMISTRY I W/LAB (5) Fall only. Prerequisite: One-year high school chemistry and two units of algebra, CHEM101, at least MATH112, and preferably MATH115. A beginning chemistry course for the pre-professional science and science-oriented fields. Examines the structure of the atom; periodic classification; molecular structures; acids, bases, and salts; the gas laws; solutions; and colligative properties. Instruction includes 4 lecture and 2 lab hours per week.

CHEM124 GENERAL CHEMISTRY II W/LAB (5) Spring only. Prerequisites: CHEM123 and MATH115. A continuation of CHEM123, course places emphasis on kinetics, equilibrium, chemical thermodynamics, hydrolysis, solubility products, and an introduction to organic chemistry. Includes theory and practice in semimicro qualitative analysis. Instruction consists of 3 lecture and 4 lab hours per week.

CHEM126 ORGANIC CHEMISTRY W/LAB (5) Prerequisite: CHEM101 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 4 lecture and 2 lab hours per week.

CHEM180 PROBLEMS IN CHEMISTRY (1-3) Prerequisite: CHEM101. 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 such activities 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: DRFT111 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) Prerequisite: DRFT111 or consent of instructor. 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. Topics include walls, doors, windows, stairs, roofs, annotation, symbols, elevations, columns, ceiling grids and viewing the model. Advantages of object technology, display representations and display configuration are covered throughout the course. Previous knowledge of 2D AutoCAD drawing and editing commands using layouts is required.

DRFT130 ENGINEERING GRAPHICS (3) Prerequisite: DRFT111. CAD-based introduction to basic principles of machine drawing, geometrical descriptions, orthographic projections and dimensions.

DRFT132 MECHANICAL DESKTOP (3) Prerequisite: DRFT114 or DRFT130. 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. Topics include four modules: **Designer:** Feature-based parametric modeler. **Part Modeling.** **Autosurf:** Non Uniform Rational B-Splines (NURBS) surfaces. **Surface Modeling.** **Assembly:** Manage and constrain assembled parts. **Assembly modeling.** **Drawing Manager:** 2D view layout and dimensioning for outputting engineering drawings.

DRFT134 AUTODESK INVENTOR (3) Prerequisite: DRFT111. 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. The course includes in-depth descriptions of the toolbars, dialog boxes, user options, and the parametric and feature-based modeling process.

DRFT136 CAD/CAM (3) Prerequisite: DRFT111 and MACH101 or consent of instructor. 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) Prerequisite: DRFT111 or consent of instructor. Instruction includes creating and communicating designs in a real-time 3D visualization environment. Including exploring new concepts in presenting designs using a new approach to advanced and flexible design visualization.

DRFT175 CAD INTERNSHIP (4) 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)

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. Office Administration degree candidates and Office Assisting certificate candidates must achieve 35 wpm with 0-3 errors on three 3-minute timed writings.

CAPP120 DOCUMENT FORMATTING (3) Prerequisite: CAPP118. Individualized course which includes processing various business and professional documents and forms. Emphasis is placed on accuracy, speed development, and the ability to follow directions. Optional test out. Office Administration degree candidates must achieve 52 wpm with 0-5 errors on three 5-minute timed writings, and Office Assisting certificate candidates must achieve 45 wpm with 0-5 errors on three 5-minute timed writings.

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.

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, and 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. Students will also become familiar with Internet usage. 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.

CAPP132 LOTUS NOTES (1) Prerequisite: Basic knowledge of computers and Windows. Students will learn basic e-mail and scheduling functions of an integrated information and productivity management program. 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) Prerequisite: Basic knowledge of computers and Windows. 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. Course in which 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 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 required 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 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 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) Survey computer course explores the world of computers from their inception to the present. The latest innovations in technology are discussed. Designed to give an overview and will not go into great depth because of the extensive nature of the topic. Terms related to conversational knowledge of computers will be stressed.

CIS124 DATABASE MANAGEMENT (3) Prerequisite: CAPP125. 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) Prerequisite: CAPP125 with Microsoft Office software. Instruction demonstrates the proficient use of a multi-task, multi-user disk operating system. Includes hands-on instruction in the computer lab.

CIS133 MS DOS (1) Demonstrates the proficient use of microcomputers Disk Operating Systems for the IBM PS/2 and personal computer family of microcomputers. Includes hands-on instruction in the computer lab.

CIS135 AS/400 UTILITIES (1) Demonstrates the proficient use of the computer capabilities and applications such as OCL (Operation Control Language), utilities security, procedures, control commands, and physical operation of the AS/400. Includes hands-on instruction in the computer lab.

CIS136 CONTROL LANGUAGE PROGRAMMING (1) COREQUISITE: CIS135. Course prepares students to be able to interface between computer programs and to run jobs.

CIS140 INSTALLATION OF SOFTWARE (1) Prerequisite: CIS133. Provides students with working knowledge of installation of software on IBM-compatible personal computers.

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

CIS145 VISUAL BASIC (3) Prerequisite: CAPP130 or consent of instructor. Course provides an introduction to programming within a graphical environment. Includes hands-on instruction in the computer lab.

CIS147 RPG (3) Beginning computer programming language which emphasizes table and file handling. Students will use the AS-400.

CIS148 COBOL (3) Prerequisite: CIS147 suggested. 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: CIS147 or CIS148. Course to prepare students for programming in DB2. DB2 is a relational database used on the AS/400 and mainframe computers. A substantial portion of the course will use SQL.

CIS152 PROGRAMMING IN ACCESS (3) Prerequisite: CAPP125. Course is for users who seek further knowledge of the database program, Access. Programming will be an integral part of the instruction. Includes hands-on instruction in the computer lab.

CIS155 PROGRAMMING IN C (3) Prerequisite: CIS145 and CIS147 suggested. 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.

CIS156 ASSEMBLER PROGRAMMING (3) Prerequisite: CIS148 or CIS155. Beginning course in programming in Assembly language. Students learn different Assembly language features to develop application programs. Instruction covers PC Architecture; Assembly language requirements; Assembling; Linking and Executing a program; defining and moving data; COM programs; program logic and control; basic and advanced keyboard and screen processing; string operations; and processing binary data.

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

CIS158 JAVA (3) Prerequisite: CAPP125 and CIS155 or equivalent work. Introduction to object oriented programming with a major emphasis in developing GUI based applications for business problems and Web pages.

CIS161 SYSTEMS ANALYSIS (3) Prerequisite: Proficient knowledge in a programming or application language; choose from CIS148 or CIS155. Content includes the analysis and identification of multi-user computer system development. Documentation of systems requirements is stressed.

CIS162 ADVANCED VISUAL BASIC (3) 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) Course is designed to teach extensive database administration. Since databases are an integral part of interactive web design, the course would be helpful for commercial web development.

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 160 clock hours of supervised work experience which allows the student to apply Computer Information Systems operation and programming

theory. Must be taken during the last semester.

CIS 179 PROGRAMMING PROJECT (4) Prerequisite: Adequate knowledge of programming language. Must be taken during last semester of study before completion of CIS degree. Includes individually designed assignment which requires the student to develop and test a program, and document program results.

CIS 180 PROBLEMS IN COMPUTER INFORMATION SYSTEMS (1-3) Independent study of a special problem in computer systems arranged under the supervision of a CIS instructor.

CIS 182 MAINFRAME COBOL (3) Prerequisite: CIS183 or consent of instructor. Computer programming course uses the mainframe environment to code, edit, and run COBOL programs. Instruction will include coding arithmetic calculations, condition statements, control breaks, and copybook.

CIS 183 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.

CIS 185 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 specs 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. The course will start with a general overview of the field of construction and then study the materials and methods of construction used in all areas 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) Prerequisite: CNST101 or consent of instructor. Second in a series of two courses to provide the student with a survey of the field of construction, and to encourage the student to pursue a career in construction. The 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) Prerequisite: DRFT105. 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) Overview of the career of construction management. 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. Provides an introduction to the coursework required for a degree in construction management.

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. The course will utilize Prima Vera software and provide a solid working knowledge of this software.

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) Prerequisite: MATH108 or MATH115. 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. In addition to testing, students will be required to do a number of short reports concerning construction safety.

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

CJUST101 INTRODUCTION TO LAW ENFORCEMENT (3)
History of policing in the United States and an overview of the relationship between law enforcement and American society. Will examine the duties of officers and the operations of police agencies in light of the problems they face and their roles in carrying out criminal procedure.

CJUST102 INTRODUCTION TO CRIMINAL JUSTICE (3)
History and development of the criminal justice system in America. Will survey the three major components - police, courts, corrections, and their interrelationships.

CJUST104 CRIMINAL INVESTIGATION (3) Prerequisite: CJUST101 OR CJUST102. Theory, methods, and procedures of modern criminal investigation. Study includes crime scene investigation, techniques of interviewing and questioning, collection of evidence, suspect development, and case preparation.

CJUST105 CRIMINAL LAW (3) Prerequisite: CJUST101 or CJUST102. Examines criminal, common and statutory law with its application to law enforcement. Emphasis is placed on the classification of crime and criminal acts.

CJUST107 CRIMINOLOGY (3) Prerequisite: CJUST102. Examines the theories of criminal behavior, the problems of treatment, corrections, and control of crime.

CJUST109 JUVENILE DELINQUENCY (3) Examines juvenile delinquency and its causes, juvenile case disposition, and detention. Also studied: The organization, function and jurisdiction of juvenile agencies and the application of the Missouri Juvenile Code.

CJUST111 INTRODUCTION TO CORRECTIONS (3) History, development, and present components of both institutional and community-based corrections in America.

CJUST120 PROBATION-PAROLE/OFFENDER REHABILITATION (3) Prerequisite: CJUST111. Examination of community-based corrections and rehabilitation through probation and parole supervision, and its impact on offenders in the criminal justice system.

CJUST175 SUPERVISED OCCUPATIONAL EXPERIENCE IN CRIMINAL JUSTICE (4) Prerequisite: CJUST102 or CJUST111. Encompasses practical experience in operations of the criminal justice system. Provides students the opportunity to observe and experience operations of a selected agency.

CJUST180 PROBLEMS IN CRIMINAL JUSTICE (1-3)
Independent study of a special problem in criminal justice under the 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.

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.

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 manikins 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 (1) 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 (6) 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 (3) 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.

DH120 BIOMATERIALS LAB (1) After learning about polymers and resins during lecture the student will then 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.

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 (1)
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, 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 4 lecture and 2 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 4 lecture and 2 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. Instruction includes an 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. Discussions on determinants of income, employment, price, business cycles, and the banking system are included, along with role of government in a mixed economy.

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. Students will analyze: types of competitive business situations with special attention to the role of monetary and fiscal policy actions of the government in our economy; and the emerging role and influence of new world economics in relation to the United States.

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)
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.

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) Introduces students to various learning strategies useful in studying and excelling in their courses. Students will be introduced to the topics of time management, note-taking, textbook study, critical thinking, memory improvement, goal-setting, exam preparation, and test-taking.

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 twenty-hour community service component is required.

EDUC140 INTRODUCTION TO TEACHING ONLINE (3) Introductory course is designed to assist faculty in developing classes that are either fully-Webbed or Web-assisted. The intent is to provide 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. There are no on ground meetings with this class.

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. There are no on ground meetings with this class.

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

ELEC109 OPERATIONAL AMPLIFIERS (3) Presents principles and applications of integrated operational amplifiers. Circuits utilizing the multitude of applications are discussed and constructed in the laboratory.

ELEC117 ANALOG/DIGITAL (3) Prerequisite: INDT104 or consent of instructor. ELEC126 is recommended. Course will cover 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) Prerequisite: INDT104

or consent of instructor. 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) Prerequisite: INDT104 is recommended. Comprehensive 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 and submit a written report articulating the concepts and logic process occurring.

ELEC130 MICROCOMPUTER SYSTEMS (3) Prerequisite: ELEC144 or consent of instructor. Microcomputer architecture, I/O, and systems operation. Other topics include peripherals, diagnostics, disk drives, read/write circuitry, interfacing, alignment, and maintenance procedures. Laboratory consists of troubleshooting selected microcomputer systems.

ELEC131 ADVANCED MICROCOMPUTER SYSTEMS (3) Prerequisite: ELEC130 or consent of instructor. Study involving more complex systems, their operation, diagnostic procedures, and peripherals. Laboratory consists of troubleshooting systems on the market today.

ELEC144 MICROPROCESSOR THEORY AND APPLICATIONS W/LAB (4) Prerequisite: ELEC126 or consent of instructor. This course will cover: basic internal architecture of a microprocessor and basic theory of operation; integration within a microcomputer; basic fundamentals of programming in machine language; interfacing between components on the Address Bus and Data Bus; and flow of DATA on the DATA BUS between the microprocessor, RAM and ROM CHIPS, and the peripheral devices and how this is accomplished using the ADDRESS BUS, the CONTROL BUS, and DATA BUS.

ELEC150 IEET INTEGRATION (3) Prerequisite: INDT106, INDT112, INDT114 and ELEC119 or consent of instructor. ELEC152 is recommended. Course will integrate the information and experience gained in all of the previous courses in the program. Students will demonstrate the ability to apply the previously gained information, skills, and experience to design and develop a simulated manufacturing production system using PLCs, limit switches, photo-eyes, proximity sensor, motor starters, AC Drives, motors, and actuators. They 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 workforce as an IEET technician.

ELEC152 POWER DISTRIBUTION AND SWITCHGEAR (3) Prerequisite: INDT104 and INDT106 or consent of instructor is recommended. Course will cover the installation, operation, inspection and maintenance of industrial power systems. Course will look at the 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; neutral and grounding systems.

ELEC154 INDUSTRIAL COMMUNICATIONS (3) Prerequisite: INDT104 and INDT114 or consent of instructor. INDT112 is recommended. Covers the installation, operation, inspection and maintenance of industrial communication networks using serial RS232, Ethernet, and data bus. In addition, the course will study the communication and integration of these devices with computers and PLCs and Web-enabled technology.

ELEC156 MOTION CONTROL SYSTEMS (3) Prerequisite: INDT104 or consent of instructor. INDT112 is recommended. Covers the installation, principle of operation, and application of integrated motion and sequential control devices.

ELEC158 PROCESS CONTROL (3) Prerequisite: INDT104 or consent of instructor. INDT112 is recommended. Covers the dynamics of automatic controls used in industrial processes utilizing conventional feedback control by proportional, integral, and derivative (PID Loops) modes of feedback.

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 BSKILO20 with a grade of 'C' or better. Provides experience in writing as a process, this course emphasizes the techniques of invention, drafting, revision, and editing essays in various forms of exposition. 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) Elective course includes practice in writing original poetry, short stories, and articles for personal satisfaction and/or publication.

ENGL108 APPLIED ENGLISH GRAMMAR (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKILO20 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 BSKILO20 with a grade of 'C' or better and CAPP125 or concurrent enrollment. 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. Will include a library-usage component.

ENGL112 TECHNICAL WRITING (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKILO20 with a grade of 'C' or better. Explores the theory and practice of workplace writing, emphasizing both practical applications and individual/collaborative decision-making. Students use a process approach and a variety of written formats to research and present topics and practice procedures relevant to the technical communication needs of the 21st century workplace. 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, transpiration, and handling of hazardous materials. Emphasis placed on the awareness level, operational level of hazardous materials and on emergencies and fire control and containment. 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.

FIRE 114 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.

FIRE 116 FIRE SERVICE INSTRUCTOR I (3) Study of professional levels of competence required of fire service instructors including developing and delivery of effective training programs to fire service personnel. Instructional and behavioral objectives, student learning caricaturists and motivation as they relate to instructional success are emphasized. 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.

FIRE 118 FIRE APPARATUS OPERATOR (3) Identifies the professional levels of competence required of the fire apparatus driver/operator including the NFPA 1002 standards. Topics include apparatus equipped with attack or fire pump, aerial device, and tiller as well as wildland fire, mobile water supply, aircraft rescue and fire firefighting apparatus.

FIRE 120 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. Topics include foundations, floors, walls and roofs as well as the dangers of each. 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. These skills will enable the students to develop the function and structure of the French language: basic vocabulary. 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. These skills will enable students to develop the function and structure of French language: basic vocabulary. 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). Intended to introduce the fields of GPS and GIS as an elective course choice. ArcView and GeoLink are the software packages used to familiarize the student with these technologies. Course is project oriented and upon completion a pre-designated level of expertise will be expected. 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

HEOCC101 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.

HEOCC110 EMT (EMERGENCY MEDICAL TECHNICIAN) TRAINING (8) Course covers all emergency medical aspects and techniques used by EMT's who provide emergency care in the pre-hospital environment set forth by the Bureau of Emergency Medical Services of the State of Missouri. This course, which exceeds the course requirements established by the Department of Transportation, will cover modules relating to CPR, airway management, anatomy and physiology, and trauma.

HEOCC135 ALLIED HEALTH CAREER DEVELOPMENT (1/2) Designed to help a student develop career potential. The student 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.

HEOCC140 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. Topics include the impact of technology in health care, communication approaches using technology, electronic health records, health care and nursing languages, understanding databases, protection of health care information, telehealth, education, and research. 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.

HEOCC180 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

HUMAN101 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.

HUMAN104 LIVING RELIGIONS (3) Survey of living religions of the world. Study will focus on Buddhism, Hinduism, Islam, Judaism, and Christianity.

HUMAN108 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.

HUMAN109 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 twentieth century.

HUMAN120 AMERICAN DIVERSITY (3) Overview of global and American diversity resulting from cultural interactions, especially in the areas of art, government, economics, 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

INMNT104 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, general equipment.

INMNT105 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.

INMNT112 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.

INMNT115 INTRODUCTION TO SYSTEMS (3) Introduction to the devices and components and of industrial automation, sensors, switches, fluid power components, combination of technologies in the systems of manufacturing/industrial processes.

INMNT126 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, alignment, predictive & preventive maintenance and maintenance systems.

INMNT133 FLUID POWER TECHNOLOGY (3) Principles and applications of fluid power technology in industrial systems. Operation, troubleshooting, maintenance of hydraulic/pneumatic pressure, flow, directional control, electrical devices, conduits, pumps, compressors, actuators, ancillary devices, conditioning/filtration of fluids.

INMNT135 PRINCIPLES OF REFRIGERATION (3) Study of the principles of refrigeration, refrigerants, components, types of systems, operation, electrical controls, troubleshooting, servicing and maintenance.

INMNT141 PROGRAMMABLE LOGIC CONTROLLERS II (3)
Prerequisite: INDT114 or INMNT115. A study of the interface between machine and controller, advanced programming functions, troubleshooting. Emphasis on developing programs and interfacing with industrial type devices.

INDUSTRIAL SUPERVISION

INDMT103 INVENTORY AND PRODUCTION CONTROL (3)
Study of production planning, scheduling, follow-up and control of raw material, parts and finished goods inventories.

INDMT111 QUALITY MANAGEMENT AND CONTROL (3)
Prerequisite: BSMGT108. Study of quality management principles and quality control procedures. Students are exposed to various quality management theories including TQM. 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 manufacturing and construction. It includes symbols and prints used in construction, drafting, electrical, machining and welding.

INDT104 ELECTRIC FUNDAMENTALS (3) Introduction to DC and AC electrical theory. Topics include, Ohm's Law calculation, electrical quantities and values, magnetism, static charges, 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.

INDT112 MOTOR CONTROL (3) Control of motors in industrial processes, including basic control circuit and motor control circuit construction and troubleshooting.

INDT114 PROGRAMMING PLC'S (3) Introduction to Programmable Logic Control, hardware, software, application of elementary PLC 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) 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. 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. 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. 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. Study of major English authors and works from Beowulf to the present.

LIT111 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. Meets one of the requirements for an elementary education degree.

LIT114 TOPICS IN LITERATURE (3) Includes the study of a major writer, a literary type, or a theme in literature. Content changes and may include such topics as the historical novel, a recent development in drama, women in literature, or works of a single author. Specific subjects are announced each semester in which the course is offered.

LIT180 PROBLEMS IN LITERATURE (1-3) 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.

MACH114 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.

MACH115 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.

MACH175 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.

MACH180 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

MRNTC101 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.

MRNTC105 MARINE IGNITION SYSTEMS (3) Prerequisite: Completion of shop safety test. Outboard, inboard, inboard/outboard, and personal watercraft ignition systems are explored in this course.

MRNTC107 MARINE STARTER AND CHARGING SYSTEMS (2) Prerequisite: Completion of shop safety test. This course

follows the progression of starter and charging systems in the outboard, inboard/outboard, and the personal watercraft.

MRNTC109 MARINE COOLING SYSTEMS (2) Prerequisite: Completion of shop safety test. Pressure and volume water pumps, pumps in the gear housing, pumps mounted on the engines, circulating pumps are a few of the systems used in the cooling process.

MRNTC111 MARINE LUBRICATION SYSTEMS (2) Prerequisite: Completion of shop safety test. 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.

MRNTC113 MARINE ENGINE COMPONENT AND PRECISION MEASURING (3) Prerequisite: Completion of shop safety test. Course provides the technician with the skills to determine if an engine component is reusable.

MRNTC115 MARINE SHOP PROCEDURES AND BUSINESS OPERATIONS (2) Prerequisite: Completion of shop safety test. Properly completing a repair order is the first document in the process to provide 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.

MRNTC117 MARINE ENGINE SYSTEMS ANALYSIS (2) Prerequisite: Completion of shop safety test. 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.

MRNTC119 MARINE SYSTEMS PREVENTIVE MAINTENANCE (4) Prerequisite: Completion of shop safety test. 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.

MRNTC121 MARINE POWER TRANSFER SYSTEMS (4) Prerequisite: Completion of shop safety test. 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.

MRNTC123 MARINE SYSTEMS TROUBLESHOOTING (3) Prerequisite: Completion of shop safety test. 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.

MRNTC125 MARINE FUEL SYSTEMS (4) Prerequisite: Completion of shop safety test. The course will cover the complexities of marine fuel systems and automatic oiling systems.

MRNTC127 MARINE INSTRUMENTATION SYSTEMS (2) Prerequisite: Completion of shop safety test. 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.

MRNTC129 MARINE POWER TRIM/TILT SYSTEMS (2)

Prerequisite: Completion of shop safety test. 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.

MRNTC175 INTERNSHIP (5) The internship consists of 320 working hours at an approved marine facility.

MASS COMMUNICATION

MCOMM101 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.

MCOMM112 INTRODUCTION TO PUBLIC RELATIONS (3) 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. Course has application for future managers and organizational communication specialists.

MCOMM114 NEWS REPORTING I (3) Prerequisite: BSKIL020 or consent of instructor. Includes the examination of news value, rights and responsibilities of the press, news gathering and reporting techniques, leads, interviewing, style, specialized articles.

MCOMM115 NEWS REPORTING II (3) Prerequisite: MCOMM114 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.

MCOMM117 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.

MCOMM180 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 BSKIL061. 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 BSKIL061 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, 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 BSKIL064 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.

MATH118 INTRODUCTION TO DISCRETE MATHEMATICS (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. Mathematical topics related to the computer and information sciences will include: Binary, hexadecimal, and octal number systems, computer arithmetic, logic and truth tables, sets and relations, Boolean algebra and logic gates, vectors, matrices and subscripted variables, and linear systems. This course will satisfy the A.A. math requirement.

MATH120 TRIGONOMETRY (3) Fall only. Prerequisite or corequisite: 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

MEOFF101 MEDICAL TERMINOLOGY I (3) Fall only. 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.

MEOFF102 MEDICAL TERMINOLOGY II (3) Spring only. Prerequisite: MEOFF101. 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.

MEOFF103 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.

MEOFF105 MEDICAL OFFICE PROCEDURES (3) Spring only. Prerequisites: CAPP118, and preferably MEOFF101. 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.

MEOFF107 MEDICAL TRANSCRIPTION (3) Prerequisites: MEOFF101, CAPP118, OFADM118, 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.

MEOFF108 BODY STRUCTURE AND FUNCTION FOR MEDICAL OFFICE ADMINISTRATION (3) Fall only. Prerequisite: MEOFF101 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.

MEOFF110 CLINICAL ASSISTING TECHNIQUES (3) Fall only. 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.)

MEOFF111 CLINICAL PRACTICUM (1) Prerequisites: MEOFF110 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.

MEOFF112 ADVANCED MEDICAL TRANSCRIPTION (3) Prerequisites: MEOFF107 (and all prerequisites), CAPP118 and CAPP134. Individualized course to provide extensive machine transcription of advanced medical dictation with a focus on formatting, preparing templates, increasing typing speed and accuracy, proofreading, spelling, and mailability of various medical documents.

MEOFF118 PROCEDURE AND DIAGNOSIS CODING (3) Spring only. Course for medical office employees and Medical

Office Administration majors. Will enable the student to help physicians receive proper reimbursement from third-party payors. Insurance claim completion and processing will be discussed and students will acquire a working knowledge of current procedural (CPPT-4) as well as diagnosis coding (ICD-9-CM) through practical experience in coding from medical records.

MEOFF119 ADVANCED PROCEDURE AND DIAGNOSIS CODING (3) Prerequisites: MEOFF118, CAPP134, 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 (CPPT-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.

MEOFF125 MEDICAL SKILLBUILDING (1) Prerequisite: MEOFF101 and CAPP118. Individualized course to improve keyboarding accuracy and to increase keyboarding speeds required for medical transcription.

MEOFF130 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.

MEOFF175 MEDICAL OFFICE INTERNSHIP (3-4) Prerequisites: MEOFF101, 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

MUSIC101 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.

MUSIC103 MUSIC HISTORY AND LITERATURE I (2) Humanities course (for music majors and minors 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.

MUSIC104 MUSIC HISTORY AND LITERATURE II (2) Prerequisite: MUSIC103. Survey of music history and literature is a continuation of Music History and Literature I.

MUSIC105 STATE FAIR SHOW CHOIR (2) Prerequisite: Audition by appointment. Students who make up the SFCC "Almost Famous Singers" perform in college and community concerts as well as a school tour and an international trip each spring.

MUSIC107 COLLEGE CHORUS (1) Students perform the best of choral literature, representative works in various styles of choral composition. Open to all who enjoy singing.

MUSIC111 SMALL ENSEMBLE—VOCAL (1) Prerequisite: Admission by permission of instructor. Perform and study music written specifically for smaller vocal musical ensembles.

MUSIC112 SMALL ENSEMBLE—INSTRUMENTAL (1) Prerequisite: Admission by permission of instructor. Perform and study music written specifically for smaller instrumental music ensembles.

MUSIC115 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.

MUSIC116 MUSIC THEORY AND AURAL TRAINING II (4) Prerequisite: MUSIC115 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.

MUSIC117 MUSIC THEORY AND AURAL TRAINING III (4) Prerequisite: MUSIC116 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.

MUSIC118 MUSIC THEORY AND AURAL TRAINING IV (4) Prerequisite: MUSIC117 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.

MUSIC125 PIANO LAB CLASS I (2) Practical study of learning to play piano designed for any beginner. Instruction is aided by a full piano lab system available to the student for daily use and practice.

MUSIC126 PIANO LAB CLASS II (2) Prerequisite: MUSIC125 or entrance by examination. Continuation of the practical study of piano aided by the full piano lab system available to the student for daily use and practice.

MUSIC127 APPLIED PIANO CLASS (1-2) Performance-oriented study of piano literature and performance techniques. Open to any interested student.

MUSIC133 APPLIED VOICE CLASS (1-2) Performance-oriented study of techniques of vocal performance. Open to any interested student.

MUSIC135 APPLIED INSTRUMENTAL MUSIC (1-2) Prerequisite: Consent of music advisor. Performance-oriented study of the technique and literature associated with a specific musical instrument.

MUSIC140 GUITAR CLASS I (2) Practical study of the guitar designed for beginning students with less than one year of experience.

MUSIC141 GUITAR CLASS II (2) Prerequisite: MUSIC140 or consent of instructor. Designed to allow the student to continue studying guitar beyond Guitar Class I.

MUSIC180 PROBLEMS IN MUSIC (1-3) Independent study of a special problem in music under the supervision of a music instructor.

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) TCP/IP 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. NT SERVER 4.0 in the Enterprise is an introduction to NT in multi-domain environments. Includes planning a domain model in the enterprise environment, internet work connectivity, system

analysis, troubleshooting and repair.

NET134 WEB SERVER (3) Prerequisite: NET120 or consent of instructor. 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 ROUTER PROTOCOLS (3) Prerequisite: NET 151. 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.

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.

NURSING, ASSOCIATE DEGREE

NURSD101 CAREER MOBILITY (1) For prospective Associate Degree Nursing students to provide information about the program. Students complete admission tests, learn about career opportunities, learn about scholarships available, and develop skills in stress management and test taking.

NURSD110 INTEGRATED NURSING (16) Designed to initiate role change from the practical nurse to the registered nurse with emphasis on nursing process and advanced skill unique to role of the registered nurse. General hospitals and selected health care settings are utilized.

NURSD112 PSYCHIATRIC NURSING (6) Focuses on the multidimensional aspects of the individual and is viewed in relation to the needs both past and present and patterns of behavior the client has learned to use to meet those needs. Importance is placed on the dynamic approach, particularly the interpersonal theories, and the nurse-patient relationship in theory and practice, and the therapeutic communication through the nursing process. Selected community facilities and health agencies are utilized for clinical experience.

NURSD121 MICROBIOLOGY W/LAB (4) Prerequisite: Recommend 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 primarily for nursing and health-related professions.

NURSD124 FAMILY NURSING (10) Designed to develop the student's ability to care for the family across the life span. Nursing theory and practice will include experiences with childbearing and childrearing families in a variety of health care and community settings. Issues related to the family and its members will include, but are not limited to, oncology, women's health, palliative care and grief and loss.

NURSD125 LEADERSHIP AND COMMUNITY HEALTH TRENDS AND ISSUES IN NURSING (6 1/2) Designed to develop the individual's ability in management, delegation, and organization of nursing care in acute care and community settings. Nursing theory and practice experience will revolve around current trends in ethical, legal aspects, professional organization membership, principles of community health and the nurse's role in community settings. The impact of cultural diversity on the nurse's leadership and community health roles will be explored.

NURSING, PRACTICAL

NURSP101 PERSONAL-VOCATIONAL CONCEPTS (2) Introduction to the communication skills necessary to the practice of nursing. Behavioral concepts of all individuals are stressed. History, role identification, responsibility and legal aspects of the licensed practical nurse is included.

NURSP105 PERSONAL COMMUNITY LIVING (3) Emphasis is placed on the educational and participative roles of the licensed practical nurse in the areas of health and wellness promotion, safety, the prevention of infection and disease within the community, family, and individual. The importance of personal health as a factor to functioning as a health team member is also stressed.

NURSP106 NUTRITION (3) Essential nutrient digestion, absorption, metabolism, and excretion are emphasized. Diet self analysis and current issues in nutrition will aid the student in applying the basic concepts to everyday situations throughout the lifespan.

NURSP108 FUNDAMENTALS OF NURSING I (3) Presents basic nursing skills that every nurse must master to give competent nursing care. The course integrates knowledge from physical and behavioral sciences with clinical nursing skills.

NURSP109 FUNDAMENTALS OF NURSING II (7) Presents basic nursing skills that every nurse must master to give competent nursing care. The course integrates knowledge from physical and behavioral sciences with clinical skills. The nursing process is stressed as the framework for administering nursing care. Cultural diversity, spirituality, and verbal, nonverbal, and written communication are also included. Concurrent clinical experiences are provided in a long-term care facility and hospital.

NURSP110 ADMINISTRATION OF MEDICATIONS (2 1/2) Introduces the student practical nurse to mathematics for medication, and techniques of drug administration. The nurse's responsibility for safely administering each medication is stressed.

NURSP112 MEDICAL-SURGICAL NURSING I (3) Presents principles and nursing care of patients experiencing pain, surgery, infection, cancer, and hematological problems. Also includes functions of the LPN in performing IV therapy and

the basic principles of IV therapy.

NURSP113 MEDICAL-SURGICAL NURSING II (14) Focus is on meeting people's needs for health promotion and health restoration throughout adulthood in a variety of settings. Within the framework of the nursing process; planning, implementation and evaluation, an emphasis is placed on critical thinking and application. Pharmacology and principles of IV therapy are integrated throughout the course. Concurrent clinical experience is provided.

NURSP114 MEDICAL-SURGICAL NURSING III (8 1/2)
Continuation of Medical-Surgical Nursing II.

NURSP116 GERONTOLOGICAL NURSING (4 1/2) Presents basic nursing information regarding the normal and abnormal effects of aging in the older adult and the effects on their family residing within the community, acute care, residential care, and long-term care environments. Emphasis is placed on maintaining health and wellness and functionality in addressing the physical, spiritual, cultural, and developmental aspects of the older adult. Utilizing the framework of the nursing process, the student is acquainted with the older adult's response to the most common disease processes and the effects of the most commonly prescribed medications on the aged population. Varying treatment and prevention methods are stressed in regard to diseases, medication administration and basic IV therapy principles for the older adult population. Concurrent clinical experiences are provided in the acute and long-term care setting and community activities are encouraged.

NURSP118 MATERNITY-NEWBORN NURSING (5) Family centered course with emphasis on the special physical and emotional needs of the total family. Pharmacology is introduced as it relates to the mother and newborn. Concurrent clinical experiences include labor and delivery, newborn nursery, postpartum, and observations of obstetrics.

NURSP120 PEDIATRIC NURSING (5) Encompasses the nursing care of children within the family structure. Normal growth and developmental concepts provide a correlation between the well and ill child. Pharmacology and IV therapy are included and outline the differences between the adult and the pediatric dosages and methods of administration. Current clinical experiences are provided that include the hospital pediatric unit and community pediatric agencies.

NURSP121 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.

NURSP130 PRACTICAL NURSE PREP WORKSHOP (1/2) To inform potential students of all aspects of the practical nursing program and review program requirements. A test is administered to evaluate essential academic skills.

OFFICE ADMINISTRATION

OFADM108 GREGG SHORTHAND I (3) Provides the beginner with a knowledge of the Gregg Shorthand theory or the review student with review of the theory and further development of dictation and transcription skills. Optional test out.

OFADM109 GREGG SHORTHAND II (3) Prerequisite: OFADM108. Individualized course designed to increase the student's rate of taking and transcribing shorthand with intensive dictation and transcription and reviewing correct punctuation practices and spelling. Optional test out.

OFADM112 SPEEDWRITING I (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKIL020 with a grade of 'C' or better. Presents an individualized alphabetic shorthand system designed to develop the technical skills required for taking dictation and transcribing notes into mailable documents. Basic English skills, spelling, punctuation, proofreading, and other necessary transcription skills are emphasized. Optional test out.

OFADM113 SPEEDWRITING II (3) Prerequisite: OFADM112. Individualized follow-up to theory presentation of the shorthand system designed to increase the ability to transcribe dictation into mailable documents. Emphasis is placed on speed. Optional test out.

OFADM116 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.

OFADM118 TRANSCRIPTION SKILLS (3) Prerequisite: Minimum Enhanced ACT English score of 19 or equivalent placement score or BSKIL020 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.

OFADM119 MACHINE TRANSCRIPTION (3) Prerequisites: CAPP118, OFADM118, 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.

OFADM121 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.

OFADM123 PROFESSIONAL BUSINESS LEADERSHIP (PBL) (1) Applied course in professional leadership to bring business and education together in a positive working relationship. Office Administration majors: Optional after first semester; then 3 additional credit hours may be used as program elective if student participates in PBL Membership Recognition Program.

OFADM132 OFFICE DYNAMICS FOR ASSISTANTS (3)
Prerequisites: OFADM116, OFADM119 or CAPP166 with ACCTG100, 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.

OFADM134 OFFICE DYNAMICS FOR ADMINISTRATORS (3)

Prerequisites: OFADM116, OFADM119, CAPP166, ACCTG100, or concurrent enrollment. Capstone course of the Office Administration degree. 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.

OFADM176 OFFICE INTERNSHIP (4) Prerequisite: OFADM134 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

*PEACT courses that may be repeated. Only 2 semester hours of PEACT courses may be applied to an A.A. degree as electives.

PEACT102 RECREATIONAL VOLLEYBALL (1) Presents basic skills to utilize the mechanical principles related to movement for efficient performance of volleyball skills, practice, and competition.

PEACT103 BADMINTON (1) Designed to develop the skills required to play badminton.

PEACT104 RECREATIONAL GAMES (1) Development of skills, knowledge, rules, and appreciation of activities such as horseshoes, shuffleboard, table tennis, badminton, etc.

PEACT105 BOWLING I (1) History, fundamental skills, techniques, rules, strategy, and safety skills of bowling.

PEACT106 BOWLING II (1) Prerequisite: PEACT105. 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.

PEACT108 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.

PEACT109 ARCHERY (1/2-1) Presents the techniques of target archery and field archery. Rules, scoring, terminology, equipment, etiquette and safety skills are stressed.

PEACT110 ADVANCED ARCHERY (1/2-1) Prerequisite: PEACT109. Continuation of study in techniques of target and field archery.

PEACT112 TENNIS (1) Course to acquaint the student with basic knowledge and skills appropriate to perform in tennis.

PEACT114 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.

PEACT116 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.

PEACT117 BUILDING FITNESS FOR LIFE II (1) 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.

PEACT118 AEROBICS* (1) Complete fitness program designed to combine exercise and fun. Course fulfills wellness requirement for A.A. or A.A.S.

PEACT119 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.

PEACT121 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.

PEACT122 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.

PEACT124 VARSITY BASKETBALL—MEN* (1) Participation in the men's varsity basketball program.

PEACT125 VARSITY BASKETBALL—WOMEN* (1) Participation in the women's basketball program.

PEACT128 VARSITY VOLLEYBALL* (1) Participation in the women's varsity volleyball program.

PHYSICAL EDUCATION — PROFESSIONAL

PEPRO101 SPORTS OFFICIATING I (2) Includes lectures, readings, class discussions, and field experience in the officiating of fall sports—football, soccer, basketball, etc.

PEPRO102 SPORTS OFFICIATING II (2) Includes lectures, readings, class discussions, and field experience in the officiating of spring sports—softball, baseball, volleyball, etc.

PEPRO104 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.

PEPRO106 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; opportunities for integrating the physical

education program with the school curriculum. Course fulfills wellness requirement for A.A. degree.

PEPRO108 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.

PEPRO180 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: EITHER (1) Minimum Enhanced ACT math score of 23 or equivalent placement score, (2) MATH112, or (3) consent of instructor. Designed to meet the requirements of the various pre-professional courses. Topics include mechanics, wave motion, and heat. Instruction consists of 4 lecture and 2 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 2 lecture and 2 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 4 lecture and 2 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 4 lecture and 2 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

POLSC101 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.

POLSC102 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.

POLSC103 INTRODUCTION TO POLITICAL SCIENCE (3) Includes a 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.

POLSC175 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.

POLSC180 PROBLEMS IN POLITICAL SCIENCE (1-3) Independent study of a special problem in political science under the supervision of a political science instructor.

PSYCHOLOGY

PSYCH101 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.

PSYCH102 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.

PSYCH104 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.

PSYCH150 EDUCATIONAL PSYCHOLOGY (3) Prerequisite of or concurrent enrollment in EDUC101 or consent of instructor. 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.

PSYCH180 PROBLEMS IN PSYCHOLOGY (1-3) Independent study of a special problem in psychology under the supervision of a psychology instructor.

RADIOLOGIC TECHNOLOGY

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% 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% 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, and 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) Introduction to drugs commonly used in medical imaging with emphasis on pharmacokinetics and pharmacodynamics. Routes of administration and venipuncture techniques will also be covered.

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% 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.

SOCIOLOGY

SOC100 GENERAL SOCIOLOGY (3) Introduction to the scientific study of human behavior and the social settings that influence that behavior. Set within an understanding of the elements of culture, the course will investigate groups, deviance, racism and ethnocentrism, the family, economic and political institutions, social mobility, and concepts related to current social and cultural change.

SOC101 SOCIAL PROBLEMS (3) Prerequisite: SOC100. Study of the sociology of social problems. Students learn about the background and analysis of selected social problems and social changes in light of social controls and democratic values.

SOC102 MARRIAGE AND FAMILY (3) Study of the role of the individual in marriage and the family, functions of dating and courtship, variations in family forms, and marriage breakdown and alteration.

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) An 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 or equivalent placement score or completion of BSKIL020 with a grade of 'C' or better. Students who have successfully completed two or more years of high school Spanish should enroll in Elementary Spanish II. Presents the fundamentals of Spanish pronunciation and the building of a basic vocabulary and speech patterns.

SPAN102 ELEMENTARY SPANISH II (3) Prerequisite: SPAN101 or successful completion of two or more 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 grammar and aural comprehension.

SPAN103 INTERMEDIATE SPANISH I (3) Prerequisite: SPAN102 or equivalent. As a continuation of Elementary Spanish II, students will continue to develop their skills.

SPAN104 INTERMEDIATE SPANISH II (3) Prerequisite: SPAN103 or equivalent. Designed to assist students in completing and perfecting their language skills. There is an increased emphasis on conversational ability.

SPEECH AND THEATER

SPHTR101 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.

SPHTR103 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.

SPHTR105 INTERPERSONAL COMMUNICATION (3) Presents theories, principles and techniques of communication as they apply to one-to-one, small groups, and conference interaction.

SPHTR107 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.

SPHTR110 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.

SPHTR111 ACTING I (3) Intensive study of the techniques of acting with concentration on bodily movement, balance, diction, voice, and characterization.

SPHTR113 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.

SPHTR115 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.

SPHTR119 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.

SPHTR180 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

WEB108 FRONTPAGE (1) This course covers the use and implementation of FrontPage software to create Web pages. Students will learn to build their own homepage incorporating graphics, tables and other multimedia elements.

WEB110 HTML (1) This course provides an overview of HTML basics. Students will learn to use and implement HTML container tags to create Web pages.

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) This 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) This course provides extensive instruction into the creation and manipulation of graphics files through the software package Adobe Photoshop. This 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) This 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.

WELD108 METAL ARC WELDING (2) Basic course consisting of the same fundamentals as taught in WELD101. A minimum of four lecture hours per course of safety, equipment basics of welding, and its application in the metal fabrication and repair shop and industry. Combined with the oxyacetylene welding course, the experience and credits received will equal WELD101.

WELD110 OXYACETYLENE WELDING (2) Basic course covering safety, basics in welding, brazing, and cutting. A minimum of four lecture hours on basic introduction to oxyacetylene welding, setting up equipment and safety. Combined with metal arc welding course, the experience and credits will equal WELD101.

WELD112 MIG — METALLIC INERT GAS WELDING (2) Prerequisite: WELD101 with a grade of 'C' or better or welding experience and instructor approval. Advanced course method of welding on thin through thick metals in various positions. Four hours lecture per course on safety, machine set up and operation, and metal preparation.

WELD114 TIG — TUNGSTEN INERT GAS WELDING (2) Prerequisite: WELD101 with a grade of 'C' or better or welding experience and instructor approval. Student will gain a high degree of technical knowledge in an area of advanced welding, setting up equipment and welding ferrous and nonferrous metals in the four basic positions. This process requires excellent coordination. Four hours lecture on safety, setting up machines, metal and electrode preparation, and inert gas handling.

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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