[SECTION 1]

2018-2020 Calendar

President's Message

Board of Trustees and Administration

Introduction to State Fair Community College

Admission and Enrollment

Academic Standards

Student Code of Conduct

Students' Right to Know

State Fair Community College

GENERAL INFORMATION

2018-2020 Calendar 1|5
President's Message 1|5
Board of Trustees and Administration 1|6
General Information 1|7
- Welcome
- Mission
- Vision
- Core Values
- Institutional Learning Outcomes
- Governance
- Accreditation
- Policies and Regulations
- Nondiscrimination Notice
- Accessibility and Accommodations
- SFCC is Smoke-Free
- Directory of Locations and Sites

Admission and Enrollment 1|9
- Admission
- Assessment Testing and Placement
- Enrollment
- Residency
- Tuition, Fees and Books
- Financial Aid

Academic Standards 1|17
- Academic Forgiveness
- Attendance
- Developmental Courses
- Credit for Prior Learning
- Degree Program Statute of Limitations
- Grade Reports
- Grading System
- Graduation Requirements
- Honors List
- Military Withdrawal
- Repeating Courses
- Schedule Changes
- Student Academic Progress
- Student Classification
- Student Course Load
- Transcripts
- Transfer of Credit

Student Code of Conduct 1|27
- Prohibited Conduct and Disciplinary Actions
- Academic Honesty Policy
- Children in the Classroom
- Children in the Library
- Copyright
- Drugs and Alcohol and Tobacco Products
- Firearms and Weapons
- Retaliatory Harassment

Students' Right to Know 1|32
- Campus Crime and Security
- Complaint Process
- Confidentiality
- Crime Reporting
- Communicable Diseases
- Family Educational Rights and Privacy Act (FERPA)
- Grievance and Appellate Process
- Intellectual Property
- Reporting and Record Keeping
- Searches by College Personnel and/or Law Enforcement
- Students with Disabilities
- Students with Disabilities Testing Accommodations

Program Requirements 2|4
- Associate of Arts (AA)
- Associate of Fine Arts (AFA)
- Associate of Arts in Teaching (AAT)
- Associate of Science in Chemistry (AS)
- Associate of Science in Engineering (AS)
- Associate of Applied Science (AAS)

Program Requirements for Associate of Applied Science Degrees and Professional and Skills Certificates 2|17
- Accounting, AAS
- Agriculture
  - Agribusiness, Professional Certificate
  - Agriculture, with Emphasis in Agribusiness, AAS
  - Agronomy, Professional Certificate
  - Agriculture with Emphasis in Agronomy, AAS
  - Agriculture with Emphasis in Animal Science, AAS
  - Agriculture with Emphasis in Horticulture, AAS
- Automotive Technology
  - Advanced Driveability, Skills Certificate
  - Automotive Chassis, Skills Certificate
  - Automotive Electrical/Electronics, Heating/Air Conditioning, Skills Certificate
  - Automotive Transmission, Driveline and Axles, Skills Certificate
  - Automotive Technology, Professional Certificate
  - Automotive Technology, AAS
- Business Management
  - Retail Sales, Skills Certificate
  - First Line Supervision, Professional Cerificate
  - Business Management, Management Specialty, AAS
  - Office Support Services, Professional Certificate
  - Business Management, Office Management Specialty, AAS

Computer and Network Administration
- Enterprise Server Administration, Skills Certificate
- Information Security, Skills Certificate
- Storage and Virtualization, Skills Certificate
- Computer and Network Administration, AAS

Computer Information Systems
- Computer Information Systems with Emphasis in Accounting, AAS
- Programming, Skills Certificate
- Computer Information Systems with Emphasis in Programming, AAS
- Computer Information Systems with Emphasis in Web Development, AAS

Construction Management Technology
- Construction Management Technology, Professional Certificate
- Construction Management Technology, AAS

Criminal Justice, AAS

Dental Hygiene, AAS

Diagnostic Medical Sonography, AAS

Early Childhood Development, AAS

Engineering Design Technology
- Architectural Design, Skills Certificate
- Mechanical Design, Skills Certificate
- Engineering Design Technology, Professional Certificate
- Engineering Design Technology, AAS

Health Care Specialist
- Nurse Aide, Skills Certificate
- Nurse Aide, Professional Certificate
- Health Care Specialist with Emphasis in Nurse Aide, AAS
- Pharmacy Technician, Skills Certificate
- Pharmacy Technician, Professional Certificate
- Health Care Specialist with Emphasis in Pharmacy Technician, AAS

Health Information Technology
- Medical Coding, Professional Certificate
- Health Information Technology, AAS

Industrial Technology
- Electro-Mechanical Technology, Skills Certificate
- Manufacturing Production Technician, Skills Certificate
- Total Productive Maintenance, Professional Certificate
- Industrial Technology with Emphasis in Electrical Maintenance, AAS

Manufacturing Technology
- CNC Operation, Skills Certificate
- Machinist Level I, Skills Certificate
- Machinist Level II, Skills Certificate
- Machine Tool Technology, Professional Certificate
- Manufacturing Technology with Emphasis in Precision Machining Technology, AAS
- Structural Welding, Skills Certificate
- Pipe Welding, Professional Certificate
- Welding Technology, Professional Certificate
- Manufacturing Technology with Emphasis in Welding Technology, AAS

Marine Technology, AAS

Medical Assisting
- Medical Assisting, Professional Certificate
- Medical Assisting, AAS

Medical Laboratory Techician, AAS

Nursing
- Practical Nursing, Professional Certificate
- Nursing, AAS

Occupational Therapy Assistant, AAS

Radiologic Technology, AAS

Course Descriptions **3|2**

This section can be found online at **www.sfccmo.edu**.

FALL 2018

Aug. 9	Campus closes at noon
Aug. 20	Semester starts
Sept. 3	Labor Day – closed
Sept. 14	All-staff meeting – offices closed; 12:30 to 5 p.m.; classes in session
Sept. 25	Career Day – no day classes
Nov. 20	Campus closes at 5 p.m.
Nov. 21-23	Thanksgiving break – closed
Dec. 10-14	Day and evening finals
Dec. 14	Semester ends
Dec. 19	Campus closes at noon until Jan. 2

FALL 2019

Aug. 8	Campus closes at noon
Aug. 19	Semester starts
Sept. 2	Labor Day – closed
Sept. 13	All-staff meeting – offices closed; 12:30 to 5 p.m. classes in sessions
Sept. 24	Career Day – no day classes
Nov. 26	Campus closes at 5 p.m.
Nov. 27-29	Thanksgiving break – closed
Dec. 9-13	Day and evening finals
Dec. 13	Semester ends
Dec. 18	Campus closes at noon until Jan. 2

SPRING 2019

Jan. 2	Campus reopens after Christmas break
Jan. 10	All-staff meeting – offices closed 8 to 11 a.m.
Jan. 14	Semester starts
Jan. 21	Martin Luther King Jr. Day – closed
Feb. 18	Presidents Day - closed
March 5	Professional development day – no classes
March 18-22	Spring break – closed
April 19	Spring holiday – closed
May 13-17	Day and evening finals
May 17	Semester ends
May 17	Commencement

SPRING 2020

Jan. 2	Campus reopens after Christmas break
Jan. 9	All-staff meeting – offices closed 8 to 11 a.m.
Jan. 13	Semester starts
Jan. 20	Martin Luther King Jr. Day – closed
Feb. 17	Presidents Day – closed
March 3	Professional development day – no classes
March 16-20	Spring break – closed
April 10	Spring holiday - closed
May 11-15	Day and evening finals
May 15	Semester ends
May 15	Commencement

SUMMER 2019

May 27	Memorial Day – closed
June 4	Term starts
July 4	Independence Day – closed
July 26-30	Day and evening finals
July 30	Term ends

SUMMER 2020

May 25	Memorial Day – closed
June 3	Term starts
July 6	Independence Day observed – closed
July 27-29	Day and evening finals
July 29	Term ends

Dear Students, Prospective Students and Parents,

Thank you for including State Fair Community College (SFCC) in your educational plans. We look forward to visiting with you personally and helping you achieve your educational and career goals. Your success is our number one goal!

SFCC's mission is to be an accessible, learning-centered institution, enriching its students and community by providing skills, knowledge and perspectives essential for a changing world. In today's world of rapidly changing technologies and global competition for skilled and well-educated employees, this mission statement is especially important. SFCC is here for you today and will be here for you as you continue to pursue a lifetime of learning.

SFCC's educational programs are designed to meet a variety of academic, career and personal educational goals for students of all ages and educational backgrounds. Programs and services are offered on the Sedalia campus, online, and at extended campus locations in Boonville, Clinton, Eldon, Lake of the Ozarks, Warsaw, and Whiteman Air Force Base.

Educational and training programs are provided in the following areas: general education and transfer—the Associate of Arts, Associate of Fine Arts, Associate of Science, and Associate of Arts in Teaching degrees; career programs in technical, vocational and professional fields—the Associate of Applied Science degrees, Professional Certificates and Skills Certificates; college-readiness classes; and a variety of noncredit courses, workshops and training that includes continuing education and personal enrichment classes; high school equivalency test preparation and ELL classes; and customized training for business and industry. Many programs and courses are offered on-ground or online; some are offered as a hybrid, which combines on-ground and online instruction.

SFCC also delivers dual credit courses to more than 900 high school juniors and seniors at 40 locations throughout the college's 14-county service area. Additionally, the State Fair Career and Technology Center (CTC) is located on the SFCC campus. The CTC offers training to high school juniors and seniors in eight technical program areas.

SFCC has a long history of knowing our students personally both in and out of the classroom; we like to call it the "personal touch." It is what you will experience at SFCC! All students quickly become a member of our SFCC extended family. Students are our first priority and serving our communities is our second priority. Every employee is committed to providing quality services and programs for all students. We look forward to serving you!

With warmest regards,

Joanna Anderson, Ed.D.
President

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Division Chairs

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Kaley Hobbs, Communication Studies and Wellness

Jodi Fudge, Business and Technology

Kim Miller, Math, Science and Agriculture

Welcome to State Fair Community College!

This catalog is designed to help with planning your educational program. It contains information about admission, enrollment and programs. Descriptions of all active courses that are part of the regular curriculum are included, as well as the courses required for general education credits for the Associate of Arts, Associate of Fine Arts, Associate of Arts in Teaching, Associate of Science, and Associate of Applied Science degrees awarded by the college and career courses that apply to the Professional Certificates and Skill Certificates.

Mission

State Fair Community College provides relevant and innovative learning experiences that successfully prepare students for college transfer, career development and lifelong learning. SFCC is committed to being accessible and affordable; values collaborative partnerships; and strengthens and enriches the intellectual, economic and cultural vitality of the communities it serves.

Vision

State Fair Community College will be an exceptional student-centered college that empowers individuals to grow, thrive and prosper within a changing world.

Core Values

We at State Fair Community College value:

People: Work collaboratively in a supportive environment that keeps students central and values employees, the college family and the people we serve
Excellence: Focus on quality and continuous improvement in programs, services and processes
Diversity: Ensure fair and equal access for all; recognize, appreciate and celebrate the strength of diversity
Innovation: Encourage and reward new ideas, proactive thinking and use of evolving technology
Respect: Foster trust, courtesy and open communication
Integrity: Promote ethical and honest behavior
Accountability: Maintain effective and efficient programs and services
Wellness: Encourage health and wellness among students and employees
Fun: Enjoy and celebrate the work we do

Institutional Learning Outcomes

State Fair Community College students, regardless of their status or particular program of study, will, upon the completion of their general and specialized studies, be able to:

Think critically
- Gather information by listening to and reading from varied sources
- Evaluate information as a guide to belief and action
- Apply information to the solving of problems and decision making
- Broaden awareness and formulate new ideas

Communicate effectively
- Apply standard English in speaking and writing to clearly express ideas
- Use language with clarity, coherence and persuasiveness
- Recognize the role of nonverbal signals in communication

Behave responsibly
- Demonstrate personal and professional integrity and ethics
- Understand the importance and benefits of service
- Exhibit responsible citizenship

Value others
- Work cooperatively as part of a team
- Appreciate cultural diversity and its benefits
- Cultivate tolerance, civility and respect for others

Develop life skills
- Manage time and finances effectively
- Value lifelong learning
- Utilize workforce readiness skills
- Incorporate principles of a healthy lifestyle into daily activities

Utilize technology
- Demonstrate ability to adapt available technology to workplace or personal life
- Investigate world processes
- Distinguish qualities and characteristics of social, economic and political systems
- Appreciate the world's natural and physical processes
- Explore the roots and expressions of culture

Governance

State Fair Community College is a publicly supported comprehensive community college dedicated to offering educational opportunities to the communities 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 14 counties: Benton, Camden, Carroll, Cole, Cooper, Henry, Hickory, Johnson, Miller, Moniteau, Morgan, Pettis, Saline, and St. Clair. The college is governed by a six-member Board of Trustees. Members are elected from the taxing district for six-year terms with two members elected each even-numbered year. The board meets the fourth Tuesday of each month. Meetings are open to the public.

Accreditation

SFCC has been affiliated with the North Central Association (NCA) of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, Illinois, 60602-2504, (800) 621-7440, since it was founded. Correspondence status was granted in 1968. Full accreditation was granted in 1976, 1981, 1988, and 1999. SFCC became accredited through admission to the NCA/Higher Learning Commission's Academic Quality Improvement Program (AQIP) in August 2005 and continues to be accredited on an annual basis.

Policies and Regulations

When appropriate, entire policies and regulations are listed in the catalog; however, in some instances, not all are printed in their entirety.

For complete and up-to-date policies and regulations, visit **www.sfccmo.edu.**

Nondiscrimination Notice

State Fair Community College does not discriminate on the basis of race, color, national origin, sex, disability, religion, sexual orientation, veteran status, or age in its programs and activities or in employment. The following persons have been designated to handle inquiries regarding the nondiscrimination policy: Director of Human Resources, Hopkins Student Services Center, (660) 596-7484, or Dean of Student and Academic Support Services, Hopkins Student Services Center, (660) 596-7393. The Hopkins Center is located on SFCC's Sedalia campus at 3201 W. 16th St., Sedalia, MO 65301. Inquiries also may be directed to the U.S. Department of Education, Office of Civil Rights at OCR.KansasCity@ed.gov. (Regulation 1210)

Accessibility and Accommodations

Interested persons may obtain information as to the existence and location of services, activities and facilities at State Fair Community College that are accessible to and usable by persons with disabilities by contacting the Access office, Student Services office, Hopkins Student Services Center, Room 751, SFCC, 3201 W. 16th Street, Sedalia, MO 65301, (660) 530-5832.

SFCC is Smoke-Free

State Fair Community College limits smoking and the use of tobacco products to personal vehicles parked or driven on designated college parking areas and roads. (Taken from Policy 5250)

SFCC Locations and Sites

Sedalia
3201 W. 16th St.
Sedalia, MO 65301
(660) 530-5800
www.sfccmo.edu

Boonville
701 Third St.
Boonville, MO 65233
(660) 882-3090
www.sfccmo.edu/boonville

Clinton
1701 N. 2nd St.
Clinton, MO 64735
(660) 383-1600
www.sfccmo.edu/clinton

Eldon
113 S. Pine
Eldon, MO 65026
(573) 693-9013
www.sfccmo.edu/eldon

Lake of the Ozarks
3797 Osage Beach Parkway
Osage Beach, MO 65065
(573) 348-0888
www.sfccmo.edu/lake

Whiteman Air Force Base
511 Spirit Blvd., Room 246
Whiteman AFB, MO 65305
(660) 563-3358
www.sfccmo.edu/wafb

Warsaw
Warsaw High School
20363 Lane of Champions
Warsaw, MO 65355
(660) 438-7149

Admission

Admission Requirements

The college is committed to providing a safe learning-centered environment for its students, personnel, and visitors. In order to implement the board's commitment to the open enrollment policy, the college will apply the following provisions in the admission of students.

To be eligible for a degree or certificate or to receive financial aid from State Fair Community College, students must have graduated from a high school or home school program or obtained high school equivalency.

For more information about homeschool students, see Missouri Annotated Statute 167.031.

All college credit earned from a country other than the United States must be translated into English on a course by course basis. Translation information is available in the Academic Records and Registrar office.

Per Policy 2410 any student who knowingly submits records that are incorrect or contain false information may be subject to disciplinary action to the extent of being dismissed from the college. Any student who falsifies college records such as grade reports or other college documents may be subject to severe disciplinary action.

Admission Statuses

First-time freshmen

First-time freshmen are legal residents of the United States and are beyond the age of compulsory attendance or at least 17 years old and no longer enrolled in high school. First-time freshmen have never attended college since leaving secondary education. Individuals with only dual credit obtained during high school will be considered first-time freshmen. First-time freshmen may apply for admission by submitting the following:

- An application for admission using the SFCC website; and,
- Verification of high school completion or its equivalent with graduation date; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement; and,
- If dual credit, official college transcripts from all colleges where credit was attempted or earned.

International students

International students are individuals who are not legal residents of the United States and are beyond the age of compulsory attendance or are at least 18 years old and no longer enrolled in high school. International students desiring admission to the college must meet the federal government requirements through the Student Exchange and Visitor Information System (SEVIS) to be granted an I-20. New international students and exchange visitors must have paid the SEVIS I-901 fee to be eligible to enter the United States. International students may apply for admission by submitting all of the following:

- An application for admission using the SFCC website;
  - For new students applying from outside the U.S., the application must be received and admission requirements completed at least 60 days prior to the start of the next term.
  - For international students transferring from another college or university in the U.S., the application and admission requirements must be received at least 30 days prior to the start of the term.
- A processing fee of $75 U.S. dollars for all international admissions. This fee must be received before application processing can begin; and,
- Official document that shows completion of a secondary education equivalent to graduation from a U.S. high school; and,
- Official copies of academic records for all course work completed in secondary schools, colleges and universities within and outside the United States must be submitted (faxed copies are acceptable for records outside the U.S.). All documents must have English translations, including your full name on each document.
- A hand-signed affidavit of support from the student's sponsor verifying financial support is required. The statement must be in English and the student's name must be included in the statement. This letter must be dated within six months of the start of classes.
- Students whose first language is not English must document their English proficiency in one of the following ways:
  - A minimum TOEFL (Test of English as a Foreign Language) total score of 61
  - Academic credit of 15 hours or more from a U.S. college or university with a 2.25 cumulative grade point average.

  - A minimum ACCUPLACER ESL score of 60
  - Proof of satisfactory completion of the US Department of State, J-1 visa Student Exchange Program at an American high school, for at least one academic year.
- TOEFL (Test of English as a Foreign Language) scores that indicate a proficiency in English with a total score of 450 or higher (paper-based) or 61 or higher (computer-based), if from a non-English speaking country; and,
- Proof of health insurance coverage equivalent to or better than coverage offered through the college-affiliated international student health insurance plan. The student will receive information about the international student insurance package from the Student Services office if he or she does not have insurance. A student who does not have sufficient insurance and does not want to purchase coverage must sign a waiver prior to attending class.
- Immunization records demonstrating proof of vaccination for measles (rubeola), mumps, and rubella (MMR). We require prospective international students obtain a negative TB test within the U.S. TB skin tests are valid for 12 months. If test results have expired you must retest before enrolling.

Upon arrival into the community, international student applicants must see the international student advisor in the Student Services Office on the main campus in Sedalia and present the following before seeing an advisor to enroll in classes:

- Copy of the I-20 stamped by Immigration upon entry into the United States; and,
- I-94 documentation; and,
- Passport or approved substitute.

Nondegree seeking students

Nondegree seeking students are taking classes for personal interest and do not wish to receive a degree or certification from SFCC. Nondegree seeking students are not eligible for financial aid and may apply for admission by submitting the following:

- An application for admission using the SFCC website; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement, if required for pre-requisites.

Returning students

Returning students are students who previously applied and did not attend SFCC within two years of their application or have not attended SFCC for four consecutive regular semesters. Returning students may apply for admission by submitting the following:

- An application for admission using the SFCC website; and,
- Verification of high school completion or its equivalent with graduation date; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement; and,
- Official college transcripts from all colleges where credit was attempted or earned.

Transfer students

Transfer students are students who have attended another college prior to coming to SFCC. Any student regardless of credits who attends SFCC immediately following high school will be considered a first-time freshman. Transfer students may apply for admission by submitting the following:

- An application for admission using the SFCC website; and,
- Verification of high school completion or its equivalent with graduation date; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement; and,
- Official college transcripts from all colleges where credit was attempted or earned.

Visiting students

Visiting students are attending another institution of high education and are taking classes at SFCC for the purpose of transferring those credits back to their home institution. Visiting students are not eligible for financial aid and may apply for admission by submitting the following:

- An application for admission using the SFCC website; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement, if required for prerequisites.

Other Student Statuses

Articulation credit

Students seeking articulation credit may receive credit upon completion of high school courses in a program for which the college has an articulation agreement. Students must have a grade of a B or higher in

articulated courses. Students seeking articulation may apply for admission by submitting all of the following:

- An application for admission using the SFCC website; and,
- Verification of high school completion with graduation.

Auditing a course

Students may audit when they wish to review or preview a course. Audited classes do not count as part of the regular load for financial aid or veteran's certification nor as hours earned in determining satisfactory academic progress. Students must pay regular tuition and fees for audited classes.

Students seeking to audit a class who are not currently enrolled at SFCC must apply for admission by submitting all of the following:

- An application for admission using the SFCC website; and,
- Request to audit form available in the Academic Records and Registrar office.
- If required for prerequisite, official placement scores (i.e., ACT or ACCUPLACER) from within the past three years or official college transcripts to waive this requirement.

Active participation and preparation for class activities is essential to the overall learning environment for the whole class. Thus, students who are auditing a class but are not prepared for class interaction such as group activities may be requested to stop attending the class. Students who choose to audit a class are expected to participate in class learning activities and discussions even though grades will not be assessed. Being prepared for class interaction may include but is not limited to prior reading of textbook and other outside assignments used for classroom discussion or activities and in-class discussion and projects.

In addition:

- Students may not audit applied music classes, sciences that have a lab component, internships, student teaching, fieldwork or independent study courses. Most Health Sciences classes are not eligible for auditing. (See list of excluded classes available from the Academic Records and Registrar office.)
- Online courses are not eligible to audit.
- Students can audit a course that has been previously completed on a graded basis.
- When enrollment limits are a concern, registered students will be given preference over students auditing the course.
- Students auditing a course are required to meet all prerequisite requirements for the course.
- Students auditing a course will be expected to have or to supply required items, materials or devices as other students in the course. Students are to have any required textbooks for the audited class.
- There is no limit to the number of courses that may be audited but the hours do count as part of a student's course load but not for the purpose of financial aid, loan deferments, athletic eligibility, or to meet the residency.
- Once enrolled in a course for regular credit, it cannot be changed to an audit after the published date on the academic calendar.
- A student may drop an audited course with a W by the published date on the academic calendar.
- Students **are not** required to complete assignments (except as listed above) or take exams and should not be in classroom during exams if they are not participating.
- Students auditing courses are issued a final grade of Audit (AU). An AU grade prevents a course from being applied to a certificate or degree.
- Request to audit form is available in the Academic Records and Registrar office.

Dual credit

Dual credit students earn high school and college credit at the same time. Student may be eligible for dual credit if they have completed their freshman year, have a cumulative GPA of 3.0 on a 4.0 scale (as required by the Missouri Department of Higher Education), and have been recommended by a high school counselor or principal. Juniors and seniors that have a 2.5 GPA may petition to get into a course with a written recommendation from the principal and counselor. Students are not eligible for financial aid while in high school. High school students seeking dual credit may apply for admission by submitting all of the following:

- A dual credit application for admission using the SFCC website; and,
- Official high school transcript; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement, if required for pre-requisites.
- Written recommendation if applicable

Dual enrollment

- Advanced credit may be earned by high school students who have completed their freshman year or scored in the 90th percentile of the cohort with which they took the ACT. Students must maintain a cumulative GPA of 3.0 on a 4.0 scale and have written approval from the high school counselor or principal. During a regular semester, an advanced credit student may enroll in a variable amount of credit depending upon the high school principal's or counselor's recommendation. Up to ten (10) semester hours may be taken during the summer session. Students are not eligible to receive financial aid. High school students seeking advanced credit may apply for admission by submitting all of the following:
- A dual credit application using the SFCC website; and,
- Official high school transcript; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement, if required for pre-requisites.

Early college admission

High school students seeking early college admission may enroll as full-time students in the final semester of their senior year. Permission for early entry must be secured from the high school counselor or principal. High school students seeking early college admission may apply for admission by submitting all of the following:

- An application for admission using the SFCC website; and,
- Official high school transcript; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement.

Noncitizen students who are in the United States Legally

Noncitizen students who reside in the United States and are authorized by the federal government to work in the USA are not subject to the admission requirements of an F1 International Student. Students with work permits may be admitted under regular admissions requirements using one of the regular admission applications. Those students with work permits are not eligible for financial aid and will be charged out-of-state tuition. Noncitizen students may apply for admission by submitting the following:

- An application for admission using the SFCC website; and,
- Verification of high school completion or its equivalent with graduation; and,
- Proof of legal status; and,
- Proof of English proficiency with satisfactory score on ACCUPLACER ESL; and,
- Official placement scores (i.e., ACT, ACCUPLACER) from within the past three years or the appropriate documentation to waive this requirement; and,
- If dual credit, official college transcripts from all colleges where credit was attempted or earned.

Persons with a felony conviction

Persons who have been convicted of a felony may be admitted to the college. In addition to the regular admissions requirements, documentation of a certified criminal background check including any legal restrictions or requirements must be provided.

The college will follow the legal restrictions of the felony conviction. Certain felony convictions may require that a person not be allowed within specific areas, programs, or within a physical distance of the various events held or administered on the college's campus. In such cases, the student may be restricted to taking classes online or not being allowed to enter specific programs or career fields.

Prior to acceptance to the college, a registration hold will be placed on the student's record, and the student will need to provide a background check and meet with the Dean of Student and Academic Support Services who will ensure that the legal restrictions are followed.

Students in programs at correctional institutions may be excluded from this requirement.

Waiver of the placement testing requirements

SFCC may waive all or part of the placement test if a student provides official documentation of one of the following:

- An **SFCC course** with:
  - A grade of C or higher with a MATH subject prefix.
  - A grade of C or higher with an ENGL subject prefix excluding ENGL 106.
- An **official college transcript** from a regionally accredited institution documenting the following coursework:
  - A grade of C or higher in any SFCC equivalent course with a MATH subject prefix.
  - A grade of C or higher in any SFCC equivalent course with an ENGL subject prefix excluding ENGL 106.

- An **official ACCUPLACER** score earned within the last three years.
- An **official ACT** score earned within the last three years.
- An **official SAT** score earned within the last three years.
- An **official HiSET Mathematics** score 15 - 20 earned since Jan. 1, 2014, and earned within the last three years.
- An **official HiSET Writing** score 15 - 20 earned since Jan. 1, 2014, and earned within the last three years.
- An **official HiSET Reading** score 15 - 20 earned since Jan. 1, 2014, and earned within the last three years.
- An **official ACT Compass** score earned within the last three years.
- An **official ASSET** score earned within the last three years.
- An **official GED Mathematical Reasoning** score 170 - 200 earned since Jan. 1, 2014, and earned within the last three years
- An official **GED Reasoning through Language Arts** score 170 - 200 earned since Jan. 1, 2014, and earned within the last three years.
- An application for admission as a visiting student, nondegree seeking student, or dual credit student.

Enrollment

Enrollment information is available prior to the start of each enrollment period for new, current and returning students at **www.sfccmo.edu**.

Residency

Resident classification
Student tuition and fees will be assessed according to the following provisions:

Definitions
Adult Student – Any student who has attained the age of twenty-one (21) years.

District – The State Fair Community College district consisting of the following component school districts: Benton County R-I, Cole Camp; Benton County R-II, Lincoln; Benton County R-IX, Warsaw; Cooper County R-VI, Otterville; Pettis County R-IV, La Monte; Pettis County R-V, Hughesville/Houstonia; Pettis County R-VI, Smithton; Pettis County R-VIII, Green Ridge; Pettis County R-XII, Dresden; and Sedalia 200.

District Resident – A person whose residence is within the district.

Domicile – Presence within a state with an intent of making that state a permanent home for an indefinite period.

Emancipated Minor Student – Any student who has not attained the age of twenty-one (21) years but who is not under the care, custody, or support of an individual or individuals who have legal custody of the student.

Noncitizen Student – A foreign national who holds a student visa or a person who is not a U.S. citizen and is taking courses with the college.

Nondistrict Missouri Resident – A person whose residence is in Missouri, but not in the district.

Nonresident – A person whose residence is not within the state of Missouri.

Residency or Resident Status – That status which is achieved when sufficient proof of a domicile within a state is presented.

Unemancipated Minor Student – Any student who has not attained the age of twenty-one (21) years and who is under the care, custody, or support of the individual or individuals who have legal custody of the student.

Evidence of eligibility
Proof of domicile within the district for resident tuition purposes

1. Presence within the district for a minimum of the immediate past twelve (12) months and the proof of intent to make the district residence a permanent residence for the indefinite period of time; or
2. Presence within the district for the purpose of retirement, full-time employment, professional practice, or conducting business full-time.

Criteria to demonstrate intent to make a permanent home within the district:

- Continuous presence within the district during periods in which the individual was not enrolled as a student; and,
- Property taxes paid for the previous year by the student, student's spouse, or student's parents or legal guardians at student's legal permanent address to the college district and one of the following school districts: Benton County R-I, Cole Camp; Benton County R-II, Lincoln; Benton County R-IX, Warsaw; Cooper County R-VI, Otterville; Pettis County R-IV, La Monte; Pettis County R-V,

Hughesville/Houstonia; Pettis County R-VI, Smithton; Pettis County R-VIII, Green Ridge; Pettis County R-XII, Dresden; and Sedalia 200; or,
- Two (2) of the following documents: employment verification, proof of home ownership or intent to purchase a home, proof of lease, voter registration, auto registration, driver's license; or,
- Presence within the district upon marriage and a marriage certificate with spouse's proof of residency following the above guidelines.

No single criterion will be determinative of student's entitlement to resident status for tuition purposes; rather the determination will be based upon review of all applicable criteria. The burden of proof of eligibility for in-district resident status rests with the student.

Resident status

Adult student

If a nonresident adult student presents sufficient proof of establishment of in-district domicile as set forth above, the student will be granted resident status at the first enrollment following establishment of in-district domicile.

Emancipated minor student

- The domicile of an emancipated minor student will be determined as if he/she were an adult student.
- A minor student may become emancipated through marriage, formal court action, or proof of alienation of the minor student.
  - Absence of the minor student from the in-district domicile of the individual having legal guardianship does not, without more evidence, constitute proof of emancipation.
  - A minor student will not be considered to be emancipated if a second party other than a spouse takes the minor student as an income deduction.

Members of the military forces

- Students will neither gain nor lose resident status solely as a result of military service.
- If a person is assigned to active duty, the individual as well as his/her spouse and unemancipated minor children will be considered district residents.
- If a member of the military forces is assigned under orders to attend the college as a full-time student, that person as well as his/her spouse and unemancipated minor children will be considered district residents.

Noncitizen student

- A noncitizen student must be legally authorized to work in the United States (i.e., work permit, permanent resident card) by federal authority before he/she will be considered for admission to the college.
- This does not apply to those students on student (F1) visas.
- Noncitizen students must meet all other residency requirements that apply to all students.
- Aliens and their dependents holding A or L visas may be granted district resident status if it is determined that they are designated individually as representatives of their government and that their education is not being funded by their government.

Unemancipated minor student

- The domicile of an unemancipated minor student is presumed to be that of the individual(s) having legal guardianship of the student.
- Once an unemancipated minor student has established district resident status under this rule, he/she may continue to qualify for resident status so long as he/she remains continuously enrolled, excluding summer terms at the college, even if the individual(s) having legal guardianship of the unemancipated minor student ceases to reside within the district.
- Once an unemancipated minor student has established district resident status under this rule, he/she may continue to qualify for resident status so long as he/she remains continuously enrolled, excluding summer terms at the college, even if the individual(s) having legal guardianship of the unemancipated minor student ceases to reside within the district.

Offset of taxes against tuition

District taxes

Nondistrict Missouri residents and nonresidents may offset against tuition any real estate taxes paid to the district for the previous year.

State income taxes

Nonresidents of Missouri who pay Missouri income tax may offset against the nonresident tuition charges an amount equal to the Missouri income tax paid the previous year as long as the amount is not less than what would have been paid as a Missouri resident. Regardless of the amount of income taxes paid to the state, the student will be required to pay the Missouri resident rate costs.

Minor students may offset taxes paid by the individual(s) who has legal guardianship of those students as provided in the above paragraphs.

To benefit from these provisions, a student must furnish satisfactory evidence that the taxes have been paid.

Change of resident status
In order to change resident status, students must submit a written request as well as sufficient evidence to substantiate the change to the Director of Admissions and Outreach. The Director of Admissions and Outreach will review the evidence and determine whether the request is justified. Students may appeal the director's decision through the Student Grievance and Appellate Process as described in Regulation 2160. Tuition rates will not be changed mid-semester but will take effect for the next semester in which the student enrolls. Refunds will not be given for previous semesters.

It is the duty of the student to report the correct address on the application for admission and to inform the Academic Records and Registrar office of all address changes. Students shall observe the following guidelines:

1. It is the duty of each student to pay applicable tuition and fees based upon his/her resident status.
2. If there is any possibility that according to the resident classification the student should pay higher or lower tuition and fees, it is the duty of the student to raise the question at the time of enrollment.
3. A student must present a government-issued photo ID to make a change in his/her address.
4. Any student or graduate who wishes to make a change in his/her legal name must present appropriate legal documentation (i.e., a court order, a Social Security card, a government-issued photo ID).

A student who intentionally gives false or inaccurate information on a Certificate of Residency or who fails to inform the Academic Records and Registrar office of a change of address that alters his/her resident status will be subject to the following penalties:

1. The student may be dismissed from the college; and,
2. The student's record will not be released or certified until he/she has paid the appropriate tuition and fees based on the change in residency. (*Regulation 2220*)

Tuition, Fees and Books

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

Tuition and fees
Tuition is established by the college's Board of Trustees and is charged per credit hour. A detailed current tuition and fees listing is available online at www.sfccmo.edu or from the college. Tuition and fees are subject to changes and additions.

Primetime Learner discount of tuition waiver
Missouri residents age 65 or older may enroll in college credit classes with no tuition if space is available in that course. Students receiving the discount will not be given college credit and shall satisfy all course prerequisites. If college credit is desired, the student must enroll in the course and pay full tuition and fees. The student is responsible for any fees, supplies or books. An identification card may be obtained at the Sedalia campus in the Financial Aid office. (*Taken from Regulation 3361*)

Book costs
Most courses will require purchasing or renting textbooks. Also, workbooks, study guides, and other extras may need to be purchased.

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

Students are able to drop all but their last class online through the student portal, mySTAR, throughout the semester until the designated last day to drop a class for its part of term. A complete withdrawal form located in mySTAR must be completed to drop the last class.

All requests for refunds or credits after the refund period has ended must be made in writing. If eligible for a refund, a check will be mailed to the student; however, deductions may be made from the refund for any financial obligation due to the college. Students may make refund appeals through the Student Grievance and Appellate Process as described in Regulation 2160.

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 that lead to the completion of the specific degree or major they are pursuing.

Applying for financial aid

For federal grants, student loans and the work-study program, the Free Application for Federal Student Aid (FAFSA) needs to be completed and all required documentation submitted by the following dates to ensure funds are in place before the student's entry semester starts.

Fall – July 1
Spring – November 1
Summer – April 1

To be considered for most state programs, the FAFSA must be completed by the priority date of Feb. 1 for the upcoming fall semester. The SFCC online scholarship application needs to be completed by March 1 for the upcoming aid year.

For more information on applying for financial aid, refer to the SFCC website or visit the Financial Aid office or any extended campus location. (Taken from Regulations 2710, 2720, 2730, 2740, and 2760)

Department of Veterans Affairs

State Fair Community College programs are approved under Title 38 of the U.S. Code to be certified for the following VA Education Benefits through the Financial Aid office:

Chapter 30 – Montgomery GI Bill®-Active Duty
Chapter 31 – VA Vocational Rehabilitation
Chapter 33 – Post 9/11
Chapter 35 – Dependent or Spouse
1606 – Montgomery GI Bill®- National Guard/ Reserves

All other programs are managed through the Business office. All persons seeking VA Education Benefits are required to comply with SFCC's satisfactory academic progress standards. (Taken from Regulation 2750)

Academic Forgiveness

Academic forgiveness is designed to help students overcome previously earned poor grades in order to meet new career and/or educational goals and/or to meet graduation requirements. State Fair Community College permits students to petition for academic forgiveness of course work completed at least five years prior to the petition date. Approval of the petition permits a new start without the handicap of the prior academic record. Due to the calculation for academic standing it is recommended that a student submit a petition for academic forgiveness before the next term commences or after grades for the previous term have been posted.

A student eligible for consideration may apply for academic forgiveness by contacting their navigator and completing the petition for submission to the Dean of Student and Academic Support Services using the following guidelines:

1. The following conditions must be met:
   a. State Fair Community College course work subject to the petition must have been taken five or more calendar years prior to the date of the petition.
   b. There must have been a break in enrollment at State Fair Community College of at least two calendar years after the term for which the petition is filed.
   c. The request must be submitted within the first calendar year upon returning to State Fair Community College.
2. When invoking academic forgiveness, a student may designate not more than two (2) academic terms (fall, spring, or summer) to be forgiven in his/her academic record. Only terms completed prior to returning to State Fair Community College may be designated.
3. The student must have completed at least one semester and earned a minimum of 12 credit hours with a C or higher in each course and a State Fair Community College GPA of 2.0 or higher for all courses completed since returning to the college.
4. A petition for academic forgiveness will not be considered if a degree has been earned from State Fair Community College subsequent to the semester(s) in question.

"GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at ***http://www.benefits.va.gov/gibill.***

5. All "forgiven" course work will continue to appear on the transcript but will not be included in the student's State Fair Community College cumulative GPA, nor shall any course in the term be counted toward a degree granted by State Fair Community College.
6. A student's academic standing will be reevaluated per Regulation 2530.
7. Academic forgiveness will be granted only once.
8. This procedure refers to State Fair Community College only. A student transferring from or to another institution will have to follow the other institution's procedure.
9. Grades that have been forgiven will not be exempt from academic progress related to Financial Aid and Veteran's Administration educational benefits or for athletic eligibility. Academic forgiveness does not apply to these processes.
10. Students who have been granted academic forgiveness will not be considered for graduation with honors. (*Regulation 2531*)

Attendance

Class attendance is essential for student success and students are expected to attend all class sessions and report punctually. Specific attendance requirements are up to individual instructors and will be listed in the instructor's course syllabi.

Students who are absent due to representation of the college in some official capacity, such as athletic travel or participation in a class or club-sponsored activity, will be allowed to make up course work upon presentation of verifying evidence.

All excused absences must be initiated by the student, appropriate club sponsor or coach. (*Regulation 2310*)

Developmental Courses

Developmental courses are numbered below 100 and focus on skills that need to be developed to prepare a student to enter college-level courses. Students are placed in these courses as a result of placement testing and a grade of C or higher must be earned to advance to the next course in the sequence. Developmental courses cannot be applied to a degree or certificate.

Credit for Prior Learning (CPL)

Students planning to transfer should check with the receiving institution regarding policy for accepting transfer of credit for prior learning (CPL). College credit may be awarded by State Fair Community College for credit for prior learning under the following conditions:

1. All courses for which credit for prior learning is awarded must have equivalent courses in the college curriculum. Partial credit will not be awarded.
2. Academic credit will be awarded only for those courses directly applicable to the student's certificate or degree program.
3. Students must submit the required documentation as defined by each department.
4. General education course credit will be awarded for credit by examination but not for nontraditional education.
5. Students must have been granted admission to the college prior to the evaluation of credits and have successfully completed at least one credit hour at the institution.
6. A maximum of 21 hours may be earned and applied for work experience. The total of all credit for prior learning (CPL) cannot exceed 30 hours earned and applied toward a degree.
7. The Registrar is responsible for final approval or disapproval.

Credit by examination

College Level Examination Program (CLEP) and Dantes Subject Standardized Tests (DSST) provide opportunity to earn academic credit for knowledge equivalent to that learned in the college classroom. These tests include general and subject examinations. SFCC uses 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 must have a score report sent to the college to be evaluated for college credit.

Advanced placement

SFCC grants credit for advanced placement test scores of three or higher. Students must have a score report sent to the college to be evaluated for college credit.

Departmental exams
Credit may be awarded for departmental exams. Each academic department determines which courses have a test-out option and the minimum score to receive credit. An application to request a departmental exam must be submitted to the dean of that division. If the requirements to receive credit have been met, the paperwork will be forwarded to the Academic Records and Registrar office to be evaluated for college credit. To receive the credit, students must enroll in the course(s) and pay tuition and fees for the course(s). Normal tuition and fees apply to any credits awarded.

Credit for armed service experience
Advanced placement credit may be granted for educational training earned while in the armed services, according to the American Council of Education (ACE) recommendations. The credit must be appropriate to the degree sought. Students must submit a military transcript to be evaluated for college credit. In some cases (e.g. the course (s) were taken many years ago), a military transcript may not be available. Students will need to contact the Academic Records and Registrar office to determine what other documents are acceptable to be evaluated for college credit. Students will receive two physical activity credits upon submission of a DD-214. These credits do not count toward the wellness requirement.

Credit for work experience
Credit may be awarded for work experience and may only be applied to courses in the student's degree major. Specific requirements may vary by academic department. However, for any credit to be awarded, students must satisfactorily complete a significant capstone project, such as a major paper reflecting how lessons learned in that work experience can be applied to the discipline. An application to request credit for work experience (with documentation) must be submitted to the dean of that division. If the requirements to receive credit have been met, the paperwork will be forwarded to the Academic Records and Registrar office to be evaluated for college credit. To receive the credit, students must enroll in the course(s) and pay appropriate tuition and fees. Normal tuition and fees apply to any credits awarded.

Credit for other nontraditional education
In some cases, credit in the student's major discipline may be awarded for workshops or industry certifications that are equivalent to college classes. For credit to be received, the workshops or industry certifications must meet the following criteria:

The learning was sponsored by a recognized, national or state organization; and, an application to request credit must be submitted to the dean of that division with validated documentation stating the course, knowledge, skills, competencies, credit/clock hours completed and/or certification. If the requirements to receive credit have been met, the paperwork will be forwarded to the Academic Records and Registrar office to be evaluated for college credit. (*Regulation 6440*)

Degree Program Statute of Limitations

The college catalog is effective in the fall semester.

A student may use for degree requirements the catalog in effect at the time of initial enrollment or any subsequent catalog provided:

1. The catalog is dated no more than six years to the date the degree is to be conferred;
2. The student enrolled in classes and earned academic credit during the time the chosen catalog was in effect;
3. Only one catalog is used to determine curriculum. (To use a subsequent catalog a student must submit a change of program/catalog request.)

Students who do not earn academic credit for four consecutive regular semesters (excluding summer) may only use the catalog in effect from the time of their re-entry. A student may not continue in the original program of study if the program was discontinued prior to re-entry. (*Taken from Regulation 2511*)

Grade Reports

Final grades are available online a few days after the end of each semester or session. Questions about grades should be directed to the instructor first. Grade appeals must be initiated using the college's Student Grievance and Appellate Process within 30 days of the awarding of the original grade as described in Regulation 2160. (*Taken from Regulation 2510*)

Grading System

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

A	Excellent (4 grade points per semester hour)
B	Good (3 grade points per semester hour)
C	Average (2 grade points per semester hour)
D	Below average (1 grade point per semester our)
F	Failing (no grade points)
P	Passing (no grade points)
CR	Credit (no grade points)
W	Withdrawn
WM	Withdrawn Military
AU	Audit
I	Incomplete

Pass/fail

Pass/fail credit is granted for some credit courses. No more than six hours of pass/fail credit may be applied to a degree or certificate. Course numbers below 100 do not apply towards a degree or certificate. This regulation does not apply to some Health Science programs that use pass/fail for required courses.

Withdrawn

A grade of W will be assigned for any course dropped after the 100 percent refund period. Student initiated drops may not be submitted after the published drop dates.

Incomplete

A grade of I may be given by an instructor to indicate incomplete work or absence from a scheduled final examination if other work is of passing quality.

1. A grade of I may only be assigned under the following conditions: An internship is extending past the end of the term.
2. A major paper/project and/or the final exam are the only graded items not completed by the end of the term.
3. Required civic or military duty. The student must make the request through the instructor with the approval of the course dean as defined in Regulation 2180.
4. In extraordinary circumstances, relating to physical or mental health difficulties that prevent a student from completing but the instructor and the student both agree that the material missed may be made up.
5. In situations involving a student with a significant amount of pregnancy-related absences. The student needs to provide documentation that the absence is related to a medical issue. This does not include maternity leave. Examples are: regular pregnancy-related doctor appointments for the mother and/or the unborn child, labor and delivery, doctor ordered bedrest, etc. Faculty are not required to excuse absences simply because the student is not feeling well or tired.

In all cases where a grade of I is submitted, the faculty member and the student should complete a written agreement which clearly states the remaining obligations to the course and a deadline for submission. This documentation will need to be provided to the appropriate dean when the change of grade is requested. For fall semesters, the change of grade request must be made by the last day of the following spring semester. For spring and summer semesters, the change of grade must be submitted by the last day of the following fall semester. After this time, if no change of grade is submitted, the grade of I will automatically become an F.

Change of Grade

A change of grade can only be processed using the change of grade form located on the Faculty tab in the Faculty Toolbox channel. Change of grades sent via email will not be accepted. The form must have original faculty member and dean signatures. In the case of an already awarded grade of B, C, D, or F written justification will need to accompany the change of grade form. All change of grades must be completed and sent to the appropriate dean before the last class day of the following semester or term.

A change of grade may be submitted under the following conditions:

1. Calculation error
2. Entry error
3. Completion of course work when an I was assigned
4. Original grade was not submitted
5. Grade appeal

Submission of additional work after the course is graded is not a legitimate reason for a grade change. (*Taken from Regulation 2510*)

Graduation Requirements

Students should apply one semester before the completion of the certificate or degree. All students graduating in the fall, spring and summer terms participating in the May commencement must apply by the date published in the academic calendar. The college does not automatically award certificates or degrees except under certain circumstances as outlined below.

Requirements for a degree

The college offers five degrees, the Associate of Arts, the Associate of Fine Arts, the Associate of Arts in Teaching, the Associate of Science, and the Associate of Applied Science. To qualify for a degree the following must be met:

1. Complete the curriculum required for the specific degree program.
2. Complete at SFCC a minimum of 15 credit hours toward the degree.
3. Maintain a minimum cumulative and institutional grade point average of 2.00. Associate of Arts in Teaching students are required to have at least a 2.75 cumulative grade point average, a 3.0 grade point average in all content area courses and complete all sections of the MoGEA with the required scores for each section.
4. Complete an application for graduation after enrolling for the final semester.
5. Order commencement regalia from the Campus Store and attend commencement. Attendance at commencement is strongly encouraged and should only be missed due to unusual or extenuating circumstances.

Requirements for a certificate

The college offers several certificates in various career areas. To qualify for a certificate the following must be met:

1. Complete the curriculum required for the specific certificate program.
2. Complete at SFCC a minimum of 15 credit hours toward the certificate. If the certificate is less than 15 hours, then residency is the total number of hours of the certificate.
3. Maintain a minimum institutional and cumulative grade point average of 2.00.
4. Complete an application for graduation after enrolling for the final semester.
5. Order commencement regalia from the Campus Store and attend commencement. Attendance at commencement is strongly encouraged and should only be missed due to unusual or extenuating circumstances.

Automatic awarding of degrees

At the beginning of the summer term, the Academic Records and Registrar office will identify students that were admitted and have an enrolled status in at least one term within the past three academic years earning greater than zero credits who have completed all the requirements for a program of study on their record but have not applied for graduation. If all requirements are met the student will be notified and the certificate or degree will be automatically awarded at the end of the term unless the student opts-out by the date indicated. Students receiving financial aid should check with the Financial Aid office before deciding to accept the automatic award.

Qualifications for automatic degree award

1. Student has not already earned the certificate or degree from another institution using credits earned at SFCC.
2. Student was not already identified as an auto-award student and has neither declined the award nor has an undeliverable address.
3. Student is not in readmit status.
4. Student's program of study is active on the MDHE inventory.
5. Student's catalog is less than six years old.
6. Student has met all course, noncourse, residency and GPA requirements.

Diplomas

Diplomas will not be ordered and mailed without completion of an application for graduation prior to the end of the term that the degree is awarded.

Requirements for honors graduation

Academic honors may be awarded at commencement to Associate of Arts, Associate of Fine Arts, Associate of Arts in Teaching, Associate of Science, and Associate of Applied Science degree graduates, based upon courses completed and cumulative grade point average at the end of the fall term. Final designation of honors will be based upon cumulative grade point average at the conclusion of the summer term. Honors are awarded at two levels based upon all courses completed:

1. Graduation with honors for a 3.60 to 3.84 cumulative grade point average, and
2. Graduation with highest honors for a 3.85 to 4.00 cumulative grade point average.

Professional certificate completers may graduate with distinction with a cumulative grade point average of 3.60 or higher.

Students who have been awarded academic forgiveness are not eligible for academic honors.

Requirements for participation in the commencement ceremony
The commencement ceremony is held in May each academic year. To participate, students must have either completed all certificate or degree requirements before the commencement date or be enrolled in sufficient hours (at the time the graduation list is finalized) to complete requirements at the end of the summer term. This includes any noncourse requirements if applicable.

Only students with a cumulative grade point average of at least a 2.00 at the end of the fall semester (or upon the successful completion of all coursework) may participate.

Awarding of certificates and degrees
Certificates and degrees are awarded at the end of the fall, spring and summer terms. The last date of the term is used as the award date. Students have until the first day of the term following their application term to complete all course requirements, all noncourse requirements and submit any outstanding documents required for the certificate or degree. Students who have not completed all requirements and submitted all documents will be moved to the next term. The application for graduation is valid until the end of the summer term each year. If all graduation requirements are not met, the student must reapply.

Diplomas
Diplomas are mailed to fall and spring graduates at the end of June and at the end of August for summer graduates after a final degree audit is conducted. (*Taken from Regulation 2511*)

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 GPA hours 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 GPA hours with a grade point average of 3.5-3.99.

The published lists are determined by a student's standing two weeks after the spring and fall semesters end.

Military Withdrawal

This regulation follows the guidance of the Missouri Statute, Chapter 41, Military Forces, Section 41.948 that covers rules for Reserve and National Guard being called to active military service whether voluntarily or involuntarily prior to completion of the semester/term at SFCC. Also, this regulation covers military issues involving active duty members and their responsibilities to their unit in a normal day-to-day operation where their work/deployment/special duty requirements may conflict with their SFCC class(es).

In most cases Reserve and National Guard members will be placed on orders when called to active duty. Reserve and National Guard members should produce a copy of their orders when requesting action of this regulation.

Active duty members may also be issued orders when required to complete their assigned jobs. For example, an active duty member who is being deployed from their home station active duty location would normally receive orders. Active duty members should also produce a copy of their orders when requesting action based on this regulation. Active duty members that have conflicting military duty with SFCC classes and are not on orders should work with the Director of Student Success and Retention.

If a military member falls into one of the areas above prior to the completion of the semester/term or similar grading period, that person shall be eligible for either:

1. A complete refund of all tuition and incidental fees charged for enrollment at that institution for that semester, or similar grading period; or
2. The awarding of a grade of "incomplete" pursuant to this section.

OPTION (1) WITHDRAWAL FROM ONE OR MORE CURRENTLY ENROLLED COURSES

Students may choose to withdraw from one or more currently enrolled courses. Student must complete a military withdrawal form, indicate Option 1, and attach a copy of their military orders.

In such cases, a student may request either:

1. That the official transcript indicates the courses that he or she has withdrawn and the reason for the withdrawal. Students choosing this option will have their tuition and fee charges and their student financial aid eligibility calculated effective with their official withdrawal date. They will receive a grade of WM.
2. That one or more courses for that semester be expunged from the student's academic record. Students taking this option will receive a complete refund of all tuition and incidental fees paid by the student for enrollment for that semester. Students who have received federal, state or institutionally funded financial aid must return all aid disbursed to them for the semester.

OPTION (2) RECEIVE AN INCOMPLETE FOR ONE OR MORE CURRENTLY ENROLLED COURSES

Students may choose to receive an incomplete in one or more currently enrolled courses. Students must complete a military withdrawal form, indicate option 2 and attach a copy of their military orders.

In such cases, the student must:

Complete all course work for the semester to the satisfaction of the instructor(s) and the institution. The grade of incomplete shall be converted to a failing grade if the person does not apply to complete the course work within six months of discharge, release from active military service or return to the home station. In the event the person cannot comply for medical reasons related to the active military service, such person may apply to complete the course work within three months of the end of the period of convalescence. Students choosing this option will not receive a refund of tuition and incidental fees paid by the student for enrollment for that semester. The student will have one complete semester after the return from duty or deployment to complete the remaining course work. The current instructor(s) will submit to the Registrar copies of the course syllabus, attendance, course work and itemized grade calculation. These documents will be retained in the Academic Records and Registrar office with a copy of the military withdrawal form.

Financial Aid
The Financial Aid office will be contacted and informed of the student's status and official withdrawal date and may make adjustments according to federal, state of Missouri and institutional guidelines.

Scholarships
If such person has been awarded a scholarship to be used to pursue an academic program in any public higher education institution in Missouri and such person is unable to complete the academic term for which the scholarship is granted, that person shall be awarded that scholarship at any subsequent academic term, provided that the person returns to the academic program at the same institution at the beginning of the next academic term after the completion of active military service. If a student has any scholarships or other aid or award, he or she should contact the issuer to determine whether it will be applicable on his or her return and whether he or she will need to satisfy any other conditions. (*Regulation 2180*)

Repeating Courses

Students can repeat any course regardless of the previous grade earned. The original course(s) and grade(s) earned as well as the repeated course(s) and grade(s) earned will be printed on the SFCC transcript. Regardless of how many times the course is repeated, the highest (best) grade is used to calculate the SFCC institutional GPA (SFCC courses) and cumulative GPA (all grades earned at all colleges). The repeated course with the lowest grade will be annotated with an E on the SFCC transcript indicating that the grade is excluded from the GPA calculation. The repeated course with the highest grade will be annotated with an I on the SFCC transcript indicating that the grade is included in the GPA calculation.

The following courses may be taken multiple times and do not count as repeats. Check with the Registrar if you have questions about repeating these courses.

PEAC 124
PEAC 125
WELL 118
WELL 119
THEA 115
Internships
Problems classes

Students should be cautioned that repeating courses may impact financial aid received. Always check on

the repeat policy of a funding source (including federal grants and loans, scholarships, A+, WIA, TRA, Vocational Rehabilitation, employer reimbursement, etc.) before enrolling to repeat a course. In some instances, students could be responsible for the payment of the tuition and fees of the repeated course.

Schedule Changes

Adding a course

Students may add a course through the student portal or with their navigator up to the official last day to add as published on the Academic Dates and Deadlines. Enrollment will close at 11:59 p.m. on the published date for all courses in the part of term.

After enrollment closes for the part of term, students may add a course by appealing to the appropriate dean by filling out the late registration request form (available on mySTAR) up to the published late registration request date for the part of term. If permission is granted, the approval will be sent to the Academic Records and Registrar office to add the student to the course. Instructors will not be able to add a student to their course without dean approval after the published date and any special permissions required remain in effect. Class attendance guidelines remain in effect if a student enrolls late for a course.

Students may not add an interim (minimester) course after the published date on the Academic Dates and Deadlines or enroll in more than one course during an interim (minimester) part of term.

Dropping a course

Students may drop a course through the student portal or with their navigator before the semester starts or until the official last day to drop as published on the Academic Dates and Deadlines. Approval is not required to drop a course. Students who have a hold on their account should send student name, ID number, CRN, course number/title, and instructor name to add-drop@sfccmo.edu using their SFCC email account. Notifying an instructor or navigator is not enough to officially drop a course.

Withdrawing from all courses

Students may drop all courses by completing the student withdrawal form through the student portal > Student tab > I need to. . . Withdraw from all classes before the semester starts or until the last day to drop as published on the Academic Dates and Deadlines.

Students will not be permitted to withdraw from their last course or withdraw from all courses without completing this form. Notifying an instructor or navigator is not enough to officially drop all courses. A hold will not prevent a student from submitting this request.

Courses dropped before or during the 100% refund period will not appear on a transcript. Courses dropped after the 100% refund period will appear on a transcript with a grade of W.

Students are encouraged to contact their instructor, navigator and the Financial Aid office before dropping a course or withdrawing from all courses. Dropping a course or withdrawing from all courses may result in a financial obligation to the college, jeopardize insurance, financial aid, scholarships, and athletic participation eligibility. Failure to notify the college of an intent to drop a course or withdraw from all courses may result in a grade of F for the course(s).

Reinstatement

Students who are administratively dropped may appeal utilizing the Grievance and Appellate Process outlined in Regulation 2160. (*Regulation 6470*)

Student Academic Progress

Students of the college are expected to make satisfactory academic progress. Students admitted to SFCC as transfer students must also meet satisfactory academic progress requirements. Both grades earned and hours attempted and completed are considered. The calculation of grade point average (GPA) will include all course credit hours for which the student is assessed grades of A, B, C, D or F.

Students must maintain satisfactory academic progress as defined below to remain in academic good standing:

1. Upon completion of 12-23.9 semester GPA hours – a minimum 1.50 cumulative grade point average.
2. Upon completion of 24-35.9 semester GPA hours – a minimum 1.75 cumulative grade point average.
3. Upon completion of 36-47.9 semester GPA hours – a minimum of 1.85 cumulative grade point average.
4. Upon completion of 48 and above semester GPA hours – a minimum of 2.0 cumulative grade point average.

Academic review

1. If a student has not maintained satisfactory academic progress, the student will be placed on academic probation and be limited to enrolling in a total of 12 or less credit hours for the fall and spring semesters and total of 6 or less credit hours for the summer semester. Any student placed on academic probation who is currently enrolled in more than 12 credit hours for the fall or spring semester and more than 6 credit hours for the summer semester will be notified by the Student Success Center and advised to work with his or her navigator to adjust the course schedule accordingly by a specific date. If a student's schedule is not adjusted accordingly by the specified date, the Academic Records and Registrar office will adjust the student's schedule to keep in compliance with Regulation 2530.
2. A student is allowed to enroll in courses for three consecutive semesters while on academic probation. When a student reaches the second and third consecutive semesters on academic probation, a Student Success Plan hold will be placed on the student's account to alert the student and the navigator of the academic probation status. This hold will prevent the student from enrolling in courses during the subsequent semester. The student will be required to meet with the navigator to create an Academic Success Plan, enroll in courses and discuss resources of the college in an effort to assist the student in performing in a more satisfactory manner.
3. A student will be placed on the first academic suspension after the third consecutive semester of academic probation if the student has not met the satisfactory academic progress requirements. The first academic suspension will result in the student being suspended from enrolling in courses at the college for one regular semester from the end of the semester suspended.

   A student will be placed on a second academic suspension if the student has not achieved satisfactory academic progress as defined above. A second academic suspension will result in the student being suspended from enrolling in courses at the college for two regular semesters from the end of the semester suspended. A student will be placed on a third academic suspension if the student has not achieved satisfactory academic progress as defined above. A third academic suspension may result in the student being dismissed from the college.

   Based on the suspension, a timeline for returning as a student is charted below:

1 Semester Suspension	
Semester Suspended	**Return Semester**
Fall	Following Summer
Spring	Following Spring
Summer	Following Spring

1 Year Suspension	
Semester Suspended	**Return Semester**
Fall	Spring of the following academic year
Spring	Summer of the following academic year
Summer	Summer of the following academic year

4. Re-admission to the college after a student has been suspended is contingent upon the student serving the required suspension time period and the ability to demonstrate that the conditions that precipitated the unsatisfactory progress have been corrected.
5. A student requesting to return to the college to take courses after serving the required time period for an academic suspension must submit a suspension appeal as defined in Regulation 2160 to the Dean of Student and Academic Support Services. Appeals must be completed at least five (5) business days prior to the start of the part of term for which the student is requesting to return. A student has the option to submit an appeal before the required time period for suspension has been completed.
6. If the appeal is approved by the dean, the student's academic standing will be changed to continuing probation, the student will be limited to enrolling in a total of 6 or less credit hours for the

fall or spring semester and a total of 3 or less credit hours for the summer semester, and the student will be required to follow the terms and conditions on the approval letter from the dean. A Student Success Plan hold will be placed on the student's account to alert the student and the navigator of the student's approval for continuing probation. The student will be required to meet with the navigator to prepare an Academic Success Plan and determine courses to enroll in based on the appeal approval letter from the dean.

7. Students who have been approved for continuing probation after returning from an academic suspension will be required to submit an appeal to the dean for approval to enroll in courses each semester showing satisfactory academic progress is being made by earning a 2.0 semester GPA or higher in the previous semester. Students on continuing probation who do not earn at least a 2.0 GPA or higher in the previous semester will be placed on the subsequent academic suspension or be academically dismissed.
8. When a student is placed on academic probation or academic suspension, that academic standing remains in effect for the duration of the semester.
9. A student's academic standing is calculated at the end of each semester. When a student has met the satisfactory academic progress requirements and is back in academic good standing, the Student Success Plan hold will be removed, and the student will then be able to enroll in courses without restrictions.
10. The academic standing for a student who has been granted academic forgiveness as defined in Regulation 2531, will be exempt for the semester(s) approved. The student's current academic standing will be re-evaluated and updated to reflect this change at the time of the approval. (*Regulation 2530*)

Student Classification

Students are classified as either freshmen or sophomores. Freshmen have earned less than 30 semester hours. Sophomores have earned 30 semester hours or more.

Student Course Load

Full-time students generally take from 12 to 19 semester hours each 16-week semester of the regular academic year and six to 10 semester hours during the eight-week summer session.

Part-time students generally take 11 semester hours or less each 16-week semester of the regular academic year and five semester hours or less during the eight-week summer session.

Students requesting to exceed the maximum 19 semester hours during the 16-week semesters and 10 semester hours during the eight-week summer session must submit a student overload request to the Academic Records and Registrar office. Consideration of the request is given to graduating students and those with a 3.0 or higher cumulative GPA.

Transcripts

An academic record (transcript) is permanently maintained for each student who enrolls at State Fair Community College.

SFCC uses the National Student Clearinghouse as our online transcript services provider. We do not accept transcript requests in person, by telephone, email, fax, or in writing.

Delivery options are: mail, hold for pickup, electronic PDF direct to recipient.

We do not offer same-day, fax or rush options. It is important to check with your recipient to determine which delivery options are acceptable. A transcript is not considered official if the seal is broken.

Current students or former students who still have access to mySTAR may also request a transcript online in mySTAR > Student > I need to … Request Official Transcript or Check Status.

Any financial obligation due to the college prevents the release of transcripts.

Cost for an official transcript

A detailed current tuition and fees listing is available online at www.sfccmo.edu or from the college. You can pay with a credit or debit card.

Unofficial transcripts

State Fair Community College does not issue unofficial transcripts. A student who still has access to his or her mySTAR account may print an unofficial transcript through the Student tab.

Transfer of Credit

Students who have attended other colleges (including dual credit courses taken while in high school) must request that an official transcript be sent to State Fair Community College. The official transcript can be mailed or faxed with a sending college cover sheet to the Academic Records and Registrar office; it can be brought to the Student Services office at the Sedalia campus or to an extended campus site in a sealed envelope from the sending college. Any other form of transcript will be considered "unofficial" and will not be accepted for transfer credit. Official transcripts are required to transcript credit.

Credit is evaluated and transcripted from colleges that are accredited by a national or regional association (e.g. North Central Association of Colleges and Schools). For a list of these associations, contact the Academic Records and Registrar office. Courses completed from colleges that are not accredited by one of the national or regional associations may be considered for college credit. Courses descriptions or course syllabi must be submitted to the appropriate course dean for review. The dean's decision is final and may be made in consultation with the department.

All grades (except withdrawals) are transcripted. When a student repeats an equivalent transfer course at SFCC, the higher of the two grades will be used to calculate hours earned and the GPA. The repeated course and grade remain on the SFCC transcript.

Transfer courses for which SFCC has an equivalent course will be transcripted with the SFCC subject code, course number and credit hours. If there is no equivalent SFCC course, the transfer course will be coded on the student's transcript to indicate which degree requirement it fulfills. Developmental courses (numbered below 100) are transcripted and if there is not a direct equivalency to an SFCC developmental course it will be transcripted using DVLP 000. Grades earned in developmental courses are included in a student's GPA beginning fall 2008. Developmental courses do not apply to a certificate or degree. Any student that has received a bachelor's degree or higher and is returning to SFCC to pursue an AAS, AAT, AS, AFA degree, or certificate will only have the courses that apply to that major transcripted. If a student changes his or her major, a request must be made to have transfer credit reevaluated. Any student who is classified as a visiting student or a personal interest student will only have prerequisite courses transcripted. Equivalency guides for colleges that SFCC accepts transfer credit from can be found at **www.sfccmo.edu**.

Official transcripts are evaluated and transfer credit is entered by the Registrar on the student's SFCC transcript. This process usually occurs within a few weeks of receiving the transcript. Students transferring credit over 15 years old may be asked to provide course descriptions or course syllabi to determine SFCC course equivalency. Some departments have time limits for transfer courses. A course may transfer as an SFCC equivalent but because of its age may not be applicable to a specific major. Students can view the credit that has been accepted on mySTAR.

If a student does not agree with the evaluation of a course, he/she may submit a catalog course description or course syllabus from the sending college to have the course re-evaluated by the Registrar. If the appeal regarding the disputed course is not resolved, the student may appeal utilizing the Grievance and Appellate Process as outlined in Regulation 2160. Credit earned by credit-by-exam (CLEP, DSST or AP) and from nontraditional sources (military experience, standardized occupational testing or department exams) are reviewed by the Registrar and credit may be granted if applicable.

SFCC is a Service members Opportunity College (SOC). Under this status, SFCC agrees to work with other SOC schools by accepting all credits from these schools. SFCC also agrees to provide in-district tuition rates for military members wanting to attend SFCC.

Transfer credit is awarded for courses completed at colleges and universities outside the United States that are accredited or approved by the Ministry of Education (or other appropriate government agency) of the country in which they are located. The transcripts must be translated into English and evaluated course-by-course by one of the recognized transcript evaluation services. A student may be asked to provide course descriptions or course syllabi to determine course equivalencies. Contact the Academic Records and Registrar office for information.

Any irregularities in transcripts that are received will be checked and if a document is determined to not be authentic, admission will be denied and registration at SFCC will be canceled.

All college transcripts must be on file prior to enrollment. Failure to submit transcripts from all colleges attended will result in a student's registration being canceled. A registration hold will be placed on the student's record until all official transcripts have been submitted. (*Regulation 6610*)

Prohibited Conduct and Disciplinary Actions

State Fair Community College students are expected to abide by the following code of conduct.

Generally, college jurisdiction and discipline shall be limited to student conduct which occurs on college premises or which adversely affects the college community and/or the pursuit of its objectives. It is the responsibility of the student to be familiar with all college policies, rules and regulations.

Any misconduct will be subject to discipline defined below:

1. Students must refrain from conduct that interferes with the academic freedom or the freedom of speech of any student, employee, or guest of the college, and refrain from obstructive or disruptive conduct at any college sanctioned activity.
2. Students should not engage in acts of dishonesty, including but not limited to the following:
    a. Cheating, plagiarism or other forms of academic dishonesty
    b. Furnishing false information to any college official, faculty member or office
    c. Forgery, alteration or misuse of any college document, record, or instrument of identification
    d. Submission of a single paper to fulfill requirements in two courses without prior approval of the instructor in both courses
    e. Tampering with the election of any college recognized student organization
3. No student will endanger the health of any person on campus. Examples include but are not limited to: physical abuse, verbal abuse, threats, intimidation, bullying, harassment, and coercion.
4. No student shall use tobacco products on campus except in vehicles.
5. Students are expected to respect the property of others and of the college. Attempted or actual theft of and/or damage to property of the college or property of a member of the college community or other personal or public property is prohibited.
6. Students or student organizations will not participate in any form of hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group or organization.
7. Students will be expected to identify themselves and comply with directions of college officials or law enforcement officers acting in performance of their duties.
8. Students will not be allowed possession, duplication or use of keys to any college premises or entry to or use of college premises without proper authorization.
9. Students will be expected to abide by all federal, state or local laws on college premises or at college sponsored or supervised activities.
10. Students may not at any time use, possess or distribute any narcotic, alcohol or other controlled substances except where expressly permitted by law. Students may not be publicly intoxicated while on campus or at a college sponsored or supervised activity.
11. Students will not be allowed to possess or use weapons on college property (except for commissioned peace officers attending classes, who will be permitted to carry their firearms if so required by their department regulations). Weapons include any object or substance designed to inflict a wound, cause injury or incapacitate, including but not limited to all explosives, firearms, pellet guns, switchblade knives, knives with blades more than four inches in length, and any inappropriate use of chemicals.
12. Participation in a campus demonstration that disrupts the normal operations of the college and infringes on the rights of other members of the college community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; and intentional obstruction that unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus, will not be permitted.
13. Students will be expected to be respectful to the college and community by not participating in conduct that is disorderly, lewd or indecent; breach of peace, or aiding, abetting or procuring

another person to breach the peace on college premises or at functions sponsored by or participated in by, the college.

14. Students must not violate campus computer policies, including but not limited to:
    a. Theft or abuse of computer time
    b. Unauthorized entry into a file, for any purpose
    c. Unauthorized transfer of a file, including, but not limited to illegal peer-to-peer file sharing
    d. Unauthorized use of another individual's identification and password
    e. Use of computing facilities to interfere with the work of another student, faculty member, college official, or normal operation of the college computing system
    f. Use of computing facilities to send obscene or abusive messages
    g. Downloading copyrighted material or visiting pornographic sites, etc.
15. Students will not be allowed to abuse the judicial system, including but not limited to:
    a. Failure to obey the summons of a judicial body or college official
    b. Falsification, distortion or misrepresentation of information before a judicial body
    c. Disruption or interference with the orderly conduct of a judicial proceeding
    d. Institution of a judicial proceeding knowingly without cause
    e. Tampering with or harassing any member of a judicial party prior to, or during the course of a judicial hearing
    f. Failure to comply with the sanction(s) imposed under the Student Code of Conduct
16. Students may be charged with a violation of this code if other incidents that the Campus Judicial Officer, at his or her discretion may find to have disrupted the campus or infringed on the rights of others.

If a student is charged only with an off-campus violation of federal, state or local laws, but not with any other violation of this code, disciplinary action may be taken and sanctions imposed if the violation involves grave misconduct demonstrating flagrant disregard for the college community. In such cases, no sanction may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt (e.g., no contest or no lo contendere).

College disciplinary proceedings may be instituted against a student charged with violation of a law, which is also a violation of this student code. For example, if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution, the student may also face campus discipline. Proceedings under this student code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off-campus.

When a student is charged by federal, state or local authorities with a violation of law, the college will not request or agree to special consideration for that individual because of his or her status as a student.

The following sanctions may be imposed upon any member of the campus community found to have violated the Student Code of Conduct:

1. **Warning:** A notice in writing to the student that the student is violating or has violated institutional regulations.
2. **Probation:** A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any institutional regulation(s) during the probationary period.
3. **Loss of Privileges:** Denial of specified privileges for a designated period of time.
4. **Fines:** Previously established and published fines may be imposed.
5. **Restitution:** Compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
6. **Discretionary Sanctions:** Work assignments, service to the college or other related discretionary assignments (such assignments must have prior approval by the Campus Judicial Officer)
7. **Residence Hall Suspension:** Separation of the student from the residence halls for a definite period of time, after which the student is eligible to return. Conditions for re-admission may be

specified.

8. **Residence Hall Expulsion:** Permanent separation of the student from the residence halls.
9. **College Suspension:** Separation of the student from the college for a definite period of time, after which the student is eligible to return. Conditions for re-admission may be specified.
    a. When the Campus Judicial Officer or Campus Issue Resolution Committee recommends that a student be suspended, the committee or Campus Judicial Officer will specify the date at which the student subsequently may apply for re-admission, which in no case will be later than one year after the effective date of the suspension. Appropriate notation will be made on the student's academic record. The suspended individual is responsible for initiating application for re-admission. Such application will be reviewed by the Campus Judicial Officer who, at his or her discretion, may approve or deny the application.
    b. Once the decision has been made to suspend a student, the suspension may begin immediately or, especially if the decision is made toward the end of a semester, suspension may become effective at the beginning of the following semester. Should suspension be thus deferred, the student will be on disciplinary probation until the effective date of suspension.
10. **Expulsion:** Suspension from the college for an indefinite period of not less than two (2) years. Expulsion is the most serious disciplinary action that may be imposed and may be recommended by the Campus Judicial Officer or Campus Issue Resolution Committee.
    a. An expelled individual will not be permitted to enroll unless the Campus Judicial Officer approves re-admittance, and no request for re-admittance will be considered until at least two (2) years after the date of expulsion; and
    b. A notation of the expulsion will be made on the individual's permanent record (including the date of expulsion).

More than one of the sanctions listed above may be imposed for any single violation. Other than college expulsion, disciplinary sanctions shall not be made part of the student's permanent academic record but shall become part of the student's confidential record. Amount of time records are kept will be according to college policy and state law.

The following sanctions may be imposed upon groups or organizations:

1. Those sanctions listed above.
2. Deactivation: Loss of privileges, including college recognition, for a specified period of time. In each case in which the Campus Judicial Officer or the Campus Issue Resolution Committee determines that a student has violated the Student Code of Conduct, the sanction(s) shall be determined by the Campus Judicial Officer. The Campus Issue Resolution Committee may also recommend sanctions to the Campus Judicial Officer. The Campus Judicial Officer is not limited to sanctions recommended by the Campus Issue Resolution Committee.

In certain circumstances, the Campus Judicial Officer or a designee may impose a college or residence hall suspension prior to the hearing before the Campus Issue Resolution Committee.

1. Interim suspension may be imposed only:
    a. To ensure the safety and well-being of members of the college community or preservation of college property;
    b. To ensure the student's own physical or emotional safety and well-being; or
    c. If the student poses a definite threat of disruption or interference with the normal operations of the college.
2. Summary Suspension – Suspension of five (5) school days which takes effect immediately without a hearing upon the order of the Campus Judicial Officer. This action may be taken under either of two conditions:
    a. If the student repeatedly fails to comply with the request of the Campus Judicial Officer to meet or discuss allegations that the student has violated the Student Code of Conduct; or
    b. If, pending a hearing, the Campus Judicial Officer believes that the continued presence of the student would seriously disrupt the operation of the college or constitute a danger to the health, safety, or welfare of the student or other persons or to the records or other physical property of the college.

The student who has received a disciplinary action

decision from the Campus Judicial Officer has the right to appeal that decision to the Campus Issue Resolution Committee. All appeals must be filed within 10 business days of the original decision. The complete appeals process can be found in Regulation 2160. (*Regulation 2610*)

Academic Honesty Policy

State Fair Community College values the academic integrity of its curriculum and the commitment of its faculty and students to uphold it in all teaching and learning processes. The following acts of academic dishonesty will not be tolerated:

- Plagiarizing any information,
- Cheating in any form, or
- Falsifying any information provided to the college.

See Regulation 6480 for penalties imposed. (*Policy 6480*)

Children in the Classroom

Students and staff members should not bring children to the classroom.

Children in the Library

The Donald C. Proctor Library supports the education of children by allowing staff, students and community patrons to borrow materials from the children's collection. To provide a safe environment for visiting children, the following guidelines and procedures are in effect:

1. A parent/caregiver must supervise children under the age of 12 at all times.
2. Child safety and appropriate behavior is the responsibility of the parent or caregiver.
3. Parents/caregivers are financially responsible for damaged materials/property.
4. Library staff may ask noncompliant patrons, including children and caregivers, to leave the library for unacceptable behavior. Forms of unacceptable behavior include but are not limited to:
   a. Offensive/obscene language
   b. Sexual harassment
   c. Behavior deemed disruptive to the learning environment
   d. Behavior that places the safety of the child or another patron at risk

Signage detailing parent/caregiver responsibilities is displayed at each entrance and in the children's collection area. (*Taken from Policy 6510*)

Copyright

The Board of Trustees intends that all members of the college community adhere to the provisions of the United States Copyright Law (Title 17, U.S. Code). Copyrighted materials may be used in the preparation, delivery, or learning environment only after obtaining permission or determining that the doctrine of "Fair Use" is applicable. This also includes the following information sharing methods: document sharing, scanning, uploading, downloading, digital replication, photocopying, and other forms of information sharing.

Employees and students are expected to be familiar with the "Fair Use" doctrine outlined in the Copyright Act of 1976, the Digital Millennium Copyright Act of 1998 and the Technology, Education, and Copyright Harmonization Act of 2002, (TEACH, H.R. 2215) and other statutes governing the use of copyrighted works. Full text versions of these laws are available via Internet and the Copyright channel located on the Library tab in mySTAR.

Students, faculty, staff, and visitors who willfully disregard the copyright policy do so at their own risk, assume all liability, and may face disciplinary action. (*Policy 6240*)

Drugs and Alcohol and Tobacco Products

The following policy is adopted in compliance with the Drug-Free Schools and Communities Act Amendments of 1989.

Illegal drugs

The unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited while in a college vehicle, on college property, at a college-sanctioned activity, or on the job while an employee of SFCC. The term controlled

substance refers to any illegal substance, to the illegal use of alcohol, and/or to controlled prescriptive pharmaceutical products.

Alcohol
The use or possession of alcohol is prohibited while in a college vehicle, on college property, at a college-sanctioned activity, or on the job while an employee of SFCC.

Tobacco products
Effective June 1, 2006, smoking and tobacco use are only permitted within vehicles parked or driven on designated college parking areas and roads. (*Policy and Regulation 5250*) (*Policy 2830*)

Firearms and Weapons

The presence of firearms and weapons poses a substantial risk of serious harm to college students, staff and community members. Therefore, possession of firearms and weapons is prohibited on college premises at all times except for law enforcement officials in the line of duty. As used in this policy, the phrase college premises include all college buildings and grounds. This prohibition also extends to the sites of college activities, whether or not those activities are conducted on college property. Instructors teaching firearms or hunter safety classes must report the need for students and/or instructors to carry firearms or weapons for instructional purposes to the Vice President for Educational and Student Support Services at least 24 hours prior to the first day of class.

Individuals found to be in violation of this policy will be dealt with severely. Students will be disciplined up to and including expulsion. Law enforcement officials will be notified, and the individual violating this policy will be directed to leave the college premises. Nonstudents violating this policy will be barred from all college premises and college activities for a period of one year. Subsequent violations by the same individual will result in a permanent bar from college premises and college activities. Employees who violate this policy will be subject to discipline up to and including dismissal.

Student participation in college-sanctioned gun safety courses, student military or ROTC courses, or other college-sponsored firearm related events does not constitute a violation of this policy, provided the student does not carry a firearm or other weapon into any building, college transportation vehicle, or onto the premises of any other activity sponsored or sanctioned by college officials. In addition, persons passing through college property for purposes of dropping off or picking up a student do not violate this policy if they possess a lawful permitted weapon in the vehicle during this time. (*Regulation 1332*)

Retaliatory Harassment

Retaliation against an individual because the individual has filed a complaint of discrimination on, reported such behavior, participated in an investigation involving such behavior, or otherwise engaged in any activity protected college policy or regulation or by the laws enforced by the Department of Education, Office of Civil Rights, is prohibited. These laws ban discrimination on the basis of race, color, national origin, sex, disability, and age in the college's programs, activities and in employment. In addition, the college prohibits discrimination based on religion, sexual orientation and veteran status. Retaliatory harassment is defined as intentional action taken by an accused individual or allied third party, absent legitimate nondiscriminatory purposes, that harms an individual as reprisal for filing or participating in a civil rights grievance proceeding.

Students or community members or allied third parties who participate in retaliatory harassment may face discipline up to and including expulsion from campus. Employees who retaliate may face discipline up to and including termination.

Campus Safety and Security

State Fair Community College shall develop and maintain policies in accordance with the Crime Awareness and Security Act of 1990, as amended in 1992. A full report on campus crime shall be completed and published annually and distributed to all new students. In addition, this report is available in its entirety in Student Services and on the SFCC website at www.sfccmo.edu. (Taken from Policy 2820)

The Sedalia campus has automated lights for the

parking areas. They are on full brightness from dusk until one-half hour after evening classes end when classes are in session. In addition, walk lights, parking lot lights and interior and exterior building lights operate from dusk to dawn at most SFCC locations.

A Campus Resource Deputy is available on the Sedalia campus and can be reached by calling (660) 596-7110. The deputy is an employee of the Pettis County Sheriff's Department and has full arrest authority while on campus. The deputy will respond to reports of safety issues and concerns and has the authority to call in additional law enforcement or emergency personnel as needed. When the deputy is not on duty, a staff member will answer the safety phone and respond. At extended campus locations the site director or coordinator is responsible for security and should be contacted in the case of a perceived threat to security.

Complaint Process

State Fair Community College recognizes problems between students, employees or other stakeholders may occasionally occur. With the exception of issues dealing with harassment or discrimination, which by law must be dealt with immediately through a formal process defined in policy and regulation, the college attempts to resolve problems quickly and at the most appropriate level and complaints concerning the Board of Trustees' actions or operations only, which will be handled by the President's office.

When an issue cannot be resolved through informal efforts, the student, employee or other stakeholder may choose to submit a formal complaint. A formal complaint must be made in writing to the Dean of Student and Academic Support Services. The dean will take the following actions:

- Document the complaint
- Contact appropriate parties
- Follow up to ensure resolution of complaint
- Contact complainant to confirm resolution

A summary report of complaints will be prepared annually in May and will be analyzed and discussed by the Executive Leadership Team, who may recommend improvements or other necessary actions based on the analysis of the data presented. (*Regulation 1380*)

Confidentiality

Students with disabilities are protected from discrimination under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Information maintained by the Access office about students are considered educational records and are governed by the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99). Although certain medical records are exempt from FERPA's definition of "education records," that exemption does not apply to students with disabilities. Accordingly, confidential records will be protected in accordance with FERPA regulations with the purpose of providing appropriate academic accommodation or adaptation of curriculum.

The Access office strives to treat all personal information with the strictest confidentiality. It is the policy of the office to hold confidential all communications, observations, and information made by and/or between students, faculty, administration and staff whenever possible. The Access office may release information to college officials on a need-to-know basis. The need to know must be based on compelling and legitimate educational reasons for the information disclosure. FERPA and the Americans with Disabilities Act, 1990 (ADA), do not allow faculty access to disability related information. (*Policy 2115*)

Crime Reporting

Any individual at any SFCC campus location who is a victim of or observes any criminal activity should call 911 immediately, from either a campus phone or another phone. Public phones for emergency communication are located on the Sedalia campus in these areas:

- Hopkins - north entrance
- Fielding/Heckart - connecting hallway
- Yeater - off main lobby near TRiO office
- Stauffacher - across from north theatre entrance
- Davis Center - two phones-southeast corner on both upper and lower levels

Persons reporting criminal incidents should provide as much information as possible including location, nature of injuries, description of persons involved, and a brief report on the incident.

Once the 911 call is complete, notify Campus Safety and Security by calling extension 7110 from a Sedalia campus phone or (660) 596-7110 from other phones to report an incident.

Report nonemergency situations by calling extension 7110 from a Sedalia campus phone or (660) 596-7110

from other phones. (*Taken from Policy 2820*)

Communicable Diseases

A student shall not attend classes or other college-sponsored activities if the student (1) has, or has been exposed to, an acute (short duration) or chronic (long duration) communicable disease, and (2) is liable to transmit the communicable disease. The student may not return to class or college activities unless the student has demonstrated to the Dean of Student and Academic Support Services, based upon medical evidence, that the student

1. No longer has the disease,
2. Is not in the communicable or infectious stage of an acute disease, or
3. Has a communicable disease that poses little risk of transmission in the classroom environment with reasonable precautions.

The college may require any student suspected of having a communicable disease to be examined by a physician and may exclude the student from classes, in accordance with the procedures authorized by Policy 2810, so long as there is a substantial risk of transmission of the disease in the college environment.

A student who has a communicable disease, and who is permitted to attend classes, may be required to do so under specified conditions. Failure to adhere to the conditions will result in the student being excluded from classes. A student who has a communicable disease and who is not permitted to attend classes or participate in college activities will be provided instruction in an alternative educational setting in accordance with college policy on Equal Educational Opportunity.

Students with communicable diseases have a right to privacy and confidentiality and should register the health issue with the Dean of Student and Academic Support Services. Only staff members who have a medical reason to know the identity and condition of such students will be informed. Willful or negligent disclosure of confidential information about a student's medical condition by staff members will be cause for disciplinary action. (*Policy 2810*)

Family Educational Rights and Privacy Act (FERPA) Guidelines

The Family Educational Rights and Privacy Act of 1974 helps protect the privacy of your education records. The act provides for the right to inspect and review education records, the right to seek to amend those records, and the right to limit disclosure of information from the records.

The intent of the legislation is to protect your rights and to ensure the privacy and accuracy of education records. The act applies to all institutions that are recipients of federal aid administered by the Secretary of Education.

What rights does FERPA afford you with respect to your education records?

- The right to inspect and review your education records within 45 days of the day the college receives a request for access.
  - You should submit to the Registrar a written request that identifies the record(s) you wish to inspect. The Registrar will make arrangements for access and notify you of the time and place where the records may be inspected. If the records are not maintained in the Academic Records and Registrar office, the Registrar will advise you of the correct official to whom the request should be addressed.
- The right to request an amendment to your education records that you believe are inaccurate or misleading.
  - You may ask the college to amend a record you believe is inaccurate or misleading. You should write the Registrar, clearly identify the part of the record you want changed, and specify why it is inaccurate or misleading. If the college decides not to amend the record as requested, the college will notify you and advise you of your right to a hearing regarding the request for amendment. Additional information regarding the hearing will be provided when you are notified of a hearing.
- The right to consent to disclosures of personally identifiable information contained in your education records, except to the extent that FERPA authorizes disclosure without consent.
  - One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college

has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the college to comply with the requirements of FERPA.
  - The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4605

Who is protected under FERPA?

Students who are currently or formerly enrolled, regardless of their age or status in regard to parental dependency

Students who have applied to but have not attended an institution and deceased students do not come under FERPA guidelines.

Parents of students termed as "dependent" for income tax purposes may have access to the student's education records. A copy of the parents' most recent federal income tax return, on which the parents declared the student as a dependent, must be submitted to the Academic Records and Registrar office to document "dependency."

What are education records?

With certain exceptions, an education record is any record (1) from which a student can be personally identified and (2) maintained by the college. Students have the right of access to these records. Education records include any records in whatever medium (handwritten, print, magnetic tape, film, diskette, etc.) that are in the possession of any school official. This includes transcripts or other records obtained from a school at which a student was previously enrolled.

What is not included in an education record?

- Sole possession records or private notes held by school officials that are not accessible or released to other personnel;
- Law enforcement or campus security records that are solely for law enforcement purposes and maintained solely by the law enforcement unit;
- Records relating to individuals who are employed by the institution (unless contingent upon attendance);
- Records relating to treatment provided by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional and disclosed only to individuals providing treatment; and
- Records of an institution that contain information about an individual obtained only after that person is no longer a student at that institution, i.e., alumni records.

What is directory information?

SFCC may disclose information about students without violating FERPA if the college has designated that information as directory information. Directory information is not generally considered harmful or an invasion of privacy if disclosed. Unless students request in writing to the contrary, federal law permits the college to release the following directory information to the public without student consent:

- Name
- Address
- Date/place of birth
- Telephone number
- Dates of attendance
- Hours completed
- Degrees and awards, including honor lists
- Previous educational agency
- Major field of study
- Participation in officially recognized activities and sports
- Photographs taken for identification or in college publications
- Email addresses
- Job placement records
- Height/weight of student athletes
- Current enrollment

Directory information cannot include:

- Student ID numbers or Social Security numbers
- Ethnicity, race or nationality
- Gender
- Probation status
- Grades
- Courses enrolled

How do you authorize release of your education record in the form of an academic transcript?

You must authorize the release of your transcripts by written request with your signature or by completing

and signing transcript request forms available in the Academic Records and Registrar office. The receipt of a written request via fax with signature to release an education record is permissible.

Who may have access to your information?

- You and any outside party who has your written request;
- School officials (as defined by the college) who have legitimate education interests;
- Parents of a dependent student as defined by the Internal Revenue Code; and
- A person in response to a lawfully issued subpoena or court order, as long as the college first makes a reasonable attempt to notify the student. Normally, the college will comply with a subpoena after two weeks have elapsed from the day the subpoena was received.

When is your consent not required to disclose information?

When the disclosure is:

- To school officials (defined in policy) who have a legitimate educational interest;
- To federal, state and local authorities involving an audit or evaluation of compliance with educational programs;
- In connection with financial aid (this includes veterans' benefits);
- To organizations conducting studies for or on behalf of educational institutions;
- To accrediting organizations;
- To parents of a dependent student;
- To comply with a judicial order or subpoena;
- In a health or safety emergency;
- Releasing directory information;
- Releasing the results of a disciplinary hearing to an alleged victim of a crime of violence.

Grievance and Appellate Process

The grievance and appellate process is designed to provide students, employees and members of the public with a process to resolve potential issues.

Students – The following matters related to students of State Fair Community College are subject to process under this policy:

- Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000d et seq., which prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance
- Title IX of the Education Amendments of 1972 (Title IX), as amended, 20 U.S.C. 1681 et seq., which prohibits discrimination on the basis of sex
- Section 504 of the Rehabilitation Act of 1973 (Section 504), as amended, 29 U.S.C. 794, and the Americans with Disabilities Act of 1990, which prohibits discrimination on the basis of disability
- Age Discrimination Act of 1975, as amended 42 U.S.C. 6101 et seq., which prohibits discrimination on the basis of age
- Violations of Student Code of Conduct
- Residence Hall disciplinary action or violations of Residence Hall regulations or contract.
- Violations of Board of Trustees policy, including Campus Crime and Security, Substance Abuse, and Campus Drug, Alcohol and Tobacco.
- Violations of the Family Educational Rights and Privacy Act (FERPA)
- Concerns or complaints about eligibility for student extracurricular activities both noncredit and for credit events, Campus Store, and food service policies.
- Refunds of tuition and or any fees, including housing and Campus Store purchases
  - Restrictions: Appeals are only permissible if tuition, fees or purchases were misapplied due to administrative error.
- Appeals of administrative drops
  - Restrictions: Appeals are only permissible if drops were misapplied due to administrative error.
- Billing errors
- Financial aid suspension
- Academic probation/suspension
- Determination of residency relative to tuition charges
- Graduation or commencement
- Grade appeals - are only permissible if grades were inaccurate due to administrative error or if grades were computed outside of the terms defined in the course syllabus. It is recommended students follow the steps below regarding grade disputes before filing an appeal:

1. Contact the instructor for the course regarding the grade dispute as soon as possible after the grade has been issued.
2. If the student still disputes the grade after communicating with the instructor, he or she

should contact the appropriate division chair for the course.

3. If a student disputes the decision of the division chair, he or she should submit an appeal using the grievance and appellate form to the appropriate dean.
4. If a student disputes the decision of the dean, he or she should submit a final appeal to the Campus Issue Resolution Committee.

- Transcript evaluations
- Placement testing decisions
- Parking fines
- Late registration reinstatements

The Director of Human Resources, Human Resources office, Hopkins Student Services Center (660) 596-7484, and the Dean of Student and Academic Support Services, Student Services Office, Hopkins Student Services Center, (660) 596-7393, will serve as the Compliance Officers for Section 504, Title VI, Title VII, Title IX, Age Discrimination and Americans with Disabilities Act issues. The Hopkins Center is on the Sedalia campus of SFCC, 3201 W. 16th Street, Sedalia, MO 65301. Students should contact the Dean of Student and Academic Support Services with issues related to these areas. The Director of Human Resources will handle issues from employees and members of the public.

Grievance Process:

All complaints must utilize the following procedure:

1. The student may first attempt to resolve the issue informally with the appropriate student or employee involved (Note: Degree programs with specific accreditation requirements, such as the Nursing, Radiography, Dental Hygiene, Medical Assisting and Occupational Therapy programs, must follow those guidelines outlined in program handbooks prior to pursing this process). The Director of Student Success and Retention is available to help mediate resolution, to provide impartial advice and guidance on the process, and to discuss the issue.
2. If the issue cannot be resolved informally to the satisfaction of the parties, the student must present, in writing within 30 days of the incident/issue, a formal grievance/explanation of the situation to the Campus Judicial Officer. The student should present the formal grievance/explanation of the situation by completing the grievance and appellate form located on the Campus Resource Tab of mySTAR. All formal complaints will be promptly and thoroughly investigated by the Campus Judicial Officer, an impartial investigator. The written grievance/explanation should include the specific complaint and a reference to the specific matter described in the bulleted items above. The burden of proof shall rest on the accuser or complainant, with the opportunity to present witnesses and other evidence. The Campus Judicial Officer will provide impartial, prompt and thorough investigation of the issue. All investigations will use preponderance of evidence as the evidential standard.
    a. The Campus Judicial Officer is located in the Student Services office in Hopkins Student Service Center, SFCC Sedalia campus, 3201 W. 16th, Sedalia, Mo. 65301; phone: (660) 596-7393.
    b. If a complaint should arise that includes the Campus Judicial Officer, the President will appoint a temporary, impartial substitute.
    c. If the appeal involves grade changes, the appropriate dean for the course will act as Campus Judicial Officer.
3. The Campus Judicial Officer will make a decision based on the evidence and thorough consultation with all parties involved within 10 business days of receiving the written formal grievance. The Campus Judicial Officer will then send notice to all parties of the outcome of the complaint, with specific information supporting the decision.
    a. During this appeal period, the Campus Judicial Officer may impose sanctions on the student until the process is complete (i.e. barring from residence hall, temporary suspension, loss of campus privileges, etc.) in accordance with Regulation 2610.
    b. If the issue involves an employee, the Campus Judicial Officer will work with the Human Resources Director, who may impose temporary sanctions (i.e. temporary suspension with pay, temporary suspension without pay, etc.) on an employee until the process has been completed.
4. If the student is not satisfied with the decision of the Campus Judicial Officer, he/she must submit a formal appeal using the grievance and appellate form and present to the Campus Issue Resolution Committee (CIRC) at a hearing. This appeal should

include reasons why the student believes the decision of the Campus Judicial Officer should be overturned. The burden of proof shall rest on the accuser or complainant, with the opportunity to present witnesses and other evidence. The Campus Issue Resolution Committee will provide impartial, prompt and thorough investigation of the issue. This appeal must be made within 10 business days of the decision of the Campus Judicial Officer and must outline grounds for the appeal. The Campus Issue Resolution Committee will return a decision within 10 business days of receiving the appeal and notify, in writing, all parties involved of the outcome of their decision. The Campus Issue Resolution Committee will be impartial, prompt and thorough to investigate each appeal. The decision of the Campus Issue Resolution Committee will be final.

a. The Campus Issue Resolution Committee members will be appointed as needed by the President of the college and will include a faculty member, staff member, and a student.
b. Each member of the Campus Issue Resolution Committee will serve a one-year term, if feasible.
c. If a complaint should arise that includes one of the committee members, or a member of the committee is unable to complete the one-year term, the President of the college will appoint a temporary substitute for that member.
d. Appeals to the committee will be submitted on the same grievance and appellate form. The Executive Assistant to the Dean of Student and Academic Support Services will schedule the hearing with the student and committee, and notify all parties involved of time, date, and location of the hearing.
e. Decisions of the Campus Issue Resolution Committee will be decided by majority vote. The Executive Assistant to the Dean of Student and Academic Support Services will then disseminate the decision information to all involved parties. The written decision from the committee will include specific information supporting the decision.

5. The student (employee, community member, contractor, parent, etc., hereafter referred to as the individual) is entitled to be assisted and accompanied to the hearing by one member of the college community as a support person. If the above individual does not have a relationship with someone who could fulfill that role, either the college will appoint such a support person upon the individual's request, or the individual may choose a community member to serve in that support role. The support person will not be permitted to speak, testify, serve as a witness, or provide a statement on behalf of the individual, unless that support is needed to provide for a disability. The support person may not be an attorney unless an attorney representing the college is present. If the college is represented by an attorney, the individual is permitted to be represented by an attorney.
6. At any stage of the grievance/appellate process, including informal resolutions, if it is discovered that the college was discriminatory, the college will take steps to prevent the recurrence of the discrimination and will correct its discriminatory effects on the complainant and others, where appropriate.

Other appeals

Students may also file a complaint of discrimination on the basis of sex, disability, race, color, national origin or age with the Office of Civil Rights (OCR), Department of Education, email: OCR.KansasCity@ed.gov. Such complaints must be filed in writing no later than 180 days after the occurrence of the alleged discrimination.

In addition, The Missouri Department of Higher Education serves as a clearinghouse for postsecondary student complaints. The MDHE complaint policy may be found at http://www.dhe.mo.gov/documents/POLICYONCOMPLAINTRESOLUTION.pdf.

This webpage contains information about the complaint process and includes instructions for how to file a formal complaint. Note that the policy provides that a student who wishes to file a complaint with the department must first exhaust all formal and informal avenues provided by the institution to resolve disputes.

Retaliation notice

Retaliation against a person who files a complaint or persons who participate in the grievance proceeding is prohibited. (*Regulation 2160*)

Employees

The following matters related to employees of State Fair Community College and members of the public are subject to process under this policy:

- Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000d et seq., which prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving federal financial assistance.
- Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000e et seq., which prohibits employment discrimination based on race, color, religion, sex, and national origin.
- Title IX of the Education Amendments of 1972 (Title IX), as amended, 20 U.S.C. 1681 et seq., which prohibits discrimination on the basis of sex.
- Section 504 of the Rehabilitation Act of 1973 (Section 504), as amended, 29 U.S.C. 794, and the Americans with Disabilities Act of 1990, which prohibits discrimination on the basis of disability.
- Age Discrimination Act of 1975, as amended 42 U.S.C. 6101 et seq., which prohibits discrimination on the basis of age.
- Board of Trustees policy and/regulation.

The Director of Human Resources, Human Resources office, Hopkins Student Services Center (660) 596-7484, and the Dean of Student and Academic Support Services, Student Services office, Hopkins Student Services Center, (660) 596-7393, will serve as the Compliance Officers for Section 504, Title VI, Title VII, Title IX, Age Discrimination and Americans with Disabilities Act issues. The Hopkins Center is on the Sedalia campus of SFCC, 3201 W. 16th Street, Sedalia, MO 65301. Employees and members of the public should contact the Director of Human Resources with issues related to these areas. The Dean of Student and Academic Support Services will handle issues from students.

All matters must be addressed utilizing the following procedure:

1. Within 30 days of the incident/issue, a complaint must be filed by an employee or member of the public with the Director of Human Resources. All complaints will be promptly, thoroughly, fairly and impartially investigated by the director.
   a. During this appeal period the Director of Human Resources may impose temporary sanctions (i.e. temporary suspension with pay, temporary suspension without pay, etc.) on an employee until the process has been completed.
   b. If the issue involves a student, the director will work in cooperation with the Dean of Student and Academic Support Services, who may impose temporary sanctions (i.e. suspension from class, suspension from residence halls, suspension from student activities, etc.) on a student until the process has been completed.
2. The director will make a decision based on the evidence and thorough consultation with all parties involved within 10 business days of receiving the complaint. The director will then send notice to all parties of the outcome of the complaint, with specific information supporting the decision.
3. If the employee or member of the public is not satisfied with the outcome after Human Resources has completed its process, the employee or member of the public may appeal by submitting a written description of the grievance to the Campus Judicial Officer. This appeal must occur within 10 days of the decision of the director. The written appeal should include the specific complaint and a reference to the specific matter described in the bulleted items above. The burden of proof shall rest on the accuser or complainant, who will have the opportunity to present witnesses and other evidence. The Campus Judicial Officer will provide impartial, prompt and thorough investigation of the issue.
   a. The Campus Judicial Officer is located in the Student Services office in Hopkins Student Service Center, SFCC Sedalia campus, 3201 W. 16th, Sedalia, Mo. 65301; phone: (660) 596-7303.
   b. If a complaint should arise that includes the Campus Judicial Officer, the President will appoint a temporary, impartial substitute.
4. The Campus Judicial Officer will make a decision, based on the evidence and thorough consultation with all parties involved, within 10 business days of receiving the written formal grievance. The Campus Judicial Officer will then send notice to all parties of the outcome of the complaint, with specific information supporting the decision.
5. If the employee or member of the public is not satisfied with the decision of the Campus Judicial Officer he/she must present to the Campus Issue Resolution Committee, in writing, a formal

appeal. This appeal should include reasons why the student believes the decision of the Campus Judicial Officer should be overturned. The burden of proof shall rest on the accuser or complainant, with the opportunity to present witnesses and other evidence. The Campus Issue Resolution Committee will provide impartial, prompt and thorough investigation of the issue. This appeal must be made within 10 business days of the decision of the Campus Judicial Officer and must outline grounds for the appeal. The Campus Issue Resolution Committee will return a decision within 10 business days of receiving the appeal and notify, in writing, all parties involved of the outcome of their decision. The Campus Issue Resolution Committee will be impartial, prompt and thorough to investigate each appeal. The decision of the committee will be final.

a. The Campus Issue Resolution Committee will be appointed each fall by the college President and will include a faculty member, staff member and a student.
b. Each member of the Campus Issue Resolution Committee will serve a one-year term.
c. If a complaint should arise that includes one of the committee members, the President of SFCC will appoint a temporary substitute for that member.
d. Appeals to the CIRC will be submitted to the Campus Judicial Officer for dissemination to the committee. The Campus Judicial Officer will schedule the CIRC and notify parties involved of time, date and location of the hearing.

6. The student (employee, community member, contractor, parent, etc. hereafter referred to as the individual) is entitled to be assisted by and accompanied to the hearing by one member of the college community as a support person. If the above individual does not have a relationship with someone who could fulfill that role, either the college will appoint such a support person upon the individual's request, or the individual may choose a community member to serve in that support role. The support person will not be permitted to speak, testify, serve as a witness, or provide a statement on behalf of the accused individual, unless that support is needed to provide for a disability. The support person may not be an attorney unless an attorney representing the college is present. If the college is represented by an attorney, the individual is permitted to be represented by an attorney.
7. At any stage of the grievance/appellate process, including informal resolutions, if it is discovered that the college was discriminatory, the college will take steps to prevent the recurrence of the discrimination and will correct its discriminatory effects on the complainant and others, where appropriate.

Retaliation notice

Retaliation against a person who files a complaint or persons who participate in the grievance proceeding is prohibited.

Federal and/or state resources for grievance appeals

Employees or members of the community may also file a complaint of discrimination on the basis of sex, disability, national origin, race, color or age with the Office of Civil Rights (OCR), Department of Education, email: OCR.KansasCity@ed.gov. Such complaints must be filed in writing no later than 180 days after the occurrence of the alleged discrimination.

Charges of employment discrimination on the basis of disability may be filed at any field office of the U.S. Equal Employment Opportunity Commission. Field offices are located in fifty (50) cities throughout the United States and are listed in most telephone directories under U.S. Government. Information on all EEOC-enforced laws may be obtained by calling toll free (800) 669-4000 or (800) 669-6820 (TDD). The address for the EEOC office in Kansas City is: 400 State Avenue Suite 905 Kansas City, KS 66101 Phone: (913) 551-5655 TTY: (913) 551-5657 (*Regulation 4850*)

Intellectual Property

State Fair Community College fosters an environment conducive to the creation, dissemination, discussion, and exploration of knowledge. In addition, ownership of academic intellectual property resides with the creator in order to encourage the investment of time, thought, creativity, and energy in the development of academic works, including copyright, books, articles, works of art, musical compositions, and course materials.

This policy applies to all intellectual property related to the academic works of faculty and students, except in the following circumstances:

- Works written or produced for grants or contracts that specify that ownership belongs to the funding or contracting party, or for college administrative software.
- Student-created products that are not claimed by students within 30 days of the close of the semester in which those products were created. After this period, these works belong to the college.
- If intellectual property developed at the college is commercialized by someone other than the college, the institution retains the right to control whether its name or logo is displayed in association with the work and to require appropriate acknowledgment of institutional support of the creation of the work. The college should be notified of intent to commercialize prior to any commercial agreements.
- If the creator was assigned, directed or specifically funded by the college to develop the material, the institution can recover direct expenses related to the development of intellectual property from revenue subsequently collected by the creator.
- Unless otherwise agreed in writing prior to the creation of copyrightable material that is developed for college courses or curriculum, the institution will have for five years nonexclusive, royalty-free, use of the work and the ability to modify the work for its use within the institution so that the college's continued use of such material for educational purposes is not jeopardized.
- Mediated courseware shall not be sold, leased, rented, or otherwise used in a manner that competes in a substantial way with the for-credit offering of State Fair Community College while the creator is employed by this institution, unless that transaction has received the approval of the Vice President for Educational and Student Support Services.
- This policy does not apply to intellectual property developed before this policy is formally approved.

Appeals concerning student issues related to intellectual property can be made through the Student Grievance and Appellate Process as described in Regulation 2160. (*Policy 6230*)

Reporting and Record Keeping

Student Services office is the repository for statistics on crime and campus incidents at all sites. The Student Services office will gather other SFCC site information and will disseminate this information annually as required by law.

Faculty and staff are required to file an incident report with their supervisor if they are aware of accidents, fire, theft/burglary, vandalism, etc., on SFCC premises.

Supervisors are to forward these reports to the Campus Judicial Officer promptly. Incidents falling within the jurisdiction of law enforcement agencies will be reported as appropriate. Incident report forms are available in the Student Services office and on the Employee tab of mySTAR under Business Office Forms.

Off-campus sites will report crimes to their nearest law enforcement agency. All crime reports are to be sent to the Campus Judicial Officer within three days of the reported event. (*Taken from Policy 2820*)

Searches by College Personnel and/or Law Enforcement

Property of the college is subject to periodic inspection without notice, without student consent, and without a search warrant. Students or student property may be searched based on reasonable suspicion, of a violation of college rules, policy or state law.

The college retains the authority to conduct routine patrols of parking lots. The interior of a student's vehicle on college property may be searched if a college administrator has reasonable suspicion to believe that illegal, unauthorized or contraband items are contained inside the vehicle.

Law enforcement officials shall be contacted if the search produces a controlled substance, drug paraphernalia, weapons, stolen goods, or evidence of a crime, in any case involving a violation of law when a student refuses to allow a search, or where the search cannot safely be conducted.

Residence Halls

Regular monthly health and safety room checks in the residence halls will be conducted by the residence life staff. (*Policy 2150*)

Students with Disabilities

The student with a disability who requires accommodations must register with the Access office in Student Services. It is the student's responsibility to

initiate the request for services.

Students are encouraged to establish documentation and a request for accommodations at least two weeks prior to the first day of the semester.

Students with a disability are responsible for providing documentation from the appropriate medical or psychological professional and should make an intake appointment with the Access office. Students are responsible for any charges associated with obtaining documentation.

The Access office shall have the authority to make the final determination as to reasonable accommodations. Students will be expected to meet the technical standards of the specific programs they are pursuing.

After accommodations have been established by the Access office, a letter will be presented to the student describing the accommodations that he/she qualifies to receive for each class in which he/she is enrolled that semester. A confidential letter will also be presented to the instructor describing the accommodations for which the student qualifies for that class. However, the letter will not contain any specific disability. (*Regulation 2110*)

Students with Disabilities Testing Accommodations

SFCC is committed to providing fair and appropriate testing accommodations for eligible students. Accommodations include, but are not limited to, extended test taking time, use of assistive technology, minimal distraction testing environment, oral tests, use of readers and the use of scribes. In order to be eligible for these accommodations, the student must provide the Access office with the documentation that is required to determine eligibility as described in Regulation 2111.

Accommodations documentation requirements

In order to fully evaluate requests for accommodations or auxiliary aids and to determine eligibility for services, the Access office must have recent documentation (within three years) of the student's disability. The documentation should include an evaluation by an appropriate medical or psychological professional that makes evident the current impact of the disability as it relates to the accommodation(s) requested.

The general guidelines listed below are developed to assist the student in working with the student's treating/diagnosing professional(s) to prepare the information needed to evaluate the student's request(s).

1. Current functional impact of the condition(s): The current relevant functional impacts on physical (mobility, dexterity, endurance, etc.), perceptual, cognitive (attention, distractibility, communication, etc.), and behavioral abilities should be described as a clinical narrative and/or through the provision of specific results from the diagnostic procedures and assessments;
2. Treatments, medications, accommodations/auxiliary aids, services currently prescribed or in use: Provide a description of treatments, medications, accommodations/auxiliary aids and/or services currently in use and their estimated effectiveness in minimizing the impact of the condition(s). Include any significant side effects that may impact physical, perceptual, behavioral or cognitive performance. If any additional accommodations or auxiliary aids are warranted, please list them along with a clear rationale and related functional limitations. Any accommodations or auxiliary aids will be taken into consideration, but not automatically implemented;
3. The expected progression or stability of disability over time: If possible, provide a description of the expected change in the functional impact of the condition(s) over time. If the condition is variable, describe the known triggers that may exacerbate the condition;
4. A diagnostic statement identifying the disability: When appropriate, include International Classification of Diseases (ICD) or Diagnostic Statistical Manual (DSM) codes, the date of the most recent evaluation, or the dates of evaluations performed by referring professionals. If the most recent evaluation was not a full evaluation, indicate when the last full evaluation was conducted; and
5. Diagnostic reports must include the names, titles and contact information of the diagnostician, the test utilized in the diagnosing and the date(s) of the testing. Reports must be typed and otherwise legible.

Access office responsibilities

The process of determining reasonable and appropriate testing accommodations for qualified students with disabilities is a collaborative effort between the Access office and the qualified student.

The Access office will evaluate the documentation, determine eligibility for testing accommodations and meet with students on an individual basis to discuss reasonable and appropriate options. The Access office also will work with faculty, Testing Services and other departments to facilitate delivery of reasonable accommodations. Students may request a modification of their accommodations at any time. The Access office will base the request of new or additional services on official documentation.

Testing Services responsibilities
Testing Services is primarily responsible for providing appropriate testing accommodations for students with disabilities and offers students a limited distraction environment with study carrels and noise- reducing disposable ear plugs.

The Testing Services staff is available to proctor exams and quizzes on the Sedalia campus. For extended campus students the designated testing coordinator at these sites will coordinate the proctoring. All testing sites will be approved by the Access office and the Director of Testing Services. Occasionally, with approval of the Access office, faculty may proctor their own exams, especially for students whose accommodation is extended test time. All proctors will receive training from the Director of Testing Services.

Testing Services will complete the test proctoring form, which will document how appropriate testing accommodations for students with disabilities has been provided, including student name, date of the test, the name of the class and the teacher, the name of the test, the amount of extra time (if applicable), the location of the quiet room (if applicable), and the name and the title of the test proctor. Testing Services will maintain a copy of all test proctoring forms in a locked file cabinet for a minimum of three academic years.

Reduced distraction testing environment
The testing environment will be an environment with limited visual and auditory distractions consistent with reasonable accommodations of the student. A reduced distraction environment does not necessitate a private room be afforded to each student. Students with similar testing needs may share a room for testing purposes at the discretion of the test proctor. Students will be allowed to utilize ear plugs or headphones, with no audio device attached, at their own expense. The proctor reserves the right to check the equipment at any point prior to or during the examination. The primary location of testing on the Sedalia campus is in the Yeater Learning Center Testing Services, Room 171. In extended campus environments the reduced distraction testing environment is provided in unused classrooms and conference rooms.

Confidentiality
The Access office, Testing Services, administrators, and faculty will treat all ADA test proctoring forms as confidential in accordance with Regulation 2115, Nondiscrimination and Student Rights Equal Educational Opportunity Students with Disabilities Confidentiality. Completed disability test proctoring forms, including all extended campus proctoring forms, will be stored in a locked file cabinet in Testing Services.

Academic honesty
Any student observed utilizing any unauthorized materials or resources during a test will be reported to the instructor, the Access office, the Student Success Center and the Campus Judicial Officer. Testing Services has the right to stop a test at any time if academic dishonesty is witnessed. Please see the Regulation 6480, Academic Honesty Policy and Regulation at **www.sfccmo.edu**.

Responsibility of students
1. The student must request accommodations from the Access office every semester in a timely manner. The student will work with the Access office staff to determine reasonable and appropriate accommodations for each class.
2. The student shall schedule appointments with Testing Services for testing accommodations with as much advance notice if possible, in most cases no later than two business days prior to the exam. Requested accommodations for specialized testing (placement testing, program entrance testing, and exit testing, etc.) require in most cases at least three weeks' notice if possible.
3. If a student must cancel an arranged exam with Testing Services for any reason, it is the student's responsibility to notify Testing Services by telephone, voicemail or email in advance of the scheduled exam if possible. This responsibility includes cancellations when the student decides to take the exam in class, when the class test is canceled by the instructor or when the student drops or withdraws from the class.

4. If a student is ill or needs to reschedule exams for any other reason or if a student misses an exam, the student is responsible for seeking his or her instructor's permission to reschedule the missed exam. The student must provide his or her instructor's written permission to Testing Services. The student also must schedule a new time agreeable to all parties (the student, the instructor and Testing Services). Instructors are allowed to establish their own policies for make-up assessments and those policies must apply to all students and must be spelled out in the syllabus. For all students, the ability to schedule make-up exams is dependent on their instructor's policy.
5. If a student is late for a scheduled proctoring for any reason, Testing Services or designated proctor will subtract the time missed from the total time allowed for the exam. Proctors will wait up to 20 minutes before determining the student is a no show.
6. The student shall inform the Access office immediately if he or she believes a test accommodation has not been appropriately provided.

Responsibility of instructors

1. The Access office will notify instructors about students who are eligible for accommodations each semester before accommodations may be implemented.
2. Instructors shall treat all information about a student's accommodation as confidential. Instructors should ensure that conversations about accommodations, even when initiated by the student, are conducted at a place and time that they may remain confidential.
3. Prior to tests, instructors will submit a test proctoring form to Testing Services complete with the student's name, name of the test, date of test, the name of the class and course number and the instructor's contact information.
4. If an instructor plans a pop quiz, the instructor shall complete the test proctoring form, leave the date and time blank and then notify Testing Services of the date and time of the pop quiz.
5. Faculty shall provide Testing Services a copy of the exam, quiz or other assessment no less than one business day in advance.
6. In order to ensure appropriate testing environments, faculty who prefer to proctor their own exams, typically for students whose accommodation involves extra time, receive prior approval from the Access office to administer the exam outside Testing Services. Before providing that approval, the Access office will ensure the faculty member has appropriate training, that the facility is appropriate for the accommodation and that the student is in agreement with the accommodation arrangements.
7. Faculty members must contact the Access office immediately if he or she has any issue or concern about accommodations. Any adjustment in accommodations must be approved by the Access office.

Use of readers

Readers are approved persons who read aloud any materials to be graded. Readers may read aloud printed or computer-based materials. Readers may read materials such as instructions, exam questions and multiple-choice answers. The reader is not permitted to tutor a student, encourage a response or answer any questions that may affect exams integrity. The reader may not clarify instructions or questions but may re-read any information requested by the student. A request for a reader should take place at least one week prior to the date of the accommodation, if possible, in order to ensure the needs of the student are met and to ensure Testing Services can have adequate time to locate a qualified reader.

Use of scribes

A scribe is an approved person to write down answers that are provided by the student on any material to be graded. The scribe writes/types words verbatim as dictated.

The scribe cannot edit or assist in the answering of any questions pertaining to the material tested. Students using scribes may be asked to spell or punctuate material in some cases. A request for a scribe should take place at least one week prior, if possible, to the date of the accommodation in order to ensure the needs of the student are met and to ensure Testing Services can have adequate time to locate a qualified scribe.

Large print format
Documents can be enlarged to 11 x 17 in. with capability up to 200 percent of the original print size. Electronic information can be printed to individual font size needed. Technology is available for an individual user to access information from documents or materials in large print format on campus. A request for a large print format should take place at least one week prior to the date of the accommodation, if possible, in order to ensure the needs of the student are met and to ensure the Access office and Copy Center has adequate time to reformat the material.

Audio format
Materials can be made available in audio format by the use of a Jaws Screen Reader, a tape recorder, electronic recordings or other comparable software on campus. Request for audio format should take place at least one week prior, if possible, to the date of the accommodation in order to ensure the needs of the student are met and to ensure the Access office can have adequate time to reformate materials.

Braille
An exam can be provided in Braille. Access office staff will make an effort to locate a Braille exam or convert an electronic exam to Braille. A request for Braille exams should be made with a minimum of two weeks prior, if possible, to the arranged exam date in order for these arrangements to be made.

Academic honesty
Any student observed utilizing any unauthorized materials or resources during a test will be reported to the instructor, the Access office, the Student Success Center, and the Campus Judicial Officer. Testing Services has the right to stop a test at any time if academic dishonesty is witnessed. Please see Regulation 6480, Academic Honesty Policy and Regulation at www.sfccmo.edu.

Justifications for deviations from this policy, though rare, will be determined by the Access office and Dean of Student and Academic Support Services and the documentation of these deviations will be maintained in Testing Services for three years. (Regulation 2116)

[SECTION 2]

GENERAL EDUCATION

Program Requirements for

General Education

Associate of Arts

Associate of Fine Arts

Associate of Arts in Teaching

Associate of Science

Skills Certificates

Professional Certificates

Associate of Applied Science

State Fair Community College

General Education Goals

State Fair Community College faculty and staff maintain the belief that a core of learning experiences exist that are invaluable to all students regardless of their present or future roles in the workplace and the community. These core experiences, which are addressed and assessed in the general education program, are consistent with the required skill-based and knowledge-based learning outcomes identified by the Missouri Coordinating Board for Higher Education (CBHE). They are also consistent with the college's Institutional Learning Outcomes (ILOs) that students will achieve upon completion of their general or specialized study.

The CBHE outcomes include mastering the skills of communicating, higher-order thinking, managing information, and valuing through the completion of at least 42-semester hours. These are distributed across the broad knowledge areas of communications, humanities and fine arts, natural and mathematical sciences, and social and behavioral sciences. The ILOs include thinking critically, communicating effectively, behaving responsibly, valuing others, developing life skills, utilizing technology, and investigating world processes. The basic competencies are achieved through the completion of the CORE 42 in its entirety.

CORE 42: Basic Competencies

Communicating

To develop students' ability to communicate effectively through oral, written, and digital channels using the English language, quantitative, and other symbolic systems. Students should be able to write and speak with thoughtfulness, clarity, coherence, and persuasiveness; read and listen critically; and select channels appropriate to the audience and message.

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors. Oral communication takes many forms.

Higher-Order Thinking

To develop students' ability to distinguish among opinions, facts, and inferences; to identify underlying or implicit assumptions; to make informed judgments; to solve problems by applying evaluative standards; and demonstrate the ability to reflect upon and refine those problem-solving skills. This involves creative thinking, critical thinking, and quantitative literacy.

Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking. Creative thinking, as it is fostered within higher education, must be distinguished from less focused types of creativity such as, for example, the creativity exhibited by a small child's drawing, which stems not from an understanding of connections, but from an ignorance of boundaries. While demonstrating solid knowledge of the domain's parameters, the creative thinker, at the highest levels of performance, pushes beyond those boundaries in new, unique, or atypical recombinations, uncovering or critically perceiving new syntheses and using or recognizing creative risk-taking to achieve a solution.

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion. Critical thinking is transdisciplinary, and success in all disciplines requires habits of inquiry and analysis that share common attributes. Successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

Quantitative Literacy (QL) is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

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. Through the effective management of information, students should be able to design, evaluate, and implement a strategy to answer an open-ended question or achieve a desired goal.

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 recognize how values develop, how value judgments influence actions, and how informed decision-making can be improved through the consideration of personal values as well as the values of others. They should be able to make informed decisions through the identification of personal values and the values of others and through an understanding how such values develop. They should be able to analyze the ethical implications of choices made on the basis of these values.

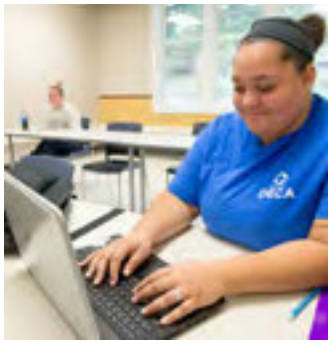
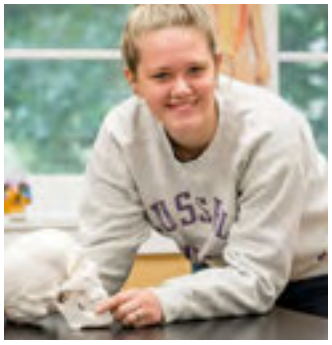
Communications Knowledge Area
To prepare students to communicate effectively with writing that exhibits solid construction resulting from satisfactory planning, discourse, and review. Students will understand the importance of proficient writing for success in the classroom and the workforce.

Humanities and Fine Arts Knowledge Area
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.

Mathematical Sciences Knowledge Area
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.

Natural Sciences Knowledge Area
To develop students' understanding of the principles and laboratory procedures of the natural sciences (Life and Physical) 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.

Social and Behavioral Sciences Knowledge Area
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 acquire an understanding of the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others. As a part of this goal, institutions of higher education include a course of instruction in the Constitution of the United States and of the state of Missouri and in American history and institutions (Missouri Revised Statute 170.011.1).

Associate of Arts

The Associate of Arts (AA) degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree.

If you're undecided on a major, the AA degree can serve as a springboard to explore new interests. It allows for flexibility and provides a wide choice of classes. We're here to help you discover the huge variety of academic programs and transfer options available to you with an Associate of Arts degree.

General Education Core **42 Hours**

Written Communications **6 Hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 Hours**

COMM 101	Public Speaking	3

Social and Behavioral Sciences **9 Hours**

Must include courses from at least two disciplines, including at least one Civics course.

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Sociology

SOC 100	General Sociology	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component.

Astronomy

EASC 120	Introduction to Astronomy	3

Biology

BIO 100	General Biology	3
BIO 105	Wildlife Conservation	3
BIO 112	General Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

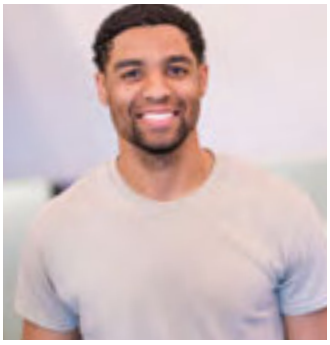
Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Life Sciences

BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Associate of Arts

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **9 Hours**

Must include courses from at least two disciplines with only one course from the Performance discipline

Art

ART 101	Art Appreciation	3

Foreign Language

FREN 101	Elementary French I	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 107	American Literature	3

Music

MUS 101	Music Appreciation	3

Performance

ART 112	Drawing I	3

Philosophy

PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3

Religion

PHIL 104	Living Religions	3

Theatre

THEA 107	Introduction to Theatre	3

General Education Elective **5 Hours**

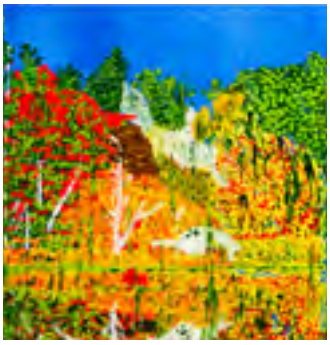
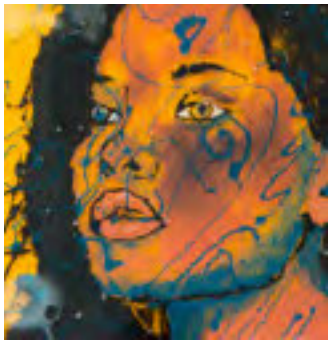
Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core.

Electives **22 Hours**

Additional courses numbered 100 or above may include 12 hours of restricted electives from technical training in the military or from technical courses taken at an accredited college. A maximum of 4 credit hours may be applied for THEA 115. Physical education activity and wellness courses (PE, PEAC, WELL, or WL prefix) may be accepted as elective credit for a maximum of 3 credit hours. Veterans, members of the National Guard and active duty military personnel may receive 2 hours of wellness credit by presenting a copy of their DD214 or similar record.

Degree Total **64 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Art

The Associate of Fine Arts in Art degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree in Art.

General Education Core **42 Hours**

Written Communications **6 Hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 Hours**

COMM 101	Public Speaking	3

Social and Behavioral Sciences **9 Hours**

Must include courses from at least two disciplines, including at least one Civics course.

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Sociology

SOC 100	General Sociology	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component.

Astronomy

EASC 120	Introduction to Astronomy	3

Biology

BIO 100	General Biology	3
BIO 105	Wildlife Conservation	3
BIO 112	General Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Art

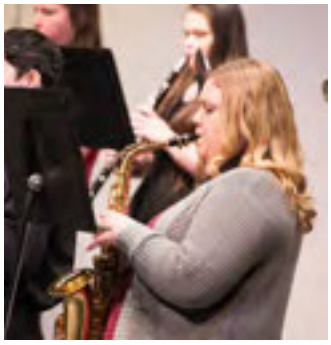
Life Sciences		
BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4
Physical Sciences		
PHYS 103	Introduction to Physical Science	3
Physics		
PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5
Humanities and Fine Arts		**9 Hours**
ART 101	Art Appreciation	3
ART 112	Drawing I	3
Select an additional course:		
Foreign Language		
FREN 101	Elementary French I	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3
Literature		
LIT 107	American Literature	3
Music		
MUS 101	Music Appreciation	3
Philosophy		
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
Religion		
PHIL 104	Living Religions	3
Theatre		
THEA 107	Introduction to Theatre	3

General Education Electives		**5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core.

Art Core		**15 Hours**
ART 103	Design I	3
ART 104	Design II	3
ART 113	Drawing II	3
ART 120	Modern Art History	3
ART 122	Sculpture I (or)	
ART 126	Ceramics I	3
Art Electives		**9 Hours**
ART 106	Watercolor I	3
ART 107	Watercolor II	3
ART 108	Watercolor III	3
ART 110	Printmaking	3
ART 114	Figure Drawing I	3
ART 115	Figure Drawing II	3
ART 116	Painting I	3
ART 117	Painting II	3
ART 118	Painting III	3
ART 122	Sculpture I	3
ART 123	Sculpture II	3
ART 126	Ceramics I	3
ART 127	Ceramics II	3
Degree Total		**66 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Associate of Fine Arts in Music

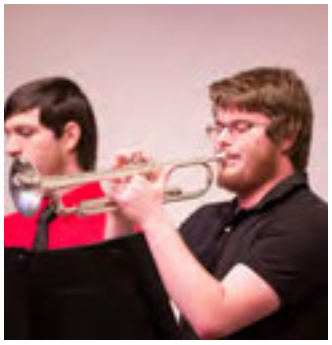
The Associate of Fine Arts in Music degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree in Music. Students must attend and pass four semesters of MUS 195 Concert and Recital Attendance.

General Education Core		**42 Hours**
Written Communications		**6 Hours**
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3
Oral Communications		**3 Hours**
COMM 101	Public Speaking	3
Social and Behavioral Sciences		**9 Hours**
Must include courses from at least two disciplines, including at least one Civics course.		
Civics		
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Economics		
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3
Geography		
GEOG 101	World Geography	3
Psychology		
PSY 101	General Psychology	3
PSY 210	Lifespan Development	3
Sociology		
SOC 100	General Sociology	3
Mathematical Sciences		**3 Hours**
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Natural Sciences		**7 Hours**
Must include courses from at least two disciplines, including one course with a lab component.		
Astronomy		
EASC 120	Introduction to Astronomy	3
Biology		
BIO 100	General Biology	3
BIO 105	Wildlife Conservation	3
BIO 112	General Biology with Lab	5
BIO 125	Biology I with Lab	5
Chemistry		
CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5
Geology		
EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3
Life Sciences		
BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4
Physical Sciences		
PHYS 103	Introduction to Physical Science	3
Physics		
PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Associate of Fine Arts in Music

Humanities and Fine Arts **9 Hours**

Must include courses from at least two disciplines with only one course from the Performance discipline.

Art

ART 101	Art Appreciation	3

Foreign Language

FREN 101	Elementary French I	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 107	American Literature	3

Music

MUS 101	Music Appreciation	3

Performance

ART 112	Drawing I	3

Philosophy

PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3

Religion

PHIL 104	Living Religions	3

Theatre

THEA 107	Introduction to Theatre	3

General Education Elective **5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core.

Music Core **20 Hours**

MUS 100	Fundamentals of Music	3
MUS 105	Fundamentals of Aural Training	1
MUS 106	Music Theory I	3
MUS 107	Music Theory II	3
MUS 108	Music Theory III	3
MUS 109	Aural Training I	1
MUS 110	Aural Training II	1
MUS 111	Aural Training III	1
MUS 145	Beginning Piano Class I	2
MUS 146	Beginning Piano Class II	2

Music Electives **5 Hours**

MUS 102	History of Rock Music	3
MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature Since 1800	3
MUS 119	Jazz Band I	1
MUS 120	Jazz Band II	1
MUS 121	Jazz Band III	1
MUS 122	Jazz Band IV	1
MUS 136	Applied Instrumental Lessons	1-2
MUS 137	Applied Instrumental Lessons II	1-2
MUS 138	Applied Instrumental Lessons III	1-2
MUS 139	Applied Instrumental Lessons IV	1-2
MUS 140	Guitar Class I	2
MUS 150	Applied Piano Lessons I	1-2
MUS 151	Applied Piano Lessons II	1-2
MUS 152	Applied Piano Lessons III	1-2
MUS 153	Applied Piano Lessons IV	1-2
MUS 155	Voice Class	2
MUS 160	Applied Voice Lessons I	1
MUS 161	Applied Voice Lessons II	1
MUS 162	Applied Voice Lessons III	1
MUS 163	Applied Voice Lessons IV	1
MUS 175	Chamber Singers I	1
MUS 176	Chamber Singers II	1
MUS 177	Chamber Singers III	1
MUS 178	Chamber Singers IV	1
MUS 210	Jazz Choir I	2
MUS 211	Jazz Choir II	2
MUS 212	Jazz Choir III	2
MUS 213	Jazz Choir IV	2

Concert and Recital Attendance **4 Semesters**

MUS 195	Concert and Recital Attendance	

Degree Total **67 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Theatre

The Associate of Fine Arts in Theatre degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree in Theatre.

General Education Core		**42 Hours**
Written Communications		**6 Hours**
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3
Oral Communications		**3 Hours**
COMM 101	Public Speaking	3
Social and Behavioral Sciences		**9 Hours**

Must include courses from at least two disciplines, including at least one Civics course.

Civics		
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Economics		
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3
Geography		
GEOG 101	World Geography	3
Psychology		
PSY 101	General Psychology	3
PSY 210	Lifespan Development	3
Sociology		
SOC 100	General Sociology	3
Mathematical Sciences		**3 Hours**
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Natural Sciences		**7 Hours**

Must include courses from at least two disciplines, including one course with a lab component.

Astronomy		
EASC 120	Introduction to Astronomy	3
Biology		
BIO 100	General Biology	3
BIO 105	Wildlife Conservation	3
BIO 112	General Biology with Lab	5
BIO 125	Biology I with Lab	5
Chemistry		
CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5
Geology		
EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3
Life Sciences		
BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Theatre

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **9 Hours**

Must include courses from at least two disciplines with only one course from the Performance discipline.

Art

ART 101	Art Appreciation	3

Foreign Language

FREN 101	Elementary French I	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 107	American Literature	3

Music

MUS 101	Music Appreciation	3

Performance

ART 112	Drawing I	3

Philosophy

PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3

Religion

PHIL 104	Living Religions	3

Theatre

THEA 107	Introduction to Theatre	3

General Education Electives **5 Hours**

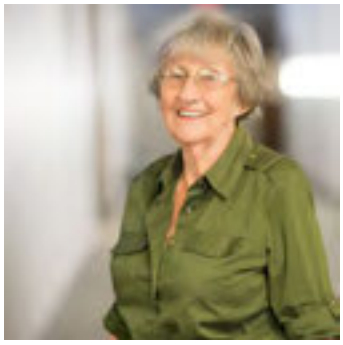
Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core.

Theatre Core **25 Hours**

THEA 110	Stagecraft and Lighting	3
THEA 111	Acting I	3
THEA 119	Stage Makeup	3
THEA 122	Costume Construction (or)	
THEA 113	Oral Interpretation	3
THEA 125	Theatre History	3
THEA 128	Introduction to Theatre Design	3
THEA 131	Script Analysis	3
THEA 134	Stage Voice and Movement	3
THEA 190	Theatre Capstone	1

Degree Total **67 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Associate of Arts in Teaching

The Associate of Arts in Teaching (AAT) degree prepares students with a foundation in educational principles, theory and practice, and exposes them to complex problems and relationships in the field of education.

Teachers play an essential role in fostering the intellectual and social development of children in their formative years. Using a variety of active learning approaches, teachers help children understand abstract principles, solve problems, and develop critical thought processes.

Whether desiring to teach preschool or elementary school, teachers provide the tools and the environment for their students to develop into responsible citizens. Any Missouri community college student who has earned an AAT degree is guaranteed consistent treatment by the majority of four-year transfer institutions. Completing the AAT is the first step to achieving a Bachelor of Arts or a Bachelor of Science in an Elementary Education degree. Bachelor's degree institutions with teacher education programs have different requirements. It is essential to work with an advisor to select the correct courses (categories indicated with ** in the Program Requirements) needed for the transfer institution of choice.

The Missouri Department of Elementary and Secondary Education-Office of Educator Quality is working with representative stakeholder groups to redesign the standards for educator preparation including certification requirements. These changes and implementation schedule will be communicated to students through individual advising sessions, meetings, and/or other college communications. If there are any questions and/or concerns, please contact the Director of Educator Preparation in the Office of Educator Quality.

Other AAT Requirements
A background check is required prior to beginning the program.

A cumulative content area GPA of 3.0 or higher is required for EDUC 110, EDUC 180, EDUC 205, EDUC 209, EDUC 212, EDUC 218, EDUC 220, EDUC 228, EDUC 240 and EDUC 250 taken at SFCC or transferred in as equivalent.

Minimum cumulative GPA of 2.75 and institutional GPA of 2.0 to apply for graduation.

Successful completion of the MoGEA (180 or higher for Mathematics; 183 or higher for Reading Comprehension and Interpretation; 188 or higher for Science and Social Studies; 167 or higher for Writing). Beginning fall 2017, the state could require different scores for all areas on the MoGEA.

A student who meets all course requirements for the Associate of Arts in Teaching but does not have a 2.75 GPA, (but has at least a cumulative 2.0 GPA) and has not successfully completed the MoGEA may still apply to graduate with an Associate of Arts degree.

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

Written Communications		**6 Hours**
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3
Oral Communications		**3 Hours**
COMM 101	Public Speaking	3
Social and Behavioral Sciences		**9 Hours**
GEOG 101	World Geography	3
HIST 101	U.S. History Before 1877 (or)	
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Arts in Teaching

Mathematical Sciences		**3 Hours**
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Natural Sciences		**7 Hours**
BIO 112	General Biology with Lab (or)	
BIO 125	Biology I with Lab	5
EASC 101	Introduction to Earth Sciences with Lab (or)	
EASC 106	Physical Geology with Lab (or)	
PHYS 105	College Physics I with Lab	5
Humanities and Fine Arts		**9 Hours**
Art		
ART 101	Art Appreciation	3
Literature		
LIT 107	American Literature	3
Music		
MUS 101	Music Appreciation	3
Philosophy		
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
Religion		
PHIL 104	Living Religions	3
Theatre		
THEA 107	Introduction to Theatre	3

General Education Electives		**5 Hours**
Select additional hours from the Associate of Arts general education categories for a minimum total of 42 hours to meet the general education core.		
Program Requirements		**15.5 Hours**
EDUC 108	Introduction to the Field of Education	.5
EDUC 205^^	Teaching Profession with Field Experience	3
EDUC 209^^	Foundations of Education in a Diverse Society	3
EDUC 212^^	Educational Technology	3
EDUC 220^^	Educational Psychology	3
PSY 102^^	Child Psychology	3
Program Electives		**9 Hours**
Suggested:		
ATSM 105	Autism Spectrum Disorders	3
ATSM 110	Communication and Social Competence	3
ECD 107^^	Child Nutrition, Health and Safety	3
ECON 101	Macroeconomics	3
EDUC 110^^	Introduction to Physical Education in the Elementary School	2
EDUC 218^^	Children's Literature	3
EDUC 228^^	Education of Exceptional Learners pre K-12	3
EDUC 240^^	Multicultural Education	3
FREN 101	Elementary French I	3
SOC 120	American Diversity	3
SPAN 101	Elementary Spanish I	3
Degree Total		**66.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Science in Chemistry

The Associate of Science (AS) in Chemistry is designed for students who want to earn a bachelor's degree in chemistry at a four-year institution. This program provides students with the first two years of study toward a Bachelor of Science degree at the University of Central Missouri (UCM) in Warrensburg. Students take basic courses common to most science and pre-health disciplines and continue their studies of chemistry at UCM. The curriculum was developed in cooperation with UCM and the Coordinating Board for Higher Education (CBHE). Chemistry programs at other institutions differ slightly, so it is strongly suggested that a student electing to receive an AS degree work very closely with an advisor from both State Fair Community College and the receiving institution to individually plan the four-semester degree plan.

Written and Oral Communications		**9 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Humanities, Sciences, and Fine Arts		**9 Hours**
ART 101	Art Appreciation	3
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3
FREN 101	Elementary French I	3
GEOG 101	World Geography	3
LIT 107	American Literature	3
MUS 101	Music Appreciation	3
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
PHIL 104	Living Religions	3
SPAN 101	Elementary Spanish I	3
THEA 107	Introduction to Theatre	3

Program Requirements		**38 Hours**
BIO 112	General Biology with Lab	5
CHEM 123	General Chemistry I with Lab	5
CHEM 124	General Chemistry II with Lab	5
CHEM 221	Organic Chemistry I with Lab	5
CHEM 222	Organic Chemistry II with Lab	5
MATH 130	Calculus and Analytic Geometry I	5
PHYS 105	College Physics I with Lab (or)	
PHYS 118	General Physics I with Lab	5
PHYS 106	College Physics II with Lab (or)	
PHYS 119	General Physics II with Lab	3

Program Elective **3 Hours**

You must check the individual degree requirements at your transfer institution to determine which course is best for your area.

BIO 125	Biology I with Lab	5
BIO 126	Biology II with Lab	5
MATH 120	Precalculus Trigonometry	3
MATH 131	Calculus and Analytic Geometry II	5

Degree Total **62 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Science in Engineering

The Associate of Science (AS) in Engineering is designed for students who want to earn a bachelor's degree in any engineering field at a four-year institution. This program provides students with the first two years of study toward a Bachelor of Science degree at the Missouri University of Science and Technology (MS&T) in Rolla, Missouri. Students take basic courses common to most engineering disciplines and continue their studies in specialized areas (electrical, mechanical, civil, chemical, etc.) during their remaining years at MS&T. The curriculum responds to the Model Program for Engineering Transfers developed in cooperation with MS&T and the Coordinating Board for Higher Education (CBHE). Engineering programs at other institutions differ slightly so it is strongly suggested that a student electing to receive an AS degree work very closely with an advisor from both State Fair Community College and the receiving institution to individually plan the four-semester degree plan.

Written and Oral Communications		**6 Hours**
ENGL 101	English Composition I	3
Check the specific major for which course would be best.		
ENGL 102	English Composition II (or)	
COMM 101	Public Speaking	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Humanities, Sciences, and Fine Arts		**6 Hours**
ART 101	Art Appreciation	3
ECON 102	Principles of Microeconomics	3
FREN 101	Elementary French I	3
GEOG 101	World Geography	3
LIT 107	American Literature	3
MUS 101	Music Appreciation	3
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
PHIL 104	Living Religions	3
PSY 101	General Psychology	3
SOC 100	General Sociology	3
SPAN 101	Elementary Spanish I	3
THEA 107	Introduction to Theatre	3

Program Requirements		**36 Hours**
CHEM 123	General Chemistry I with Lab	5
ECON 101	Principles of Macroeconomics	3
MATH 130	Calculus and Analytic Geometry I	5
MATH 131	Calculus and Analytic Geometry II	5
MATH 132	Calculus and Analytic Geometry III	5
PHYS 118	General Physics I with Lab	5
PHYS 119	General Physics II with Lab	5
PHYS 203	Statics	3

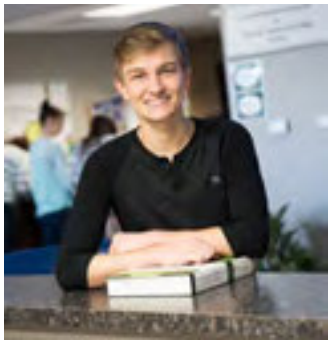
Program Electives **16 Hours**

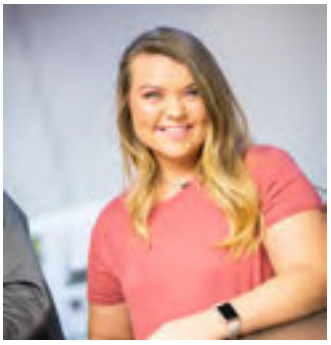
You must check the individual degree requirements at your transfer institution to determine which classes are best for your area.

BIO 112	General Biology with Lab	5
CAPP 125	Microcomputer Applications	3
CHEM 124	General Chemistry II with Lab	5
CHEM 221	Organic Chemistry I with Lab	4
CIS 155	Programming in C#	3
CIS 157	Advanced C #	3
EDT 111	Introduction to Engineering Design	3
EDT 115	Advanced Engineering Design	3
EDT 130	Manufacturing Design I	3
MATH 114	Precalculus Algebra	3
MATH 120	Precalculus Trigonometry	3
MATH 134	Differential Equations	3

Degree Total **67 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.





Associate of Applied Science

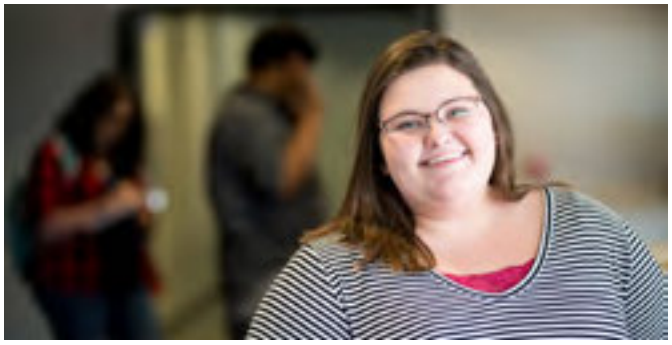
General Education Core		**15 Hours**
Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3
ENGL 110	Business Communications	3
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Humanities, Sciences, and Fine Arts		**3 Hours**
AGRI 119	Soils I with Lab	4
ART 101	Art Appreciation	3
ART 112	Drawing I	3
BIO 100	General Biology	3
BIO 103	Human Biology	3
BIO 105	Wildlife Conservation	3
BIO 112	General Biology with Lab	5
BIO 125	Biology I with Lab	5
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4
CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5
EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3
EASC 120	Introduction to Astronomy	3
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3
FREN 101	Elementary French I	3
GEOG 101	World Geography	3
LIT 107	American Literature	3
MUS 101	Music Appreciation	3
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
PHIL 104	Living Religions	3
PHYS 103	Introduction to Physical Science	3
PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5
PHYS 125	Technical Science	4
PSY 101	General Psychology	3
PSY 210	Lifespan Development	3
SOC 100	General Sociology	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3
THEA 107	Introduction to Theatre	3
Program Requirements		**Varies**
Degree Total		**60 Plus Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS 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 received from this program will prepare students for a variety of employment opportunities including financial accountant, bookkeeper, income tax preparer, payroll specialist, or cost/management accountant.

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

Written and Oral Communications		**6 Hours**
ENGL 101	English Composition I	3
ENGL 110	Business Communications	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**3 Hours**
ECON 101	Principles of Macroeconomics	3

Program Requirements		**48 Hours**
ACCT 101^^	Principles of Financial Accounting	3
ACCT 102^^	Managerial Accounting	3
ACCT 109^^	Applied Accounting Procedures	3
ACCT 125^^	Computerized Accounting Applications	3
ACCT 132^^	Business Taxation	3
ACCT 137^^	Introduction to Federal Taxation	3
ACCT 175^^	Accounting Internship	4
ACCT 203^^	Intermediate Financial Accounting I	3
ACCT 220^^	Current Topics in Accounting	3
BADM 101	Introduction to Business	3
BADM 103	Legal Environment of Business	3
BADM 107	Personal Finance	3
BSMT 125	Human Relations (or)	
COMM 101	Public Speaking	3
CAPP 125^^	Microcomputer Applications	3
CAPP 166^^	Excel	3
OADM 121^^	Calculators	1
SS 120	Employment Strategies	1
Degree Total		**63 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Agribusiness

The Professional Certificate in Agribusiness is designed to provide the student with business skills specific to agriculture. Career paths such as production agriculture, agricultural lending, commodity marketing, risk management, business management, and agricultural retail sales would be well served by completion of this certificate. Students will learn valuable skills in price risk management through hedging practices, effective management of business resources and leadership of human resources, analyzing economic factors and their relationship to agriculture, basic salesmanship skills, and the impact of agriculture and food policy on the agriculture industry.

Program Requirements		**28 Hours**
AGRI 101	Ag Leadership and Issues I	2
AGRI 102	Ag Leadership and Issues II	1
AGRI 108	Animal Science	3
AGRI 118	Plant Science	3
AGRI 131	Introduction to Agribusiness Systems	3
AGRI 132	Agriculture Economics	3
AGRI 133	Agricultural and Food Policy	3
AGRI 134	Marketing Farm Commodities	3
AGRI 136	Ag Credit and Finance	3
AGRI 137	Farm Management, Recordkeeping	1
AGRI 138	Ag Business Management	3
Certificate Total		**28 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/agriculture.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Agriculture with Emphasis in Agribusiness

The Agribusiness program provides a vast assortment of opportunities. Firms supply farmers with fertilizer, seed, feed, fuel, chemicals, machinery, equipment, marketing, credit, and supplies. Agribusinesses also produce, 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. Agriculture is one of the largest and most diverse industries in the world. Careers in agriculture are exciting and satisfying; the opportunities are numerous and the salaries competitive. Students interested in a career in agribusiness are self-motivated, goal-oriented, and take a tenacious, creative approach to problem solving. The technical and business skills to be gained will provide an advantage to work on the family farm or pursue a job in agribusiness. The program combines instruction with job experience. In addition to regular classroom hours, students work for a major industry in their chosen career field with an occupational internship. The internship provides a unique opportunity to apply the knowledge acquired in class to work situations.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Humanities, Sciences, and Fine Arts		**4 Hours**
AGRI 119	Soils I with Lab	4

Program Requirements		**44 Hours**
AGRI 101	Ag Leadership and Issues I	2
AGRI 102	Ag Leadership and Issues II	1
AGRI 103	Ag Leadership and Issues III	2
AGRI 104	Ag Leadership and Issues IV	1
AGRI 108	Animal Science	3
AGRI 118	Plant Science	3
AGRI 121	Soils II	3
AGRI 125	Natural Resources	3
AGRI 129	General Horticulture	3
AGRI 131	Introduction to Agribusiness Systems	3
AGRI 132	Agriculture Economics	3
AGRI 133	Agricultural and Food Policy	3
AGRI 134	Marketing Farm Commodities	3
AGRI 136	Ag Credit and Finance	3
AGRI 137	Farm Management, Recordkeeping	1
AGRI 138	Ag Business Management	3
AGRI 175	Occupational Internship	4
Degree Total		**60 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Agronomy

The Professional Certificate in Agronomy focuses on the skills required for certification by The American Society of Agronomy and The Missouri Certified Crop Adviser Board. The student will study plant growth and development, crop production, soil formation, composition and properties, soil nutrient management, crop scouting, pest management, and agricultural chemicals. Student will also complete state exams to obtain a commercial applicator's license. Completion of the certificate will prepare the student to pass the required exams to become a Certified Crop Adviser.

Program Requirements		**30 Hours**
AGRI 101	Ag Leadership and Issues I	2
AGRI 102	Ag Leadership and Issues II	1
AGRI 118	Plant Science	3
AGRI 119	Soils I with Lab	4
AGRI 121	Soils II	3
AGRI 123	Soil Erosion and Management	3
AGRI 127	Farm Chemicals	3
AGRI 129	General Horticulture	3
AGRI 137	Farm Management, Recordkeeping	1
AGRI 149	Chemistry of Soil Additives	3
AGRI 168	Commercial Applicator Licensing	2
AGRI 174	Crop and Insect Scouting	2
Certificate Total		**30 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/agronomy.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Agriculture with Emphasis in Agronomy

The Agronomy program provides students with a strong foundation to pursue a career in an agronomic related field. As world population approaches nine billion people, agronomists will be responsible for increasing food production on fewer acres while ensuring resources will be available for future generations. Employment opportunities include crop and seed production; fertilizer sales and application; pest and weed control; seed sales; crop scouting; seed analysts, and soil scientists. Course work focuses on soil and plant sciences, soil erosion management, soil fertilization, and chemical safety and application. In addition to regular classroom hours, students work for an employer in the agronomy industry with an occupational internship. The internship provides a unique opportunity to apply the knowledge acquired in class to work situations.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Humanities, Sciences, and Fine Arts		**4 Hours**
AGRI 119	Soils I with Lab	4

Program Requirements		**45 Hours**
AGRI 101	Ag Leadership and Issues I	2
AGRI 102	Ag Leadership and Issues II	1
AGRI 103	Ag Leadership and Issues III	2
AGRI 104	Ag Leadership and Issues IV	1
AGRI 118	Plant Science	3
AGRI 121	Soils II	3
AGRI 123	Soil Erosion and Management	3
AGRI 125	Natural Resources	3
AGRI 127	Farm Chemicals	3
AGRI 129	General Horticulture	3
AGRI 131	Introduction to Agribusiness Systems	3
AGRI 133	Agricultural and Food Policy	3
AGRI 134	Marketing Farm Commodities	3
AGRI 137	Farm Management, Recordkeeping	1
AGRI 149	Chemistry of Soil Additives	3
AGRI 168	Commercial Applicator Licensing	2
AGRI 174	Crop and Insect Scouting	2
AGRI 175	Occupational Internship	4
Degree Total		**61 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Agriculture with Emphasis in Animal Science

The Animal Science program is focused on the livestock portion of the agricultural industry. Students will gain a fundamental knowledge of livestock production through animal selection and reproduction, nutrition, and management courses. This program focuses on all species of livestock and is intended for students pursuing a career in livestock production.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Humanities, Sciences, and Fine Arts		**5 Hours**
BIO 112	General Biology with Lab	5

Program Requirements		**45 Hours**
AGRI 101	Ag Leadership and Issues I	2
AGRI 102	Ag Leadership and Issues II	1
AGRI 103	Ag Leadership and Issues III	2
AGRI 104	Ag Leadership and Issues IV	1
AGRI 108	Animal Science	3
AGRI 110	Contemporary Issues in Animal Agriculture	3
AGRI 112	Livestock and Meat Evaluation	3
AGRI 114	Livestock Management	3
AGRI 116	Animal Nutrition	3
AGRI 131	Introduction to Agribusiness Systems	3
AGRI 133	Agricultural and Food Policy	3
AGRI 134	Marketing Farm Commodities	3
AGRI 137	Farm Management, Recordkeeping	1
AGRI 141	Livestock Breeding	3
AGRI 143	Livestock Reproduction	3
AGRI 175	Occupational Internship	4
BIO 210	Principles of Genetics with Lab	4
Degree Total		**62 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Agriculture with Emphasis in Horticulture

The Horticulture program will prepare students for numerous career opportunities with practical experience in a fully equipped greenhouse and an internship to enhance the classroom learning experiences. Workers in landscaping, groundskeeping, nursery, greenhouse, and lawn service occupations are responsible for a 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 designs 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.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Humanities, Sciences, and Fine Arts		**4 Hours**
AGRI 119	Soils I with Lab	4

Program Requirements		**45 Hours**
AGRI 101	Ag Leadership and Issues I	2
AGRI 102	Ag Leadership and Issues II	1
AGRI 103	Ag Leadership and Issues III	2
AGRI 104	Ag Leadership and Issues IV	1
AGRI 118	Plant Science	3
AGRI 121	Soils II	3
AGRI 126	Ornamental Woody Plants	3
AGRI 127	Farm Chemicals	3
AGRI 128	Ornamental Herbaceous Plants	3
AGRI 129	General Horticulture	3
AGRI 131	Introduction to Agribusiness Systems	3
AGRI 137	Farm Management, Recordkeeping	1
AGRI 138	Ag Business Management	3
AGRI 151	Landscape Design and Maintenance	3
AGRI 154	Greenhouse Management with Lab	4
AGRI 168	Commercial Applicator Licensing	2
AGRI 175	Occupational Internship	4
AGRI 179	Innovative Horticulture	1
Degree Total		**61 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Advanced Driveability

The Skills Certificate in Advanced Driveability is a study of engine operation and condition diagnoses, including gasoline and automotive fuels; turbo/supercharging; electrical and electronic fundamentals; computer principles and operations; fuel pumps; fuel injectors; ignition systems; temperature and oxygen sensors; EVAP systems; EGR systems; catalytic converters, and more. The program introduces the diagnosis and troubleshooting of automotive engine control systems, including information on digital storage oscilloscopes; fuel injection and ignition system diagnosis; current ramping tests, plus scan tool diagnosis. Also included are fundamental principles; servicing; troubleshooting and repair of modern automotive engines, and removal; disassembly; cleaning; inspection; repairs; reassembly, and installation of engine assemblies.

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

Program Requirements		**20 Hours**
AUTO 100^^	Introduction to Automotive Technology	3
AUTO 106^^	Power Train Management	5
AUTO 108^^	Advanced Engine Performance	6
AUTO 116^^	Automotive Electrical System Fundamentals	3
AUTO 118^^	Advanced Automotive Electrical and Electronics	3
Certificate Total		**20 Hours**

Skills Certificate in Automotive Chassis

The Skills Certificate in Automotive Chassis provides an in-depth study of automotive steering, suspension and wheel systems, including brake systems and related components. Learn how to inspect and replace components; diagnose handling and suspension problems, and the setup and completion of four wheel alignments. The program includes the theory and operations of hydraulic braking systems, drum brakes, disc brakes, power assist, and ABS diagnosis and service. System principles and theory will be presented that will facilitate an understanding of how brake systems operate in detail and how the brake system relates to other systems in the automobile.

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

Program Requirements		**16 Hours**
AUTO 100^^	Introduction to Automotive Technology	3
AUTO 113^^	Steering, Suspension and Wheels	5
AUTO 115^^	Automotive Brakes	5
AUTO 116^^	Automotive Electrical System Fundamentals	3
Certificate Total		**16 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/automotive-technology.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Automotive Electrical/ Electronics, Heating/ Air Conditioning

The Skills Certificate in Automotive Electrical/Electronics, Heating/Air Conditioning develops students' skills and knowledge required to understand the fundamental principles of electricity and electronics and how these principles apply to automotive systems. These specifics include the study of wiring diagrams and electrical symbols; how to utilize appropriate equipment such as meters and scopes; the proper methods to repair circuits, along with the techniques and strategies used to troubleshoot and diagnose various types of automotive electrical systems. The theory of operation, diagnosis and repair of automotive heating, ventilation, air conditioning, and engine cooling systems are taught. Additionally, students learn the function and repair of modern Automatic Climate Control Systems, along with servicing and retrofitting A/C systems.

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

Program Requirements		**19 Hours**
AUTO 100^^	Introduction to Automotive Technology	3
AUTO 106^^	Power Train Management	5
AUTO 116^^	Automotive Electrical System Fundamentals	3
AUTO 118^^	Advanced Automotive Electrical and Electronics	3
AUTO 119^^	Automotive Heating and Air Conditioning	5
Certificate Total		**19 Hours**

Skills Certificate in Automotive Transmission, Driveline and Axles

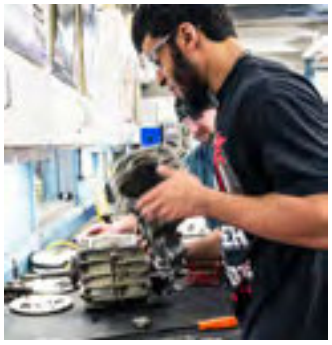
The Skills Certificate in Automotive Transmission, Driveline and Axles includes the fundamental principles, troubleshooting and repair of manual and automatic transmissions/transaxles, drivelines and axles. Included in the course is the study of clutch systems; drive shafts and universal joints; drive axle and related gears; four-wheel drive systems, and drivetrain electrical controls theory of operation. The study of the diagnostic approach to determine needed repairs, overhaul procedures and the electrical control theory of operation are also included.

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

Program Requirements		**16 Hours**
AUTO 100^^	Introduction to Automotive Technology	3
AUTO 103^^	Manual Transmissions, Drivelines and Axles	5
AUTO 105^^	Automatic Transmissions	5
AUTO 116^^	Automotive Electrical System Fundamentals	3
Certificate Total		**16 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/automotive-technology.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Professional Certificate in Automotive Technology

The Professional Certificate in Automotive Technology requires satisfactory completion of the 12 core courses within the Automotive Technology program. Students who complete this course of study will learn automotive systems, theory and principles and receive specialized hands-on training using up-to-date industry standard equipment. With this certificate, the student will be prepared to enter the labor force equipped with the knowledge and skills to go to work. In addition, this specialized training enhances the student's chance of securing employment quickly.

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

Program Requirements		**52 Hours**
AUTO 100^^	Introduction to Automotive Technology	3
AUTO 103^^	Manual Transmissions, Drivelines and Axles	5
AUTO 105^^	Automatic Transmissions	5
AUTO 106^^	Power Train Management	5
AUTO 108^^	Advanced Engine Performance	6
AUTO 113^^	Steering, Suspension and Wheels	5
AUTO 115^^	Automotive Brakes	5
AUTO 116^^	Automotive Electrical System Fundamentals	3
AUTO 118^^	Advanced Automotive Electrical and Electronics	3
AUTO 119^^	Automotive Heating and Air Conditioning	5
AUTO 121^^	Automotive Engines	6
SS 120	Employment Strategies	1
Certificate Total		**52 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/automotive-technology.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Automotive Technology

The Automotive Technology program gives students the opportunity to study automotive systems in depth, beginning with fundamental principles and quickly advancing to more sophisticated theories and application.

Along with classroom study, the program is designed to help students develop a strong skill foundation through lab and shop learning activities. In today's automotive repair industry, technicians must have the ability to quickly diagnose and repair vehicle systems from the trivial problems to the most sophisticated. This course of study will prepare the student to embrace the ever-changing technology associated with the automobile repair industry. An automotive technician must be well versed in computers, mathematics, reading, and communication skills, along with skills specific to the trade. The program will provide instruction on employability skills and shop operation management. Students frequently work with dirty and greasy parts and in awkward positions. They often lift heavy parts and tools. Minor cuts, burns and bruises are common.

The Automotive Technology program has attained national accreditation status from the National Automotive Technicians Education Foundation (NATEF), an affiliate of the National Institute of Automotive Service Excellence (ASE), signifying that the program meets uniform standards for instructional facilities, equipment, curriculum, and staff credentials.

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

Written and Oral Communications		**6 Hours**
ENGL 101	English Composition I	3
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 108	Technical Math II	3
Humanities, Sciences, and Fine Arts		**4 Hours**
PHYS 125	Technical Science	4

Program Requirements		**52 Hours**
AUTO 100^^	Introduction to Automotive Technology	3
AUTO 103^^	Manual Transmissions, Drivelines and Axles	5
AUTO 105^^	Automatic Transmissions	5
AUTO 106^^	Power Train Management	5
AUTO 108^^	Advanced Engine Performance	6
AUTO 113^^	Steering, Suspension and Wheels	5
AUTO 115^^	Automotive Brakes	5
AUTO 116^^	Automotive Electrical System Fundamentals	3
AUTO 118^^	Advanced Automotive Electrical and Electronics	3
AUTO 119^^	Automotive Heating and Air Conditioning	5
AUTO 121^^	Automotive Engines	6
SS 120	Employment Strategies	1
Degree Total		**68 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Retail Sales

This certificate provides students with the basic skills needed to be successful working in the retail industry. Students will study sales techniques, human relations, and customer service. Completing this certificate will allow students to stand ahead of their peers when seeking management positions as more and more employers are looking for those with advanced education to take over leadership roles.

Program Requirements		**16 Hours**
BADM 101	Introduction to Business	3
BSMT 110	Salesmanship	3
BSMT 119	Customer Service Management	3
BSMT 125	Human Relations	3
CAPP 125	Microcomputer Applications	3
SS 120	Employment Strategies	1
Certificate Total		**16 Hours**

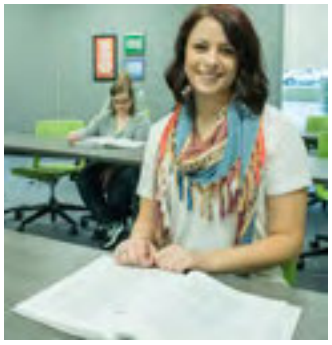
Professional Certificate in First Line Supervision

The first line manager is the bridge between the line staff and management. This certificate is designed to provide front line employees with the skills necessary to transition to a supervisory role. Students will gain knowledge in the areas of leadership, human relations, communication, and functions of business.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Program Requirements		**22 Hours**
BADM 101	Introduction to Business	3
BADM 107	Personal Finance	3
BSMT 108	Principles of Management	3
BSMT 119	Customer Service Management	3
BSMT 125	Human Relations	3
CAPP 125	Microcomputer Applications	3
ENGL 110	Business Communications	3
SS 120	Employment Strategies	1
Certificate Total		**25 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/management.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS in Business Management with Management Specialty

In the Business Management with Management Specialty program, students should possess leadership and decision-making skills and 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 and offers 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 business.

Written and Oral Communications		**9 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3
ENGL 110	Business Communications	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3

Humanities, Sciences, and Fine Arts		**9 Hours**
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3
PHIL 102	Ethics	3

Program Requirements		**31 Hours**
ACCT 101	Principles of Financial Accounting	3
ACCT 102	Managerial Accounting	3
BADM 101	Introduction to Business	3
BADM 103	Legal Environment of Business	3
BADM 107	Personal Finance	3
BSMT 108	Principles of Management	3
BSMT 119	Customer Service Management	3
BSMT 125	Human Relations	3
BSMT 130	Business Strategies	3
CAPP 125	Microcomputer Applications	3
SS 120	Employment Strategies	1

Program Electives		**6 Hours**
BSMT 106	Principles of Marketing	3
BSMT 110	Salesmanship	3
BSMT 175	Business Management Internship	3-6
CAPP 160	Word	3
CAPP 166	Excel	3
MATH 127	Business Statistics	3
PHIL 104	Living Religions	3
PSY 101	General Psychology	3
SOC 100	General Sociology	3

Degree Total	**61 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Office Support Services

The Professional Certificate in Office Support Services is designed to help students update their computer skills and get into the workforce as quickly as possible. This certificate consists of 32 hours and is designed to be completed within one year. Students gain an understanding of computers and computer software. Job readiness skills are also covered to help enhance the student's potential. Students completing this program should be prepared for entry-level employment in most business office settings.

Note: Students need to type 45 words per minute with a maximum of five errors in order to receive their certificate.

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

Program Requirements		**32 Hours**
ACCT 109^^	Applied Accounting Procedures	3
BSMT 125	Human Relations	3
CAPP 125^^	Microcomputer Applications	3
CAPP 166^^	Excel	3
ENGL 110^^	Business Communications	3
OADM 104^^	Keyboarding (or test out)	3
OADM 106^^	Document Formatting	2
OADM 116^^	Records Management	3
OADM 118^^	Business English for Office Management	3
OADM 121^^	Calculators	1
OADM 125^^	Skillbuilding for Office Support Services	1
OADM 134^^	Office Management	3
SS 120	Employment Strategies	1
Certificate Total		**32 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate and other important information, please visit **www.sfccmo.edu/office-management.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Business Management with Office Management Specialty

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

Note: Students need to type 52 words per minute with a maximum of five errors in order to receive their degree.

Course to complete with a grade of B or higher^.
Courses to complete with a grade of C or higher^^.

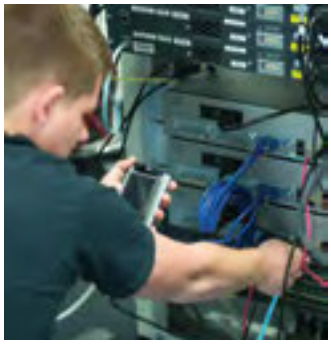
Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 110^^	Business Communications	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101^^	Business Math	3
Humanities, Sciences, and Fine Arts		**3 Hours**
ECON 101	Principles of Macroeconomics	3

Program Requirements		**47 Hours**
ACCT 109^^	Applied Accounting Procedures	3
BADM 103	Legal Environment of Business	3
BSMT 106	Principles of Marketing	3
BSMT 108	Principles of Management	3
BSMT 125	Human Relations	3
CAPP 125^^	Microcomputer Applications	3
CAPP 160^^	Word	3
CAPP 164^^	Access	3
CAPP 166^^	Excel	3
OADM 104^^	Keyboarding (or test out)	3
OADM 106^^	Document Formatting	2
OADM 116^^	Records Management	3
OADM 118^^	Business English for Office Management	3
OADM 121^^	Calculators	1
OADM 127^	Skillbuilding for Office Management	1
OADM 134^^	Office Management	3
OADM 175^^	Office Management Internship	3
SS 120	Employment Strategies	1
Degree Total		**62 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Skills Certificate in Enterprise Server Administration

The Skills Certificate in Enterprise Server Administration is designed to prepare students for entry into the server administration field and includes courses such as Server Administration, Directory Services, as well as a choice of electives from other server technologies common to today's corporate IT environments.

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

Program Requirements		**12 Hours**
NET 101^^	Introduction to Networks	3
NET 120^^	Network Server	3
NET 126^^	Network Client	3
NET 138^^	Network Directory Services	3
Program Electives		**6 Hours**
NET 135^^	SQL Server System Administration	3
NET 136^^	Exchange Server Administration	3
NET 222^^	Enterprise Applications I	3
NET 223^^	Enterprise Applications II	3
Certificate Total		**18 Hours**

Skills Certificate in Information Security

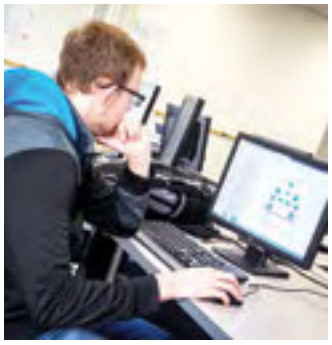
The Skills Certificate in Information Security is designed to prepare students for entry into the information security field. In addition to covering basic network and security and related topics, students will study Ethical Hacking and Digital Forensics.

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

Program Requirements		**18 Hours**
NET 101^^	Introduction to Networks	3
NET 103^^	Routing/Switching Essentials	3
NET 106^^	Introduction to Network Security	3
NET 158^^	Network Firewalls	3
NET 202^^	Digital Forensics	3
NET 206^^	Ethical Hacking	3
Certificate Total		**18 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/computer-network-administration.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Skills Certificate in Storage and Virtualization

The Skills Certificate in Storage and Virtualization is designed to prepare students for entry into the storage and virtualization administration areas in today's corporate data centers.

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

Program Requirements		**18 Hours**
NET 101^^	Introduction to Networks	3
NET 106^^	Introduction to Network Security	3
NET 120^^	Network Server	3
NET 126^^	Network Client	3
NET 238^^	Server Virtualization	3
NET 240^^	Enterprise Storage	3
Certificate Total		**18 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit **www.sfccmo.edu/computer-network-administration.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Computer and Network Administration

The Computer and Network Administration program prepares students for a number of certifications, including A+, Network +, Security +CCNA, MCP, MCSA, or MCSE. Students work on current versions of software and hardware. The high demand for certified network administrators will continue to increase as software and hardware become more and more complex. Typical job titles for this degree are systems administrator, IT specialist, IT manager, LAN administrator, or network manager. Tasks associated with the job may include installation, configuration, and support of a local area network (LAN), a wide area network (WAN), and an Internet system or segment of the network. Students learn to maintain and monitor network hardware and software to ensure network availability to all system users.

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

Written and Oral Communications		**6 Hours**
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
ENGL 102	English Composition II (or)	
ENGL 110	Business Communications	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3

Humanities, Sciences, and Fine Arts		**3 Hours**
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

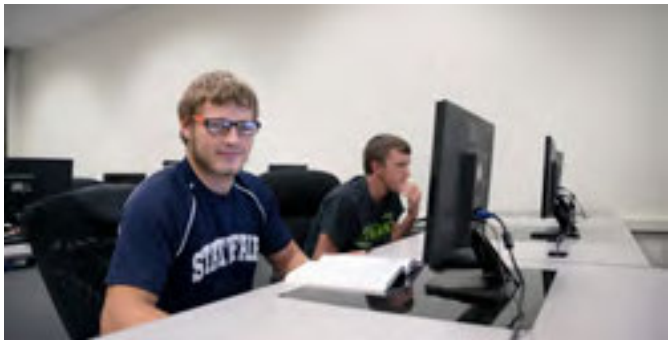
Program Requirements		**41 Hours**
CAPP 125^^	Microcomputer Applications	3
NET 101^^	Introduction to Networks	3
NET 103^^	Routing/Switching Essentials	3
NET 106^^	Introduction to Network Security	3
NET 120^^	Network Server	3
NET 126^^	Network Client	3
NET 138^^	Network Directory Services	3
NET 140^^	PC Hardware	3
NET 142^^	PC Operating Systems	3
NET 158^^	Network Firewalls	3
NET 175^^	Network Administration Internship	4
NET 201^^	Scaling Networks	3
NET 203^^	Connecting Networks	3
SS 120	Employment Strategies	1

NET Electives	**6 Hours**
Choose any NET course not taken	

Program Electives	**3 Hours**
Choose any CIS course (except CIS 103)	
Choose any NET course not taken	
Choose any WEB course	

Degree Total	**65 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS in Computer Information Systems with Emphasis in Accounting

The Computer Information Systems (CIS) with Emphasis in Accounting program can launch 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 in the field of accounting computer information systems demands patience, persistence and extreme accuracy. Students need to think logically and analytically. A graduate of the CIS/Accounting program has the skills needed to set up and maintain the latest computerized accounting systems. The demand is increasing daily for employees who can apply both accounting and computer skills.

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

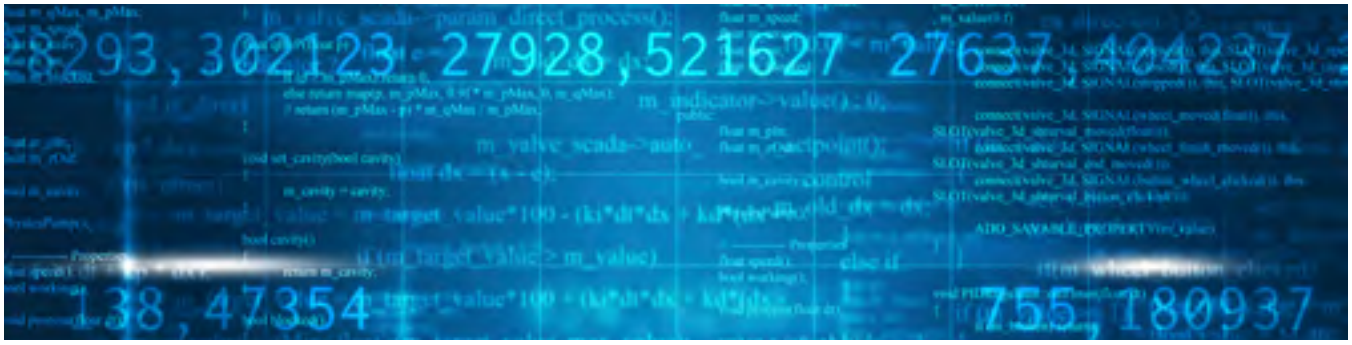
Written and Oral Communications		**6 Hours**
ENGL 110	Business Communications	3
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Humanities, Sciences, and Fine Arts		**3 Hours**
ECON 101	Principles of Macroeconomics	3
PHIL 102	Ethics	3

Program Requirements		**44 Hours**
ACCT 101^^	Principles of Financial Accounting	3
ACCT 102^^	Managerial Accounting	3
ACCT 109^^	Applied Accounting Procedures	3
ACCT 125^^	Computerized Accounting Applications	3
ACCT 132^^	Business Taxation	3
CAPP 125	Microcomputer Applications	3
CAPP 166^^	Excel	3
CIS 103^^	Introduction to CIS	3
CIS 124^^	Database Management	3
CIS 145^^	Visual Basic	3
CIS 161^^	Systems Analysis	3
CIS 175^^	CIS Internship (or)	
ACCT 175^^	Accounting Internship	4
CIS 185^^	Project Management	3
SS 120	Employment Strategies	1
WEB 160^^	Portfolio Design	3
Program Electives		**6 Hours**
ACCT 126^^	Introduction to QuickBooks	1
ACCT 137^^	Introduction to Federal Taxation	3
ACCT 203^^	Intermediate Financial Accounting I	3
CIS 155^^	Programming in C#	3
CIS 157^^	Advanced C#	3
CIS 162^^	Advanced Visual Basic	3
CIS 163^^	Visual Basic with SQL	3
Degree Total		**65 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Skills Certificate in Programming

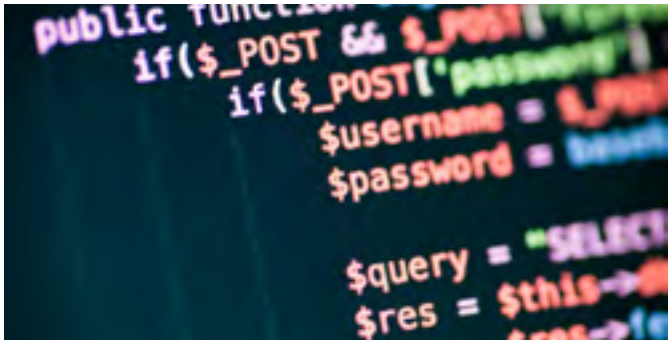
The Skills Certificate in Programming is designed to allow students to achieve this qualification in a single 18-credit hour semester. The courses for this certificate prepare students for entry-level programming jobs using the languages of Visual Basic, C#, Java, and an understanding of database relationships and SQL coding.

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

Program Requirements		**18 Hours**
CIS 103^^	Introduction to CIS	3
CIS 124^^	Database Management	3
CIS 145^^	Visual Basic	3
CIS 155^^	Programming in C#	3
CIS 158^^	Java	3
CIS 161^^	Systems Analysis	3
Certificate Total		**18 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit **www.sfccmo.edu/cis-programming.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS in Computer Information Systems with Emphasis in Programming

The Computer Information Systems with Emphasis in Programming prepares students to enter an exciting field of computer programming. Local, national and international companies including banks, insurance companies, state agencies, and major programming firms have hired State Fair Community College graduates. Students receive hands-on experience in programming. COBOL, DB2, Visual Basic, C#, and JAVA are taught in addition to courses in programming concepts, software and hardware applications, and computer operations. An internship provides an opportunity to apply knowledge and skills in a work environment.

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

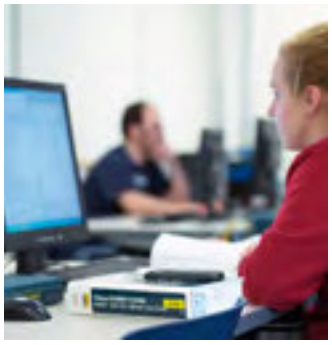
Written and Oral Communications		**6 Hours**
ENGL 110	Business Communications	3
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Humanities, Sciences, and Fine Arts		**3 Hours**
ECON 101	Principles of Macroeconomics	3
PHIL 102	Ethics	3

Program Requirements		**44 Hours**
CAPP 125	Microcomputer Applications	3
CIS 103^^	Introduction to CIS	3
CIS 124^^	Database Management	3
CIS 145^^	Visual Basic	3
CIS 155^^	Programming in C#	3
CIS 157^^	Advanced C#	3
CIS 158^^	Java	3
CIS 161^^	Systems Analysis	3
CIS 162^^	Advanced Visual Basic	3
CIS 163^^	SQL Server	3
CIS 175^^	CIS Internship	4
CIS 185^^	Project Management	3
SS 120	Employment Strategies	1
WEB 103^^	Introduction to Web Development	3
WEB 160^^	Portfolio Design	3
Program Electives		**9 Hours**
CIS 120^^	Programming in Python	3
CIS 148^^	COBOL	3
CIS 149^^	Advanced COBOL	3
CIS 151^^	DB2 Relational Database	3
CIS 164^^	Oracle I-Oracle SQL	3
CIS 168^^	Game Programming	3
NET 101^^	Introduction to Networks	3
NET 102^^	Networking Essentials	3
NET 106^^	Introduction to Network Security	3
NET 120^^	Network Server	3
WEB 114^^	Web Scripting	3
WEB 116^^	Web Development	3
Degree Total		**68 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS in Computer Information Systems with Emphasis in Web Development

The Computer Information Systems with Emphasis in Web Development program is designed to enable graduates to create powerful websites. The degree is ideal for the individual seeking a career in the world of cyber industry. With the explosion of e-commerce, many companies now generate a substantial percentage of their revenue from online purchases. Even the smallest companies have a presence on the Web. Companies are seeking individuals with the ability to create interactive websites capable of accessing multiple databases.

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

Written and Oral Communications		**6 Hours**
ENGL 110	Business Communications	3
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Humanities, Sciences, and Fine Arts		**3 Hours**
ECON 101	Principles of Macroeconomics	3
PHIL 102	Ethics	3

Program Requirements		**47 Hours**
CAPP 125	Microcomputer Applications	3
CIS 103^^	Introduction to CIS	3
CIS 124^^	Database Management	3
CIS 145^^	Visual Basic	3
CIS 158^^	Java	3
CIS 161^^	Systems Analysis	3
NET 101^^	Introduction to Networks	3
SS 120	Employment Strategies	1
WEB 103^^	Introduction to Web Development	3
WEB 114^^	Web Scripting	3
WEB 116^^	Web Development	3
WEB 117^^	Advanced Web Development	3
WEB 118^^	Digital Imaging	3
WEB 120^^	XML	3
WEB 160^^	Portfolio Design	3
WEB 175^^	Web Development Internship	4
Program Electives		**6 Hours**
CAPP 162^^	Desktop Publishing	3
CIS 120^^	Programming in Python	3
CIS 155^^	Programming in C#	3
CIS 157^^	Advanced C#	3
CIS 162^^	Advanced Visual Basic	3
CIS 163^^	Visual Basic with SQL	3
NET 101^^	Introduction to Networks	3
NET 102^^	Networking Essentials	3
NET 106^^	Introduction to Network Security	3
NET 120^^	Network Server	3
WEB 130^^	Media Productions	3
Degree Total		**68 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Construction Management Technology

The Professional Certificate in Construction Management Technology covers the fundamentals of construction principles and applications. The graduate can apply skills obtained in print reading, construction management, construction materials and methods, construction safety, codes Building and beginning estimating in jobs related to the construction industry. Completion of this certificate will also transition into the Associate of Applied Science in Construction Management Technology.

Certificate Requirements

CAPP 125	Microcomputer Applications	3
CNST 105	Construction Materials and Methods	3
CNST 113	Construction Management	3
CNST 148	Construction Codes and Law	3
CNST 162	Construction Safety	3
EDT 105	Print Reading	3
EDT 120	Architectural Design	3
MATH 108	Technical Math II	3
SS 120	Employment Strategies	1
Certificate Total		**25 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/construction-management-technology.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Construction Management Technology

The Construction Management 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 job site offices. Studies of future workforce needs project a high demand for persons trained in construction technology. The program is accredited by the American Council for Construction Education (ACCE).

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking (or)	
ENGL 110	Business Communications	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 108	Technical Math II	3
MATH 114	Precalculus Algebra	3

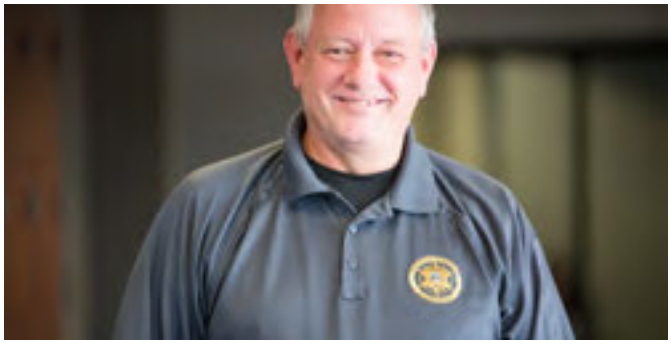
Humanities, Sciences, and Fine Arts		**3 Hours**
EASC 118	Environmental Geology	3
PHYS 125	Technical Science	4

Program Requirements		**43 Hours**
ACCT 101	Principles of Financial Accounting	3
CAPP 125	Microcomputer Applications	3
CNST 105	Construction Materials and Methods	3
CNST 106	Construction Estimation	3
CNST 113	Construction Management	3
CNST 138	Construction Planning and Scheduling	3
CNST 142	Building Mechanical Systems	3
CNST 148	Construction Codes and Law	3
CNST 150	Building Layout and Surveying	3
CNST 160	Statics and Strength of Materials	3
CNST 162	Construction Safety	3
EDT 105	Print Reading for Construction	3
EDT 111	Introduction to Engineering Design	3
EDT 120	Architectural Design	3
SS 120	Employment Strategies	1

Business Elective		**3 Hours**
BADM 101	Introduction to Business	3
BSMT 106	Principles of Marketing	3

Degree Total	**61 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS in Criminal Justice

The Criminal Justice program prepares students to enter the job market for various occupations in criminal justice, including but not limited to law enforcement and corrections. In addition, successful completion of the degree requirements prepares students to enter a law enforcement training academy for Missouri police officers.

The Associate of Arts degree is designed for students seeking to continue their education at a four-year college or university.

The education of a criminal justice student requires assimilation of knowledge and acquisition of skills through practical experiences and classroom participation. Essential skills and capabilities needed will vary with the demand of the job to be performed.

Students may receive college credit for past basic law enforcement academy/corrections training. Please contact the program coordinator for more information.

Students are also required to complete the NOCTI exam in the area of Criminal Justice during their final semester. Students may be responsible for the cost of the exam.

Note: People with felony convictions may have difficulty securing employment in the criminal justice field.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Humanities, Sciences, and Fine Arts		**6 Hours**
PSY 101	General Psychology	3
SOC 100	General Sociology	3

Program Requirements		**44 Hours**
BSMT 125	Human Relations (or)	
SOC 120	American Diversity	3
CAPP 125	Microcomputer Applications	3
CJ 101	Introduction to Law Enforcement (or)	
SOC 103	Introduction to Social Work	3
CJ 102	Introduction to Criminal Justice	3
CJ 103	Traffic Safety and Investigation (or)	
CJ 122	Current Events in Criminal Justice	3
CJ 104	Criminal Investigation	3
CJ 105	Criminal Law	3
CJ 107	Criminology	3
CJ 109	Juvenile Delinquency	3
CJ 111	Introduction to Corrections	3
CJ 115	Procedural Law	3
CJ 118	Criminal Justice Communications	3
CJ 124	Drugs, Society and Criminal Justice	3
CJ 150	Criminal Justice Seminar	1
CJ 175	Supervised Occupational Experience in Criminal Justice	4
Program Elective		**3 Hours**
CJ 103	Traffic Safety and Investigation	3
CJ 122	Current Events in Criminal Justice	3
PHIL 102	Ethics	3
PSY 104	Psychology of Personal Adjustment	3
SOC 101	Social Problems	3
SOC 102	Marriage and Family	3
Degree Total		**65 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Dental Hygiene

Dental hygienists are the only member of the dental health team licensed to provide direct care to the patient, other than the dentist. The dental hygienist works under the supervision of the dentist in dental offices and other health agencies by performing duties delegated by the dentist in accordance with the Missouri Dental Practice Act. They work directly with patients to help them care for their oral health. Duties include cleaning teeth, administering local anesthesia and nitrous oxide analgesia, exposing x-rays, providing oral health care instructions and education to patients, and maintaining patient records. Students receive extensive clinical experiences in the SFCC Dental Hygiene Clinic and other selected agencies.

About the Program

Through classroom theory, laboratory practice and clinical application, students are provided comprehensive learning experiences that will prepare them to secure an entry-level position as a licensed dental hygienist in the oral health care profession. The Dental Hygiene degree program fosters clinical problem solving and critical-thinking skills to be used in the health care environment and provides students with classroom and experiential educational foundation to promote lifelong learning.

Upon completion of the program, students are eligible to take the required exams necessary for licensure. These include the National Board Dental Hygiene Examination (NDHBE), a regional clinical exam (CRDTS) and the Missouri Jurisprudence exam. Individual results of these exams are based upon the student's performance. SFCC does not guarantee passage of licensure exams.

Admission Process

Admission to the dental hygiene program at SFCC is competitive and requires an additional admission application following admission to the college. An information/application packet is available online at www.sfccmo.edu/dental-hygiene or by request from Student Services at the Sedalia campus. This packet contains the essential qualifications and admission requirements, fee schedule, program mission and philosophy, sequencing of courses, an application form and other pertinent information. Successful program applicants are subject to background checks and drug tests that could prevent an applicant's progression in the program. The program accepts 10 first-year students each fall.

An applicant must have successfully completed all prerequisites for the Dental Hygiene program by the end of the spring semester before the fall they wish to enter. State Fair Community College does accept transfer courses from other colleges but an applicant would be advised to have their transcript evaluated before assuming transfer of credits.

The SFCC Dental Hygiene program has been accredited by the Commission on Dental Accreditation since 2005.

Courses to complete with a grade of B or higher^.
Courses to complete with a grade of C or higher^^.
Courses can be completed prior to the start of the program.*

Program Prerequisite Requirements		**20 Hours**
BIO 121^	Microbiology	4
BIO 207^	Human Anatomy with Lab	4
BIO 208^	Human Physiology with Lab	4
CHEM 101^	Introduction to Chemistry with Lab	5
MATH 110^^	Intermediate Algebra with Lab (or)	
MATH 112^^	Intermediate Algebra (or)	
MATH 113^^	Mathematical Reasoning and Modeling (or)	
MATH 114^^	Precalculus Algebra (or)	
MATH 119^^	Statistical Reasoning	3

Program Requirements		**72 Hours**
*COMM 101^^	Public Speaking	3
DH 102^	Dental Radiography	2
DH 104^	Dental Radiography Lab	1
DH 106^	Dental Clinic Emergencies	1
DH 108^^	Oral Anatomy and Histology	3
DH 111^^	Pharmacology	3
DH 113^	Dental Hygiene Ethics and Legal Issues	1
DH 115^	Community Dental Health I	2
DH 117^	Community Dental Health II	.5
DH 118^	Principles of Periodontics	2
DH 120^^	Dental Biomaterials with Lab	2
DH 122^^	General and Oral Pathology	3
DH 124^^	Applied Nutrition and Oral Health Education	2
DH 128^	Local Anesthesia	2
DH 131^	Introduction to Dental Hygiene Theory	2
DH 133^	Dental Hygiene Theory I	2
DH 134^	Dental Hygiene Theory II	1
DH 135^	Dental Hygiene Theory III	2
DH 136^	Dental Hygiene Theory IV	2
DH 140^	Dental Hygiene Pre-Clinic I	4
DH 141^	Dental Hygiene Pre-Clinic II	2
DH 142^	Dental Hygiene Clinic I	2
DH 143^	Dental Hygiene Clinic II	3
DH 144^	Dental Hygiene Clinic III	6
DH 145^	Dental Hygiene Clinic IV	6
*ENGL 101^^	English Composition I	3
HEOC 135^^	Allied Health Career Development	.5
*HIST 101^^	U.S. History Before 1877 (or)	
*HIST 102^^	U.S. History Since 1877 (or)	
*POLS 101^^	American/National Government	3
*PSY 101^^	General Psychology	3
*SOC 100^^	General Sociology	3
Degree Total		**92 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Diagnostic Medical Sonography

Sonographers are diagnostic medical professionals who operate ultrasonic imaging devices to produce diagnostic images, scans, videos, or 3D volumes of anatomy and diagnostic data. Sonography requires specialized education and skills to view, analyze and modify the scan to optimize the information in the image. Because of the high levels of decisional latitude and diagnostic input, sonographers have a high degree of responsibility in the diagnostic process.

About the Program
Through classroom theory, laboratory practice and clinical application students learn to safely use ultrasound in the diagnosis of trauma and disease. Students are introduced to the vast opportunities in diagnostic medical sonography and achieve entry-level competency in the performance and evaluation of ultrasound examinations and procedures. This is an intense 22-month course of study.

Admission Process
Students in the program are admitted to the college on the same basis as other students, but admission to the college does not ensure admission into the program.

Enrollment in the program is selective and admission cannot be offered to all qualified applicants. A selection committee comprised of the program director, clinical coordinator, members of the advisory committee and possibly other college personnel will evaluate students for the class.

Only students meeting the minimum requirements and who have submitted a completed application packet prior to the application deadline will be presented to the Admissions Committee. Applicants will receive a letter regarding admissions status following committee review. Decisions of the Admissions Committee are final.

Students are eligible to submit the program application packet when all prerequisite courses are complete or will be complete by the end of the spring semester of the year in which they are applying, meet the Essential Qualifications for the Diagnostic Medical Sonography program, and have a cumulative GPA of 2.75 or greater on a 4.0 scale and a 3.0 GPA (B) in each individual course (GPA is checked at the end of the spring semester of the school year in which the student is applying).

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Diagnostic Medical Sonography

Courses to complete with a grade of B or higher^.
Course to complete with a grade of C or higher^^.

Program Prerequisite Requirements		**26 Hours**
BIO 207^	Human Anatomy with Lab	4
BIO 208^	Human Physiology with Lab	4
COMM 101	Public Speaking (or)	
ENGL 102	English Composition II	3
ENGL 101^	English Composition I	3
HEOC 120^	Medical Terminology I	3
HIST 101^	U.S. History Before 1877 (or)	
HIST 102^	U.S. History Since 1877 (or)	
POLS 101^	American/National Government	3
MATH 113^	Mathematical Reasoning and Modeling (or)	
MATH 114^	Precalculus Algebra (or)	
MATH 119^	Statistical Reasoning	3
PHYS 105^	College Physics I with Lab (or)	
RAD 130^	Radiation Production and Characteristics	3-5

Program Requirements		**42.5 Hours**
DMS 102^	Patient Care and Health Care Communication	2
DMS 105^	Sonography Clinical Education I	5
DMS 107^	Ultrasound Scanning Lab I	4
DMS 108^	Seminar in Sonography	2
DMS 115^	Sonography Clinical Education II	4
DMS 117^	Ultrasound Scanning Lab II	3
DMS 120^^	Sonography Principles and Instrumentation I	3
DMS 122^^	Sonography Principles and Instrumentation II	3
DMS 125^	Sonography Clinical Education III	5
DMS 135^	Sonography Clinical Education IV	5
DMS 150^	Vascular Sonography I	2
DMS 152^	Vascular Sonography II	2
DMS 154^	Vascular Sonography III	2
HEOC 135^	Allied Health Career Development	.5

Cardiac Track or General Track		**12 Hours**
Cardiac Track		
DMS 103^	Cardiac Ultrasound I	3
DMS 113^	Cardiac Ultrasound II	3
DMS 123^	Cardiac Ultrasound III	3
DMS 133^	Cardiac Ultrasound IV	3
General Track		
DMS 130^	General Sonography I	2
DMS 132^	General Sonography II	2
DMS 134^	General Sonography III	2
DMS 140^	OB/GYN Sonography I	2
DMS 142^	OB/GYN Sonography II	2
DMS 144^	OB/GYN Sonography III	2

Degree Total	**80.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS 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, teach in an early childhood classroom or be a director for an early childhood center. This program offers various forms of classroom options (hybrid, online and on ground) to enable students who are employed in the field to complete a degree and increase their opportunities for advancement. Graduates must be physically able and willing to participate in all children's activities.

Note: Completion of these four courses allows a student to apply for The Child Development Associate (CDA) Credential: ECD 101, ECD 107, ECD 109, and ECD 131.

Other Requirements
A successful background check included in EDUC 108 is required in this program. This requirement is included in and will be met once students successfully complete EDUC 108. This course must be successfully completed prior to taking most ECD or EDUC courses.

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

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3

Humanities, Sciences, and Fine Arts		**6 Hours**
PSY 101	General Psychology	3

Select an additional course:

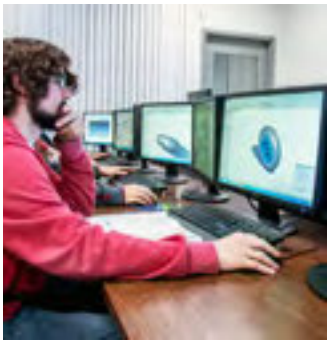
ART 101	Art Appreciation	3
MUS 101	Music Appreciation	3
SOC 120	American Diversity	3
SPAN 101	Elementary Spanish I	3
THEA 107	Introduction to Theatre	3

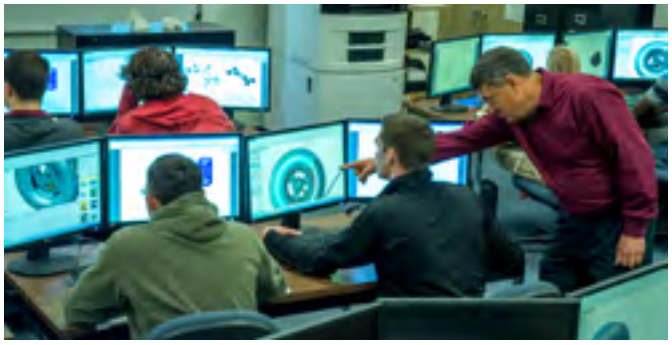
Program Requirements		**43.5 Hours**
ECD 101^^	Introduction to Early Childhood	3
ECD 103^^	Child Growth and Development	3
ECD 107^^	Child Nutrition, Health and Safety	3
ECD 109^^	Observation, Planning and Assessment	3
ECD 111^^	Language Development/Early Literacy	3
ECD 115^^	Child Social/Emotional Development	3
ECD 117^^	Creative Expression and Play	3
ECD 121^^	Curriculum Strategies for Early Childhood	3
ECD 125^^	Introduction to Special Individuals	3
ECD 127^^	Parent/Teacher Interaction	3
ECD 129^^	Administration in Early Childhood Care	3
ECD 175^^	Child Care Practicum	3
EDUC 108	Introduction to the Field of Education	.5
EDUC 212^^	Educational Technology	3
EDUC 218^^	Children's Literature	3
SS 120	Employment Strategies	1

Program Elective		**3 Hours**
ATSM 105	Autism Spectrum Disorders	3
ATSM 110	Communication and Social Competence	3
COMM 105	Interpersonal Communication	3
ECD 131^^	Child Development Portfolio/Assessment Preparation	3
EDUC 220^^	Educational Psychology	3
PSY 102	Child Psychology	3
PSY 104	Psychology of Personal Adjustment	3
SOC 102	Marriage and Family	3
SOC 103	Introduction to Social Work	3

Degree Total	**64.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.





Skills Certificate in Architectural Design

The Skills Certificate in Architectural Design provides necessary skills and knowledge to obtain employment in the growing, high-demand engineering design field as a designer/drafter in an architectural environment. The outlook for competent designers is expected to increase faster than average since all new buildings require designs and specifications to manufacture, build and assemble. The application of engineering and design standards and skills will be examined with the study of basic to advanced concepts in popular engineering design programs. Completion of this certificate will transition into the Professional Certificate in Engineering Design Technology.

Program Requirements		**13 Hours**
EDT 105	Print Reading for Construction	3
EDT 111	Introduction to Engineering Design	3
EDT 120	Architectural Design	3
EDT 155	3D Visualization	3
SS 120	Employment Strategies	1
Program Elective		**3 Hours**
Choose any CNST course		
EDT 115	Advanced Engineering Design	3
EDT 125	Architectural Applications	3
EDT 130	Manufacturing Design I	3
Certificate Total		**16 Hours**

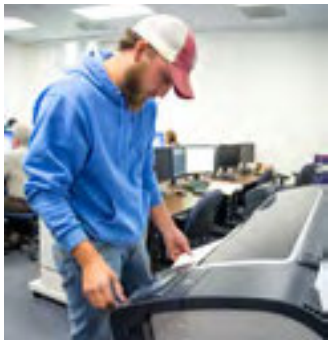
Skills Certificate in Mechanical Design

The Skills Certificate in Mechanical Design provides necessary skills and knowledge to obtain employment in the growing, high-demand engineering design field as a designer/drafter in a manufacturing and engineering environment. The outlook for competent designers is expected to increase faster than average since all new products require designs 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 engineering design programs. Completion of this certificate will transition into the Professional Certificate in Engineering Design Technology.

Program Requirements		**13 Hours**
EDT 105	Print Reading for Construction	3
EDT 111	Introduction to Engineering Design	3
EDT 130	Manufacturing Design I	3
EDT 155	3D Visualization	3
SS 120	Employment Strategies	1
Program Elective		**3 Hours**
EDT 115	Advanced Engineering Design	3
EDT 120	Architectural Design	3
EDT 132	Manufacturing Design II	3
Choose any MACH course		
Choose any WELD course		
Certificate Total		**16 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/edt**.

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Professional Certificate in Engineering Design Technology

The Professional Certificate in Engineering Design Technology will provide necessary skills and knowledge to obtain employment in the growing, high-demand engineering design field as a designer/drafter in a manufacturing, civil, structural, or architectural environment. The outlook for competent designers is expected to increase faster than average since all new products and buildings require designs 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 engineering design programs. Completion of this certificate will transition into the Associate of Applied Science in Engineering Design Technology (formerly Computer Aided Drafting Technology).

Program Requirements		**25 Hours**
EDT 105	Print Reading for Construction	3
EDT 111	Introduction to Engineering Design	3
EDT 115	Advanced Engineering Design	3
EDT 120	Architectural Design	3
EDT 125	Architectural Applications	3
EDT 130	Manufacturing Design I	3
EDT 132	Manufacturing Design II	3
EDT 155	3D Visualization	3
SS 120	Employment Strategies	1

Program Electives **6 Hours**

Choose any CNST course
Choose any EDT course
Choose any IEM course
Choose any MACH course
Choose any RETB course
Choose any RETS course
Choose any WELD course

Certificate Total **31 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit **www.sfccmo.edu/edt.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Engineering Design Technology

The Engineering Design Technology program will provide necessary skills and knowledge to obtain employment in the growing, high-demand engineering design field as a designer/drafter in a manufacturing, civil, structural, or architectural environment. The outlook for competent designers is expected to increase faster than average since all new products and buildings require designs 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 engineering design programs.

Written and Oral Communications		**9 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
ENGL 102	English Composition II (or)	
ENGL 110	Business Communications	3

Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 108	Technical Math II	3
MATH 114	Precalculus Algebra	3

Humanities, Sciences, and Fine Arts		**4 Hours**
PHYS 105	College Physics I with Lab	5
PHYS 125	Technical Science	4

Program Requirements		**35 Hours**
CAPP 125	Microcomputer Applications	3
EDT 105	Print Reading for Construction	3
EDT 111	Introduction to Engineering Design	3
EDT 115	Advanced Engineering Design	3
EDT 120	Architectural Design	3
EDT 125	Architectural Applications	3
EDT 130	Manufacturing Design I	3
EDT 132	Manufacturing Design II	3
EDT 155	3D Visualization	3
EDT 175	EDT Internship	4
EDT 190	EDT Capstone	3
SS 120	Employment Strategies	1

Program Electives	**9 Hours**
Choose any CNST course	
EDT 134 Computer Aided Manufacturing	3
EDT 180 Problems in EDT	3
Choose any IEM course	
Choose any MACH course	
Choose any RETB course	
Choose any RETS course	
Choose any WELD course	

Degree Total	**63 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Nurse Aide

The Skills Certificate in Nurse Aide is designed to provide a student with the training to become a Certified Nurse Assistant (CNA), Certified Medication Technician (CMT), Restorative Nurse Assistant (RNA), and a Home Health Aide (HHA). The courses are offered on-ground and online, and clinicals are on-site at an approved long-term care facility.

A CNA works closely with nurses and the health care team. The nurse assistant must be skilled in the actual procedures being performed; have a strong grasp of emergency procedures; be able to stay calm in stressful situations, and be able to observe a patient's condition and report that information back to the nurse. Tasks may include turning and repositioning bedridden patients; helping patients exercise and move in and out of bed; preparing patients for surgery, treatment or examination; applying dressing, and transporting patients to treatment units.

The CMT training prepares a student to work in long-term care facilities. The program teaches skills in administration of non-parenteral (oral or by inhalation) medications and in assisting RNs or LPNs with medication therapy.

The RNA training teaches the skills needed to provide rehabilitation care for residents in nursing homes. Students learn rehabilitation philosophy; how to work with departmental organizations; the role of the physical therapist; the proper techniques of body mechanics and transfers, and how to assist patients with walking.

The HHA training provides students the knowledge and ability to provide basic care needs for families with unique health needs. These needs include home management, nutrition, meal planning, adapting basic care activities, observing a client's medication and special needs, as well as special procedures in emergency care.

Program Requirements		**18 Hours**
HEOC 152	Certified Nurse Assistant	6
HEOC 155	Certified Nurse Assistant Clinical	2
HEOC 158	Certified Medication Technician	4
HEOC 160	Certified Medication Technician Clinical	1
HEOC 162	Home Health Aide	2
HEOC 164	Restorative Nurse Assistant	2
HEOC 166	Restorative Nurse Assistant Clinical	1
Certificate Total		**18 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/nurse-aide.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Nurse Aide

The Professional Certificate in Nurse Aide consists of a combination of the Skills Certificate in Nurse Aide along with other health care related classes. Students can increase employability with completion of this certificate.

Program Requirements		**21 Hours**
HEOC 120	Medical Terminology I	3
HEOC 152	Certified Nurse Assistant	6
HEOC 155	Certified Nurse Assistant Clinical	2
HEOC 158	Certified Medication Technician	4
HEOC 160	Certified Medication Technician Clinical	1
HEOC 162	Home Health Aide	2
HEOC 164	Restorative Nurse Assistant	2
HEOC 166	Restorative Nurse Assistant Clinical	1

Program Electives		**9 Hours**
BIO 103	Human Biology	3
HEOC 122	Medical Terminology II	3
HEOC 140	Technology and Health Care	3
HEOC 168	Social Services Director/Activity Director	5
HEOC 170	Level I Medication Aide	1
HEOC 172	Insulin Administration .	5
HLTH 102	First Aid	2

Certificate Total **30 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/nurse-aide.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Health Care Specialist with Emphasis in Nurse Aide

The Health Care Specialist with emphasis in Nurse Aide program includes all the courses from the Professional Certificate in Nurse Aide. Graduates of this program will have the skills necessary to work in all capacities of a long-term care facility.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 110	Business Communications	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**8 Hours**
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Program Requirements		**43.5 Hours**
BIO 121	Microbiology	4
CAPP 125	Microcomputer Applications	3
HEOC 120	Medical Terminology I	3
HEOC 122	Medical Terminology II	3
HEOC 140	Technology and Health Care	3
HEOC 152	Certified Nurse Assistant	6
HEOC 155	Certified Nurse Assistant Clinical	2
HEOC 158	Certified Medication Technician	4
HEOC 160	Certified Medication Technician Clinical	1
HEOC 162	Home Health Aide	2
HEOC 164	Restorative Nurse Assistant	2
HEOC 166	Restorative Nurse Assistant Clinical	1
HEOC 168	Social Services Director/Activities Director	5
NURS 102	CPR for Health Care Professionals	.5
SS 104	College Skills	3
SS 120	Employment Strategies	1
Degree Total		**63.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Pharmacy Technician

The Skills Certificate in Pharmacy Technician provides the knowledge and skills to prepare students with no pharmacy background to take the Pharmacy Technician Certificate Board Examination (PTCE) to achieve CPhT designation.

Program Requirements		**18 Hours**
HEOC 120	Medical Terminology I	3
PHRM 105	Pharmacy Technician I	3
PHRM 107	Pharmacy Technician II	3
PHRM 109	Pharmacology for Pharmacy Technicians	3
PHRM 111	Practicum for Pharmacy Technicians	3
PHRM 115	Pharmacology Certification	3
Certificate Total		**18 Hours**

Professional Certificate in Pharmacy Technician

The Professional Certificate in Pharmacy Technician consists of a combination of the Skills Certificate in Pharmacy Technician along with other health care related courses. Students can increase employability with completion of this certificate.

Mathematical Sciences		**3 Hours**
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Program Requirements		**27 Hours**
HEOC 120	Medical Terminology I	3
HEOC 122	Medical Terminology II	3
HEOC 140	Technology and Health Care	3
PHRM 105	Pharmacy Technician I	3
PHRM 107	Pharmacy Technician II	3
PHRM 109	Pharmacology for Pharmacy Technicians	3
PHRM 111	Practicum for Pharmacy Technicians	3
PHRM 115	Pharmacology Certification	3
PHRM 175	Professional Practice Experience	3
Certificate Total		**30 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/pharmacy-technician.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Health Care Specialist with Emphasis in Pharmacy Technician

The Health Care Specialist with emphasis in Pharmacy Technician program includes all the courses from the Professional Certificate in Pharmacy Technician. Graduates of this program will have the skills necessary to work in both retail and hospital pharmacies, as well as related fields in the health care industry. The CPhT is a nationally recognized certification and is required in some states.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 110	Business Communications	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**11 Hours**
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4
SOC 100	General Sociology	3

Program Requirements		**38.5 Hours**
BIO 121	Microbiology	4
CAPP 125	Microcomputer Applications	3
HEOC 120	Medical Terminology I	3
HEOC 122	Medical Terminology II	3
HEOC 140	Technology and Health Care	3
NURS 102	CPR for Health Care Providers	.5
PHRM 105	Pharmacy Technician I	3
PHRM 107	Pharmacy Technician II	3
PHRM 109	Pharmacology for Pharmacy Technicians	3
PHRM 111	Practicum for Pharmacy Technicians	3
PHRM 115	Pharmacology Certification	3
PHRM 175	Professional Practice Experience	3
SS 104	College Skills	3
SS 120	Employment Strategies	1
Degree Total		**61.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Medical Coding

The Professional Certificate in Medical Coding will prepare students for The American Health Information Management Association (AHIMA) certification exam to become a certified coder. Medical coders assign a code to each diagnosis and procedure by using classification systems software. The classification system determines the amount for which health care providers will be reimbursed if the patient is covered by Medicare, Medicaid, or other insurance programs using the system.

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

Program Requirements		**33.5 Hours**
BIO 103^^	Human Biology	3
CAPP 125^^	Microcomputer Applications	3
HEOC 120^^	Medical Terminology I	3
HEOC 122^^	Medical Terminology II	3
HEOC 135^^	Allied Health Career Development	.5
HIT 100^^	Introduction to Health Information Technology	3
HIT 105^^	Health Care Technologies	3
HIT 204^^	Coding I	3
HIT 206^^	Coding II	3
HIT 208^^	Coding III	3
HIT 215^^	Principles of Health Care Reimbursement	3
HIT 224^^	Human Disease and Conditions	3
Certificate Total		**33.5 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit **www.sfccmo.edu/health-information-technology.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Health Information Technology

The Health Information Technology (HIT) program will give students the education needed for greater success in their new chosen profession. The value in completing the HIT degree is eligibility to take the national credentialing exam for registered health information technicians. Other benefits for the student are to improve earning potential; open doors for career advancement; reach short-term goals and focus on long-term goals; achieve a foundation of broad and deep understanding of the health information management field; be associated with The American Health Information Management Association's (AHIMA) strong and long-standing reputation of excellence, and connect with a strong network of AHIMA-certified peers.

AHIMA-certified professionals pass a rigorous exam and commit to ongoing continuation of their education. When a student seeks certification, it shows an employer a deep personal commitment and sense of accountability, as well as credibility and confidence in an individual's professional knowledge. A student who carries AHIMA credentials will agree to abide by the AHIMA Code of Ethics that will improve the quality of information and care the patient receives.

Registered HITs may be employed in any organization that uses patient data or health information, such as pharmaceutical companies, law and insurance firms, and health product vendors. Most RHITs work in hospitals but can also be employed in other health care settings including physician practices, nursing homes, home health agencies, and public health agencies.

Once a student has achieved the AAS in Health Information Technology degree, he or she can further enhance skills, open the door to even greater opportunities, and obtain a higher level of education by enrolling in a baccalaureate program for Health Information Administration.

SFCC's HIT program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

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

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**3 Hours**
BIO 103^^	Human Biology	3
Program Requirements		**48.5 Hours**
BSMT 108	Principles of Management	3
CAPP 125^^	Microcomputer Applications	3
CAPP 164	Access	3
HEOC 120^^	Medical Terminology I	3
HEOC 122^^	Medical Terminology II	3
HEOC 135	Allied Health Career Development	.5
HIT 100^^	Introduction to Health Information Technology	3
HIT 105^^	Health Care Technologies	3
HIT 115^^	Health Care and the Law*	3
HIT 200^^	Health Care Statistics and Quality Management	3
HIT 204^^	Coding I	3
HIT 206^^	Coding II	3
HIT 208^^	Coding III	3
HIT 215^^	Principles of Health Care Reimbursement	3
HIT 220^^	Health Information Management	3
HIT 224^^	Human Disease and Conditions	3
HIT 275^^	Professional Practice Experience	3
Degree Total		**63.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Electro-Mechanical Technology

The Skills Certificate in Electro-Mechanical Technology provides new and existing maintenance technicians with state-of-the-art skills in maintaining and troubleshooting industrial electricity and mechanical devices.

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

Program Requirements		**18 Hours**
IEM 102^^	Electric Fundamentals	3
IEM 104^^	Electrical Power	3
IEM 106^^	Industrial Mechanics	3
IEM 108^^	Fluid Power Technology	3
IEM 112^^	Control Circuit Troubleshooting	3
IEM 114^^	Motor Controls	3
Certificate Total		**18 Hours**

Skills Certificate in Manufacturing Production Technician

The Skills Certificate in Manufacturing Production Technician prepares students for entry into production employment with a solid foundation of manufacturing processes, safety, quality, operations and maintenance functions. The four CPT courses have a certification assessment through the Manufacturing Skill Standards Council (MSSC). Through MSSC students will earn a certificate for each of the four assessments successfully completed, and students who successfully complete all four assessments are awarded the Certified Production Technician (CPTAE) from MSSC. The CPT is recognized by the National Association of Manufacturers (NAM). This certificate can be accepted as part of the technical requirements for the AAS in Industrial Technology with Emphasis in Electrical Maintenance.

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

Program Requirements		**12 Hours**
CPT 102^^	Safety	3
CPT 104^^	Quality Practices and Measurement	3
CPT 106^^	Manufacturing Processes and Production	3
CPT 108^^	Maintenance Awareness	3
Program Elective		**4 Hours**
Choose any IEM course		
MACH 101^^	Introduction to Machining	4
SS 120^^	Employment Strategies	1
WELD 101^^	Introduction to Welding	4
Certificate Total		**16 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/industrial-maintenance.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Total Productive Maintenance

The Professional Certificate in Total Productive Maintenance is designed to prepare students as industrial maintenance technologists or millwrights for employment in commercial, production, manufacturing, and other industrial settings. Inclusion of major maintenance disciplines of fluid power, mechanics, electrical, and PLC controls results in a comprehensive knowledge and skill base, with emphasis on safety, reliability, predictive, and preventive maintenance. Competency is gained in interpreting and utilizing electrical and fluid power schematics for troubleshooting, as well as PLC functions and programming. This certificate is fully accepted as part of the technical requirements for the Associate of Applied Science in Industrial Technology with Emphasis in Electrical Maintenance and comprises the recommended courses students should pursue in the first two semesters.

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

Program Requirements		**30 Hours**
IEM 102^^	Electric Fundamentals	3
IEM 104^^	Electrical Power	3
IEM 106^^	Industrial Mechanics	3
IEM 108^^	Fluid Power Technology	3
IEM 112^^	Control Circuit Troubleshooting	3
IEM 114^^	Motor Controls	3
IEM 122^^	Introduction to PLCs	3
IEM 124^^	Intermediate PLCs	3
IEM 126^^	Industrial Safety	3
IEM 128^^	Maintenance Management	3
Certificate Total		**30 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit **www.sfccmo.edu/industrial-maintenance.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Industrial Technology with Emphasis in Electrical Maintenance

The Industrial Technology with Emphasis in Electrical Maintenance program is designed to prepare students as electrical and maintenance technologists or millwrights for employment in commercial, production, manufacturing, and other industrial settings. Inclusion of all major maintenance disciplines results in a comprehensive knowledge and skill base. Competency is gained in interpreting and utilizing electrical and fluid power schematics for troubleshooting; performing general wiring tasks in accordance with the National Electrical Code, and programming, troubleshooting and converting machinery to programmable logic control. The physical requirements of this occupation typically include lifting up to 45 pounds, pushing, pulling, reaching, walking, standing, crawling, kneeling, ascending and descending ladders, manual dexterity, and working in cramped positions for sustained periods of time.

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

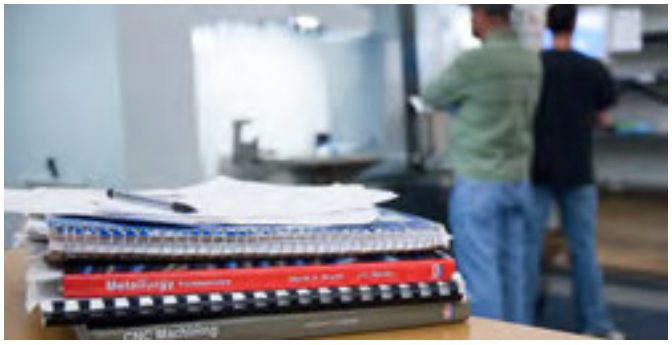
Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3
Humanities, Sciences, and Fine Arts		**4 Hours**
PHYS 125	Technical Science	4
Program Requirements		**19 Hours**
IEM 102^^	Electric Fundamentals	3
IEM 104^^	Electrical Power	3
IEM 106^^	Industrial Mechanics	3
IEM 108^^	Fluid Power Technology	3
IEM 112^^	Control Circuit Troubleshooting	3
IEM 114^^	Motor Controls	3
SS 120	Employment Strategies	1

IEM Electives		**18 Hours**
Select courses from any of the four groups		
Control Technology Group		
IEM 122^^	Introduction to PLCs	3
IEM 124^^	Intermediate PLCs	3
IEM 132	Advanced PLCs	3
IEM 134	PLC Networks	3
Electronics Group		
IEM 110	Digital Principles	3
IEM 116	Solid State Devices	3
IEM 118	Analog/Digital	3
Electrical Installations Group		
IEM 136	General NEC Requirements	3
IEM 138	Power Distribution	3
IEM 140	Transformers and Motors	3
Safety and Management Group		
IEM 126	Industrial Safety	3
IEM 128	Maintenance Management	3
IEM 146	Quality Management and Control	3
Program Electives		**12 Hours**
Choose any AUTO course		
Choose any EDT course		
Choose any CNST course		
Choose any IEM course not already taken		
Choose any INDT course		
Choose any MACH course		
MATH 107 Technical Math I		3
Choose any NET course		
Choose any RETB course		
Choose any RETS course		
Choose any WELD course		
Degree Total		**65 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



Skills Certificate in CNC Operation

The Skills Certificate in CNC Operation allows students to gain experience with computer numerical controlled (CNC) machines and provides the technical information on setup and operation of CNC mills and lathes. Students will learn to proof, edit and post process CNC programs using computer aided drafting (CAD) and computer aided manufacturing (CAM) software.

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

Program Requirements		**16 Hours**
EDT 134	Computer Aided Manufacturing	3
MACH 106^^	CNC Machining	3
MACH 109^^	Advanced CNC Machining	3
MACH 115	Heat Treating and Metallurgy	3
MATH 108	Technical Math II	3
SS 120	Employment Strategies	1
Certificate Total		**16 Hours**

Skills Certificate in Machinist Level I

The Skills Certificate in Machinist Level I is designed for the student who wants to get into the manufacturing workforce as soon as possible. Upon completion of the certificate, students will gain knowledge and exposure to various styles of machining, including manual and computer numerical controlled (CNC) machining. The certificate also allows students to gain certifications from the National Institute for Metal Working Skills (NIMS). This 16-credit hour program can be completed in one semester and provides entry-level experience and fundamental skills. This certificate can be earned on its own or stacked with the Skills Certificate in Machinist Level II.

Machinists need good eyesight, hand-eye coordination and manual dexterity. Students need to be able to concentrate for long periods of time as well as lift up to 45 pounds, bend, stoop, and kneel. All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

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

Program Requirements		**16 Hours**
IEM 126	Industrial Safety	3
MACH 101^^	Introduction to Machining	4
MACH 106^^	CNC Machining	3
MACH 113	Print Reading for Machinists	3
MATH 107	Technical Math I	3
Certificate Total		**16 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/precision-machining.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Machinist Level II

The Skills Certificate in Machinist Level II is designed for the student who wants to improve current skills or advance in his or her career. Upon completion of the certificate, students will gain knowledge and exposure to advanced styles of machining, including manual and computer numerical controlled (CNC) machining. The certificate also allows students to gain certifications from National Institute for Metal Working Skills (NIMS). This 13-credit hour program can be completed in one semester and provides further knowledge and increases productivity in the workplace. This certificate can be earned on its own or stacked with the Skills Certificate in Machinist Level I.

Machinists need good eyesight, hand-eye coordination and manual dexterity. Students need to be able to concentrate for long periods of time as well as lift up to 45 pounds, bend, stoop, and kneel.

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

Program Requirements		**16 Hours**
EDT 130	Manufacturing Design I	3
MACH 102^^	Lathe and Milling Machine Operations	4
MACH 109^^	Advanced CNC Machining	3
MACH 114	Quality and Precision Measurement	3
MACH 115	Heat Treating and Metallurgy	3
Certificate Total		**16 Hours**

Professional Certificate in Machine Tool Technology

The Professional Certificate in Machine Tool Technology gives the student machine shop skills, including conventional and CNC machining processes. There is a strong emphasis on preparing the students for entry-level employment in the machine shop industry, including computer numerical controlled (CNC) operators and setup, manual machinists, computer aided drafting (CAD) and computer aided manufacturing (CAM) users, and inspectors.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

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

Program Requirements		**33 Hours**
EDT 134	Computer Aided Manufacturing	3
MACH 101^^	Introduction to Machining	4
MACH 102^^	Lathe and Milling Machine Operations	4
MACH 103^^	Milling and Grinding Machine Applications	4
MACH 106^^	CNC Machining	3
MACH 109^^	Advanced CNC Machining	3
MACH 113	Print Reading for Machinists	3
MACH 114	Quality and Precision Measurement	3
MACH 115	Heat Treating and Metallurgy	3
MATH 108	Technical Math II	3
Certificate Total		**33 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/precision-machining.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Manufacturing Technology with Emphasis in Precision Machining Technology

The Manufacturing Technology with Emphasis in Precision Machining Technology program teaches the processes of manufacturing and machining with an understanding of specifications, dimensions, materials, quality, print reading, assembly methods, and inspection. The program prepares students for machining-related occupations such as machinist helper, manual machine operator, entry machinist, computer numerical control (CNC) operator, CNC setup, and manufacturing technician, all with a strong emphasis on safety. Because of the demanding changes in technology, the need for skilled manufacturing personnel with communications, design, decision-making and computer skills is increasing. The CNC equipment in the machine tool program is interfaced with the computer aided drafting (CAD) and computer aided manufacturing (CAM) lab to provide students with integrated manufacturing skills. The physical requirements for this occupation typically includes lifting up to 50 pounds, pushing, pulling, reaching, walking, kneeling, manual dexterity, and standing for long periods of time.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

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

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**4 Hours**
PHYS 125	Technical Science	4

Program Requirements		**43 Hours**
CNST 162	Construction Safety (or)	
IEM 126	Industrial Safety	3
EDT 134	Computer Aided Manufacturing	3
MACH 101^^	Introduction to Machining	4
MACH 102^^	Lathe and Milling Machine Operations	4
MACH 103^^	Milling and Grinding Machine Applications	4
MACH 104^^	Advanced Machining	4
MACH 106^^	CNC Machining	3
MACH 109^^	Advanced CNC Machining	3
MACH 113	Print Reading for Machinists	3
MACH 114	Quality and Precision Measurement	3
SS 120	Employment Strategies	1
WELD 101	Introduction to Welding	4
WELD 102	Structural Welding	4
Program Electives		**6 Hours**
Choose any AUTO course		
Choose any CNST course		
Choose any EDT course		
Choose any IEM course		
Choose any MACH course not taken above		
MATH 107 Technical Math I		3
Choose any WELD course not taken above		
Degree Total		**65 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Skills Certificate in Structural Welding

The Skills Certificate in Structural Welding is designed for the student who wants to get into the workforce as soon as possible. The welding courses follow American Welding Society (AWS) guidelines, and the successful student will be eligible for up to six AWS welder qualifications, according to the AWS D 1.1 Structural Welding Code. In the classroom, students will learn the technological information associated with the welding processes and how to apply that information to practical use on the job. This program meets the needs of both beginning and experienced welders who are seeking certification.

Welders need good eyesight, hand-eye coordination and manual dexterity. Students should be able to concentrate on detailed work for long periods and must be able to lift up to 45 pounds, bend, stoop, crawl, kneel, climb ladders, and work in awkward and cramped positions.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

Mathematical Sciences		**3 Hours**
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Program Requirements		**17 Hours**
CNST 162	Construction Safety	3
WELD 101	Introduction to Welding	4
WELD 102	Structural Welding	4
WELD 114	Structural Layout and Fabrication	3
WELD 116	Print Reading for Welders	3
Certificate Total		**20 Hours**

Professional Certificate in Pipe Welding

The Professional Certificate in Pipe Welding is for students who want to learn the skills of pipe welding. The course follows the American Society of Mechanical Engineers (ASME) section 9 codes. The course involves Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) of pipe in the 2G, 5G, and 6G positions. The successful student will be eligible for up to six ASME section 9 qualifications in pipe. In the classroom the student will learn the technological information associated with the pipe welding process and how to apply that information to practical use on the job. This program meets the needs of both the beginning and experienced welders who are seeking certification/qualifications in pipe welding.

Welders need good eyesight, hand-eye coordination and manual dexterity. Students should be able to concentrate on detailed work for long periods and must be able to lift up to 45 pounds, bend, stoop, crawl, kneel, climb ladders, and work in awkward and cramped positions.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

Mathematical Sciences		**3 Hours**
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Program Requirements		**29 Hours**
CNST 162	Construction Safety	3
WELD 101	Introduction to Welding	3
WELD 102	Structural Welding	4
WELD 103	Pipe Welding	4
WELD 104	TIG Welding	4
WELD 105	Advanced Pipe Welding	4
WELD 114	Structural Layout and Fabrication	3
WELD 116	Print Reading for Welders	3
Certificate Total		**32 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/welding.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Welding Technology

The Professional Certificate in Welding Technology is a one-year certificate program and is based on four semesters of instruction and hands-on experience. Students will study oxy/acetylene welding and cutting; shielded metal arc welding (stick); gas metal arc welding (mig); gas tungsten arc welding (tig), and plasma arc cutting.

All welding procedures follow American Welding Society (AWS) guidelines. Welder qualifications are available for the successful student in AWS D 1.1 Structural Welding Code and ASME Section 9 (pipe).

In the classroom, students will learn the technological information associated with welding processes and how to apply that information to practical use on the job. This program meets the needs of both beginning and experienced welders who are seeking certification.

Welders need good eyesight, hand-eye coordination and manual dexterity. Students should be able to concentrate on detailed work for long periods and must be able to lift up to 45 pounds, bend, stoop, crawl, kneel, climb ladders, and work in awkward and cramped positions.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

Mathematical Sciences		**3 Hours**
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Program Requirements		**36 Hours**
CNST 162	Construction Safety	3
MACH 115	Heat Treating and Metallurgy	3
WELD 101	Introduction to Welding	4
WELD 102	Structural Welding	4
WELD 103	Pipe Welding	4
WELD 104	TIG Welding	4
WELD 105	Advanced Pipe Welding	4
WELD 114	Structural Layout and Fabrication	3
WELD 116	Print Reading for Welders	3
WELD 160	Welding Fabrication	4
Certificate Total		**39 Hours**

For more information about our graduation rates, the median debt of students who completed thIs certificate, and other important information, please visit **www.sfccmo.edu/welding.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Manufacturing Technology with Emphasis in Welding Technology

The Manufacturing Technology with Emphasis in Welding Technology program is designed for the individual who wants to learn the millwright trade, fabrication/shop management or quality control/quality assurance. The program is a combination of the welding and machine tool programs, and the successful student will have the skills and knowledge to become part of today's workforce.

Students should be able to concentrate on detailed work for long periods and must be able to lift up to 45 pounds, bend, stoop, crawl, kneel, climb ladders, and work in awkward and cramped positions.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Humanities, Sciences, and Fine Arts		**4 Hours**
PHYS 125	Technical Science	4

Program Requirements		**47 Hours**
CNST 162	Construction Safety	3
EDT 111	Introduction to Engineering Design	3
MACH 101	Introduction to Machining	4
MACH 115	Heat Treating and Metallurgy	3
SS 120	Employment Strategies	1
WELD 101	Introduction to Welding	4
WELD 102	Structural Welding	4
WELD 103	Pipe Welding	4
WELD 104	TIG Welding	4
WELD 105	Advanced Pipe Welding	4
WELD 114	Structural Layout and Fabrication	3
WELD 116	Print Reading for Welders	3
WELD 160	Welding Fabrication	4
WELD 165	CNC Plasma Cutting	3
Degree Total		**63 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Marine Technology

The Marine Technology program is a partnership with the Lake Career and Technical Center (LCTC) in Camdenton and State Fair Community College-Lake of the Ozarks. The program courses are only taught at the LCTC campus in Camdenton. The general education requirements are taught at State Fair Community College locations. Participants earn an Associate of Applied Science degree via articulation and/or experiential credit. Students who have graduated from an accredited marine technology/ power sports program or have experience in industry may earn up to 45 credit hours toward the Marine Technology degree. To qualify for the articulated credit, students must provide official transcripts from an accredited technical program, occupational testing scores and/or industry certification.

The physical requirements of this profession typically include lifting up to 45 pounds, pushing, pulling, reaching, walking, standing, crawling, kneeling, ascending and descending ladders, manual dexterity and working in cramped positions for sustained periods of time.

Successful completion of an approved end of program marine technical assessment is required.

Courses to be taken from State Fair Community College

Written and Oral Communications		**6 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I (or)	
ENGL 112	Technical Writing	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**4 Hours**
PHYS 125	Technical Science	4

Courses available for articulation from the Lake Career and Technical Center

Program Requirements		**46 Hours**
MRN 101	Marine Systems Rigging I	6
MRN 105	Marine Ignition Systems	3
MRN 107	Marine Starter and Charging Systems	2
MRN 109	Marine Cooling Systems	2
MRN 111	Marine Lubrication Systems	2
MRN 113	Marine Engine Component and Precision Measuring	3
MRN 115	Marine Shop Procedures and Business Operations	2
MRN 117	Marine Engine Systems Analysis	2
MRN 119	Marine Systems Preventive Maintenance	4
MRN 121	Marine Power Transfer Systems	4
MRN 123	Marine Systems Troubleshooting	3
MRN 125	Marine Fuel Systems	4
MRN 127	Marine Instrumentation Systems	2
MRN 129	Marine Power Trim/Tilt Systems	2
MRN 175	Marine Technology Internship	4
SS 120	Employment Strategies	1
Degree Total		**62 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Medical Assisting

Medical assistants are multi-skilled allied health professionals specifically trained to work in settings such as physician offices, clinics and urgent care facilities performing administrative duties and clinical procedures. Medical assistants require specialized education to assist other health care providers in health interventions. Medical assistant skills utilized in a clinic setting include scheduling appointments, greeting patients, administering injections, preparing instruments for minor surgery, assisting with health exams, assisting with health insurance requirements, and drawing blood for lab tests.

About the Program

The certificate program is an online program with some of the lab and clinical time completed on-ground. Students must complete a minimum of 160 clinical hours as part of the capstone course. The program provides theory, laboratory practice, and clinical application to meet student learning outcomes. Students are introduced to diverse opportunities in medical assisting to achieve entry–level performance as a medical assistant. Completion of a medical assistant certification exam will occur during the capstone course. Certification as a medical assistant is preferred, and in many cases mandatory, in the employment setting.

Admission Process

Students in the program are admitted to the college on the same basis as other students, but admission to the college does not ensure admission into the program. Enrollment in the program is selective and admission cannot be offered to all qualified applicants. Students must have completed a high school diploma or the equivalent. Students should be able to demonstrate proficiency in English, mathematics and reading based on the college assessment. Students must have basic keyboarding skills. Students must have a minimum of a 2.0 GPA prior to starting the Medical Assistant program.

Only students meeting the minimum requirements and who have submitted a completed application packet prior to the application deadline will be reviewed for acceptance. Applicants will receive a letter regarding admissions status following the admission committee review. Decisions of the admissions committee are final. An informational packet with application materials is available online at www.sfccmo.edu/medical-assistant or in Student Services on the Sedalia campus. Students must complete all prerequisites PRIOR to entry into program. There will be no substitution of courses in the curriculum unless approved by the program director. Completing courses before beginning the program will not shorten the length of time you are in the certificate program.

Courses to complete with a grade of B or higher^.
Courses to complete with a grade of C or higher^^.

Program Requirements		**34.5 Hours**
BIO 103^^	Human Biology	3
COMM 101^^	Public Speaking	3
HEOC 120^^	Medical Terminology I	3
HEOC 135^^	Allied Health Career Development	.5
HEOC 140^^	Technology in Health Care	3
MEA 100	Medical Assisting General Orientation	.5
MEA 104^^	Medical Assisting Psychology of Human Relations	3
MEA 108^	Medical Assisting Administrative Procedures	3
MEA 112^	Medical Assisting Clinical Procedures	3
MEA 116^	Medical Assisting Laboratory Procedures	3
MEA 190^	Medical Assisting Capstone	6
NURS 102	CPR for Health Care Providers	.5
PHRM 109^^	Pharmacology for Pharmacy Technicians	3
Certificate Total		**34.5 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/medical-assistant.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Medical Assisting

The student interested in an Associate of Applied Science in Medical Assisting will first complete the requirements for the Professional Certificate in Medical Assisting and pass the certification exam in Medical Assisting prior to completion of the rest of the Associate of Applied Science requirements.

Courses to complete with a grade of B or higher^.
Courses to complete with a grade of C or higher^^.

Written and Oral Communications		**6 Hours**
COMM 101^^	Public Speaking	3
ENGL 101^^	English Composition I	3
Civics		**3 Hours**
HIST 101^^	U.S. History Before 1877	3
HIST 102^^	U.S. History Since 1877	3
POLS 101^^	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 110^^	Intermediate Algebra with Review	5
MATH 112^^	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**9 Hours**
BIO 103^^	Human Biology	3
PHIL 104^^	Living Religions	3
PSY 101^^	General Psychology	3

Program Requirements		**31.5 Hours**
HEOC 120^^	Medical Terminology I	3
HEOC 135^^	Allied Health Career Development	.5
HEOC 140^^	Technology in Health Care	3
MEA 100	Medical Assisting General Orientation	.5
MEA 104^^	Medical Assisting Psychology of Human Relations	3
MEA 108^	Medical Assisting Administrative Procedures	3
MEA 112^	Medical Assisting Clinical Procedures	3
MEA 116^	Medical Assisting Laboratory Procedures	3
MEA 190^	Medical Assisting Capstone	6
NURS 102	CPR for Health Care Providers	.5
PHRM 109^^	Pharmacology for Pharmacy Technicians	3
SOC 120^^	American Diversity	3
Program Electives		**9 Hours**
BSMT 119^^	Customer Service Management	3
CAPP 125^^	Microcomputer Applications	3
HEOC 122^^	Medical Terminology II	3
HIT 224^^	Human Disease and Conditions	3
Degree Total		**61.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Medical Laboratory Technician*

The Missouri Health Professions Consortium (MHPC) Medical Laboratory Technician (MLT) Program curriculum includes on-campus or virtual classroom instruction, on-campus laboratory instruction and an off-campus clinical rotation component encompassing the areas of Hematology and Coagulation, Clinical Microbiology, Parasitology, Mycology and Virology, Immunohematology, Clinical Chemistry and Urinalysis, Immunology and Phlebotomy.

The MHPC MLT program is nationally accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and upon completion of the program, the graduate will be eligible to sit for a national certification examination such as that offered by the American Society for Clinical Pathology (ASCP). Upon passing the exam, graduates will be recognized nationally as Medical Laboratory Technicians. Graduates of the program will have experience in and be qualified to provide laboratory services to patients in many different health care settings, including, but not limited to, hospitals, clinics and physician offices.

Students accepted into the MLT program must also maintain an overall minimum 2.5 GPA or higher in order to progress to the next semester.

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

Program Prerequisite Requirements		**25 Hours**
BIO 207^^	Human Anatomy with Lab	4
BIO 208^^	Human Physiology with Lab	4
CHEM 123^^	General Chemistry with Lab	5
ENGL 101^^	English Composition I	3
HIST 101^^	U.S. History Before 1877 (or)	
HIST 102^^	U.S. History Since 1877 (or)	
POLS 101^^	American/National Government	3
MATH 114^^	Precalculus Algebra	3
PHIL 102^^	Ethics (or)	
SOC 100^^	General Sociology	3

Program Requirements		**35 Hours**
MLT 150^^	Introduction to Lab Science Methods	2
MLT 210^^	Immunology	3
MLT 220^^	Clinical Chemistry and Urinalysis	5
MLT 250^^	Hematology and Coagulation	5
MLT 260^^	Phlebotomy	2
MLT 270^^	Immunohematology	5
MLT 280^^	Clinical Microbiology	4
MLT 290^^	Parasitology, Mycology and Virology	1
MLT 291^^	Hematology and Coagulation Practicum	2
MLT 292^^	Clinical Chemistry Practicum	2
MLT 293^^	Clinical Microbiology Practicum	2
MLT 294^^	Clinical Immunohematology Practicum	2
Degree Total		**60 Hours**

**Pending anticipated approval from the state Coordinating Board for Higher Education and the Higher Learning Commission.*

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Nursing

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

Admission to the Nursing program at SFCC is competitive and requires an additional admission application. Nursing admission information and application packets contain admission criteria, essential abilities for admission, state licensure requirements, mission and philosophy statements, fee schedules, course sequences, and an application. Successful program applicants are subject to background checks and drug tests that could prevent an applicant's progression in the program.

Mission

The mission of the Associate Degree Nursing program is to prepare students to become registered professional nurses through a bi-level program. The aim of the educational environment is to use evidence-based practice to develop clinical reasoning. The program uses technology and quality improvement principles to enhance patient care. A holistic view of health care encourages growth of the individual student to enhance inter-professional partnerships and promote cultural vitality in the communities they serve. Learning is a lifelong process that results in behavioral change and is most effective as a shared responsibility.

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Practical Nursing

Courses to complete with a grade B or higher^.
Courses to complete with a grade of C or higher^^.
Courses can be completed prior to the start of the program.*

Year One (Level 1)

Program Prerequisite Courses **10.5 Hours**

The successful applicant must have at least a 2.75 GPA for all prerequisites and at least an overall 2.5 GPA.

All science courses must have been completed within the last 10 years at the time of application to the Nursing program.

BIO 207^	Human Anatomy with Lab	4
ENGL 101^^	English Composition I (or)	
ENGL 102^^	English Composition II	3
MATH 110^^	Intermediate Algebra with Review (or)	
MATH 112^^	Intermediate Algebra (or)	
MATH 113^^	Mathematical Reasoning and Modeling (or)	
MATH 114^^	Precalculus Algebra (or)	
MATH 119^^	Statistical Reasoning	3
NURS 102	CPR for Health Care Providers (AHA)	.5

Program Requirements **45 Hours**

Each eight-week session of nursing must be successfully completed to take the next eight-week courses.

*BIO 208^	Human Physiology with Lab	4
HEOC 135^	Allied Health Career Development	.5
NURS 110^	Personal Vocational Concepts	1
NURS 112^	Introduction to Psycho-Social Health	2
NURS 114^	Fundamentals I	2
NURS 117^	Fundamentals II	3
NURS 118	Fundamentals II Clinical	1.5
NURS 119^	Allied Health Pharmacology	3
NURS 122^	Adult Health I	4
NURS 124^	Adult Health II	4
NURS 126	Adult Health Nursing Clinical	3
NURS 128^	Adult Health III	2
NURS 130	Adult Health Care Coordination Clinical	2
NURS 132^	Nutrition	3
NURS 134^	Nursing Care for the Childbearing Family	2
NURS 136	Childbearing Family Clinical	1.5
NURS 140^	Nursing Care for the Child Rearing Family	2
NURS 142	Child Rearing Family Clinical	1.5
*PSY 101^^	General Psychology	3

Certificate Total **55.5 Hours**

For more information about our graduation rates, the median debt of students who completed this certificate, and other important information, please visit **www.sfccmo.edu/nursing.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Nursing

Upon successfully passing the LPN licensure exam after the first year, students may transition seamlessly into Year Two (Level 2) of the program without having to reapply. In addition, Licensed Practical Nurses will be eligible to apply for advanced placement in Year Two (Level 2). The degree total includes the Professional Certificate in Practical Nursing hours.

Courses to complete with a grade B or higher^.
Courses to complete with a grade of C or higher^^.
Courses can be completed prior to the start of the program.*

Year Two (Level 2) Advanced Placement
Program Prerequisite Courses **13.5 Hours**

The successful applicant must have at least a 2.75 GPA for all prerequisites and at least an overall 2.5 GPA.

All science courses must have been completed within the last 10 years at the time of application to the Nursing program.

BIO 208^	Human Physiology with Lab	4
ENGL 101^^	English Composition I (or)	
ENGL 102^^	English Composition II	3
MATH 110^^	Intermediate Algebra with Review (or)	
MATH 112^^	Intermediate Algebra (or)	
MATH 113^^	Mathematical Reasoning and Modeling (or)	
MATH 114^^	Precalculus Algebra (or)	
MATH 119^^	Statistical Reasoning	3
NURS 102	CPR for Health Care Providers (AHA)	.5
PSY 101^^	General Psychology	3

Year Two (Level 2) Advanced Placement courses required after acceptance

HEOC 135^	Allied Health Career Development (required for advanced placement students with PN transcripts from outside Missouri)	.5
NURS 210^	Nursing Transition Course (required for advanced placement students only)	2

Program Requirements **39.5 Hours**

Each eight-week session of nursing must be successfully completed to take the next eight-week courses.

*BIO 121^	Microbiology	4
*COMM 101^^	Public Speaking	3
*HIST 101^^	U.S. History Before 1877 (or)	
*HIST 102^^	U.S. History Since 1877 (or)	
*POLS 101^^	American/National Government	3
NURS 213^	Introduction to Professional Nursing	2
NURS 215^	Complex Health: Mental Health	2.5
NURS 216	Complex Health: Mental Health Clinical	2
NURS 219^	Complex Health: Elimination	3
NURS 221^	Complex Health: Nutrition/Metabolic	2.5
NURS 227^	Complex Health: Family	3
NURS 228	Complex Health: Family Clinical	1
NURS 230^	Complex Health: Adult Clinical I	1
NURS 231	Complex Health: Adult Clinical II	1
NURS 233	Complex Health: Adult Clinical III	3
NURS 234^	Complex Health: Activity and Rest	3
NURS 237^	Complex Health: Cognitive/Perceptual	3
NURS 243	Professional Nursing Capstone Clinical	2.5

Degree Total **95 Hours**

Prospective students should be aware that Section 335.066, RSMo of the Missouri Nursing Practice Act may prohibit persons from taking the state nursing licensure exams in cases of prior legal action. Before starting prerequisites or applying to the nursing program, consult with a nursing advisor or refer to the act online at http://www.moga.mo.gov/statutes/C300-99/3350000066.HTM.

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Occupational Therapy Assistant

The Occupational Therapy Assistant program is a one-plus-one degree program that prepares students to practice as Certified Occupational Therapy Assistants (COTA) after meeting certification and state licensure standards. State Fair Community College (SFCC) is one of five colleges in the Missouri Health Professions Consortium (MHPC) currently selected to offer the program coordinated through the University of Missouri. SFCC offers and enrolls students in the general education coursework; sophomore level (professional level) coursework typically originates from a classroom located in Columbia, Missouri and is conveyed to SFCC students via interactive television and internet-based technology. Through the combination of general education, professional level coursework, classroom and laboratory practice, and clinical fieldwork experiences, students will learn the profession of occupational therapy assistant. The professional year does not run on a traditional SFCC academic cycle. Classes will begin the Monday after New Year's Day and will run through the end of the fall semester. Completion of professional year coursework takes one full calendar year.

Accreditation
The MHPC Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA). Following successful completion of coursework and passing of the certification exam, individuals will be a Certified Occupational Therapy Assistant (COTA). Even with successful coursework completion students may be prohibited from sitting for the NBCOT Certification Exam if they have a felony conviction. In Missouri, state licensure is required in order to practice and acquisition of a license is contingent upon passing the NBCOT Certification Exam. For more information regarding accreditation, please contact the American Occupational Therapy Association:

ACOTE
c/o Accreditation Department
American Occupational Therapy Association (AOTA)
4720 Montgomery Lane, Suite 200
Bethesda, MD 20814-3449
(301) 652-2682 | TDD (800) 377-8555
accred@aota.org
www.acoteonline.org

Admission Process
Enrollment in the MHPC Occupational Therapy Assistant program is selective and an informational packet with application materials is available online or at the Sedalia campus. Students must complete all general education coursework PRIOR to entry into the professional level program. However, students can complete coursework in the semester prior to the start of the program; under these circumstances, program admission would be contingent upon successful completion of general education prerequisite coursework and maintenance of the required 2.5 GPA. Transcript evidence of satisfactory completion of general education/prerequisite coursework must be received with the application packet. SFCC may not be able to offer admission to all qualified applicants. Only students meeting all admission criteria and submitting completed application packets within the established timeframe will be considered. The Selection Committee meetings are conducted the summer before the start of the professional year. Admission decisions of the Selection Committee are final. Applicants will receive a letter regarding admissions status following committee review.

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Occupational Therapy Assistant

All prerequisite requirements require a grade of C or higher and an overall 2.5 GPA maintained^^.

Program Prerequisite Requirements		**32 Hours**
BIO 207^^	Human Anatomy with Lab	4
BIO 208^^	Human Physiology with Lab	4
COMM 101^^	Public Speaking	3
ENGL 101^^	English Composition I	3
HIST 101^^	U.S. History Before 1877 (or)	
HIST 102^^	U.S. History Since 1877 (or)	
POLS 101^^	American/National Government	3
HEOC 120^^	Medical Terminology I	3
MATH 110^^	Intermediate Algebra with Review (or)	
MATH 112^^	Intermediate Algebra (or)	
MATH 113^^	Mathematical Reasoning and Modeling (or)	
MATH 114^^	Precalculus Algebra (or)	
MATH 119^^	Statistical Reasoning	3
PSY 101^^	General Psychology	3
PSY 210^^	Lifespan Development	3
General Education Elective^^		3
SOC 100 is recommended		

All program requirements require a grade of C or higher and an overall 2.5 GPA maintained^^.

Program Requirements		**48 Hours**
OTA 200^^	Foundations of Occupational Therapy	4
OTA 205^^	Medical Conditions in Occupational Therapy	3
OTA 210^^	Analysis of Occupations	2
OTA 215^^	Mental Health and Psychosocial Practice	4
OTA 220^^	Pediatric and Adolescent Practice	4
OTA 250^^	Functional Kinesiology	2
OTA 255^^	Physical Disabilities Practice	4
OTA 260^^	Community Practice	3
OTA 265^^	Ethics, Management, and Leadership	3
OTA 270^^	Professional Skills	3
OTA 290^^	Level II Fieldwork A	8
OTA 295^^	Level II Fieldwork B	8
Degree Total		**80 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Radiologic Technology

The Radiologic Technology program is dedicated to serving the rural communities of western 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. Radiologic technologists are 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. Admission to the program is selective and an informational packet with an application to the program is available online. Admission criteria can be found in the Radiologic Technology application online at **www.sfccmo.edu/radiologic-technology.**

Note: If a student has taken an Anatomy and Physiology I (A/P) (4 credit hours) or Anatomy and Physiology II course (A/P) (4 credit hours) from an accredited higher education institution, this does not satisfy the requirements of either Anatomy or Physiology courses that are required by this program. If a student's transcript indicates BOTH A/P I and A/P II courses with a grade of B or higher, this will satisfy the Anatomy and Physiology requirements of this program. If a student takes A/P I and A/P II and one of the grades for these is lower than a grade of B, the student must repeat that course or take State Fair Community College's separate Anatomy and Physiology courses. All required (including prerequisites for the program) science courses must meet the requirement of having been completed within the last 10 years at the time of application to the State Fair Community College Radiologic Technology program.

Note: To apply to the program a student must have an overall 2.5 GPA for all college level course work and a 2.75 GPA total for all prerequisites and required general education courses.

Courses to complete with a grade of B or higher by the end of the spring semester in which the student is applying^. Courses to complete with a grade of C or higher by the end of the spring semester in which the student is applying^^. Courses can be completed prior to the start of the program.*

Program Prerequisite Requirements		**17 Hours**
BIO 207^	Human Anatomy with Lab	4
BIO 208^	Human Physiology with Lab	4
ENGL 101^^	English Composition I (or)	
ENGL 102^^	English Composition II	3
HEOC 120^^	Medical Terminology I	3
MATH 110^	Intermediate Algebra with Review (or)	
MATH 112^	Intermediate Algebra (or)	
MATH 113^	Mathematical Reasoning and Modeling (or)	
MATH 114^	Precalculus Algebra (or)	
MATH 119^	Statistical Reasoning	3

Program Requirements		**65 Hours**
*COMM 101^^	Public Speaking	3
*HIST 101^^	U.S. History Before 1877 (or)	
*HIST 102^^	U.S. History Since 1877 (or)	
*POLS 101^^	American/National Government	3
RAD 106^^	Clinical Education I	3
RAD 109^^	Clinical Education II	2
RAD 111^^	Clinical Education III	2
RAD 113^^	Clinical Education IV	4
RAD 115^^	Clinical Education V	4
RAD 120^^	Radiographic Procedures I	3
RAD 122^^	Radiographic Procedures II	3
RAD 124^^	Radiographic Procedures III	3
RAD 128^^	Introduction to Radiologic Sciences and Patient Care	3
RAD 130^^	Radiation Production and Characteristics	3
RAD 134^^	Radiographic Exposures and Quality Control	3
RAD 137^^	Radiation Protection	3
RAD 140^^	Radiologic Pharmacology	3
RAD 142^^	Trauma and Advanced Imaging	3
RAD 144^^	Radiation Biology	2
RAD 146^^	Imaging Equipment	3
RAD 150^^	Radiographic Pathology	3
RAD 152^^	Image Analysis	3
RAD 154^^	Sectional Anatomy	3
RAD 170^^	Preparing for Professionalism	3
Degree Total		**82 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

State Fair
Community College

[SECTION 3]

Course Descriptions

State Fair Community College

ACCOUNTING

ACCT 101 - Principles of Financial Accounting 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Introductory course covering fundamental accounting principles and financial statement preparation. Emphasis on analysis of effects of business transactions on the earnings, financial position and cash flows of business entities.

ACCT 102 - Managerial Accounting 3
Prerequisite: ACCT 101 with a grade of C or higher. Introduction to 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.

ACCT 109 - Applied Accounting Procedures 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Provides a basic understanding of accounting terminology and procedures used to record, classify and summarize financial data for a sole proprietorship. Designed for those with no previous knowledge of accounting.

ACCT 125 - Computerized Accounting Applications 3
Prerequisites: ACCT 109 and CAPP 125 with grades of C or higher. Project-intensive approach to accounting and reporting utilizing accounting software currently used in industry. Emphasis on using a microcomputer to process financial accounting data and prepare financial statements and related reports.

ACCT 126 - Introduction to QuickBooks 1
Introduction to the basic concepts and skills necessary for using QuickBooks. Emphasis on entering accounts payable/receivable and payroll transactions, completing end-of-year processes and generating reports to make business decisions.

ACCT 132 - Business Taxation 3
Prerequisite: ACCT 101 with a grade of C or higher. Introduction to the federal and state laws that affect employment practices, wage payments, benefit plans, workers' compensation, garnishments, and sales tax. Emphasis on compliance with federal and state reporting requirements.

ACCT 137 - Introduction to Federal Taxation 3
Prerequisite: ACCT 101 with a grade of C or higher. 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.

ACCT 175 - Accounting Internship 4
Prerequisite: Consent of program coordinator. Supervised on-the-job training plan, tailored to meet student and employer needs.

ACCT 203 - Intermediate Financial Accounting I 3
Prerequisite: ACCT 101 with a grade of C or higher. Financial accounting theory and practice are applied in accordance with generally accepted accounting principles for financial reporting of corporate entities. Emphasis on corporate financial statement preparation and analysis.

ACCT 220 - Current Topics in Accounting 3
Prerequisites: ACCT 102 and ACCT 203 with grades of C or higher. Accounting theory and practice are applied to selected topics related to financial reporting and management decision-making. Course will utilize case studies and current events involving the accounting profession.

AGRICULTURE

AGRI 101 - Ag Leadership and Issues I 2
Course is designed to help students begin planning a career in the agriculture industry by creating and setting goals and developing means of attaining those goals. The course focuses on leadership development, team building, problem-solving, and current issues in agriculture.

AGRI 102 - Ag Leadership and Issues II 1
Prerequisite: AGRI 101. Continuation of AGRI 101 promoting further development of the student's career plan. Course will help students identify what attributes are sought by the agriculture industry and how to prepare for the work-force. Course focuses on résumé building, creating cover letters, completing employment applications, and job interview skills.

AGRI 103 - Ag Leadership and Issues III 2
Prerequisite: AGRI 102. Course allows students to review the progress made in the previous year in AGRI 101 and AGRI 102 and continue toward the goal of employment in the agriculture industry. Course focuses on the continuing development and implementation of a career plan for entry into an agriculture-related career.

AGRI 104 - Ag Leadership and Issues IV 1
Prerequisite: AGRI 103. Continuation of AGRI 103 completing the progress of the student's plan for employment. Course focuses extensively on the process of employment ranging from job identification, the application process and interviewing for the position. Activities include job searching, contacting employers, completing applications, and experiencing a job interview.

AGRI 106 - Global Agriculture 3
Course introduces the student to economic, political, cultural, and environmental issues that affect food production and distribution in the advancement of societies in developed and developing countries.

AGRI 108 - 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.

AGRI 110 - Contemporary Issues in Animal Agriculture 3
Introduction to contemporary issues in animal agriculture, including perspectives on animal rights and welfare, effects of agriculture on the environment and controversial production techniques.

AGRI 112 - Livestock and Meat Evaluation 3
Course is a study of livestock selection and meat evaluation used in marketing in the beef, swine and sheep industries.

AGRI 114 - Livestock Management 3
Course is a study of the segments of livestock production that identifies the essential ingredients needed by producers to raise productive and profitable livestock.

AGRI 116 - Animal Nutrition 3
Prerequisite: MATH 061 or equivalent placement score. Study includes the nutritional needs of livestock and the formulation of feeds, including hormones, antibiotics, minerals, vitamins, and other feed additives.

AGRI 118 - Plant Science 3
Study includes plant and seed development and selection, the cultural practices in the production of common farm crops and seed and plant identification.

AGRI 119 - Soils I with Lab 4
Prerequisite: MATH 061 or equivalent placement score. Course is designed to give students an understanding of key concepts in soil formation, composition, uses, soil conservation, cropping systems, and soil improvements. The lab provides students with real-world application of soils theories and concepts taught in the classroom. Both AGRI 119 and AGRI 120 cannot be applied to meet any certificate or degree requirements. (3 lecture, 1 lab)

AGRI 121 - Soils II 3
Prerequisite: AGRI 119. Study includes soil composition and fertilization practices needed for proper nutrition of plants.

AGRI 123 - Soil Erosion and Management 3
Prerequisite: AGRI 119. Course includes training in surveying and soil erosion control through construction of structures and management practices.

AGRI 125 - Natural Resources 3
Course includes the study of natural resources as they relate to our existence and their mutual relationship to each other.

AGRI 126 - Ornamental Woody Plants 3
Identification and evaluation of trees and shrubs for landscape use.

AGRI 127 - Farm Chemicals 3
Course includes the study of the production, distribution, handling, and application of farm chemicals such as insecticides, rodenticides, fungicides, herbicides, and brush killers.

AGRI 128 - Ornamental Herbaceous Plants 3
Identification and evaluation of annuals, biennials, perennials, ground covers, and bulbs.

AGRI 129 - General Horticulture 3
Course includes study of horticultural crops and the horticultural industry. Study includes plant propagation and fruit and vegetable production.

AGRI 131 - Introduction to Agribusiness Systems 3
Introduction to the agribusiness system career pathway. Topics include an overview of the agribusiness industry, economic principles in agribusiness and retail agribusiness sales.

AGRI 132 - 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.

AGRI 133 - Agricultural and Food Policy 3
Course presents theory and practice in agricultural and food policy creation and implementation. Study includes farm, food, environmental, and economic policies that impact agricultural business.

AGRI 134 - Marketing Farm Commodities 3
Course presents theory and practice in marketing livestock and livestock products, analyzing costs and efficiency in grain marketing processing organizations, and the price-making process.

AGRI 136 - Ag Credit and Finance 3
Course emphasizes general principles associated with evaluation of management and use of capital. Students will develop an understanding of agricultural finance to help financers satisfy credit needs of modern agriculture.

AGRI 137 - Farm Management, Recordkeeping 1
Course covers computer use in the workplace with emphasis on agribusiness situations. Computer applications including spreadsheet management will be covered.

AGRI 138 - 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.

AGRI 141 - Livestock Breeding 3
Course includes study of genetic factors contributing to animal value, selection criteria for a production operation and mating systems.

AGRI 143 - Livestock Reproduction 3
Course covers basic reproductive anatomy and physiology of farm animal species followed by reproduction management options and contemporary reproductive technologies.

AGRI 149 - Chemistry of Soil Additives 3
Course covers the basic principles of soil fertilization and includes lime application, plant nutrients, fertilizing, and management. Upon completion, students should be able to give nutrient and liming recommendations for soils.

AGRI 151 - Landscape Design and Maintenance 3
A comprehensive study of landscaping. Study incorporates computer aided drafting (CAD) software to design functional and aesthetically pleasing landscapes and landscape maintenance programs.

AGRI 154 - Greenhouse Management with Lab 4
Course presents greenhouse design, environmental control, production equipment, and management practices. Instruction includes principles and practices relative to plant nutrition, pest control, product handling, and marketing greenhouse production. (3 lecture, 1 lab)

AGRI 167 - CDL Licensing 2
Course is designed to enable students to pass the state Commercial Driver's License (CDL) exam. Students must qualify for the Class A CDL with all appropriate endorsements.

AGRI 168 - Commercial Applicator Licensing 2
Prerequisite: MATH 061 or equivalent placement score. Study complements other courses offered in weed, insect and disease control. Student will develop the skills necessary to pass the state and federal examinations for commercial applicator licensing.

AGRI 174 - Crop and Insect Scouting 2
Utilizing real-life crop growing environments, students will learn to identify weed, insect and disease infestations; determine life cycles; recognize damage symptoms; establish economic thresholds; and recommend control alternatives.

AGRI 175 - Occupational Internship 2 to 8
Prerequisite: Consent of program coordinator. Internship is 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 179 - Innovative Horticulture 1
Prerequisite: Consent of instructor. Designed to provide the student an opportunity to apply horticultural knowledge, problem-solving skills and creativity to develop and/or construct a capstone project. Student must have at least 55 credit hours completed in the AAS in Agriculture with emphasis in Horticulture program.

AGRI 180 - Problems in Agriculture 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in agriculture under the supervision of an agriculture instructor.

ART

ART 101 - Art Appreciation 3
Study of art history from the last of the 19th 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 20th century civilization.

ART 103 - Design I 3
Entry-level art course required of all art majors. Foundation course introducing the study of the visual elements and principles of design. Emphasis is placed on the student's ability to recognize and manipulate these elements and principles.

ART 104 - Design II 3
Prerequisite: ART 103. The second of a two-course sequence required for all art majors. 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 with color.

ART 106 - Watercolor I 3
An entry-level course for both art majors and anyone interested in beginning watercolor. This foundation course introduces materials and techniques of aqua media painting, various preparations of paper and use of brushes and other tools. Control of transparent color will be learned through experimentation. Students will be encouraged to experiment with a variety of subject matter and techniques in search for personal identity.

ART 107 - Watercolor II 3
Prerequisite: ART 106. Continuation of the search for a personal expressive identity in watercolor. The students will work from sources they have a personal relationship with, such as persons they know, or familiar places and things. In addition to observable sources, the students will be encouraged to respond to the materials used in a creative manner discovering that the process of painting itself suggests images and ideas. Students will advance their personal expressive identity through making decisions and finding solutions while exploring representation, abstraction and non-objective painting.

ART 108 - Watercolor III 3
Prerequisite: ART 107. Includes advanced problems and techniques of aqua media painting.

ART 110 - Printmaking 3
Course includes exploring and developing personal artistic identity in traditional and contemporary printing methods. Wood block, etching and monoprint methods will be explored.

ART 112 - Drawing I 3
Entry-level art course required for all art majors. Foundation course placing emphasis on drawing as an expressive medium. Content is based on a series of perceptual and conceptual assignments designed to force students to reach inside themselves to define, through their work, a sense of artistic self.

ART 113 - Drawing II 3
Prerequisite: ART 112. The second of a two-course sequence required for all art majors. Foundation course placing emphasis 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.

ART 114 - 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.

ART 115 - Figure Drawing II 3
Prerequisite: ART 114. 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.

ART 116 - Painting I 3
Entry-level art course for both art majors and anyone interested in beginning painting. Foundation course that concentrates on painting as an expressive medium and is designed to allow students to explore a variety of subject matter and experiment with painting techniques in a search for personal artistic identity.

ART 117 - Painting II 3
Prerequisite: ART 116. Continuation of the search for a personal expressive identity. Students will work from sources they have a personal relationship with, such as persons they know, or familiar places and things. In addition to observable sources, students will be encouraged to respond to the materials used in a creative manner discovering that the process of painting itself suggests images and ideas. Students will advance their personal expressive identity through making decisions and finding solutions while exploring representation, abstraction and non-objective painting.

ART 118 - Painting III 3
Prerequisite: ART 117 and consent of instructor. Students may concentrate in watercolor, oil, acrylics, or mixed media. Offered by appointment only.

ART 120 - Modern Art History 3
Required for art majors. Emphasis is placed on the creative nature of man and how creativity enriches society and the social, economic and political conditions that influenced and constructed modern art. Study begins with the development of impressionism and moves through the major art movements of the late 19th and 20th centuries.

ART 122 - Sculpture I 3
Develops insight into the principles of sculptural organization and stresses individual development of three-dimensional forms.

ART 123 - Sculpture II 3
Prerequisite: ART 122. Continuation of ART 122 with the student developing a body of work that is interrelated. Includes exploration of a variety of materials including metal, wood and found objects, with an emphasis placed on individual exploration and development.

ART 126 - Ceramics I 3
Introduces 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.

ART 127 - Ceramics II 3
Prerequisite: ART 126. Continuation of ART 126 with students becoming more proficient in construction techniques that are appropriate for their ideas. Emphasis is placed on students developing a body of work that is interrelated.

ART 130 - Fiber Arts I 3
Explores a variety of traditional and nontraditional mediums and techniques in the fiber arts. Emphasis is placed upon process and investigation.

ART 131 - Fiber Arts II 3
Prerequisite: ART 130. Continuation of the study and exploration of traditional and nontraditional 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 fiber media.

ART 180 - Problems in Art 3
Prerequisite: Consent of instructor. Must complete courses I and II of desired subject area. 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.

AUTISM

ATSM 105 - Autism Spectrum Disorders 3
Examination of the neurological and behavioral characteristics of children with autism spectrum disorders (ASD). Course includes an overview of characteristics and learning traits, classification systems, assessment strategies, issues, approaches, and interventions related to individuals with ASD. Special emphasis will be given to selecting evidence-based practices and enhancing collaboration among individuals with ASD, their families and supporting professionals.

ATSM 110 - Communication and Social Competence 3
Overview of language development and communication strategies, issues, pragmatics, communication systems, augmentative and alternative communication systems (AAC), social deficits in autism, and approaches for teaching social skills. Includes an emphasis on the development of appropriate communication skills.

AUTOMOTIVE

AUTO 100 - Introduction to Automotive Technology 3
Many fundamental principles necessary for laying a foundation in the automotive program are covered, including shop safety; hazardous materials and environmental issues; hand tools; measuring tools; hardware and math related to the automotive industry; career and industry specific information; and an overview of many of the automotive systems. Real-world fixes and tech tips are included throughout to help illustrate how real problems are solved. Each new topic covers the preventive maintenance requirements for various components and automotive systems, including the purpose, function and operation, as well as how to service each system. (2 lecture, 1 lab)

AUTO 103 - Manual Transmissions, Drivelines and Axles 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Instruction for the development of skills and knowledge required to diagnose and repair drivelines. This includes clutches, transmissions, drive shafts, differentials, axles, wheels and bearings, transaxles, and four-wheel drive hub assemblies. (3.5 lecture, 1.5 lab)

AUTO 105 - Automatic Transmissions 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Designed to develop skills and knowledge required to diagnose and repair automatic transmissions and automatic transaxles and torque converters. Topics include the study of automatic transmission design and theory of operation, along with in and out-of vehicle repair and servicing. (3.5 lecture, 1.5 lab)

AUTO 106 - Power Train Management 5
Prerequisites: AUTO 100, AUTO 116, AUTO 118 with grades of C or higher. Automotive systems are studied in depth beginning with fundamental principles and quickly advancing to more sophisticated theories and applications. Classroom studies in fuel and emissions systems, computerized engine controls, various input and output devices, ignition, intake and exhaust systems with a lab will enhance the learning experience with hands-on demonstrations and tasks. (3.65 lecture, 1.35 lab)

AUTO 108 - Advanced Engine Performance 6
Prerequisites: AUTO 100, AUTO 106, AUTO 116, and AUTO 118 with grades of C or higher. Advanced study of automotive diagnostic equipment and troubleshooting techniques related to modern vehicle powertrains. Study includes electronic engine controls, including fuel injection, feedback systems, computer controlled engine management systems, scan tool, digital multimeter, lab scope usage, and diagnostic trouble code retrieval and troubleshooting. (5 lecture, 1 lab)

AUTO 113 - Steering, Suspension and Wheels 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Study develops skills and knowledge required to diagnose and repair steering and suspension systems, including tire and wheel service, wheel balance, four-wheel alignment, springs and torsion bar suspension, power steering pump, steering gears, and rack and pinion steering. (3.5 lecture, 1.5 lab)

AUTO 115 - Automotive Brakes 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Theory of operation, diagnostics and troubleshooting, repairing and servicing of brakes will be taught as well as modern anti-lock brakes and traction control systems. The diagnosis and repair of both drum and disc systems will be explored, including the fabrication of brake lines as a student project. (3.5 lecture, 1.5 lab)

AUTO 116 - Automotive Electrical System Fundamentals 3
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Students will develop skills and knowledge required to understand fundamental principles of electricity and how these principles apply to automotive systems. Study of wiring diagrams, electrical symbols and how to utilize appropriate equipment such as meters and scopes in the troubleshooting process will be included. (2.25 lecture, .75 lab)

AUTO 118 - Advanced Automotive Electrical and Electronics 3
Prerequisites: AUTO 100 and AUTO 116 with grades of C or higher. Course provides an in-depth focus on electrical theory and the understanding and application of automotive electrical and electronic and computer systems as related to modern vehicle systems. Instruction includes methods to successfully troubleshoot vehicle electrical and electronic problems that result in appropriate repairs. (2.25 lecture, .75 lab)

AUTO 119 - Automotive Heating and Air Conditioning 5
Prerequisites: AUTO 100, AUTO 116, and AUTO 118 with grades of C or higher. Students will develop skills and knowledge required to diagnose and repair problems related to automotive heating and air conditioning systems. Both automatic climate control and manual systems will be studied along with the engine coolant system. (3.65 lecture, 1.35 lab)

AUTO 121 - Automotive Engines 6
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Students will develop skills and knowledge required to understand the fundamental principles, servicing, troubleshooting, and repair of modern automotive engines. Study includes diagnosis and troubleshooting; removal and disassembly; cleaning, inspection and repairs; and reassembly and installation of engine assemblies. Students work in pairs on project vehicles so that skills learned in the classroom can be exercised in a live environment. (3 lecture, 3 lab)

AUTO 123 - Service Operation Management 3
Students will be prepared to understand the variables encountered in operating a service business. Areas of content include management, finances, inventory, investment, organization, customer and employee relations, marketing, legal guidelines, and OSHA safety requirements.

AUTO 180 - Automotive Special Projects 3
Students will be involved in automotive lab operations, including preventive maintenance and repair on equipment, tool inventory and management, ordering parts and supplies, assisting in lab set-up, recording customer repair orders, inputting data, and conducting industry-specific research. There will be opportunities to work on unique automotive projects as well. (3 lab)

BIOLOGICAL SCIENCE

BIO 100 - General Biology 3
Introduction of biology that develops understanding of basic, unifying concepts in science and biology. Topics include the scientific method, biochemistry, cell biology, metabolism, genetics, evolution, ecology, and human ecology.

BIO 103 - Human Biology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the structure and function of human body systems and human influence on the biosphere. Topics include biochemistry, body organization, homeostasis, structural maintenance of cells, tissues and organ systems of the human body, evolution, ecology, and human influence on the biosphere. Course may NOT be taken if the student already has credit for BIO 112, BIO 125, BIO 126, BIO 207, or BIO 208.

BIO 105 - Wildlife Conservation 3
Prerequisite: ENGL 101 with a grade of C or higher. Integrated study focused on historical, cultural and scientific aspects of wildlife conservation. Topics include ecology, diversity, extinctions and extinction processes, ecosystem degradation and loss, overexploitation, invasive exotics, zoos and gardens, public attitudes and perceptions including social factors, economics and ethics, and human impact. This is a reading and writing intensive course that involves modern and historic conservation issues.

BIO 112 - General Biology with Lab 5
Introduction of biology that develops an understanding of basic, unifying concepts in science and biology through an investigative laboratory enviroment. Topics include the scientific method, biochemistry, cell biology, metabolism, genetics, evolution, ecology, and human ecology. (4 lecture, 1 lab)

BIO 121 - Microbiology 4
Prerequisite: BIO 207 or BIO 208 or CHEM 101. Course presents basic principles of infection, immunity and the study of microorganisms; studying life at the microscopic level (including eukaryotic cells, protozoa and fungi, prokaryotic cells, bacteria, mycoplasma, and rickettsia; and viruses, prions and infectious agents). Lecture and laboratory sessions consider techniques in conventional culture methods, examination and identification of microorganisms. Topics include microbiological history, environmental constraints, taxonomy, nutritional requirements, biochemical activity, genetic make-up, pathogenicity, virulence, immunology, public health, and medical significance of microbiology. Laboratories will cover aseptic techniques, streak plates and culturing, growth and binary fission, microscopy, biochemical testing, identification, rapid testing, application of critical analysis, and presentations. Designed for Nursing and Health Science majors and other majors who require a foundation in the study of microbiology. (3 lecture, 1 lab)

BIO 125 - Biology I with Lab 5
Prerequisites: ENGL 101 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. First semester of a two-semester introduction to biological sciences intended for biology and related majors. Topics include philosophical, historical and social context of biology; scientific method and investigative techniques; biological structure and function at molecular and cellular levels; genetics; and plant form, function and diversity. (3 lecture, 2 lab)

BIO 126 - Biology II with Lab 5
Prerequisites: BIO 112 or BIO 125 and ENGL 101 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. Second semester of a two-semester introduction to biological sciences intended for biology and related majors. Topics include philosophical, historical and social context of biology; animal morphology, embryology and taxonomy and systematics; life histories; ecology; and evolution. (3 lecture, 2 lab)

BIO 130 - Topics in Biology 1 to 3
Study of a major topic in biology and science. Content and topics change and may include ecology, bio-history, evolution, science in science fiction, or history of science. Specific subjects will be announced prior to course offerings.

BIO 207 - Human Anatomy with Lab 4
Prerequisites: ENGL 070 with a grade of C or higher or equivalent placement scores and a high school biology course with a grade of C or higher or a college biology course with a grade of C or higher (BIO 103 is recommended but not required). Study of gross and microscopic anatomy of the human organs, tissues and systems. (2 lecture, 2 lab)

BIO 208 - Human Physiology with Lab 4
Prerequisite: BIO 207 with a grade of C or higher, or LPN license, or biology department and program approval if currently enrolled in a PN program and have completed anatomy or anatomy and physiology with a grade of B or higher. 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. (3 lecture, 1 lab)

BIO 210 - Principles of Genetics with Lab 4
Prerequisites: BIO 112 or BIO 125 and ENGL 101 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. Course is a comprehensive introduction to fundamental principles of inheritance intended for biology and related majors. Topics include heredity concepts from classical and modern genetics; the physical, biochemical, chromosomal, cytological bases for inheritance patterns; selection and breeding; and evolution. (3 lecture, 1 lab)

BIO 280 - Problems in Biology 1 to 3
Prerequisite: Consent of instructor. Independent course presenting the study of a special problem in biology under the supervision of a science instructor.

BUSINESS ADMINISTRATION

BADM 101 - Introduction to Business 3
Prerequisite: ENGL 060 with a grade of C or higher or equivalent placement scores. Course is an introduction to the principles, practices and problems encountered in the general business environment. Topics include options for organizing a business and the basic functions of accounting, marketing, management, and finance.

BADM 103 - Legal Environment of Business 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Investigation of various legal issues encountered in the business environment. Emphasis is placed on developing an understanding of the court system. Includes specific legal topics such as contracts, torts, employment law, product liability, and consumer protection.

BADM 107 - Personal Finance 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Introduction to personal financial management. Examines the techniques necessary to analyze and make choices concerning major purchases, tax planning, insurance, borrowing, investing, and other personal finance issues.

BUSINESS MANAGEMENT

BSMT 106 - Principles of Marketing 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to the key concepts and issues underlying the modern practice of marketing that impacts today's managers. The marketing process is analyzed through the four main decision areas of products and services, distribution, promotion, and pricing.

BSMT 108 - Principles of Management 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to role of management and supervision. Examines the concepts and the practical application of fundamental supervisory skills such as planning, problem solving, motivation, staffing, leadership, training, managing conflict, and providing effective performance reviews.

BSMT 110 - Salesmanship 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to the study of selling as a major function of the marketing mix. The focus is on consumer behavior, selling techniques and includes one role-play sales presentation.

BSMT 117 - Human Resource Management 3
Prerequisite: BSMT 108. Introduction to the human resource management functions including recruitment and selection, equal employment opportunity compliance, development and training, performance appraisal, compensation, and employee benefits.

BSMT 119 - Customer Service Management 3
Introduction to the customer service function of business. Students will acquire and apply communication skills needed to be successful in today's competitive customer-oriented work environment. Topics include communication, leadership, relationship building, customer retention, problem solving, and measurement of satisfaction.

BSMT 125 - Human Relations 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to the concept of business organizations as a social system. Topics consist of motivation, perception, communication, behavior theories, and group dynamics. Utilizes activities in the classroom to demonstrate major human relations concepts.

BSMT 130 - Business Strategies 3
Prerequisite: Consent of program coordinator. Capstone course that provides business management students with an understanding of the total enterprise system. Students will draw upon prior coursework to solve business problems.

BSMT 175 - Business Management Internship 3 to 6
Prerequisite: Consent of program coordinator. On-the-job experience tailored to enforce topics taught within the degree. Student supervision will be the cooperative arrangement between the program coordinator and employer. Progress reports and a final report documenting work experience will be submitted. An approved three-hour program elective may fulfill the internship requirement.

BSMT 185 - Project Management 3
Prerequisite: CAPP 125. Course will help students understand why organizations have developed a formal project management process to gain a competitive advantage. It covers concepts and skills that are used by managers to propose, plan, secure resources, budget, and lead project teams to successful completion of their projects. The text is structured to meet the needs of those wishing to prepare for the PMP or CAPM certification exams. Same as CIS 185.

CERTIFIED PRODUCTION TECHNICIAN

CPT 102 - Safety 3
Safety training to prepare students for entry-level employment in a production position with the ability to work in a safe and productive manufacturing workplace. Skill areas include: perform safety and environmental inspections; perform emergency drills and participate in emergency teams; identify unsafe conditions and take corrective action; provide safety orientation for all employees; train personnel to use equipment safely; suggest processes and procedures that support safety of work environment; fulfill safety and health requirements for maintenance, installation and repair; monitor safe equipment and operator performance; and utilize effective, safety-enhancing workplace practices.

CPT 104 - Quality Practices and Measurement 3
Quality skills for the entry-level production employee to participate in periodic internal quality audit activities. Skill areas include check calibration of gages and other data collection equipment; suggest continuous improvements; inspect materials and product/process at all stages to ensure they meet specifications; document the results of quality tests; communicate quality problems; take corrective actions to restore or maintain quality; record process outcomes and trends; identify fundamentals of blueprint reading; and use common measurement systems and precision measurement tools.

CPT 106 - Manufacturing Processes and Production 3
Entry-level production skills include identify customer needs; determine resources available for the production process; set up equipment for the production process; set team production goals; make job assignments; coordinate work flow with team members and other work groups; communicate production and material requirements and product specifications; perform and monitor the process to make the product; document product and process compliance with customer requirements; and prepare final product for shipping or distribution.

CPT 108 - Maintenance Awareness 3
Prepare the entry-level production worker in the importance and operations of maintenance. Areas of study include: perform preventive maintenance and routine repair; monitor indicators to ensure correct operations; perform all housekeeping to maintain production schedule; recognize potential maintenance issues with basic production systems, including knowledge of when to inform maintenance personnel about problems with electrical, pneumatic, hydraulic, and machine automation systems; lubrication processes; bearings and couplings; and belts and chain drives.

CHEMISTRY

CHEM 101 - Introduction to Chemistry with Lab 5
Prerequisite: ENGL 101 with a grade of C or higher. One-semester course for nonscience majors designed to acquaint the student with scientific reasoning. A writing intensive course that introduces the principles of the nature of matter/atom, reactions, reaction pathways, solutions, measurements, instrumentation, nuclear chemistry, organic/biological molecules and their applications to current issues. (3 lecture, 2 lab)

CHEM 123 - General Chemistry I with Lab 5
Prerequisites: ENGL 070 and MATH 114 with grades of C or higher or equivalent placement scores. Intended for the science major and science-oriented fields, course examines the structure of the atom, periodic classification, molecular structures, chemical reactions, aqueous solutions, and chemical energetics. (3 lecture, 2 lab)

CHEM 124 - General Chemistry II with Lab 5
Prerequisite: CHEM 123 with a grade of C or higher. Continuation of CHEM 123 emphasizing chemical energetics, entropy, equilibria, reduction oxidation systems, and reaction pathways in organic/biochemistry. (3 lecture, 2 lab)

CHEM 180 - Problems in Chemistry 1 to 3
Prerequisite: Consent of instructor. Independent study and/or lab investigation of a special problem in chemistry. Instruction varies between 1 to 3 lecture hours and 1 to 3 lab hours.

CHEM 221 - Organic Chemistry I with Lab 5
Prerequisite: CHEM 123 with a grade of C or higher. The first of a two-semester sequence in organic chemistry, course studies the structure, bonding and nomenclature of organic compounds (alkanes, alkenes, alkynes, and conjugated systems); substitution and elimination reaction mechanisms; and identification of organic compounds via UV, VIS, IR, GC, and NMR spectroscopy. (3 lecture, 2 lab)

CHEM 222 - Organic Chemistry II with Lab 5
Prerequisite: CHEM 221 with a grade of C or higher. Continuation of CHEM 221 including the study of the reactions associated with aromatic compounds, carbonyl compounds and polyfunctional natural products. (3 lecture, 2 lab)

CHEM 265 - Elementary Organic and Biochemistry with Lab 5
Prerequisite: Any CHEM course with a grade of C or higher. Introduction to organic chemistry and the fundamental concepts of biochemistry; topics include functional groups, nomenclature, reactivity, organic reaction mechanisms. Course explores molecules associated with life functions, emphasizing physiological, nutritional, and comparative aspects. Required for some nonchemistry degrees; generally does not transfer for chemistry majors. (3 lecture, 2 lab)

COMMUNICATIONS

COMM 101 - 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.

COMM 103 - 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.

COMM 105 - Interpersonal Communication 3
Presents theories, principles and techniques of communication as they apply to one-to-one, small groups and conference interaction.

COMM 110 - Introduction to Mass Communication 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.

COMM 112 - Introduction to Public Relations 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Overview of the principles and practice of public relations in private and public organizations. Includes analysis of how various organizations' communication philosophies and practices impact their productivity and effectiveness in society.

COMM 180 - Problems in Communication 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in communications under the supervision of a communications instructor in the department.

COMPUTER APPLICATIONS

CAPP 124 - Introduction to the Personal Computer 1
Designed for those with limited or no computer experience. Emphasis is placed on keyboard and mouse usage, the Windows operating system, file storage, and software options. Includes hands-on instruction in the computer lab. This is a pass/fail course.

CAPP 125 - Microcomputer Applications 3
Prerequisite: Equivalent reading placement score into ENGL 070. Keyboarding proficiency is recommended. Learn the operations of personal computers through the use of Microsoft Office Professional software. Applications include fundamentals of word processing, spreadsheets, database management, and presentations.

CAPP 160 - Word 3
Prerequisite: CAPP 125 with a grade of C or higher. Course is designed for Windows users who seek further knowledge of the word processing program, Microsoft Word.

CAPP 162 - Desktop Publishing 3
Introduction to the basics of electronic page layout using professional publishing software. Valuable skills will be gained in image scanning, manipulation and merging text and graphics.

CAPP 164 - Access 3
Prerequisite: CAPP 125 with a grade of C or higher. Course is designed for Windows users who seek further knowledge of the database program, Access.

CAPP 166 - Excel 3
Prerequisite: CAPP 125 with a grade of C or higher. Course is designed for Windows users who seek further knowledge of the spreadsheet program, Excel.

COMPUTER INFORMATION SYSTEMS

CIS 103 - Introduction to CIS 3
Course teaches the skills necessary to understand the logic of computer programming, design and structure. Students will be presented effective tools needed to enhance their knowledge of using the latest innovations in technology.

CIS 120 - Programming in Python 3
Course provides an introduction to programming in Python. The class will focus on problem-solving skills in math processing. Students will learn syntax, loops, conditional statements, graphics, object-oriented design, and functions.

CIS 124 - Database Management 3
Course implements the relational database management system tasks. Topics include creation of databases, storing, lists and displays, indexing, report generating, creating labels, constructing screens, programming skills, control structures, menus, multi-file programming, and special techniques.

CIS 145 - Visual Basic 3
Course provides an introduction to programming within a graphical environment. Application development will focus on the process of designing, building and maintaining projects that may be used within a business setting. The end product will increase the efficiency and productivity of the organization. Instruction will include interactive design, game programming and database access.

CIS 148 - COBOL 3
Computer programming course that will use the COBOL programming language in a business environment. Instruction will include data editing, arithmetic calculations, if/then structures, loop processing, conditional statements, control level breaks, tables, and evaluate statements.

CIS 149 - Advanced COBOL 3
Prerequisite: CIS 148 with a grade of C or higher. Advanced COBOL programming techniques are presented in this course. Instruction covers tables, call statements, multi-file processing, and end-user interaction.

CIS 151 - DB2 Relational Database 3
Prerequisite: CIS 148 with a grade of C or higher. Course prepares students for programming in the DB2 environment. DB2 is a relational database. A substantial portion of the course will use SQL statements for maintaining a database.

CIS 155 - Programming in C# 3
Programming language C# is introduced as an application programming language. Top-down program development methodologies are discussed. Instruction includes learning the different C# language features to develop application programs.

CIS 157 - Advanced C# 3
Prerequisite: CIS 155 with a grade of C or higher. Course presents advanced C# programming techniques. Instruction includes data manipulation, file handling, logic processing, database access, and maintenance through SQL commands.

CIS 158 - JAVA 3
Introduction to object-oriented programming with a major emphasis in developing GUI based applications for business settings, web pages and smart devices.

CIS 161 - Systems Analysis 3
Prerequisite: CIS 124 with a grade of C or higher. Content includes the analysis and identification of multi-user computer system development. Documentation of systems requirements is stressed.

CIS 162 - Advanced Visual Basic 3
Prerequisite: CIS 145 with a grade of C or higher. Course is for the programmer who would like to program commercially in Visual Basic. Course covers file handling, multiple document interfacing, database maintenance, creating Crystal Reports, and creating web applications.

CIS 163 - Visual Basic with SQL 3
Prerequisite: CIS 145 with a grade of C or higher. Course is designed to teach extensive database administration. As databases are an integral part of interactive web and business design, the course will be useful for commercial development. Extensive use of SQL commands will be covered.

CIS 164 - Oracle I-Oracle SQL 3
Course provides the fundamental skills in SQL with additional coverage of Oracle's implementations of SQL. Course is designed to provide a practical working knowledge of essential Oracle database skills and technologies.

CIS 165 - Oracle II-PL/SQL 3
Course instructs the student in topics related to Oracle PL/SQL (Procedure Language/Structured Query Language). Subjects will include invoker's rights, object patterns, database management, and Java libraries.

CIS 168 - Game Programming 3
Fundamentals of how to write computer games in the C# programming language using Direct3D, DirectSound, DirectX, and DirectInput. Students will receive knowledge of game programming using 3D modeling, collision detection and animation. No previous knowledge of HTML or web design is assumed. Students are required to purchase a mass storage device such as a thumb or jump drive.

CIS 169 - Advanced JAVA 3
Prerequisite: CIS 158 with a grade of C or higher. Project-oriented programming course that builds upon the knowledge presented in CIS 158. Topics include database connectivity, sockets, advanced GUI programming, multi-threading, and data structures.

CIS 175 - CIS Internship 4 to 8
Prerequisite: Consent of program coordinator. Includes a minimum of 160 clock hours of supervised work experience that allows the student to apply CIS operation and programming theory. Recommended to be taken during the last year of study.

CIS 179 - Programming Project 4
Prerequisite: Consent of instructor. Must be taken during the last semester of study before completion of the CIS degree. Includes individually designed assignments that require students to develop and test a program and document program results.

CIS 180 - Problems in CIS 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in computer systems arranged under the supervision of a CIS instructor.

CIS 185 - Project Management 3
Prerequisite: CAPP 125. Course will help students understand why organizations have developed a formal project management process to gain a competitive advantage. It covers concepts and skills that are used by managers to propose, plan, secure resources, budget, and lead project teams to successful completion of their projects. The text is structured to meet the needs of those wishing to prepare for the PMP or CAPM certification exams. Same as BSMT 185.

CONSTRUCTION TECHNOLOGY

CNST 105 - Construction Materials and Methods 3
Introductory course that provides an overview of the materials and methods used in light framing and building finish systems from floor to roof and from exterior cladding to interior finishes. Includes wood light framing, light gage metal framing, roofing, glass and glazing, cladding systems, windows and doors, interior finishes, ceilings, and floors. This course will focus on development of a fundamental knowledge base through case study and detailed product analysis.

CNST 106 - Construction Estimation 3
Examines the methods used in cost estimating in the construction industry. Skills such as quantity take-off, measurement, quote and bid solicitation, etc., are developed, as well as discussion of strategy involved in bid formulation and submissions. Computerized estimating techniques are explored, as well as manual methods. Course will require completion of a cost estimate for residential, commercial, industrial, or heavy construction projects.

CNST 113 - Construction Management 3
Discusses careers in construction as well as the general business operations involved in the construction industry. Basic overview of the legal structure of businesses, contract terms and the roles of stakeholders in a construction project.

CNST 138 - Construction Planning and Scheduling 3
Discusses methods of organizing work items associated with a construction project into a logical sequence of optimizing efficiency and profitability. Manual and computerized scheduling methods are used in developing project schedules for both real and simulated projects.

CNST 142 - Building Mechanical Systems 3
Introduction to the understanding of components and design of major building mechanical systems. Topics include electrical, plumbing and HVAC systems in buildings. Design calculations for proper sizing of system components are discussed, as well as the various methods and materials used in the construction of such systems.

CNST 145 - Construction Methods I 3
Students will study the methods used to install various construction materials related to the major divisions of the Construction Specification Institute (CSI) format during their first year.

CNST 146 - Construction Methods II 3
Continuation of CNST 145 for students in their second year. Students will study the methods used to install various construction materials related to the major divisions of the Construction Specification Institute (CSI) format.

CNST 148 - Construction Codes and Law 3
Overview of legal requirements related to the design and execution of construction projects. The International Building Code is studied, and upon completion of the course, the student will be capable of navigating it and many other similar reference manuals. Other legal aspects of the construction industry are discussed including, but not limited to, contract law as well as liability issues.

CNST 150 - Building Layout and Surveying 3
Prerequisite: MATH 108 or MATH 114 with a grade of C or higher or equivalent placement score. Construction field engineering activities to include surveying, site/building layout and dimensional control. Interpretation of plot books, site plans, and topographic maps is also included.

CNST 160 - Statics and Strength of Materials 3
Prerequisite: MATH 108 or MATH 114 or equivalent placement score. Introduces the fundamentals of structural analysis and design. Materials and structural systems are discussed in terms of load bearing properties as well as economy of construction. Students will gain a greater understanding of how structures work as well as how choices are made regarding the selection of appropriate materials and systems to meet a given need.

CNST 162 - Construction Safety 3
Comprehensive discussion of job safety and best practices as they pertain to the construction industry. A general philosophy of safety awareness is achieved through study of specific hazards and case studies. Students will be required to obtain the OSHA 10-hour certification, understand OSHA regulations as well as legal implications on the construction industry.

CNST 175 - Construction Management Internship 4 to 8
Prerequisite: Consent of program coordinator. Cooperative work experience within the construction industry setting. Student will work as a management-level employee for an established construction related firm. Periodic site visits and employer interviews by the instructor will ensure that student is performing meaningful management level functions and is generally meeting the expectations of the course.

CRIMINAL JUSTICE

CJ 101 - Introduction to Law Enforcement 3
Examines the history of policing in the United States and an overview of the relationship between law enforcement and the American society. Includes an examination of the duties of law enforcement officers, the operations of police agencies, police-community relations, the police subculture, and the need for police objectives to conform to constitutional procedures.

CJ 102 - Introduction to Criminal Justice 3
Examines the history, development and function of the criminal justice system in America. Will examine the three major components of the system: police, courts and corrections, as well as their interrelationships.

CJ 103 - Traffic Safety and Investigation 3
Introduces traffic control and accident investigation in modern cities; reviews principles of organizing and administering police units for traffic enforcement, accident prevention and safety education; and presents basic techniques of accident investigation, analysis and interpretation.

CJ 104 - Criminal Investigation 3
Course includes theory, methods and procedures of criminal investigation with attention given to its historical origins, the investigator, organization and management of the investigative function; and various investigative methods such as crime scene investigation, techniques of interviewing, collection of evidence, suspect development, and case preparation.

CJ 105 - Criminal Law 3
Examination of criminal, common and statutory law with its application to the criminal justice system. Emphasis will be placed on the classification of crime and criminal behavior including the necessary elements and mental states of criminal acts. Course will also examine criminal acts based on Missouri criminal statutes.

CJ 107 - Criminology 3
Examines the various theories of criminal behavior and crime causation as well as the problems of treatment, corrections and control of crime. Course also looks at patterns of crime, research methods and the response to criminal behavior.

CJ 109 - Juvenile Delinquency 3
Examines the origins, philosophy and objectives of the juvenile justice system in America including the concept of juvenile delinquency and its causes, juvenile case dispositions and juvenile detention procedures. Close attention will be placed on the organization, function and jurisdiction of juvenile justice agencies and the application of the Missouri Juvenile Code.

CJ 111 - Introduction to Corrections 3
Examines the history, development and present components of both institutional and community-based corrections in America.

CJ 115 - Procedural Law 3
Examines the U.S. Constitution, court cases, statutes, and other sources of regulation in the field of criminal procedure. These regulatory documents will be examined and considered as to how they apply to criminal law and the administration of justice. Specific issues to be covered include search and seizure, interrogations and confessions, grand jury investigations, identification procedures, and the right to counsel.

CJ 118 - Criminal Justice Communications 3
Provides direction and guidance for students seeking entry-level careers in law enforcement and corrections with additional examination of written and verbal communications. Provides instruction concerning the reporting of factual information in an accurate and proper format. In addition to reinforcing basic writing tools, course will stress the components of typical police writing formats. Topics such as interviewing and interrogation techniques and courtroom testimony will also be covered.

CJ 122 - Current Events in Criminal Justice 3
Provides an intensive examination of major issues affecting the criminal justice system and their interaction with society and the democratic process. Topics may include capital punishment, terrorism, drug abuse, and serial killers.

CJ 124 - Drugs, Society and Criminal Justice 3
Designed to provide an overview of the relationship between drugs and crime as well as the response of the criminal justice system to illegal drug use. Course includes current U.S. drug abuse trends and patterns; review of the history of drug abuse and legal attempts to control such abuse; exploration of the physiological, psychological and sociological effects of common abused drugs; and a discussion of the connections between drug abuse and crime.

CJ 150 - Criminal Justice Seminar 1
Prerequisite: Consent of program coordinator. Capstone course for the Associate of Applied Science degree in Criminal Justice. This course must be completed during the last semester prior to graduation. Course will focus on preparing the student for employment in the criminal justice field including, but not limited to, résumé and application development, ethics in criminal justice, preparation for hiring processes in law enforcement, career choice, career search skills, and mock interviews. Students will also be required to complete the NOCTI exam as part of the program and this class.

CJ 175 - Supervised Occupational Experience in Criminal Justice 4
Prerequisites: CJ 102 and consent of program coordinator. Provides students with the opportunity to observe and experience the operation of a selected agency within the criminal justice system. Program will require the student to spend a minimum of 160 hours with the agency during the semester as well as the completion of other requirements. Students will be required to correspond with the instructor.

CJ 180 - Problems in Criminal Justice 1 to 3
Prerequisites: CJ 102 and consent of program coordinator. Independent study of a special problem in criminal justice under the direct supervision of a criminal justice instructor.

DENTAL HYGIENE

DH 102 - Dental Radiography 2
Introduction to dental radiology for students enrolled in the Dental Hygiene program. Component parts, functions, operations of the dental x-ray unit, and radiation safety is emphasized. Relationships between anatomical and radiographic landmarks are analyzed.

DH 104 - Dental Radiography Lab 1
Introduction to the radiology laboratory intended for the first year student enrolled in the Dental Hygiene program. Emphasis on dental x-ray techniques, film development and mounting. Radiation safety protection is practiced for all laboratory procedures. All films will be viewed for self-critique and instructor evaluation.

DH 106 - Dental Clinical Emergencies 1
Course presents procedures to properly manage common medical emergencies, as well as emergencies specific to the dental office. Information is also included concerning emergency protocol and medications used in the dental office. Adult, child and infant CPR, choking, and child and adult AED are included. Upon successful completion of this course, the student will receive certification from the American Heart Association for Health Care Provider CPR/AED.

DH 108 - Oral Anatomy and Histology 3
Course is designed to prepare dental hygiene students for the application of detailed knowledge about oral anatomy to planning, implementation, assessment, and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head and neck anatomy and its relationship to tooth development, eruption and health.

DH 111 - Pharmacology 3
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 understanding patient health history and developing a care plan.

DH 113 - 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 basic principles of ethics, conflict management, state dental laws, and legal liabilities of health care professionals. Professional conduct and roles in professional organizations are fostered through knowledge of the code of ethics of the profession and political involvement. The Missouri State Jurisprudence test is the final for this course.

DH 115 - Community Dental Health I 2
Introduction to community dental health problems and disparities that exist in health care. The science of epidemiology, research and writing skills, and biostatistics. An analysis of current dental health issues and initial development of a community dental health program. Evaluation of scientific literature will be developed. (1.5 lecture, 0.5 lab)

DH 117 - Community Dental Health II .5
Emphasis on the steps to developing community dental health programs, including health promotion programs. Local, state and federal departments of public health services, types of fluoridation and school-based dental health programs and screenings will be presented. Evidence-based decision-making will be applied to the dental public health setting.

DH 118 - Principles of Periodontics 2
Biological and clinical aspects of periodontal health and pathology. 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.

DH 120 - Dental Biomaterials with Lab 2
Students will study the chemistry of biomaterials used in the oral cavity and how to discern what products to use when taking impressions, creating study models, polishing resin or alloy filling, and delivering dental sealants. Students will use alginate materials to take an impression and resins to produce a dental sealant. Other activities include personal mouth protection devices; placing a rubber dam; polishing a restoration; mixing cements, dental alloys and impression materials; as well as using periodontal dressing and removing sutures. (1 lecture, 1 lab)

DH 122 - General and Oral Pathology 3
Course introduces the dental hygiene student to the study of disease, general pathology terminology and disorders of the human systems, with a detailed study of pathologic conditions of the oral cavity and surrounding structures. This will include concepts of immunity; infectious diseases and cancer; oral manifestations of systemic diseases; and principles of oral-systemic relationships.

DH 124 - 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. Course will prepare the dental hygiene student to fulfill his or her role in oral health education as it relates to patient home care habits, motivation and dietary effects on the oral cavity.

DH 128 - Local Anesthesia 2
Course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia. Included are content areas in anatomy, physiology, pharmacology, and emergency management. Laboratory sessions provide actual experiences in administration of local anesthetics. (1 lecture, 1 lab)

DH 131 - Introduction to Dental Hygiene Theory 2
Course is designed to acquaint the student with the professional, educational and therapeutic services of a dental hygienist and provide the background, knowledge and skills necessary to function in subsequent dental hygiene courses.

DH 133 - Dental Hygiene Theory I 2
Prerequisites: DH 131 and DH 140 with grades of B or higher. Students will be introduced to the process of scientific literature review and the principles of evidence-based decision making. Concepts of fluoridation, selective coronal polishing, ultrasonic scaling, instrumentation, sharpening, and patient education will be introduced and built upon as the semester progresses.

DH 134 - Dental Hygiene Theory II 1
Prerequisite: DH 141 with a grade of B or higher. Course is designed to introduce more advanced clinical techniques. Principles of ultrasonic scaling, air powder polishing, use of intra-oral cameras, and office management software will be introduced. Management of patients with sensitivity, dental therapeutics and locally applied antimicrobials will also be employed.

DH 135 - Dental Hygiene Theory III 2
Prerequisites: DH 134 and DH 143 with grades of B or higher. This course will focus on the management of patients with special needs including physical, mental, social, and emotional. Additional content will relate to patients with medically compromised conditions affecting care.

DH 136 - Dental Hygiene Theory IV 2
Prerequisites: DH 135 and DH 144 with grades of B or higher. The course will involve analysis of scientific literature and preparation of a table clinic, creation of a website as well as self-directed review of program material and improvement of test-taking skills for enhanced recall of material in preparation for the National Dental Hygiene Board Examination (NDHBE).

DH 140 - Dental Hygiene Pre-Clinic I 4
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 ergonomics, instrumentation, infection control, patient examination, and education are presented in this course.

DH 141 - Dental Hygiene Pre-Clinic II 2
Prerequisites: DH 131 and DH 140 with grades of B or higher. Continuation of dental hygiene clinical practice and instrumentation techniques including periodontal examination, scaling and root planing and sharpening. Adjunctive dental hygiene procedures taught include fluorides and selective coronal polishing. Clinical activities utilize typodonts and student partners. Student's clinical performance will be evaluated.

DH 142 - Dental Hygiene Clinic I 2
Prerequisite: DH 141 with a grade of B or higher. Introduction to clinical dental hygiene practice. Emphasis on assessing, planning, dental hygiene diagnosis, and implementing comprehensive dental hygiene care on patients in a clinical setting. Students apply knowledge, critical thinking and basic clinical skills acquired in previously completed dental hygiene courses.

DH 143 - Dental Hygiene Clinic II 3
Prerequisites: DH 134 and DH 142 with grades of B or higher. Course continues skill development in the provision of dental hygiene care. Students continue clinical skill development by creating care plans that emphasize data assessment, analysis of risk factors and sequencing of care.

DH 144 - Dental Hygiene Clinic III 6
Prerequisites: DH 134 and DH 143 with grades of B or higher. Course continues skill development in the provision of dental hygiene care. Students continue clinical skill development by creating care plans that emphasize data assessment, analysis of risk factors and sequencing of care. Clinical emphasis will be on the treatment of advanced periodontal cases.

DH 145 - Dental Hygiene Clinic IV 6
Prerequisites: DH 135 and DH 144 with grades of B or higher. Dental hygiene skill will be perfected in this course. Students will be encouraged to make clinical decisions based on the evidence present by the individual patient. Clinical emphasis will be on the treatment of advanced periodontal cases. Clinical method of instruction and evaluation is competency-based.

DIAGNOSTIC MEDICAL SONOGRAPHY

DMS 102 - Patient Care and Health Care Communication 2
Entry-level patient care, professionalism and critical thinking skills utilized in the daily responsibilities of an imaging professional are presented in preparation for student clinical rotations. Best practice verbal and nonverbal communication skills within the health care setting are introduced. Students will learn about appropriate communication for health care providers in culturally sensitive and age-specific situations. Electronic communication basics as well as a brief review of fundamental writing skills will also be covered. Students will also complete training to receive American Heart Association CPR for Healthcare Providers certification. Local students must take the CPR course on campus. Nonlocal students have the option of taking the CPR course on campus or finding a local course that is approved by the American Heart Association.

DMS 103 - Cardiac Ultrasound I 3
Introduction to cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and an introduction to pathology.

DMS 105 - Sonography Clinical Education I 5
Prerequisite: DMS 107 with a grade of B or higher. Beginning internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the direct supervision of a registered sonographer. Students will begin obtaining scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 24 hours per week in clinical for a total of 384 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 107 - Ultrasound Scanning Lab I 4
Instructional lab consisting of instructor-guided hands-on scanning sessions in the Diagnostic Medical Sonography lab. Practical basic preparation for student's first clinical education experience. Students admitted as nonlocal will complete these credit hours in a clinical setting and will complete assignments and tests as assigned by the lab instructor. In addition to lab contact hours the student may be assigned to complete 2 to 16 hours in a clinical setting.

DMS 108 - Seminar in Sonography 2
This writing intensive research-based course facilitates a comprehensive overview of sonography as part of the larger health care apparatus. Topics may include, but are not limited to case studies, physician interaction, other imaging modalities, laboratory exams, health care professions, ethical and legal considerations, billing and records, and professional organizations.

DMS 113 - Cardiac Ultrasound II 3
Prerequisite: DMS 103 with a grade of B or higher. Continuation of DMS 103. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

DMS 115 - Sonography Clinical Education II 4
Prerequisite: DMS 105 with a grade of B or higher. Internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 32 hours per week in clinical for a total of 272 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 117 - Ultrasound Scanning Lab II 3
Prerequisite: DMS 107 with a grade of B or higher. Continuation of DMS 107. Instructional lab consisting of instructor-guided hands-on scanning sessions in the Diagnostic Medical Sonography lab. Practical basic preparation for student's continued clinical education experience. Students admitted as nonlocal will complete these credit hours in a clinical setting and will complete assignments and tests as assigned by the lab instructor.

DMS 120 - Sonography Principles and Instrumentation I 3
Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered.

DMS 122 - Sonography Principles and Instrumentation II 3
Prerequisite: DMS 120. Continuation of DMS 120. Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered. This course will include Sonography Principles and Instrumentation (SPI) registry review material and mock exams.

DMS 123 - Cardiac Ultrasound III 3
Prerequisite: DMS 113 with a grade of B or higher. Continuation of DMS 113. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

DMS 125 - Sonography Clinical Education III 5
Prerequisite: DMS 115 with a grade of B or higher. Internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 24 hours per week in clinical for a total of 384 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 130 - General Sonography I 2
Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures, and noncardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 132 - General Sonography II 2
Prerequisite: DMS 130. Continuation of DMS 130. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and non-cardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 133 - Cardiac Ultrasound IV 3
Prerequisite: DMS 123 with a grade of B or higher. Continuation of DMS 123. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology. Will include an introduction to pediatric echo.

DMS 134 - General Sonography III 2
Prerequisite: DMS 132. Continuation of DMS 132. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and noncardiac chest, and is a continuation of DMS 130 and DMS 132. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Abdominal Sonography registry review material and mock exams.

DMS 135 - Sonography Clinical Education IV 5
Prerequisite: DMS 125 with a grade of B or higher. Internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 24 hours per week in clinical for a total of 384 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 140 - OB/GYN Sonography I 2
Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

DMS 142 - OB/GYN Sonography II 2
Prerequisite: DMS 140. Continuation of DMS 140. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

DMS 144 - OB/GYN Sonography III 2
Prerequisite: DMS 142. Continuation of DMS 142. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis and is a continuation of DMS 140 and DMS 142. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented. This course will include OB/GYN registry review material and mock exams.

DMS 150 - Vascular Sonography I 2
Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 152 - Vascular Sonography II 2
Prerequisite: DMS 150. Continuation of DMS 150. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 154 - Vascular Sonography III 2
Prerequisite: DMS 152. Continuation of DMS 152. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems and is a continuation of DMS 150 and DMS 152. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Vascular Sonography registry review material and mock exams.

EARLY CHILDHOOD DEVELOPMENT

ECD 101 - Introduction to Early Childhood 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening. 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.

ECD 103 - Child Growth and Development 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

ECD 107 - Child Nutrition, Health and Safety 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

ECD 109 - Observation and Planning Assessment 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. Course provides the student with opportunity to understand methods of observing children from birth to age 8, how to plan after observation, and make enhancements to curriculum based on assessment.

ECD 111 - 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, talking, writing, and learning.

ECD 115 - Child Social/Emotional Development 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Course is an overview of childhood behavior, interaction and relationships, environments and its effects on social and emotional development. Behavior and guidance concerns of children and problems facing adolescents and adults are addressed.

ECD 117 - Creative Expression and Play 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening. Presents the development of creative expressions in the young child through activities such as music, art and dance, and their incorporation into the daily curriculum. The value of children's play and discovery as learning opportunities will be emphasized.

ECD 121 - Curriculum Strategies for Early Childhood 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101, ECD 107, ECD 109 with grades of C or higher and ENGL 070 with a grade of C or higher or equivalent placement scores. 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 the Constructivist Theory.

ECD 125 - Introduction to Special Individuals 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening. Presents an introduction to characteristics of exceptional individuals and educational history and theories with exceptional individuals, especially children. Study will include effects of disability on adjustment to home, school, community, and on families of young children. Includes an overview of federal and state systems of support for children with special needs.

ECD 127 - 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 and community resources.

ECD 129 - Administration in Early Childhood Care 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101 through ECD 127 with grades of C or higher. Course presents the operation of a child care facility including staff relations, budgeting, ordering, planning, and evaluating center operations. Early childhood care center ethics, funding opportunities, licensing, curriculum, and parent involvement are also incorporated into this course.

ECD 131 - Child Development Portfolio/ Assessment Preparation 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101 and ECD 107 with grades of C or higher, and consent of instructor. Course provides a step-by-step approach of the activities necessary to complete the degree requirements. Course is a review of the functional areas along with an emphasis on the general understanding of the physical, social, emotional, language, and cognitive development of early childhood. The competencies required and the assessment processes are considered important components of this course.

ECD 175 - Child Care Practicum 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101 through ECD 129 with grades of C or higher. Course presents the operation of a child care facility including staff relations, budgeting, ordering, planning, and evaluating center operations. Early childhood care center ethics, funding opportunities, licensing, curriculum, and parent involvement are also incorporated into this course.

EARTH SCIENCE

EASC 101 - Introduction to Earth Sciences with Lab 5
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to earth science that concentrates on understanding the earth's dynamic environments through the scientific study of processes and physical and human interactions related to geology, meteorology and astronomy. Lab topics include introduction to minerals and rocks, plate tectonics, geologic time, maps, earthquakes, weather, and basic astronomy. (4 lecture, 1 lab)

EASC 106 - Physical Geology with Lab 5
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Provides an understanding of the forces that were active in the formation of the Earth, the processes whereby the surface of the Earth is sculptured, the identity of Earth materials, and the location and value of the Earth's resources. Topics include history of geology, plate tectonics, matter and minerals, rocks, volcanoes, weathering and soil, geologic time, earthquakes, plate boundaries, water and energy. Rock and mineral identification is a large part of the lab section of this course. Labs include identification of rocks and minerals, plate tectonics and geologic time. (4 lecture, 1 lab)

EASC 118 - Environmental Geology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Focuses on natural hazards and the human consequences associated with geologic processes. Topics include the study of plate tectonics, earthquakes, volcanoes, floods, tornadoes, storms, wildfires, pollution, climate change, and global warming. Emphasis is placed on how those hazards affect humans and how human activity affects Earth's environment.

EASC 120 - Introduction to Astronomy 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to our present knowledge of the universe. Topics include the solar system, stellar astronomy and the structure of the universe.

EASC 180 - Problems in Earth Science 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in earth science under the supervision of a science instructor.

ECONOMICS

ECON 101 - Principles of Macroeconomics 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Examines the economy as a whole with an emphasis on how scarcity affects a nation. Topics include understanding and measuring economic growth, inflation, unemployment, monetary and fiscal policy, and exchange rates.

ECON 102 - Principles of Microeconomics 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Examines the price system and resource allocation, markets and efficiency, production costs, wage determination, market structures, and the role of government in regulating and supplementing the pricing system.

ECON 180 - Problems in Economics 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in economics under the supervision of an economics instructor.

EDUCATION

EDUC 108 - Introduction to the Field of Education .5
Course is a prerequisite requirement for all potential students seeking an AAT degree in Elementary Education or an AAS in Early Childhood Development. Topics will include professionalism in the field, mandatory background screenings, health requirements, membership in professional organizations, observations and participation in classroom experiences, exit exams, and employment opportunities. The Department of Elementary and Secondary Education standards will be introduced along with state certification and transfer degree options. This is a pass/fail course.

EDUC 110 - Introduction to Physical Education in the Elementary School 2
Prerequisites: EDUC 108 and the successful completion of an approved background screening. Recommended for sophomore physical education majors and elementary education majors. Study of special methods and materials to be used in the teaching of elementary school physical education. Topics include course organization, teaching procedures and opportunities for integrating the physical education program with the school curriculum. Course will fulfill the wellness requirement.

EDUC 147 - Introduction to Teaching Online 2
Prerequisite: Consent of instructor. Introductory course designed to assist faculty in developing courses that are either web-based or web-assisted. Provides instruction for very basic course planning and will focus on topics such as methods, strategies, techniques, trends, and terminology used in instruction in general and online education in particular. Articles will be assigned for reading and discussion, and preliminary documents for teaching online courses will be created. Course is restricted to SFCC faculty.

EDUC 149 - Teaching with LMS Software 2
Prerequisite: Consent of instructor. Introductory course is designed to assist faculty in learning how to use the campus learning management system for facilitating web-based and web-assisted courses. 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. Course is restricted to SFCC faculty.

EDUC 180 - Problems in Teacher Education 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in teacher education under the supervision of the program coordinator.

EDUC 205 - Teaching Profession with Field Experience 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 101 with a grade of C or higher. Course provides an opportunity to observe teaching and learning for 30 hours or more in pre K-12 classrooms. Students are introduced to the requirements for teacher preparation and certification. Students will examine characteristics of effective teaching. Course is designed to assist students in determining if a career in teaching is an appropriate goal.

EDUC 209 - Foundations of Education in a Diverse Society 3
Prerequisite: ENGL 101 with a grade of C or higher. Course examines the historical, philosophical, sociological, political, economic, and legal foundations of the American public education system. Students will explore the nature of school environments, design and organization of school curricula, characteristics of effective schools, and instruction in grades pre K-12. Educational structures, practices and projections for the future will be studied.

EDUC 212 - Educational Technology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Students will learn to integrate instructional technology into the pre K-12 classrooms. Students will study a variety of software programs, presentation technology and telecommunication tools. Focus will also be on social, ethical, legal, and human issues surrounding the use of technology.

EDUC 218 - Children's Literature 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. Intensive introduction to various genres of literature for children and ways of presenting literature in preschool, elementary or middle school.

EDUC 220 - Educational Psychology 3
Prerequisite: PSY 101 or PSY 102 with a grade of C or higher. Course is designed to help students relate the application of psychological principles to teaching, learning and assessment, and the educational practice in pre K-12 classrooms. It will focus on the learner and the learning process, teacher characteristics and classroom processes that increase student motivation. Student diversity and appropriate instructional strategies for students with special needs will also be introduced. Writing papers in APA format is required.

EDUC 228 - Education of Exceptional Learners Pre K-12 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. Survey course is an introduction to the exceptional learners and their education in grades pre K-12. Students will attain knowledge, skills and dispositions that will enable them to work effectively with exceptional learners in general education or special education. Course will cover the adaptations of daily activities in inclusive classrooms.

EDUC 240 - Multicultural Education 3
Prerequisite: ENGL 101 with a grade of C or higher. Historical and contemporary analysis of educational policies incorporating ethnic, religious and linguistic minorities. The teacher candidate will gain awareness of diversity and develop a theoretical understanding through investigations of diversity within the local community by using selected presentations, text readings and survey of a professional and classroom action plan.

EDUC 250 - Paraprofessional Educator Practicum 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening, ENGL 101 with a grade of C or higher and consent of program coordinator. Students will actively participate, under supervision, in a paraprofessional setting for a total of 60 hours. Students will be responsible for implementation of duties assigned by the internship supervisor.

ENGINEERING DESIGN TECHNOLOGY

EDT 105 - Print Reading for Construction 3
Course introduces the concepts of sketching, technical drawing, measurement, scale, format, and how they are applied to reading drawings in mechanical, architectural, civil, structural, and electrical fields. The relationship between the intent of the drawings, trade practices, American Society of Mechanical Engineers (ASME) standards, and the ability to extract and utilize information found on various kinds of drawings will be emphasized.

EDT 111 - Introduction to Engineering Design 3
Course will involve the production of 2D technical drawings that meet industry standards using software. Emphasis will be placed on precision, accuracy and productivity. The use of symbols, line types, line weights, orthographic projection, multi-view placement, text format, dimensions, section views, auxiliary views, isometric views, plotting accuracy, and a variety of design fields will be reviewed.

EDT 115 - Advanced Engineering Design 3
Prerequisite: EDT 111 with a grade of C or higher. Course presents topics required for creating accurate two- and three-dimensional geometry. Study will include development of dimension styles, use of annotative objects and management of external references, blocks, attributes, and other advanced aspects of the software to maximize productivity.

EDT 120 - Architectural Design 3
Course offers the fundamentals of architectural design as it relates to light wood construction consistent with, but not limited to, residential construction. This course introduces building elements, Building Information Modeling (BIM) techniques, building code requirements, and professional and regional influences.

EDT 125 - Architectural Applications 3
Prerequisite: EDT 120 with a grade of C or higher. Course will introduce students to architectural software widely used in the commercial field to produce architectural models and working drawings. Building Information Management (BIM), design development, construction documentation, and planning techniques relating to the software will be emphasized.

EDT 130 - Manufacturing Design I 3
Course will introduce students to the fundamentals of Solid Modeling software to produce parametric models, assemblies, presentations, and drawings for the manufacturing industry. Topics will include sketches, reference planes, relations, part modeling techniques, constraints, mates, evaluation tools, redesign, and presentation techniques.

EDT 132 - Manufacturing Design II 3
Prerequisite: EDT 130 with a grade of C or higher. Advanced course presents different 3D and parametric solid modeling applications using Solid Modeling software. Studies include the development and generation of advanced 2D and 3D sketches, solid models, assemblies, presentations, and creating complex and detailed drawings, analyzing and testing solid models, and developing physical models with rapid prototyping equipment. Each student will complete an individual design project involving a mechanical assembly with appropriate documentation.

EDT 134 - Computer Aided Manufacturing 3
Prerequisite: EDT 130 with a grade of C or higher. Course presents principles of computer aided manufacturing (CAM) and computer numerically controlled (CNC) machining, including lathes and mills utilizing CAM and other software. Students will design 3D parts, generate CAM code, tool paths, and graphically verify tool paths. Students will develop physical models with rapid prototyping and CNC equipment.

EDT 155 - 3D Visualization 3
Course presents 3D modeling using a variety of currently utilized modeling software. Students will produce multiple projects using selected ACIS and parametric modeling software applying rendering and animation software to produce presentations of the models created.

EDT 175 - EDT Internship 4
Prerequisites: EDT 115 with a grade of C or higher and consent of program coordinator. Course offers a cooperative work experience within an industry setting for Engineering Design Technology students. Students work under the supervision of an approved professional or specialist in the engineering design field. The instructor is a coordinator between the student and the employer and monitors the internship. A minimum of 160 work (clock) hours on the job site is required for successful completion of the course. Students will submit progress reports and a final report documenting the work experience.

EDT 180 - Problems in EDT 3
Prerequisites: EDT 115 with a grade of C or higher and consent of program coordinator. Course includes the study of special problems and/or projects in Engineering Design Technology. The student works with industry and/or the instructor to solve a specific problem and/or complete project.

EDT 190 - EDT Capstone 3
Prerequisites: EDT 115 with a grade of C or higher and consent of program coordinator. Student will complete a complex independent study project in an architectural, civil, mechanical, or another engineering design-related field with instructor input and guidance. The capstone course will promote critical thinking skills and technical resourcefulness while allowing students to broaden and show mastery of their engineering design skills.

ENGLISH

ENGL 005 - Intensive English for Non-Native Speakers 3
Course is for students whose primary language is not English. 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.

ENGL 060 - Foundations of English I 3
Prerequisite: Equivalent placement scores. Course is designed to develop students' critical reading and writing skills. Students will learn how to independently read and understand academic texts and respond to the ideas presented in those texts through well-written paragraphs. Successful completion requires a 70 percent in the course. Does not apply toward a degree or certificate.

ENGL 070 - Foundations of English II 3
Prerequisite: ENGL 060 with a grade of C or higher or equivalent placement scores. Corequisite: ENGL 101. Course focuses on applying critical reading and writing skills for organizing, analyzing and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. Students will learn how to independently read and understand academic texts and critically respond to the ideas presented in those texts via well-organized essays. Successful completion requires a 70 percent in the course. Does not apply toward a degree or certificate.

ENGL 090 - Introduction to English Composition 1
This one-hour course is designed as a review for students with borderline reading and writing scores, preparing them to retest in order to improve their scores. The course covers active reading, common errors in writing and a source-based paper. This is a pass/fail course. Does not apply toward a degree or certificate.

ENGL 101 - English Composition I 3
Prerequisite: ENGL 070 as a corequisite or with a grade of C or higher or equivalent placement scores. Emphasizes planning, drafting and revising along with critical thinking and information management skills and their role in communicating concise written ideas to a range of audiences for a variety of purposes. Basic computer skills are essential for successful completion.

ENGL 102 - English Composition II 3
Prerequisite: ENGL 101 with a grade of C or higher. Combines the process writing techniques acquired in ENGL 101 with higher-order reasoning and advanced research skills to communicate ideas in meaningful and effective writing. Basic computer skills are essential for successful completion.

ENGL 106 - Creative Writing 3
Study and practice in the techniques of writing poetry, fiction, nonfiction and/or drama. Emphasis is placed on the recognition of those techniques in published works and their utilization in original work. Peer evaluation and individual conferences with the instructor are employed.

ENGL 110 - Business Communications 3
Prerequisites: CAPP 125 and ENGL 070 with a grade of C or higher or equivalent placement scores. In-depth study of effective communication techniques and demeanor as applied in business situations. Topics may include the communication process, various business letters, oral presentations, and international communication.

ENGL 112 - Technical Writing 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Explores the theory and practice of workplace writing, emphasizing both practical and individual and collaborative decision making. Includes practice in writing instructions, proposals and reports.

ENGL 130 - Scriptwriting 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Course explores the fundamental process of writing short scripts for film, theatre and television. Students will learn to develop plot, style, characters, dialogue, setting, mood, and formatting as they draft and revise 10 to15-minute scripts for reading in class and potential production. Course includes lecture, group work and presentations.

ENGL 180 - Problems in Writing 1 to 3
Prerequisites: ENGL 101 with a grade of C or higher and consent of instructor. 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.

FRENCH

FREN 101 - Elementary French I 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the French culture.

FREN 102 - Elementary French II 3
Prerequisite: FREN 101 with a grade of C or higher. Continuation of FREN 101 for further development of the four basic skills of language communication: listening, speaking, reading, and writing. Continues study of French culture.

FREN 201 - Intermediate French I 3
Prerequisite: FREN 102 with a grade of C or higher. Course continues the study of French language and culture with a focus on communication and proficiency.

FREN 202 - Intermediate French II 3
Prerequisite: FREN 201 with a grade of C or higher. Course continues the study of French language and culture with a focus on communication and proficiency.

FREN 210 - Special Topics in French 1 to 3
Prerequisites: FREN 101, FREN 102, FREN 201, and FREN 202 with grades of C or higher. Independent study under the supervision of a French instructor.

GEOGRAPHY

GEOG 101 - World Geography 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. This introductory geography course surveys the processes of the earth's formation, climates and biomes, human culture and institutions, global environmental issues, and interactions within the global village. Designed for prospective elementary and social studies teachers, as well as general education students.

HEALTH

HLTH 101 - Personal Health and Fitness 2
Presents a basic knowledge of physical fitness and personal fitness; the human body, personal hygiene, food and nutrition, diet and weight control, and mental health; alcohol, narcotics and drug abuse education; and protection against communicable diseases and other health hazards. Course will fulfill the wellness requirement.

HLTH 102 - First Aid 2
Prepares the student to make appropriate decisions regarding first aid care in minor or life-threatening situations. Course focuses on basic first aid techniques and when to call emergency medical services. cardiopulmonary resuscitation (CPR) and relief of airway obstruction of the adult, child and infant, as well as use of the automated external defibrillator (AED) for the adult and child, are included in the course. American Red Cross certification cards are given for First Aid and CPR upon completion of the course.

HEALTH INFORMATION TECHNOLOGY

HIT 100 - Introduction to Health Information Technology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the health care field and health information management. The health record is analyzed for content and use as it relates to documentation requirements, health care personnel responsibility, security, and organizational structure. Addresses the current and future direction of health information management.

HIT 105 - Health Care Technologies 3
Prerequisite: CAPP 125 with a grade of C or higher. Covers the health record and information systems, indexes, registries, and computer-based patient record.

HIT 110 - Pharmacology and Diagnostic Procedures 3
Prerequisites: HEOC 120 and HEOC 122 with grades of C or higher. A basic knowledge and understanding of clinical and diagnostic laboratory tests as performed in the acute care setting and the basics of pharmacology. Students will identify the classifications, uses and actions of the most commonly prescribed drugs for affecting each body system.

HIT 115 - Health Care and the Law 3
Prerequisite: HIT 100 with a grade of C or higher. Course covers medical records as legal documents focusing on procedures involved in court disclosure of medical records; laws pertaining to release of information from medical records; and medical record requirements for accrediting, approving, licensing, and certifying agencies. Covers laws and regulations governing preparation and use of medical records, responsibilities of physician, risk of malpractice, and physician's role in the hospital.

HIT 200 - Health Care Statistics and Quality Management 3
Prerequisites: CAPP 125 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement score. Course covers the practical applications of health information management concepts as they apply to health care data collection, calculating inpatient hospital statistics, analyzing statistical outcomes, comparing and benchmarking facility data to national statistics, and other providers of service. Students will also demonstrate management skills in presenting data making recommendations based on statistical outcomes.

HIT 204 - Coding I 3
Prerequisites: BIO 103, HEOC 120, HEOC 122, and HIT 224 with grades of C or higher. Overview of the (International Classification of Diseases, 10th Division, Clinical Modification) ICD-10-CM code book with basic coding assignment/ guidelines instructions and the basic reimbursement methodologies, specifically diagnosis related groups (DRGs). Initial preparation for CCA Exam - AHIMA.

HIT 206 - Coding II 3
Prerequisite: HIT 204 with a grade of C or higher. Continuation of HIT 204 with the overview of the (International Classification of Diseases, 10th Division, Procedure Coding System) ICD-10-PCS code book with basic coding assignment / guidelines instructions and the basic reimbursement methodologies, specifically diagnosis related groups (DRGs). Intense simulation of actual coding practices on all major body systems. Continuation of preparation for CCA Exam - AHIMA.

HIT 208 - Coding III 3
Prerequisites: HIT 206 and HIT 224 with grades of C or higher. 12 week course - Continuation of HIT 204 and HIT 206 corresponding with the overview of the CPT code book and the outpatient coding guidelines, reimbursement with major emphasis on current procedural terminology (CPT) coding. The focus is on all health information management domains. Student will study for and complete the CCA exam through AHIMA; upon passing, student will be eligible for CCA credential.

HIT 215 - Principles of Health Care Reimbursement 3
Prerequisites: ENGL 070 and HIT 206 with grades of C or higher or equivalent placement scores. Course provides an understanding of the various payment systems and how reimbursement affects providers, payers, consumers, and policy makers. Explanation will be given of the managed care, commercial insurance, and government-sponsored payment systems. The student will compare and contrast systems and how to use related resources for accurate reimbursement.

HIT 220 - Health Information Management 3
Prerequisites: BSMT 108 and HIT 100 with grades of C or higher. Course covers concepts of management as it applies to the health information management profession. Course will introduce management policies as they relate to the delivery of health care; accounting methodologies, policies and practices that support an ethical and culturally diverse workforce; managing and leading during organizational change; and process improvement.

HIT 224 - Human Disease and Conditions 3
Prerequisites: BIO 103 and HEOC 120 with grades of C or higher. Introduction to the nature of disease and its effects on body systems. Course deals with the disease processes of the more common clinical disorders. Signs, symptoms, diagnosis, treatment, and preventions are covered. Students will identify most commonly used laboratory and diagnostic tests, as well as prescribed drugs used in the treatment of diseases.

HIT 275 - Professional Practice Experience 3
Prerequisite: Consent of program coordinator. Field-based professional practice experience in a hospital, physician's office, clinic, or other health care setting with directed projects common to a health information technologist on the job. Students will be assigned specific professional practice projects to be completed at the site and will participate in management and administrative activities. This is an unpaid work experience requiring 80 to 120 hours of participation.

HEALTH OCCUPATIONS

HEOC 120 - Medical Terminology I 3
Acquire a medical terminology vocabulary related to body systems necessary to communicate information in a medical office or hospital environment. Focuses on the principles of medical word formation, including the basic rules of building medical words, identifying suffixes, prefixes, and combining forms related to the structure and function of the associated systems of the body (musculoskeletal, cardiovascular, respiratory, gastrointestinal, urinary, and male reproductive). Concentration is on pronunciation, spelling and definitions of medical terms.

HEOC 122 - Medical Terminology II 3
Prerequisite: HEOC 120 with a grade of C or higher. Continuation of HEOC 120. Focuses on identifying suffixes, prefixes, and combining forms related to the structure and function of the associated systems of the body (integumentary, nervous, sensory, endocrine, blood, lymphatic, and female reproductive).

HEOC 135 - Allied Health Career Development .5
Focuses on developing health care career potential. The job search process is presented step-by-step. Guest speakers, group activities and mock interviews will be utilized, and résumés will be constructed. Internet sites to assist in résumé writing and job searches will be explored.

HEOC 140 - Technology and Health Care 3
Provides an introduction to information technology, including hardware, software, telecommunications, medical informatics, administrative applications, and telemedicine in different care delivery areas. Addresses computer-assisted instruction, online health information, and security and privacy issues. 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.

HEOC 146 - Phlebotomy 6
Prerequisite: Consent of program coordinator. Course is designed to provide students with knowledge, skills and techniques necessary to perform as a phlebotomist in the clinical setting. Students will learn various procedures and laboratory techniques in handling human blood. Students must satisfactorily perform in a laboratory setting as well as pass written tests.

HEOC 152 - Certified Nurse Assistant 6
Prerequisite: Consent of program coordinator. Corequisite: HEOC 155. Certified Nurse Assistant training prepares individuals for employment in a long-term care facility while teaching skills in resident care under the direct supervision of a licensed nurse. CNA and CNA Clinical will meet state requirements for CNA training. Additional state mandated requirements may be required to be employed as a CNA in a long-term care facility. Note: If a student passes HEOC 152 but does not pass HEOC 155, the student will have one additional semester to retake HEOC 155 from a regularly scheduled State Fair Community College course. Any retake of HEOC 155 after one semester will require that HEOC 152 be retaken.

HEOC 155 - Certified Nurse Assistant Clinical 2
Prerequisite: Consent of program coordinator. Corequisite: HEOC 152. Clinical provides 100 hours of on-the-job training with state-approved clinical supervisors in a long-term care facility. At the conclusion of the clinical sessions, a two-part, state-approved final examination must be passed. The two-part final examination includes a written or oral assessment and a practicum examination. This is a pass/fail course.

HEOC 158 - Certified Medication Technician 4
Prerequisites: Consent of program coordinator and an active listing on the Missouri CNA Registry. Corequisite: HEOC 160. This Certified Medication Technician training program prepares individuals for employment in a long-term care facility. Skills are taught in administration of nonparenteral medications to assist licensed practical nurses (LPNs) or registered nurses (RNs) in medication therapy. Training consists of at least 60 hours of classroom instruction. Upon successful completion of both this course and HEOC 160, the student will be eligible to take the final exam to become a certified medication technician through the Missouri Department of Health and Senior Services.

HEOC 160 - Certified Medication Technician Clinical 1
Prerequisite: Consent of program coordinator. Corequisite: HEOC 158. Training includes at least 15 hours of clinical practice under direct supervision. The student will participate in administering nonparenteral medications in a long-term care facility. This is a pass/fail course.

HEOC 162 - Home Health Aide 2
Prerequisite: Consent of program coordinator. The Home Health Aide training program provides the student with basic care skills for families with unique health needs in the patient's home. The student will learn the goals of maintaining basic human needs, home management, nutrition, meal planning, adapting basic care activities, observing client's medication, and special needs, as well as special procedures in emergency care.

HEOC 164 - Restorative Nurse Assistant 2
Prerequisite: Consent of program coordinator. Corequisite: HEOC 166. The Restorative Nurse Assistant training program is designed to train aides to fulfill requirements for efficient rehabilitative care of residents in nursing homes. The student will have the opportunity to learn the rehabilitative philosophy, work with departmental organizations, understand the role of the physical therapist, and learn the proper techniques of body mechanics, transfers and ambulation.

HEOC 166 - Restorative Nurse Assistant Clinical 1
Prerequisite: Consent of program coordinator. Corequisite: HEOC 164. The training includes clinical practice under direct supervision. The student will participate in working with the physical therapist in a long-term care facility. This is a pass/fail course.

HEOC 168 - Social Services Director/ Activity Director 5
The Social Services Director/Activity Director training program provides an introduction to the long-term care setting and the various methods of providing recreation and social services in this setting. It includes information that provides understanding of the regulatory process and the quality assurance system in this setting. It will include study of human aging, an overview of social work practice, an introduction to recreation service provisions, and federal and state regulations. At the end of the training, the successful student will be qualified to hold a position as an activity director or social services director in a long-term care facility.

HEOC 170 - Level I Medication Aide 1
Prerequisite: Consent of program coordinator. The Level I Medication Aide training program prepares individuals for employment as a level I medication aide in residential care facilities and assisted living facilities. The program is designed to teach skills in medication administration of nonparenteral medications in order to qualify students to perform this procedure only in residential care facilities and assisted living facilities in Missouri. The curriculum content is a minimum of 16 hours, which includes procedures and instruction in basic human needs and relationships; drug classifications and their implications; assessing drug reactions; techniques of drug administration; medication storage and control; drug reference resources; and infection control.

HEOC 172 - Insulin Administration .5
Prerequisite: Consent of program coordinator and current Missouri Certified Medical Technician (CMT) or Level I Medication Aide (LIMA) Certificate. The Insulin Administration training program prepares medication technicians in a skilled or intermediate care facility or medication aides in a residential care facility or assisted living facility to administer insulin. The program is designed to present information on diabetes as it relates to symptoms and implications of proper or improper treatment and to teach skills in insulin administration in order to qualify students to perform this procedure in long-term care facilities in Missouri. The curriculum content includes procedures and instruction in diabetes and its treatment and complications; types of insulin; techniques of insulin administration; and methods of monitoring blood sugar levels.

HEOC 180 - Problems in Health Occupations 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in health care under the supervision of a Health Sciences instructor.

HISTORY

HIST 101 - US History Before 1877 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

HIST 102 - US History Since 1877 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

HIST 108 - World Civilization Before 1500 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey of the political, social, military, cultural, and religious history of Europe, Asia, and Africa from early human societies to 1500.

HIST 109 - World Civilization After 1500 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey of the political, social, military, cultural, economic, and ideological history of Europe, Asia, the Americas, and Africa from 1500 to the end of the Cold War.

HIST 180 - Problems in History 1 to 3
Prerequisites: ENGL 070 with a grade of C or higher or equivalent placement scores and consent of instructor. Independent study of a special problem in history under the supervision of the lead history instructor.

INDUSTRIAL TECHNOLOGY

INDT 140 - Mechanical and Fluid Power Principles 3
Course includes industrial technology principles and applications involving tools, hardware, mechanical advantage, bearings, belt and gear drives, lubrication, alignment, vibration, as well as fluid power systems, pressure, flow and directional controls, actuators, conduits, pumps, fluid conditioning, and a minor emphasis on maintenance/troubleshooting.

INDT 142 - Principles of Electricity 3
Course includes industrial technology principles and applications involving electrical topics of direct current, alternating current and electrical quantities and values. Topics also include Ohm's Law, electric generation, energy conversion, magnetism, electromagnetism, as well as series, parallel and combination circuits, inductance, capacitance, reactance, power factor, the application of electrical power in industry, single and poly-phase transformers, and wye and delta systems.

INDT 144 - Machine Controls 3
Course includes industrial technology principles and applications involving the devices and components of industrial automation; relays, sensors and switches; fluid power components, motor starters and drives; combination of technologies in the systems of manufacturing and industrial processes; and an introduction to line diagrams of control circuits and troubleshooting.

INDT 146 - PLC Automation 3
Course includes industrial technology principles and applications involving Rockwell Automation/Allen-Bradley hardware and software. Configuration of hardware and communications, number systems, logic circuits, and basic programming and functions such as one shot, latch, timers, counters, and data manipulation will be covered. Emphasis is on ability to visually assess the status of inputs and outputs, verify electrical signals and comprehend basic PLC operations and functions.

INDUSTRIAL ELECTRICAL MAINTENANCE

IEM 102 - Electric Fundamentals 3
Introduction to electrical theory. Topics include direct current, alternating current, electrical quantities and values, Ohm's Law, electric generation, energy conversion, magnetism, electromagnetism, series, parallel, and combination circuits.

IEM 104 - Electrical Power 3
Prerequisite: IEM 102 with a grade of C or higher. Continuation of electrical studies in alternating current (AC), inductance, capacitance, reactance, power factor, and the application of electrical power in industry, single and poly-phase transformers, and wye and delta systems.

IEM 106 - Industrial Mechanics 3
Course includes principles and applications of industrial mechanics, including tools, hardware, installation and maintenance of bearings, gear systems, belt drives, mechanical drives, principles of lubrication, vibration, and alignment.

IEM 107 - Introduction to Robotics 3
Prerequisite: Consent of program coordinator. Course is designed for someone who has no experience with robotics and has little to no experience with electronics, electricity and motors. Course breaks down the physical components that make up a robot, terminology and mathematical equations for basic design needs. The course will cover safety, understanding a robot's operational umbrella, tooling designs and applications, end of arm tooling (EOAT), power transmission systems, and basics of programming, troubleshooting and maintenance. Course will provide hands-on exposure using an industrial robot(s).

IEM 108 - Fluid Power Technology 3
Course covers principles and applications of fluid power technology in industrial systems including operating, troubleshooting and maintaining hydraulic and pneumatic pressure; flow, directional control, and electrical devices; conduits, pumps, compressors, actuators, and ancillary devices; and conditioning and filtration of fluids. Critical thinking and analytical skills are emphasized.

IEM 110 - Digital Principles and Applications 3
Prerequisite: IEM 102 with grade of C or higher. Study of decimal, binary and hexadecimal numbering systems; Boolean algebra, basic logic and truth tables; digital/discrete logic circuits; flip-flops, timers counters; and registers.

IEM 112 - Control Circuit Troubleshooting 3
Prerequisite: IEM 104 with a grade of C or higher. Introduction to the devices and components of industrial automation, sensors, switches, fluid power components, and combination of technologies in manufacturing systems and industrial processes. Primary emphasis on interpreting line diagrams and troubleshooting control circuits.

IEM 114 - Motor Controls 3
Prerequisite: IEM 112 with a grade of C or higher. Course is designed to teach students how to construct, troubleshoot and isolate malfunctions in various types of control circuits and motor starters and understand application and installation of control devices and basic principles, operation, components, and application of AC drives.

IEM 116 - Solid State Devices 3
Prerequisite: IEM 104 with a grade of C or higher. Comprehensive overview of solid state devices and their basic principles and applications; the composition and operating characteristics of diodes, transistors, SCRs, DIACs, TRIACs, and solid state transducers; and the application of solid state devices in rectification of alternating current (AC) into direct current (DC), power supply filters, voltage regulation, industrial relays, sensors, and alarm systems.

IEM 118 - Analog/Digital 3
Prerequisite: IEM 116. Covers the basic principles involving the use of analog integrated operational amplifiers in signal generation applications; integrated A/D, D/A converters and their applications; shift registers and their applications; and control and timing circuits and their applications.

IEM 122 - Introduction to PLCs 3
Prerequisite: IEM 114 with a grade of C or higher. Introduction to hardware and software of programmable logic controllers (PLCs). Course is designed to instruct students in the operating system of PLCs, configuration of hardware and communications, number systems, logic circuits, and basic programming. The ability to perform basic computer operations is necessary.

IEM 124 - Intermediate PLCs 3
Prerequisite: IEM 122 with a grade of C or higher. Study of the interface between machine and controller, advanced programming functions and troubleshooting. Emphasis is on developing programs and interfacing with industrial type devices.

IEM 126 - Industrial Safety 3
Comprehensive study of requirements and programs of 29 Code of Federal Regulations (CFR) 1910. Application of safe work practices to industrial maintenance and manufacturing, including machine guarding, confined space, lockout/tagout, hazardous communication, electrical and fire safety, personal protective equipment, and more. Additional topics selected based on student interest and industry emphasis.

IEM 128 - Maintenance Management 3
Study of contemporary maintenance management practices, statistical applications, total productive maintenance, reliability-based procedures, predictive (PDM) and preventive (PM) maintenance, coordinate measuring machine (CMM) systems, nondestructive testing, and project management.

IEM 130 - Principles of Refrigeration 3
Study of the principles of refrigeration, refrigerants, components, types of systems, operation, electrical controls, troubleshooting, servicing, and maintenance. Critical thinking and analytical skills are emphasized.

IEM 132 - Advanced PLCs 3
Prerequisite: IEM 124 with a grade of C or higher. Study of the hardware that is programmed with RSLogix 5000. Course is designed for students who already understand RSLogix 500 and are ready to advance to Tag-based programming.

IEM 134 - PLC Networks 3
Prerequisite: IEM 132 with a grade of C or higher. Course will cover the installation, operation, inspection, and maintenance of industrial communication networks using serial RS232, Ethernet and data bus. Examines various interface devices used in communication and integration of these devices with computers, PLCs and web-enabled technology.

IEM 136 - General NEC Requirements 3
Prerequisite: IEM 104 with a grade of C or higher. Students learn to understand and apply the code to general industrial applications, wiring and protection, wiring methods and materials, and general equipment. Based on the general requirements of the National Electrical Code (NEC).

IEM 138 - Power Distribution and Switchgear 3
Prerequisite: IEM 136. Course will cover the installation, operation, inspection, and maintenance of industrial electrical power systems and motor control centers; voltage, current and instrument transformers; feeder circuits and busways; switches and circuit breakers; protective devices; regulating devices; and neutral and grounding systems using the National Electric Code (NEC) as a reference.

IEM 140 - Transformers and Motors 3
Prerequisite: IEM 104 with a grade of C or higher. Course examines the principles, construction, types, and applications of transformers and motors, including DC generators and motors, alternators and AC motors. Transformers and AC motors applications include single-phase and poly-phase, wye and delta.

IEM 146 - Quality Management and Control 3
Study of quality management principles and quality control procedures. Students will study quality management from a historical perspective as well as current quality management techniques. Production quality control methods such as sampling, inspecting and testing used to insure accuracy and high standards in production quality will be studied.

IEM 148 - Inventory and Production Control 3
Study of production planning, scheduling, follow-up, and control of raw material, parts and finished goods inventories.

IEM 150 - Applications in IEM Problem Solving 1 to 4
Designed to allow a company to utilize an instructor to facilitate an actual problem or improvement project with a group of students or company employees and for individualized special instruction by the instructor.

IEM 175 - IEM Internship 4 to 8
Prerequisites: Completion of 30 technical credit hours and consent of program coordinator. Application of work skills in a supervised work environment. Companies that sponsor internships provide the supervision. The college provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. Course is designed to provide the student an opportunity to demonstrate work skills, work ethics and the ability to work with others. In addition to completing the training plan, the student must submit four to eight written technical reports.

IEM 200 - Technology Integration 3
Prerequisite: IEM 124 with a grade of C or higher. Course will evaluate a student's skill and ability to design, develop and troubleshoot a simulated manufacturing production system. Students will build a working production system in a simulated workplace environment stressing teamwork and troubleshooting skills. The goal is to prepare a student for entry into the workforce as an IEM technician.

LITERATURE

LIT 101 - Introduction to Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

LIT 107 - American Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

LIT 109 – British Literature
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Study of major English authors, genres and works from Beowulf to the present, emphasizing the development of concepts that have shaped English life and literature.

LIT 112 - World Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Students will examine selected works of various Asian, African and European literature in translation from the ancient world to the 20th century.

LIT 114 - Topics in Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Study of a major writer, a literary type or a theme in literature. Specific subjects are announced each semester in which the course is offered.

LIT 180 - Problems in Literature 1 to 3
Prerequisites: LIT 101 and consent of instructor. Independent study of a special problem in literature under the supervision of an instructor in the department.

MACHINE TOOL

MACH 101 - Introduction to Machining 4
Introduction to measuring tools used for work in machining or inspection processes. Introduces the proper setup and use of drilling machines, band saws and lathes. Theories will include use of tools and tool holders, cutting tool applications and facing and turning on the lathe. Areas of study include safety, blueprint interpretation, hand tools, layout, and various gages and precision measuring instruments used to complete and inspect a machined part. (1 lecture, 3 lab)

MACH 102 - Lathe and Milling Machine Operations 4
Prerequisite: MACH 101 with a grade of C or higher. Continuation in the application of lathe operations including inner and outer (ID/OD) diameter turning, threading, boring, and tapering. Introduces the proper use and setup of the vertical milling machine. Applications include squaring the machine and indicating angle pieces. Areas of study include safety, blueprint interpretation and the selection of cutters, feeds and speeds. (1 lecture, 3 lab)

MACH 103 - Milling and Grinding Machine Applications 4
Prerequisite: MACH 102 with a grade of C or higher. Continuation of milling machine operations including dividing heads, precise movement of machines, turntable operations, and keyways. Introduces surface grinders, including wheel selections, truing and dressing, work holders, and solutions in surface grinding. Areas of study include safety, blueprint interpretation and proper setup and use of milling and grinding attachments. (1 lecture, 3 lab)

MACH 104 - Advanced Machining 4
Prerequisite: MACH 103 with a grade of C or higher. Introduces the use of the sine bar and sine plates on milling machines and surface grinders. Course presents advanced applications of lathes, mills and surface grinders. Advanced projects will be timed. Areas of study include estimation of project time and bidding process, quality control and International Standards Organization (ISO). (1 lecture, 3 lab)

MACH 106 - CNC Machining 3
Provides fundamental technical information and some practical experience necessary for programming, editing and operating computer numerically controlled (CNC) machine tools. Applications will include CNC mill and CNC lathe using manual data input (MDI) techniques. (1 lecture, 2 lab)

MACH 109 - Advanced CNC Machining 3
Prerequisite: MACH 106 with a grade of C or higher. Provides technical information and considerable practical experience in preparation, setup and operation of CNC machining center and CNC lathe. Proofing, editing and post processing of programs will be emphasized using computer aided manufacturing (CAM) software. Tooling and tool path generation methods will be explained along with fixed and canned cycles. (1 lecture, 2 lab)

MACH 112 - Machine Tool Equipment Repair 4
Prerequisite: MACH 106 with a grade of C or higher. Designed to teach correct procedures for repair and maintenance of machine tools. Study includes safety, repair and replacement of worn parts and diagnosis and repair of hydraulics and pneumatics and electrical components. (1 lecture, 3 lab)

MACH 113 - Print Reading for Machinists 3
Study of symbols, industry standards, measurement systems, terminology, prints, and diagrams associated with work performed by professional welders and machinists, including the interpretation of tool and die, machine prints, welding symbols and prints, and related technologies.

MACH 114 - Quality and Precision Measurement 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, to help eliminate costly repairs and scrap.

MACH 115 - Heat Treating and Metallurgy 3
Knowledge of heat treatable steel and alloys will be presented in this course. Study of the operation of heat treating and drawing furnaces, quenching mediums, color spectrum, and hardness testing is included. Students will become familiar with the process involved in making iron and steel, noncarbon diagrams and identification of ferrous and nonferrous metals.

MACH 175 - Machine Tool Internship 1 to 8
Prerequisite: Consent of program coordinator. Provides opportunity to work with a skilled machinist to better understand skills and knowledge needed and to determine how the student likes actual machine tool work.

MACH 180 - Problems in Machine Tool 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in machine tool technology under the supervision of a machine tool instructor.

MARINE TECHNOLOGY

MRN 101 - Marine Systems Rigging I 6
Course provides a foundation of information and skills for a marine career. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 105 - Marine Ignition Systems 3
Outboard, inboard, inboard/outboard, and personal watercraft ignition systems are explored in this course. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 107 - Marine Starter and Charging Systems 2
Course follows the progression of starter and charging systems in the outboard, inboard/outboard and the personal watercraft. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 109 - Marine Cooling Systems 2
Course covers the systems used in the cooling process. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 111 - Marine Lubrication Systems 2
Course begins with the manual mixing of oil and fuel to provide lubrication and progresses into the different automatic oiling systems. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 113 - Marine Engine Component and Precision Measuring 3
Course provides the student with the skills to determine if an engine component is reusable. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 115 - Marine Shop Procedures and Business Operations 2
Properly completing a repair order, providing proper communication with the customer, keeping track of the unit(s) brought in for service, recording the diagnosis and repair process, and the date promised for repair completion. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 117 - Marine Engine Systems Analysis 2
Course covers proper break-in procedure. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 119 - Marine Systems Preventive Maintenance 4
Course covers maintenance items the student must be responsible to complete. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 121 - Marine Power Transfer Systems 4
Transom plate and adapter systems, couplers, upper gear case, driveshaft housing, jet pumps, gear housings, strut bearings, and surface-piercing drive systems are part of the course. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 123 - Marine Systems Troubleshooting 3
Course covers correct troubleshooting techniques. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 125 - Marine Fuel Systems 4
Course will cover the complexities of marine fuel systems and automatic oiling systems. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 127 - Marine Instrumentation Systems 2
Course promotes understanding the different manufacturer systems and sending units. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 129 - Marine Power Trim/Tilt Systems 2
Course will enable students to understand how hydraulic pumps can manage the pressure in a hydraulic system. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 175 - Marine Technology Internship 4
The internship consists of approximately 160 clock hours at an approved marine facility. Course is offered through an agreement with the Lake Career and Technical Center.

MATHEMATICS

MATH 061 - Pre-Algebra 3
Prerequisite: Equivalent placement score. Course is designed for review of basic math skills to prepare for MATH 101, MATH 107, MATH 110, or MATH 111. Students will achieve proficiency in the fundamental concepts including the manual process used for adding, subtracting, multiplying, and dividing with whole numbers, integers, fractions, decimals, percentages, exponents, least common multiple (LCM) and greatest common factor (GCF), ratio/proportions, unit analysis, and an introduction to graphing, including evaluation of algebraic expressions. Successful completion requires a 70 percent on the comprehensive departmental final and a 70 percent in the course. Does not apply toward a degree or certificate.

MATH 101 - Business Math 3
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. 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.

MATH 107 - Technical Math I 3
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. Course is designed to stress applications to practical problems as they apply to trade. Topics include whole numbers, number systems, dimensions, fractions, powers, roots, exponents, scientific notation, basic algebra (linear and nonlinear equations), rate, base and percentage, precision, accuracy, tolerance, simple equations, complex equations, and trigonometric functions especially as they relate to the right triangle and the six trigonometric functions of sine, cosine, tangent, cotangent, secant, and cosecant.

MATH 108 - Technical Math II 3
Prerequisite: MATH 107 with a grade of C or higher or equivalent placement score. Designed to stress applications to practical problems as they apply to trade. Topics include plane geometry, solid geometry, angular measure, probability, statistics, Pythagorean Theorem, and fundamentals of trigonometry.

MATH 110 - Intermediate Algebra with Review 5
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. Course covers real and complex number systems, linear and absolute value equations and inequalities, linear graphs, systems of equations, rational expressions and equations, rules of exponents, rational exponents, radicals and their equations, operations on and factoring of polynomials, and solving quadratic equations using various techniques.

MATH 111 - Review of Essential Mathematics 2
Prerequisites: MATH 061 or equivalent placement score. Corequisite: MATH 113, MATH 117 or MATH 119. This corequisite course is designed to review essential mathematical concepts and techniques while providing structured support through practice and review. This course is for students who place just below MATH 113, MATH 117 or MATH 119. Topics include using graphical representations of data, rational and irrational numbers, 1- and 2-variable equations, inequalities, rational and exponential expressions, functions, and mathematical formulas. In order to provide customized support for each student, additional topics may be added.

MATH 112 - Intermediate Algebra 3
Prerequisite: Equivalent placement score. Topics include equations and inequalities involving absolute value, rational expressions and equations, graphs of inequalities in the plane, systems of equations in two unknowns, rational exponents and radicals, radical equations, imaginary and complex numbers, and quadratic equations.

MATH 113 - Mathematical Reasoning and Modeling 3
Prerequisite: MATH 110, MATH 111 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 111. Provides humanities students with a comprehensive overview of the skills required to navigate the mathematical demands of modern life and a deeper understanding of mathematical information. Students will develop critical thinking and problem-solving skills in order to draw conclusions, make decisions, and communicate effectively in mathematical situations that depend upon multiple factors.

MATH 114 - Precalculus Algebra 3
Prerequisite: MATH 110 or MATH 112 with a grade of C or higher or equivalent placement score. This course prepares students for fields of study that require a high level of algebraic reasoning or calculus. Topics include the foundational principles of functions, the analysis of functions, algebraic reasoning, and matrices. Students will study the following functions: linear, quadratic, exponential, logarithmic, rational, piecewise, and absolute value.

MATH 117 - Contemporary Mathematics 3
Prerequisite: MATH 110, MATH 111 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 111. Designed for students in the field of elementary education, this course will cover mathematical concepts with historical perspectives from various branches of mathematics including an introduction to set theory, logic, number theory, statistics, probabilities, combinatorics, and geometry.

MATH 119 - Statistical Reasoning 3
Prerequisite: MATH 110, MATH 111 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 111. This is a first course in statistics for students, such as social science majors, whose college and career paths require knowledge of the fundamentals of the collection, analysis and interpretation of data. Topics include interpretation of univariate and bivariate data using graphical and numerical methods, probability, discrete and continuous probability distributions, linear regression, an understanding of good practice in study design, statistical inference, confidence intervals, and hypothesis testing. Data-collection methods, statistical thinking and techniques, simulation, and the use of technology will support decisions and conclusions.

MATH 120 - Precalculus Trigonometry 3
Prerequisite: MATH 114 or equivalent placement score. Corequisite: MATH 114. This course prepares students for the fields of science, technology, engineering, or mathematics as well as other fields that require a high level of algebraic reasoning or would require calculus. Topics include radius vector, right triangle and unit circle definitions of trigonometric functions, trig identities, graphs, inverse trig functions, trig equations, De Moivre's Theorem, and conics.

MATH 125 - Calculus for Business 3
Prerequisite: MATH 114 with a grade of C or higher 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.

MATH 127 - Business Statistics 3
Prerequisites: CAPP 125 and MATH 114 with grades of C or higher or equivalent placement score. Emphasizes data analysis, data production and statistical inference. Topics include descriptive statistics, probability, normal distributions, sampling, the central limit theorem, confidence intervals, and hypothesis testing. Correlation and regression will be discussed time permitting.

MATH 130 - Calculus and Analytic Geometry I 5
Prerequisites: MATH 114 and MATH 120 with grades of C or higher or equivalent placement score. Topics include limits, continuity, derivatives, integrals of algebraic and transcendental functions, and appropriate applications.

MATH 131 - Calculus and Analytic Geometry II 5
Prerequisite: MATH 130 with a grade of C or higher. Topics include parametric and polar coordinates, methods of integration, series, conic sections, and application of these topics.

MATH 132 - Calculus and Analytic Geometry III 5
Prerequisite: MATH 131 with a grade of C or higher. Topics include parametric equations of lines and curves in space; vectors and calculus of vector functions; multivariable, differential and integral calculus; introduction to vector analysis; and application of these topics.

MATH 134 - Differential Equations 3
Prerequisite: MATH 132 with a grade of C or higher. Course presents linear differential equations with application, series solutions and Laplace transforms.

MATH 180 - Problems in Math 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in mathematics under the supervision of a mathematics instructor.

MEDICAL ASSISTANT

MEA 100 - Medical Assisting General Orientation .5
This course is part of the MEA program. Students abide by the admission requirements for the program. Introduction and review of the program curricular component that includes discovering the role of medical assistant, effective communication, professionalism, legal and ethical issues, interdisciplinary teamwork, and safety. Furthermore, students will achieve 100 percent of course designated MAERB core competencies for this course. Students must maintain a grade of C or higher to successfully pass the class.

MEA 104 - Medical Assisting Psychology of Human Relations 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Topics covered will include abnormal behavior patterns, terminally ill patients, patient advocacy, developmental stages of life, gender, sexuality, self-identity, morals, information processing, and working with diverse populations. Furthermore, students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a C or higher to successfully pass the class.

MEA 108 - Medical Assisting Administrative Procedures 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Course includes records management, financial practices, insurance and coding, scheduling, office environment, and communication. Furthermore, students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a B or higher to successfully pass the class.

MEA 112 - Medical Assisting Clinical Procedures 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Course includes infection control, patient screening, general/physical examination, specialty examination, procedure/minor surgery, medication administration, office emergencies, patient education, alternative health care/community resources, communication strategies, and adaptations. Furthermore, students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a B or higher to successfully pass the class.

MEA 116 - Medical Assisting Laboratory Procedures 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Course includes quality control, Clinical Laboratory Improvement Amendments (CLIA)-waived tests, biohazards, specimens, specimen collection, and patient instructions. Students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a B or higher to successfully pass the class.

MEA 190 - Medical Assisting Capstone 6
Prerequisite: MEA 108, MEA 112 and MEA 116 with grades of B or higher and MEA 100 and MEA 104 with grades of C or higher. Students must have met the course progression and grade requirements. This course applies the concepts learned throughout the Medical Assistant program in the clinical setting. The student will complete a minimum of 160 hours in an ambulatory care outpatient setting applying the knowledge learned throughout the program. Students must maintain a B or higher to successfully pass the class.

MEDICAL LABORATORY TECHNICIAN

MLT 150 - Introduction to Lab Science Methods 2
Course orients the student to the concepts in the laboratory environment including safe specimen handling, testing procedures, reporting results, basic quality control, laboratory organization, and professionalism.

MLT 210 - Immunology 3
Course consists of the principles and theories of antigen and antibody reactions and the immune system as related to diagnostic serologic procedures.

MLT 220 - Clinical Chemistry and Urinalysis 5
Course introduces the student to methods of analysis of chemical components found in the human body, the testing methodologies for those constituents and the results as applied to normal and abnormal disease states.

MLT 250 - Hematology and Coagulation 5
Course studies the cellular structures in blood, normal and abnormal cell development, alterations present in disease and the mechanisms of coagulation.

MLT 260 - Phlebotomy 2
Course covers various procedures in performing venipuncture and other specialized collection techniques in addition to laws and regulations for safe phlebotomy practices.

MLT 270 - Immunohematology 5
Course consists of concepts, applications and discrepancies of blood group testing, screening and crossmatch procedures and identifying unexpected antibodies.

MLT 280 - Clinical Microbiology 4
Course consists of the role of pathogenic bacteria and other microorganisms that includes bacterial culturing, differentiation and identification of human normal flora and disease-causing microorganisms.

MLT 290 - Parasitology, Mycology and Virology 1
Course introduces the student to parasites, fungus and viruses and their role in human health and disease.

MLT 291 - Hematology and Coagulation Practicum 2
Supervised clinical practice coordinated by the consortium in the hematology lab of selected clinical affiliates.

MLT 292 - Clinical Chemistry Practicum 2
Supervised clinical practice coordinated by the consortium in the clinical chemistry lab of selected clinical affiliates.

MLT 293 - Clinical Microbiology Practicum 2
Supervised clinical practice coordinated by the consortium in the microbiology lab of selected clinical affiliates.

MLT 294 - Clinical Immunohematology Practicum 2
Supervised clinical practice coordinated by the consortium in the immunohematology lab of selected clinical affiliates.

MUSIC

MUS 100 - Fundamentals of Music 3
Prerequisite: MUS 100B or music theory placement test. Corequisites: MUS 100B and MUS 105. Introduction to musical elements of notation, scales, key signatures, rhythms, melodies, and harmonies, and their application within the context of music theory. Students must possess at least a basic understanding of music notation (names of notes, note values, etc.) when enrolling in this course as demonstrated by a grade of C or higher on the music theory placement exam given on the first day of class. Those students not earning a C or higher will be concurrently enrolled in MUS 100B for the semester in order to strengthen foundation skills and continue as a music major.

MUS 100B - Exploring Music Theory 2
For students interested in enhancing their musicianship, exploring how music works, preparing for more serious collegiate study of music theory, or strengthening their fundamental music theory skills.

MUS 101 - Music Appreciation 3
Overview providing knowledge of the basic elements of music, the important musical masterpieces of various eras and the significant composers in musical history. A portion of the course time is devoted to listening to recordings and viewing supporting video footage of selected composers and performers. Students enrolled in this course must be able to independently attend two live concerts at some point in the course.

MUS 102 - History of Rock Music 3
Analyses by decade of the many styles of modern music that have fallen under the descriptive term of rock and roll resulting in an understanding of rock music's importance as a cultural, generational and historical force in the 20th century. Focus will be given to key performing artists, groups and music trends in each decade from 1950 to the present. Lecture and discussion will also include the role that gender, race and socio-political events played in the music of the second half of the 20th century.

MUS 103 - Music History and Literature Before 1800 3
Survey of music history and literature from its beginnings through the Baroque era as well as the role of music in the historical fabric of each era. Instrumental and vocal/choral genres and major composers will be studied. A significant portion of course time will be devoted to listening to recordings of appropriate music, composers and performers.

MUS 104 - Music History and Literature Since 1800 3
Survey of music history and literature from the Classical era to the present as well as the role of music in the historical fabric of each era. Instrumental and vocal/choral genres and major composers will be covered. A significant portion of course time will be devoted to listening to recordings of appropriate music, composers and performers.

MUS 105 - Fundamentals of Aural Training 1
Corequisite: MUS 100. Introduction to musical elements of notation, scales, key signatures, rhythms, melodies, and harmonies, and their application within the context of music theory. Students must possess at least a basic understanding of music notation (names of notes, note values, etc.) when enrolling in this course as demonstrated by a grade of C or higher on the music theory placement exam given on the first day of class. Those students not earning a C or higher will be concurrently enrolled in MUS 100B for the semester in order to strengthen foundation skills and continue as a music major.

MUS 106 - Music Theory I 3
Prerequisite: MUS 100. Corequisite: MUS 109. Continuation of MUS 100, developing theoretical competency in music notation, rhythm and meter, scales, intervals, triads, and melodic and harmonic analysis.

MUS 107 - Music Theory II 3
Prerequisite: MUS 106. Corequisite: MUS 110. Continuation of MUS 106 resulting in the application of more advanced theory concepts including the use of primary and secondary triads and seventh chords, the introduction of altered chords, modulations, and the use of cadential figures.

MUS 108 - Music Theory III 3
Prerequisite: MUS 107. Corequisite: MUS 111. Continuation of MUS 107 that will introduce advanced theory topics such as the use of modality and counterpoint in music as well as late 19th century harmonic functions and early 20th century compositional techniques. This is the terminal theory course for all music majors.

MUS 109 - Aural Training I **1**
Prerequisite: MUS 105. Corequisite: MUS 106. Provides practical application of the skills being learned in MUS 106 through sight singing, solfege and rhythmic, melodic, and harmonic dictation. Enhances and supports confidence in music composition and performance through the aural process.

MUS 110 - Aural Training II **1**
Prerequisite: MUS 109. Corequisite: MUS 107. Provides practical application of the skills learned in MUS 107 through more advanced sight singing, solfege and rhythmic, melodic, and harmonic dictation experiences. Enhances and supports confidence in writing and performing music through the aural process.

MUS 111 - Aural Training III **1**
Prerequisite: MUS 110. Corequisite: MUS 108. Provides practical application of the skills learned in MUS 108 through advanced sight singing, solfege and rhythmic, melodic, and harmonic dictation experiences. Enhances and supports confidence in writing and performing music through the aural process. This is the terminal aural training course for all music majors.

MUS 119 - Jazz Band I **1**
Prerequisite: Consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Instruction will focus on skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 120 - Jazz Band II **1**
Prerequisites: MUS 119 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Second enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 121 - Jazz Band III **1**
Prerequisites: MUS 120 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Third enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 122 - Jazz Band IV **1**
Prerequisites: MUS 121 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Fourth enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 123 - Jazz Band V **1**
Prerequisites: MUS 122 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Fifth enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 124 - Jazz Band VI **1**
Prerequisites: MUS 123 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Sixth enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 136 - Applied Instrumental Lessons I **1 to 2**
Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 137 - Applied Instrumental Lessons II **1 to 2**
Prerequisite: MUS 136. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 138 - Applied Instrumental Lessons III **1 to 2**
Prerequisite: MUS 137. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 139 - Applied Instrumental Lessons IV **1 to 2**
Prerequisite: MUS 138. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 139B - Applied Instrumental Lessons V **1 to 2**
Prerequisite: MUS 139. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 139C - Applied Instrumental Lessons VI **1 to 2**
Prerequisite: MUS 139B. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 140 - Guitar Class I **2**
Practical study of the guitar designed for beginning students with less than one year of experience.

MUS 141 - Guitar Class II **2**
Prerequisite: MUS 140 or approval of instructor. Continuation of those skills learned in MUS 140 leading to more advanced guitar performance skills. Designed to allow the student to continue studying guitar beyond MUS 140.

MUS 145 - Beginning Piano Class I **2**
Study of piano performance skills, especially for students with little or no previous training. Covers rudiments of music, hand positions, and performing hands separately and together; intervals, triads and scales are also covered. Required for music majors.

MUS 146 - Beginning Piano Class II **2**
Prerequisite: MUS 145. Continuation of the study of piano performance skills learned in MUS 145. Continued work performing hands separately and together, intervals, triads, simple harmony, and scales are covered. Required for music majors.

MUS 147 - Intermediate Piano Class I **2**
Prerequisite: MUS 146. Continuation of the study of piano performance skills learned in MUS 146 with emphasis on specific skills necessary to pass the piano proficiency examination. Required for music majors.

MUS 148 - Intermediate Piano Class II **2**
Prerequisite: MUS 147. Continuation of the study of piano performance skills learned in MUS 147 with emphasis on specific skills necessary to pass the piano proficiency examination. Required for music majors.

MUS 150 - Applied Piano Lessons I **1 to 2**
Prerequisite: One year of a piano course. Private piano lessons. Intended only for serious piano students.

MUS 151 - Applied Piano Lessons II **1 to 2**
Prerequisite: MUS 150. Second enrollment in piano lessons. Private piano lessons. Intended only for serious piano students.

MUS 152 - Applied Piano Lessons III **1 to 2**
Prerequisite: MUS 151. Third enrollment in piano lessons. Private piano lessons. Intended only for serious piano students.

MUS 153 - Applied Piano Lessons IV **1 to 2**
Prerequisite: MUS 152. Fourth enrollment in piano lessons. Private piano lessons. Intended only for serious piano students.

MUS 155 - Voice Class **2**
Study of vocal techniques and beginning vocal performance. Open to any interested students. Will include both group and individual singing.

MUS 160 - Applied Voice Lessons I **1**
Prerequisite: One year of a voice course. Performance-oriented study of voice through weekly private applied lesson and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 161 - Applied Voice Lessons II **1**
Prerequisite: MUS 160. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 162 - Applied Voice Lessons III **1**
Prerequisite: MUS 161. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 163 - Applied Voice Lessons IV **1**
Prerequisite: MUS 162. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 163B - Applied Voice Lessons V **1**
Prerequisite: MUS 163. Performance-oriented study of voice through weekly private applied lesson and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 163C - Applied Voice Lessons VI **1**
Prerequisite: MUS 163B. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 175 - Chamber Singers I **1**
Prerequisite: Consent of instructor. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 176 - Chamber Singers II **1**
Prerequisites: MUS 175 and consent of instructor. Second enrollment in csingers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 177 - Chamber Singers III 1
Prerequisites: MUS 176 and consent of instructor. Third enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 178 - Chamber Singers IV 1
Prerequisites: MUS 177 and consent of instructor. Fourth enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 178B - Chamber Singers V 1
Prerequisites: MUS 178 and consent of instructor. Fifth enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 178C - Chamber Singers VI 1
Prerequisites: MUS 178B and consent of instructor. Sixth enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 180 - Problems in Music 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in music under the supervision of a music instructor.

MUS 195 - Concert and Recital Attendance 0
Attendance of at least eight music concerts and/or recitals in a semester performed by college soloists and ensembles or community nonacademic performing groups such as professional or semi-professional ensembles, operas or university musicals. Community performances must be pre-approved by the Music Arts program coordinator prior to attending. This is a pass/fail course.

MUS 210 - Jazz Choir I 2
Prerequisite: Consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 211 - Jazz Choir II 2
Prerequisites: MUS 210 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 212 - Jazz Choir III 2
Prerequisites: MUS 211 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 213 - Jazz Choir IV 2
Prerequisites: MUS 212 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 214 - Jazz Choir V 2
Prerequisites: MUS 213 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 215 - Jazz Choir VI 2
Prerequisites: MUS 214 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

NETWORKING

NET 101 - Introduction to Networks 3
Introduces the architecture, structure, functions, components, and models of the internet and computer networks. The principles of Internet Protocol (IP) addressing, fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple local area networks (LANs), perform basic configurations for routers and switches and implement IP addressing schemes.

NET 102 - Networking Essentials 3
Introduces the student to the use and implementation of local area networks and basic network design concepts. Subject matter covered during this course all align with current Network+ certification topics and help prepare a student for this certification.

NET 103 - Routing and Switching Essentials 3
Prerequisite: NET 101 with a grade of C or higher. Corequisite: NET 101. Describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area open shortest path first (OSPF), virtual LANs, and inter-virtual LAN routing in both IPv4 and IPv6 networks.

NET 106 - Introduction to Network Security 3
Prerequisite: NET 101 with a grade of C or higher. Course will introduce students to a basic understanding of computer, network and organizational security as it relates to the information technology field.

NET 120 - Network Server 3
Prerequisite: NET 101 with a grade of C or higher. Course will cover the current popular server operating system. Topics include planning a network, installing hardware and software, management, client accounts, and troubleshooting. Course will be structured to the requirements for certification.

NET 125 - Linux Operating Systems 3
Prerequisite: NET 101 with a grade of C or higher. Course will cover the basics of operating and managing a Linux-based operating system.

NET 126 - Network Client 3
Prerequisite: NET 101 with a grade of C or higher. Study of the operating system used on today's workstations. Installation, administration, configuring files, security, and local and network printing will be presented from a network administrator's viewpoint. Troubleshooting and networking the operating system will be included.

NET 135 - SQL Server System Administration 3
Prerequisite: NET 120 with a grade of C or higher. Couse covers how to install, configure and administrate a structured query language (SQL) server. Topics 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.

NET 136 - Exchange Server Administration 3
Prerequisite: NET 120 with a grade of C or higher. Study of 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 email, instant messaging and chat. Learn to troubleshoot messaging connectivity and how to resolve problems with clients, routing, foreign mail systems, and links between servers. Additional topics include enhanced Exchange Server Security using v3 certificates, virtual servers, and Microsoft 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.

NET 138 - Network Directory Services 3
Prerequisite: NET 120 with a grade of C or higher. Study of Tthe planning, configuring and administering 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.

NET 140 - PC Hardware 3
Presents microcomputer architecture, input/output (I/O) and systems operation. Other topics include peripherals, diagnostics, drives, memory, and maintenance procedures. Laboratory consists of troubleshooting selected computer systems.

NET 142 - PC Operating Systems 3
Study of computer operating systems including Windows, Linux and DOS, with requirements of necessary hardware and known problems and features. Laboratory consists of installation, maintenance and repair of operating systems.

NET 158 - Network Firewalls 3
Prerequisites: NET 106 and NET 203 with grades of C or higher. Course will cover the functions, features and configuration of a firewall as applied in a network. Covers setup, management, traffic filtering, and virtual private networks (VPNs). Students will configure and implement firewalls to protect the network from external threats. Hands-on coursework is included in the course.

NET 175 - Network Administration Internship 4
Prerequisite: Consent of program coordinator. 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.

NET 180 - Networking Project 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in networking under the supervision of a networking instructor.

NET 201 - Scaling Networks 3
Prerequisite: NET 103 with a grade of C or higher. Describes the architecture, components and operations of routers and switches in a large and complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with open shortest first path (OSPF), enhanced interior gateway routing protocol (EIGRP), spanning tree protocol (STP), and virtual local area networking trunking protocol (VTP) in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement dynamic host configuration protocol (DHCP) and domain name system (DNS) operations in a network.

NET 202 - Digital Forensics 3
Prerequisites: NET 101 and NET 106 with grades of C or higher. Course will introduce students to the basics concepts and skills used when investigating possible computer crimes. Such skills could be beneficial in a variety of roles, i.e., working with law enforcement, private contractors, etc.

NET 203 - Connecting Networks 3
Prerequisite: NET 201 with a grade of C or higher. Corequisite: NET 201. Discusses the wide area network (WAN) technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement internet protocol security (IPSec) and virtual private network (VPN) operations in a complex network.

NET 206 - Ethical Hacking 3
Prerequisites: NET 101 and NET 106 with grades of C or higher. Course will introduce students to the basics of scanning, testing, hacking, and securing resources. Expanding upon the basics of general security practices, students will gain a better understanding of how to better secure resources.

NET 222 - Enterprise Applications I 3
Prerequisites: NET 120 and NET 138 with grades of C or higher. Course will introduce students to various server applications that are widely utilized throughout the information systems industry.

NET 223 - Enterprise Applications II 3
Prerequisites: NET 120 and NET 138 with grades of C or higher. Course will introduce students to various server applications that are widely utilized throughout the information systems industry.

NET 231 - Mobile Networking 3
Prerequisites: NET 101 and NET 126 with grades of C or higher. This course will teach students the basics of configuration, supporting and managing mobile devices in the corporate network.

NET 238 - Server Virtualization 3
Prerequisite: NET 120 with a grade of C or higher. Course will teach students in the setup, configuration and management of virtualized servers.

NET 240 - Enterprise Storage 3
Prerequisite: NET 120 with a grade of C or higher. Course is designed to introduce students to technologies utilized for data storage in the enterprise environment.

NURSING

NURS 102 - CPR for Health Care Providers .5
American Heart Association course teaches health care providers how to recognize and respond to life-threatening emergencies such as respiratory arrest, cardiac arrest and foreign-body obstruction in infants, children and adults. The skills necessary to respond to these emergencies are demonstrated and practiced during the course. Course includes use of an automated external defibrillator (AED). Upon successful completion the student will be issued an American Heart Association Cardiopulmonary Resuscitation (CPR) card for Health Care Providers. This is a pass/fail course.

NURS 103 - CPR Recertification .25
Prerequisite: Consent of instructor. Course is required to maintain American Heart Association CPR certification in the health care field. A current American Heart Association CPR card for Health Care Provider is required to enroll in the course. This is a pass/fail course.

NURS 110 - Personal Vocational Concepts 1
Evidence-based practice concepts in nursing are introduced as they relate to standards of care, behavioral concepts important to the nurse, history of nursing, role identification and responsibility, interprofessional collaboration, the quality improvement process, and ethical and legal aspects of the licensed practical nurse and registered nurse.

NURS 112 - Introduction to Psycho-Social Health 2
Basic concepts of wellness and illness, caring, communication techniques, and growth and development across the life cycle are introduced with an emphasis on evidence-based care. Special circumstances and interpersonal relationships, such as the impact of violence and abuse, cultural awareness, the grieving process, and spiritual needs of the individual and family will be explored. Special treatment modalities such as medications will be discussed with regard to concepts of mental health.

NURS 114 - Fundamentals I 2
Essential nursing skills utilizing current standards of practice required for entry- level nurses are introduced. The learner will demonstrate an understanding of how to assist clients with important daily activities and basic nursing assessment skills through both classroom and hands-on learning experiences. (1 lecture, 1 lab)

NURS 117 - Fundamentals II 3
Presents more advanced essential nursing skills based upon current standards of practice that are required for entry-level nurses. The learner is introduced to the nursing process that is utilized in the delivery of nursing care. Skills are presented through both classroom and hands-on learning experiences and includes development of nursing assessment skills, medication administration, intravenous (IV) therapy, use of information technology, and other technical skills.

NURS 118 - Fundamentals II Clinical 1.5
Essential nursing skills utilizing current standards of practice presented in NURS 114 and NURS 117 will be applied in both long-term and acute care clinical settings. Skills that will be mastered include physical assessment, therapeutic communication, basic nursing care, IV therapy, and nursing documentation. This is a pass/fail course.

NURS 119 - Allied Health Pharmacology 3
Basic pharmacologic, pharmacodynamics and pharmacokinetic principles for the most common drug classifications and specific select drugs will be explored using evidence-based practices. Emphasis on patient safety needs are incorporated through individualized teaching related to the most common drug classifications.

NURS 122 - Adult Health I 4
Entry-level, evidence-based nursing care will be discussed for adult and elderly clients experiencing alterations in the integumentary, respiratory and cardiac systems; clients undergoing surgery; and clients with cancer.

NURS 124 - Adult Health II 4
The basic nursing course addresses evidence-based practice principles and nursing care of adult and elderly clients experiencing alterations in renal, neurological and gastrointestinal systems, as well as the client who has developed diabetes mellitus. Included are basic strategies for leadership and conflict resolution.

NURS 126 - Adult Health Nursing Clinical 3
Basic nursing concepts utilizing current standards and evidence-based best practices are applied to the acute clinical setting. The student will provide nursing care to the client and family with altered health status, while evaluating laboratory and diagnostic findings, medication effectiveness and client responses. This is a pass/fail course.

NURS 128 - Adult Health III 2
Principles of evidence-based nursing care are addressed for adult and elderly clients experiencing alterations in the endocrine, sensory, musculoskeletal, hematological, and immune systems.

NURS 130 - Adult Health Care Coordination Clinical 2
Focuses on the utilization and application of basic skills gained from the practical nursing curriculum and incorporates current standards and evidence-based practices for the role of an entry-level nurse. Emphasis is placed on principles of leadership, conflict resolution, coordinating client care, and applying basic principles across the lifespan, particularly the elderly client. This is a pass/fail course.

NURS 132 - Nutrition 3
Essential nutrient digestion, absorption, metabolism, and excretion are emphasized, throughout various cultures. Diet analysis and current issues in nutrition will aid the student in applying evidence-based practice to the basic concepts of everyday situations throughout the life cycle.

NURS 134 - Nursing Care Childbearing Family 2
Foundational learning that focuses on the uncomplicated health care and wellness promotion, by using evidence-based, culturally sensitive care for the family during the reproductive years, including the laboring woman, postpartum patient/family, the newborn, and gynecological issues.

NURS 136 - Childbearing Family Clinical 1.5
Foundational learning that focuses on the uncomplicated health care and wellness promotion, by using evidence-based care for the family during the reproductive years, including the laboring woman, postpartum patient/family, the newborn, and gynecological issues. This is a pass/fail course.

NURS 140 - Nursing Care Child Rearing Family 2
Concepts of assessment, growth and development, nutrition for the pediatric patient, medication administration for children, common recurring health conditions, and evidence-based nursing care of the hospitalized child are discussed.

NURS 142 - Child Rearing Family Clinical 1.5
Participation in activities to develop skills in family-centered nursing care of children is expected. Experiences will include health promotion activities in the community, providing evidence-based patient centered nursing care of ill children, and promoting interpersonal relationships within the family unit. This is a pass/fail course.

NURS 210 - Nursing Transition Course 2
Prerequisite: Acceptance to Year Two of the Associate Degree Nursing (ADN) program. Building upon the knowledge obtained from the practical nursing curriculum, the advanced placement student reviews the philosophy, outcome-based curriculum and use of evidence-based practice. The student transitioning into the ADN program will have opportunities to demonstrate competencies in pharmacology (including dosage calculations), IV starts and maintenance, physical assessment, and more. The student will explore safe and effective care, health promotion, care of the older adult, and cultural awareness. Completion of the course with a B or better is required to continue in the ADN program.

NURS 213 - Introduction to Professional Nursing 2
Building upon the knowledge obtained from the practical nursing curriculum and incorporating current standards of practice and evidence-based care for the entry-level professional nurse, the student's current leadership and management abilities are explored and enhanced. Exploration focuses on the roles and functions of the professional registered nurse in various health care settings. Topics of discussion include cultural awareness, quality improvement, professionalism, leadership and management styles, communication, delegation, disaster management, and priority setting when caring for diverse and aging populations and cultures.

NURS 215 - Complex Health: Mental Health **2.5**
Building upon the knowledge obtained from the practical nursing curriculum, the nurse's role in promoting evidence-based psychosocial integrity for the client and family/significant others are explored. Topics include the use of coping mechanisms, crisis intervention, therapeutic communication, psychopathology, and case management. Emphasis is placed on cultural awareness, client education, available resources and strategies, and current trends in providing care in the community setting to promote wellness.

NURS 216 - Complex Health: Mental Health Clinical **2**
Focuses on managing clients in the mental health setting by incorporating current standards and evidence-based practice to the professional registered nurse role. Emphasis will be on planning and managing the care of a client in an inpatient mental health facility by participating and leading therapeutic groups. Application from NURS 215 will be demonstrated in the clinical settings. This is a pass/fail course.

NURS 219 - Complex Health: Elimination **3**
Building upon the knowledge obtained from the practical nursing curriculum and incorporating current standards for the professional registered nurse, complex features of selected diseases and disorders of the liver, gastrointestinal and renal systems are discussed and explored. Topics will include pathophysiology and the medical and/or surgical management, and interprofessional collaboration needed for the patient with these diseases or disorders. The discussions will be centered on using evidence-based practice to guide the nursing process and the Gordon's Functional Health patterns framework. Cultural and psychosocial issues, including involvement of patients in decision making and best practices for promoting healthy lifestyles and providing patient-centered care are also discussed.

NURS 221 - Complex Health: Nutrition/Metabolic **2.5**
Building upon the knowledge obtained from the practical nursing curriculum and the first semester of professional nursing school, the student will be incorporating current standards, interprofessional collaboration, and evidence-based practice for the professional registered nurse. Complex features of selected acid-base, fluid and electrolyte disorders; selected exocrine disorders and injuries; and management of immune system problems are discussed and explored. The student will evaluate safe and effective care, health promotion, care of the older adult, and cultural awareness. The discussions will be centered on the nursing process and the Gordon's Functional Health patterns framework.

NURS 227 - Complex Health: Family **3**
Advances the student's ability to provide patient-centered, culturally sensitive, evidence-based complex care for the newborn, pediatric and obstetric clients with complicated issues or at high risk for developing complications addressing individual patient needs. Discussions will be centered on the nursing process.

NURS 228 - Complex Health: Family Clinical **1**
Focuses on managing clients with complex health care needs and incorporates current standards of evidence-based practice to the professional registered nurse role. Emphasis is placed on problem-solving, advanced physical assessment techniques and time management activities. Application of the principles from NURS 227 will be demonstrated in the appropriate clinical settings. This is a pass/fail course.

NURS 230 - Complex Health: Adult Clinical I **1**
In this clinical, the student will begin to utilize and apply appropriate advanced nursing concepts from Introduction to Professional Nursing and medical surgical knowledge to the professional registered nurse role, including principles of the nursing process, current standards of evidence-based practice, leadership, management, communication, interprofessional collaboration, and use of information technology where applicable to care for adults and older adults. This is a pass/fail course.

NURS 231 - Complex Health: Adult Clinical II **1**
This clinical course is a continuation of Complex Adult Health I and preparation for Complex Health Adult III. Using current standards of care and evidenced-based practice, the student will begin to coordinate and manage care for multiple clients at the acute care clinical site. The emphasis will be on further development of the professional nursing role in prioritization and coordination of patient care for adults and older adults. This is a pass/fail course.

NURS 233 - Complex Health: Adult Clinical III **3**
Building upon the knowledge obtained from the practical nursing curriculum and the first semester of professional nursing school, students will work in an inpatient clinical area focusing on managing clients with complex health care needs. The student will manage care for clients in medical and surgical units, intensive care units (ICU), emergency rooms (ER) and step-down units. There will be an emphasis on prioritization, critical thinking, delegation, problem-solving, advanced physical assessment techniques, cultural awareness, care of the aged, and time management activities. Evidence-based practice is used in applying the assessment process to nursing care. Application of the principles from NURS 213, NURS 221, NURS 234, and NURS 237 will be demonstrated in the appropriate clinical settings while building upon NURS 230 and NURS 231 clinical. This is a pass/fail course.

NURS 234 - Complex Health: Activity and Rest 3
Building upon the knowledge obtained from the practical nursing curriculum and the first semester of professional nursing school, students will incorporate current standards and evidence-based practice for the professional registered nurse. This will include complex features of selected cardiovascular, respiratory, gastrointestinal, and traumatic disorders and injuries and discussion of the nursing care. Nursing that includes safe and effective care, health promotion and age and culture implications are explored as part of the learning process. The discussions will use evidence-based practice centered on the nursing process, application of the nursing assessment to case studies, and review of prioritization and implementation in conjunction with Gordon's Functional Health patterns framework.

NURS 237 - Complex Health: Cognitive/Perceptual 3
Building upon the knowledge obtained from the practical nursing curriculum and incorporating current standards and evidence-based practice for the professional registered nurse, complex features of selected neurological diseases, disorders and injuries are discussed and explored. Corresponding pharmacological interventions and interdisciplinary collaboration will be discussed. The discussions will be centered on the nursing process and the Gordon's Functional Health patterns framework.

NURS 243 - Professional Nursing Capstone Clinical 2.5
Focuses on the utilization and application of complex skills and knowledge gained from the associate nursing curriculum and incorporates current standards and evidence-based practice to the professional registered nurse role. Emphasis is placed on mastery of assessment, documentation, teaching, medication knowledge and administration, prioritization, time management, and communication with clients, families, staff, and peers. Application and demonstration of leadership, management, legal and ethical principles of delegation for the registered nurse in various community and acute care settings is also expected. This is a pass/fail course.

OCCUPATIONAL SAFETY HEALTH ADMINISTRATION

OSHA 102 - OSHA 10-hour Construction Industry 1
Course is provided for those seeking employment in a field that operates on construction sites governed by the safety regulations of 29 CFR 1926, Occupational Safety and Health Administration (OSHA) standards for the construction industry. Upon successful completion of this course, the student will earn an OSHA 10-hour completion card. This is a pass/fail course.

OCCUPATIONAL THERAPY

OTA 200 - Foundations of Occupational Therapy 4
Course presents an introduction to occupational therapy including history, philosophical base, values, ethics, practice framework, and clinical reasoning. Students will learn selected theories and frames of reference as they pertain to interventions in mental health, physical disabilities, pediatrics, and community practice areas. An overview of the occupational therapy process, including assessment, treatment planning, treatment implementation, and discontinuation of intervention will be presented. Role delineation and collaboration of the occupational therapy assistant with other occupational therapy and health care personnel are discussed.

OTA 205 - Medical Conditions in Occupational Therapy 3
Course will provide a framework for students to learn about common medical conditions seen by occupational therapy practitioners and to facilitate learning of these conditions from an occupational therapy perspective. It is not intended to emphasize treatment of a diagnosis; however, students will learn about specific factors unique to given conditions that may impact an individual's occupational roles and functions. These factors must be understood and analyzed regarding the relative impact on the individual's occupational performance. The knowledge gained from this course is a necessary prerequisite to Physical Disabilities Practice.

OTA 210 - Analysis of Occupations 2
Course is designed to foster a beginning exposure to individuals experiencing a variety of physical or mental disabilities, including caregivers of individuals with disabilities, through community experiences. Through these experiences, students will develop skills in observation, analysis, interview, assessment and data collection, and relational skills. Students will complete writing assignments with an emphasis on their observations, analysis and performance of human occupation across the lifespan, with an emphasis on contextual factors impacting occupational performance. Through the written assignments, students will learn the style of professional writing required for OTAs. Professional and therapeutic relationships will be emphasized throughout the course.

OTA 215 - Mental Health and Psychosocial Practice 4
Course presents the role of the occupational therapy assistant in the psychosocial area of occupational therapy practice. Students will learn selected frames of reference and explore the effects of psychosocial dysfunction on areas of occupation. Students will learn skills necessary to assess, implement and document intervention in a variety of mental health settings. Client factors, including culture and diversity, therapeutic interactions and methods are studied. Students will develop skills in administering individual and group interventions, professional communication, conflict negotiation, and advocacy. Lab activities, in-class activities, and level I fieldwork opportunities will enable students to participate in and apply psychosocial principles to practice.

OTA 220 - Pediatric and Adolescent Practice 4
Treatment of pediatric and adolescent conditions. Normal and delayed development of the infant, child and adolescent are explored. The lab component incorporates theoretical principles and provides opportunities for students to develop assessment, intervention planning and implementation, and documentation skills to address a range of childhood sensory-motor, cognitive and psychosocial performance deficits. Students will learn to adapt the environment, tools, materials, and occupations to meet the self-care, work/play and leisure needs of the pediatric and adolescent population. Lab activities, site visits and level I fieldwork opportunities will enable students to participate in and apply pediatric and adolescent treatment principles to practice.

OTA 250 - Functional Kinesiology 2
In this course, students use and apply their knowledge of anatomy and physiology to study muscle groups and their function relative to performing various activities. Analysis of functional movement patterns required for work, self-care, play, and leisure activities is emphasized. Manual muscle testing, range of motion, goniometry and basic transfer skills are practiced. Principles of energy conservation, joint protection and work simplification are presented. Prevention, health maintenance and safety procedures relevant to functional mobility are reviewed.

OTA 255 - Physical Disabilities Practice 4
Course provides in-depth opportunities for students to develop assessment, intervention planning, intervention, and documentation skills to address a wide range of adult and geriatric physical disabilities and conditions typically treated by occupational therapists and occupational therapy assistants. Topics include, but are not limited to, stroke, spinal cord injury, fractures and joint replacement, head injury, and cardiopulmonary disorders. The use of splinting, orthotics, modalities, and assistive technology in treatment will also be presented. Students will learn to adapt the environment, tools, materials, and occupations to meet the self-care, work, play, and leisure needs of the adult and geriatric population. Lab activities and level I fieldwork opportunities will enable students to participate in and apply physical disabilities treatment principles to practice.

OTA 260 - Community Practice 3
Site visits and level I fieldwork opportunities will enable students to participate in and apply occupational therapy assessment and intervention principles to a wide range of community settings, including vocational, vocational rehabilitation, home health, and emerging community practice areas. Emphasis will be on community settings in the students' state and geographic region. The course also provides a broad exposure to the social, political, legislative, economic, and cultural factors that influence service delivery.

OTA 265 - Ethics, Management and Leadership 3
Course focuses on the OTA role in managing and directing occupational therapy services. It covers ethical provision of services, departmental operations, program development, supervisory requirements, personnel development and supervision, professional team building, quality assurance, compliance with regulations, reimbursement, and national and state credentialing requirements. Techniques for developing a résumé and job interview skills are practiced. The importance and responsibility for ongoing OTA professional development, ethical practice, contributing to research and evidence-based practice, attention to emerging practice issues and areas, and international perspectives are explored.

OTA 270 - Professional Skills 3
Course is designed to foster practical professional skills in critical thinking using literature to make evidence-based practice decisions and recommendations and using theory to guide practice, all through the completion of a professional portfolio.

OTA 290 - Level II Fieldwork A 8
Full-time clinical fieldwork experience in mental health, physical disabilities, geriatric, pediatric, and/or community-based practice working under the supervision of an OTR and/or COTA. Focus is on achieving entry-level competence in planning and implementing interventions.

OTA 295 - Level II Fieldwork B 8
Full-time clinical fieldwork experience in mental health, physical disabilities, geriatric, pediatric, and/or community-based practice working under the supervision of an OTR and/or COTA. Focus is on achieving entry-level competence in planning and implementing interventions.

OFFICE ADMINISTRATION

OADM 102 - Introduction to Keyboarding 1
Optional test out. Individualized course that provides the student with a mastery of touch-typing. Emphasis is placed on developing speed and accuracy through instruction, guided practice and timed writings. Course is not intended for health information technology or office management majors. There is not any document production in this course.

OADM 104 - Keyboarding 3
Optional test out. Individualized course provides the beginning student with a mastery of touch-typing and an introduction to basic formats of letters, memos, tables, and reports. All office management students are required to take this course as part of their core curriculum.

OADM 106 - Document Formatting 2
Optional test out. Prerequisite: OADM 104. Individualized course that includes processing various business and professional documents and forms. Emphasis is placed on accuracy, speed development, and ability to follow directions. Core requirement for all office management majors.

OADM 116 - Records Management 3
Emphasize principles and practices of effective records and information management for physical and electronic records systems. Emphasis is placed on the need to understand the changes occurring with the volume of information, the need for compliance to government regulations and advances in technology.

OADM 118 - Business English for Office Management 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Consists of concentrated drill and discussion of business English usage, punctuation and style as applied to editing and proofreading documents.

OADM 121 - Calculators 1
Course is designed to teach touch operation of 10-key printing and display calculators along with their special time-saving features. Emphasis is placed on speed and accuracy.

OADM 125 - Skillbuilding for Office Support Services 1
Prerequisite: OADM 104 or optional test out. Individualized course designed to improve accuracy and speed. Office Support Services certificate candidates must achieve a grade of C or higher in order to complete graduation requirements for the program.

OADM 127 - Skillbuilding for Office Management 1
Prerequisite: OADM 104 or optional test. Individualized course designed to improve accuracy and speed. Office Management degree candidates must achieve a grade of B or higher in order to complete graduation requirements for the program.

OADM 134 - Office Management 3
Prerequisite: Consent of program coordinator. Capstone course for the Professional Certificate in Office Support Services and the Associate of Applied Science in Business Management with Office Management Specialty. Course includes activities and information in human relations, personal and professional qualities, decision making, office supervision, incoming and outgoing mail, minutes, office procedures, work ethics, time management, appearance, record keeping, office organization, personnel management, and demeanor.

OADM 175 - Office Management Internship 3
Prerequisite: Consent of program coordinator. An on-the-job work experience that provides the student the opportunity to work in an office environment. Students are evaluated by the instructor and employer.

PHARMACY TECHNOLOGY

PHRM 105 - Pharmacy Technician I 3
Prerequisite: Basic computer skills. Introduction to the fundamentals and knowledge necessary to take the Pharmacy Technician Certification Board (PTCB) exam. Contents of this course include a brief history of pharmacy and how it has evolved into today's pharmacy, drug regulation and control, pharmaceutical terminology, factors that make up a prescription, pharmaceutical calculations, and different routes and formulations of various medications.

PHRM 107 - Pharmacy Technician II 3
Prerequisites: PHRM 105 with a grade of C or higher and basic computer skills. Course will provide additional necessary knowledge needed for the Pharmacy Technician Certification board (PTCB) exam. Contents of this course include compounding, biopharmaceutics and other factors affecting drug activity, utilizing appropriate resources, inventory management, and financial issues. Course will also go further in depth to the different areas of pharmacy where a pharmacy technician is needed.

PHRM 109 - Pharmacology for Pharmacy Technicians 3
Course introduces basic pharmacological principles needed by pharmacy technicians, including basic understanding of the drug action, how antagonists and agonists work, the significance and meaning of blood concentration-time profiles, and other aspects of pharmacology suited for pharmacy technicians.

PHRM 111 - Practicum for Pharmacy Technicians 3
Prerequisites: PHRM 105 and PHRM 107 with grades of C or higher and basic computer skills. Course provides a study of and an introduction to the pharmacy in providing patient care. There will be an opportunity for students to observe activities in a pharmacy setting of their choice. There will be practical, general workplace training supported by an individualized learning plan developed by the employer, program coordinator and student.

PHRM 115 - Pharmacology Certification 3
Course will cover the nationally accredited and state-licensed program and prepare students for the PTCB exam to achieve their Certified Pharmacy Technician (CPhT) designation.

PHRM 175 - Professional Practical Experience 3
Prerequisite: Consent of program coordinator. Field-based professional practice experience in a hospital or commercial pharmacy setting. Students will be assigned specific professional practice objectives and skills to be completed at the site and will participate in daily pharmacy activities. This is an unpaid work experience requiring 80 to120 hours of participation.

PHILOSOPHY

PHIL 101 - Introduction to Philosophy 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. An introduction to historical and topical themes in philosophy, such as free will, God, personal identity, the limits of knowledge, the nature of inferential reasoning, morality, and social justice.

PHIL 102 - Ethics 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. An introductory examination of the foundations of moral discourse and ethical practice. This course includes both an introduction to a number of moral theories and discussion of contemporary moral issues.

PHIL 104 - Living Religions 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. An introduction to a wide variety of the world's living religions as both beliefs and practices, and an analysis of the historical-cultural value systems underpinning their various divergent or overlapping value systems. Religions reviewed include Hinduism, Buddhism, Judaism, Christianity, Islam and to a lesser extent Jainism, Sikhism, Confucianism, Daoism, and Shinto.

PHYSICAL EDUCATION-ACTIVITY

PEAC 124 - Varsity Basketball - Men 1
Prerequisite: Consent of athletic director. Participation in the men's varsity basketball program.

PEAC 125 - Varsity Basketball - Women 1
Prerequisite: Consent of athletic director. Participation in the women's varsity basketball program.

PHYSICAL EDUCATION-PROFESSIONAL

PPRO 101 - Sports Officiating I 2
Includes lectures, readings, class discussions, and field experience in the officiating of fall sports, including football, soccer, basketball, etc.

PPRO 102 - Sports Officiating II 2
Includes lectures, readings, class discussions, and field experience in the officiating of spring sports, including softball, baseball, volleyball, etc.

PPRO 104 - 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.

PPRO 108 - 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.

PPRO 180 - Problems in Professional PE 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in professional physical education under the supervision of a physical education instructor.

PHYSICAL SCIENCE

PHYS 103 - Introduction to Physical Science 3
Prerequisites: ENGL 070 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. Introduction to physical science that includes the basic concepts of chemistry, physics and astronomy. Not open to students with college credit in PHYS 105 or higher-level course.

PHYS 105 - College Physics I with Lab 5
Prerequisite: MATH 110 or MATH 112 with a grade of C or higher or equivalent placement score. An introduction to the fundamental ideas of physics. Topics include mechanics, wave motion and heat. (4 lecture, 1 lab)

PHYS 106 - College Physics II with Lab 3
Prerequisite: PHYS 105 with a grade of C or higher. Continuation of PHYS 105. Covers electricity, magnetism, optics, and modern physics. (2 lecture, 1 lab)

PHYS 118 - General Physics I with Lab 5
Prerequisite: MATH 130 with a grade of C or higher. Corequisite: MATH 131. An introduction to the fundamental ideas of physics. Topics include mechanics, oscillatory motion and thermodynamics. First course in calculus-based physics for the science and engineering student. (4 lecture, 1 lab)

PHYS 119 - General Physics II with Lab 5
Prerequisite: PHYS 118 with a grade of C or higher. Continuation of PHYS 118. Topics in the field of electromagnetism will be covered. (4 lecture, 1 lab)

PHYS 125 - Technical Science 4
Prerequisite: MATH 108, MATH 110 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 108, MATH 110 or MATH 112. 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.

PHYS 180 - Problems in Physics 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in physics under the supervision of a science instructor.

PHYS 203 - Statics 3
Prerequisite: PHYS 118 with a grade of C or higher. Application of the principles of mechanics to engineering problems of equilibrium. Topics include resultants, equilibrium, friction, trusses, center of gravity, and moment of inertia.

POLITICAL SCIENCE

POLS 101 - American/National Government 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey course of the American government and political systems. 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.

POLS 102 - Missouri Constitution .5
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Designed to meet requirements of Senate Bill No. 4. Intended for students testing out of history or government courses or transferring these courses from another state. Course is available on an individual basis. This is a pass/fail course.

POLS 103 - Introduction to Political Science 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Study of the nature of government, politics, the state, relations among 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 of governments around the world. Does not meet requirements of Senate Bill No. 4.

POLS 175 - Political Science Internship 1 to 4
Prerequisite: Consent of instructor. On-the-job work experience provides an opportunity for the student to work in a state or local government office or in a political action setting.

POLS 180 - Problems in Political Science 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in political science under the supervision of a political science instructor.

PSYCHOLOGY

PSY 101 - General Psychology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the scientific study of behavior and mental processes. Includes a survey of historical and current theories, theorists and perspectives in psychology. Goals include increasing critical thinking and intellectual curiosity about psychological phenomenon and provides a basis for further study in the field. Topics include neurology, sensation and perception, consciousness, learning, psychometrics, personality development, and mental illness and wellness. Writing papers in APA format is required.

PSY 102 - Child Psychology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Investigation into the interaction of biological and environmental factors affecting the physiological, intellectual and emotional development of the child from conception through adolescence. Writing papers in APA format is required.

PSY 104 - Psychology of Personal Adjustment 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

PSY 180 - Problems in Psychology 1 to 3
Prerequisites: PSY 101 with a grade of C or higher and consent of instructor. Writing papers in APA format is required. Students are advised to have completed ENGL 101 prior to enrolling. Independent study of a special problem in psychology under the supervision of a psychology instructor.

PSY 210 - Lifespan Development 3
Prerequisite: PSY 101 with a grade of C or higher. Writing papers in APA format is required. Students are advised to have completed ENGL 101 prior to enrolling. Study of major theories of psychological development during infancy, childhood, adolescence, and adulthood. Topics include physical, psychosocial and cognitive development across the lifespan giving consideration to cultural and individual variations.

PSY 220 - Abnormal Psychology 3
Prerequisite: PSY 101 with a grade of C or higher. Not offered every semester. Writing papers in APA format is required. Students are advised to have completed ENGL 101 prior to enrolling. Study of the historical and cultural context of abnormal behavior and diagnosis of mental disorders. Topics include a survey of the causes and treatment of major mental illness such as mood disorders, anxiety disorders, substance abuse, schizophrenia, and personality disorders. Writing papers in APA format is required.

RADIOLOGIC TECHNOLOGY

RAD 106 - Clinical Education I 3
Radiology student will complete an average of 240 contact hours, which equates to 3 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete seven mandatory competencies.

RAD 109 - Clinical Education II 2
Radiology student will complete an average of 160 contact hours, which equates to 2 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete nine competencies.

RAD 111 - Clinical Education III 2
Radiology student will complete an average of 160 contact hours, which equates to 2 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete nine competencies.

RAD 113 - Clinical Education IV 4
Radiology student will complete an average of 160 contact hours, which equates to 2 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete nine competencies.

RAD 115 - Clinical Education V 4
Radiology student will complete an average of 360 contact hours, which equates to 4 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete the remainder of required competencies.

RAD 117 - CT Clinical Education 4
Prerequisite: RAD 169 with a grade of C or higher. Clinical education provides the student with the opportunity to practice the skills and theory taught in the classroom. Students will demonstrate CT exam competency while practicing patient care and professionalism. Exam performance skills and critical thinking will be evaluated in this course.

RAD 120 - Radiographic Procedures I 3
Students will learn and practice the proper steps in the completion of radiographic exams including utilization of imaging equipment and proper patient positioning. Radiographic anatomy, radiation safety practices and patient care skills are reinforced. Students are introduced to basic film critique. Course will cover exams of the chest, abdomen and extremities. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (1 lecture, 2 lab)

RAD 122 - Radiographic Procedures II 3
Students will learn and practice the proper steps in the completion of radiographic exams including utilization of imaging equipment and proper patient positioning. Radiographic anatomy, radiation safety practices and patient care skills are reinforced. Students are introduced to basic film critique. Course will cover exams of the thorax and spines, as well as contrast exams. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (1 lecture, 2 lab)

RAD 124 - Radiographic Procedures III 3
Students will learn and practice the proper steps in the completion of radiographic exams including utilization of imaging equipment and proper patient positioning. Radiographic anatomy, radiation safety practices and patient care skills are reinforced. Students are introduced to basic film critique. Course will cover exams of the skull, facial bones, and geriatric and pediatric imaging. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (2 lecture, 1 lab)

RAD 128 - Introduction to Radiologic Sciences and Patient Care 3
Introduces students to an overview of the foundations in radiologic technology and the practitioner's role in the health care system. Students become cardiopulmonary resuscitation (CPR) certified. Students are introduced to Joint Review Committee on Education in Radiology Technology (JRCERT) standards and basic radiation safety. Instruction will also include basic concepts of routine and emergency patient care procedures, infection control, standard precautions, and the legal and ethical aspects of professional radiologic technology.

RAD 130 - Radiation Production and Characteristics 3
An overview of electricity, electromagnetic theory, circuitry, x-ray generation, production, interaction, and the basic characteristics of natural radiation.

RAD 134 - Radiographic Exposures and Quality Control 3
Introduction to factors involved in quality image production and the correlation of these factors and their control. Overview of image receptors, scatter control and radiographic exposure techniques is provided. Students will identify and evaluate acceptable limits for equipment operation.

RAD 137 - Radiation Protection 3
Student radiologic technologists must be able to protect patients and themselves from overexposure to radiation. Students will learn about dose limits and proper shielding, as well as radiation monitors and detectors. Radiation effects and potential biological damage of ionizing radiation will be discussed. The as low as reasonably achievable (ALARA) principle will be taught as well as the objectives of a radiation protection program. Students will have a basic understanding of the varieties of interactions between ionizing radiation and living cells.

RAD 140 - Radiologic Pharmacology 3
Overview of the foundations of pharmacology, including pharmacokinetics, pharmacodynamics, pertinent laws, and safety issues. Students will gain an understanding of drug categories, their actions and commonly used drugs in each category. Additionally, this course will emphasize contrast media commonly used in medical imaging, routes of administration and venipuncture techniques.

RAD 142 - Trauma and Advanced Imaging 3
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 skills will continue to be stressed. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (2 lecture, 1 lab)

RAD 144 - Radiation Biology 2
Reinforcement of the varieties of interactions between ionizing radiation and living cells. Acute and chronic effects of radiation are described.

RAD 146 - Imaging Equipment 3
Presents information about image intensified fluoroscopy, mobile equipment and automatic exposure devices. Image acquisition utilizing film/screen, computed radiography (CR) and digital radiography (DR) systems and the appropriate processing units will be discussed.

RAD 150 - Radiographic Pathology 3
Provides a basic understanding of disease processes as they relate to radiographic procedures. Course will include facts, etiology, symptoms, treatments, and radiographic appearance of many diseases and discussion of how one must adjust the radiographic technique for each of these disorders.

RAD 152 - Image Analysis 3
Utilizes 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, how to accomplish the change, and why a change is necessary.

RAD 154 - Sectional Anatomy 3
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 computed tomography (CT), magnetic resonance (MR) and ultrasound.

RAD 169 - Comprehensive CT Course for Technologists 5
This course will prepare registered radiologic technologists or future registered radiologic technologists for post-primary certification and registration in Computed Tomography. This course will consists of the four major CT content categories (patient care, safety, image production, and procedures).

RAD 170 - Preparing for Professionalism 3
A series of review assessments are administered enabling students to identify their strengths and weaknesses. Students will prepare for employment through the development of a letter of intent, a résumé and a thank you letter. Employment skills are researched and discussed.

RAD 180 - Problems in Radiologic Technology 1 to 3
Prerequisite: Consent of program coordinator. Independent study course designed to allow the students to more deeply research specific areas of radiologic technology that are of interest to them under the supervision of a radiologic technology instructor. Students also will explore more advanced health care degrees and/or managerial opportunities available to radiologic technologists.

RENEWABLE ENERGY-BIOMASS

RETB 105 - Biomass/Biofuels Energy Generation 3
Survey of energy generation systems that use biomass, biofuels and bioproducts, including landfill gas, for power generation. Discussion includes demand, technology issues, policy, and regulatory factors.

RETB 110 - Power Plant Systems 3
Overview of power plant operations, function and terminology. Provides an understanding of the similarities and differences between conventional power plants and renewable energy power plants. Topics include fuels, boilers, turbines, feedwater heaters, ash removal, condensate, controls, instrumentation, carbon emissions, and monitoring.

RETB 115 - Plant Boilers and Operations 4
Prerequisites: MATH 108 and RETB 110 with grades of C or higher. Introduction to boiler operations and types of boilers, including those fired with renewable fuels, startup and shutdown procedures, monitoring systems, and emergency procedures. Examines the steam cycle in a steam generation plant, auxiliary equipment and maintenance requirements. Includes power plant simulator exercises.

RETB 120 - Turbines and Generators 3
Prerequisite: RETB 110 with a grade of C or higher. Examination of operation of power turbines, basic turbine components and turbine driven generators. Discussion includes fuel requirements, maintenance requirements, engine controls, and emergency procedures.

RETB 125 - Power Plant Chemistry with Lab 5
Prerequisite: RETB 115 with a grade of C or higher. Introduction of wastewater treatment, environmental protection systems and chemistry unique to renewable energy power systems. Topics include treatment systems, demineralization, pollutants, wastewater, waste treatments, and recovery systems. (4 lecture, 1 lab)

RETB 175 - Biomass Generation Internship 8
Prerequisites: Completion of 30 technical credit hours and consent of program coordinator. Application of work skills in a supervised work environment. Sponsoring companies provide the supervision. The program coordinator provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. Designed to be an opportunity to demonstrate work skills, work ethics and the ability to work with others. Requires completion of training plan and submission of four to eight written technical reports.

RENEWABLE ENERGY-SOLAR PV

RETS 102 - Introduction to Renewable Energy 3
Prerequisite: ENGL 060 with a grade of C or higher or equivalent placement scores. Introduces concepts of renewable energy and gives an overview of the associated technology. Outlines the basic principles of energy production from solar, wind and biomass systems, and applications in both urban and rural environments. Emphasis is on how renewable energy technologies work and their practical use.

RETS 106 - Introduction to Solar PV Systems 1
Overview of different types of solar energy technologies, how photovoltaic systems (PV) compare to other systems and the advantages and disadvantages of installing a PV system. Also discussed are the differences between solar power and solar energy and why this is important in solar installations. Evaluation of factors affecting the sun's apparent position and how solar radiation and climate data are used in sizing and estimating performance for PV systems.

RETS 110 - Solar PV Site Planning 2
Prerequisites: IEM 102 and RETS 106 with grades of C or higher. Overview of process of determining potential array locations and factors that must be considered and discussed with customers. Examine purposes and functions of components of PV systems and what various energy sources can be interfaced with PV systems. Study includes construction and features of PV modules, current-voltage characteristics and parameters, and how a PV device converts light to electricity.

RETS 114 - Solar PV System Design 3
Prerequisites: MATH 108 and RETS 110 with grades of C or higher. Determine the system energy and power requirements from a load analysis and how to calculate the critical design parameters based on monthly load and insulation information. Key considerations for integrating arrays on buildings and other structures and how to differentiate between the various types of mounting configurations and their features. Knowledge of electrical codes, regulations and practices applicable to PV systems. Calculate voltage and current limits and how to determine appropriate conductor ampacities and overcurrent protection ratings for various circuits.

RETS 118 - Solar PV Balance of Systems 2
Prerequisite: RETS 110 with a grade of C or higher. Identify major battery components, functions, discharging and charging characteristics, and differentiate between types and classifications of batteries. Functions and features of charge controllers, charge controller applications, and installation will be covered. Identify basic waveform types and properties and what types are used in PV systems.

RETS 122 - Solar PV Utility Interconnection 1
Prerequisite: RETS 114 with a grade of C or higher. Identify applicable codes and standards for utility interconnection, how PV systems affect utility operations, and how to differentiate between load-side and supply-side interconnections. Learn the common requirements for permit applications and applicable articles of the National Electrical Code (NEC) for both general electric system requirements and PV-specific requirements.

RETS 126 - Solar PV Instrumentation and Metrology 4
Prerequisite: RETS 110 with a grade of C or higher. Instrumentation and measurement tools, techniques and methods used in renewable energy production systems will be covered. Types of measurements will include electrical, optical, thermal, physical, chemical, structural, and mechanical. Hands-on training to demonstrate proficiency with various techniques and devices.

RETS 130 - Practical Solar PV Experience 4
Prerequisite: RETS 122 with a grade of C or higher. Combination of study and hands-on practical applications of the NEC 2008 codes in PV systems, North American Board of Certified Energy Practitioners (NABCEP) certification studies, Occupational Safety and Health Administration (OSHA) training, and practical inspection experience. (3 lecture, 1 lab)

RETS 134 - Solar PV Commissioning 2
Prerequisite: RETS 130 with a grade of C or higher. Examine steps for commissioning new PV systems, maximizing array output battery health and other operations, troubleshooting PV systems, and developing a maintenance plan based on system configurations, installation and location. Discussed are incentive options, how to calculate present and future costs, and making a comparison of energy-production systems based on total life-cycle costs.

RETS 175 - Solar PV Internship 8
Prerequisites: Completion of 30 technical credit hours and consent of program coordinator. Application of work skills in a supervised work environment. Companies that sponsor internships provide the supervision. The college provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. Designed to provide an opportunity to demonstrate work skills, work ethics and the ability to work with others. In addition to completing the training plan, the student must submit four to eight written technical reports.

SERVICE EDUCATION

SRVE 101 - Emerging Leaders I 1
Prerequisite: Consent of instructor. Provides students with opportunities to develop and enhance a personal philosophy of leadership that includes the understanding of self, others, and community, and acceptance of responsibilities inherent in community membership. Involvement in at least one leadership experience is required for the course. A full list of qualifying experiences is provided to all students who enroll.

SRVE 180 - Problems in Service Learning and Leadership 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem relating to service learning and leadership under the supervision of an instructor in a related discipline.

SRVE 201 - Emerging Leaders II 1
Prerequisite: Consent of instructor. Continuation of SRVE 101. Provides students with additional opportunities to develop and enhance a personal philosophy of leadership that includes the understanding of self, others, and community, and acceptance of responsibilities inherent in community membership. Involvement in at least one leadership experience is required for the course. A full list of qualifying experiences is provided to all students who enroll.

SOCIOLOGY

SOC 100 - General Sociology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the basic principles, concepts, research strategies, and empirical findings representative of the field today. Explores the relationships of individuals and groups in the context of broader social patterns. Establishes a basis for further study in the field. Course topics may include gender and racial inequality, deviance, economic and political institutions, social mobility, and concepts related to current social and cultural change.

SOC 101 - Social Problems 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Examines objective social conditions that have been defined as social problems. Focuses on gaining factual and theoretical knowledge to build better explanations for the existence and persistence of social problems in light of social controls and democratic values. Explores options for solutions to specific social problems. Topics include racial inequality, gender stratification, poverty, mass media, and education among others.

SOC 102 - Marriage and Family 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Explores the social and historical roots of marriage as both a social institution and an intimate relationship. Examines the sources of and the challenges created by the diversity of family forms. Topics include intimacy, dating and courtship, conflict and communication, singlehood and cohabitation, divorce, and parenting.

SOC 103 - Introduction to Social Work 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Provides background knowledge of the field, an overview of social problems and social services, and methods of social work practice. Topics may include poverty, substance abuse, mental illness, crime, family, education, racism, and sexism among others. Each topic is discussed with an interest in identifying the opportunities for and challenges to effective social work.

SOC 120 - American Diversity 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Overview of global and American diversity resulting from cultural interactions, especially in the areas of art, government, economics, and religion, as well as a historical perspective. Students will gain a greater understanding of diversity from an individual and community perspective.

SOC 180 - Problems in Sociology 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in sociology under the supervision of a sociology instructor.

SPANISH

SPAN 101 - Elementary Spanish I 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the Spanish culture. Concentrates on the present indicative tense with the course conducted primarily in Spanish.

SPAN 102 - Elementary Spanish II 3
Prerequisite: SPAN 101. Concentrates on the preterit and imperfect tenses and reflexive constructions for students to further enhance their ability to listen, speak, read, and write. Course is conducted primarily in Spanish.

STUDENT SUCCESS

SS 090 - Student Orientation 0
Designed to provide interactions with other students, staff and faculty that will help students get a sense of the campus culture and how to conduct business with the college. Emphasis is on assisting students with understanding how to use the different online elements. This is not a gradable course.

SS 104 - College Skills 3
Designed to enhance the college learning experience and prepare students for personal and professional success. Concepts presented include time management, managing change, setting and achieving goals, and thinking in ways to create success. Note taking, library research, test taking, and study skills are also included. This course will include an eight-hour service learning project.

SS 108 - Career Choice 1
Designed to guide students who may be 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.

SS 114 - Computer Skills for College 2
Designed to build a foundation of basic computer skills necessary to be successful within an educational setting. Topics include basic computer functions and functional navigation and practical application of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Internet, email, mySTAR, and SFCC Online.

SS 120 - Employment Strategies 1
Designed to help students develop employment search skills and career growth potential.

SS 125 - Leadership through Cultural Experiences 3
Prerequisite: Consent of instructor. Spring semester only. Students practice various leadership themes and principles to foster interaction in a global society.

THEATRE

THEA 107 - Introduction to Theatre 3
Introductory hands-on course where students examine the major contributors to the theatrical event: the director, actor, scene designer, and lighting designer. Students will be required to see at least two live theatre productions for which admission may be charged.

THEA 110 - 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 classroom time with direct involvement in operation of specialized theatre equipment. Required course for speech and theatre majors and minors.

THEA 111 - Acting I 3
Intensive study of the techniques of acting with concentration on bodily movement, balance, diction, voice, and characterization.

THEA 113 - 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.

THEA 115 - Theatre Practicum 1 to 2
Includes student participation in plays, either in performance or backstage work. No more than four credit hours of Theatre Practicum may be applied toward an Associate of Arts degree.

THEA 119 - Stage Makeup 3
Provides a hands-on look at stage makeup. Students will learn the basics of corrective, old age, effects makeup, and what is required in creating a character.

THEA 122 - Costume Construction 3
Course intends to introduce the student to the field of costume technology through the practical experience in the execution of theatrical costume techniques, basic sewing skills and costume crew.

THEA 125 - Theatre History 3
Introductory examination of theatre as a living and viable artistic medium. Course examines the historical development of the audience; dramatic literature and structure; and the role of the actors, directors, designers, and technicians.

THEA 128 - Introduction to Theatre Design 3
Students taking this course will be given the opportunity to identify, analyze and implement the elements of successful theatrical design. In addition, students will be given the opportunity to learn how to evaluate their own personal reactions to a given aesthetic. Students are expected to discuss designs from local shows they see.

THEA 131 - Script Analysis 3
The purpose of script analysis is to examine various methods of analyzing play scripts for performance. Specific emphasis will be placed on the working environment of the actor, director and designer in examining how a script is produced for a public performance. The course is designed to help students develop tools for use in their profession, not to survey the history of dramatic literature.

THEA 134 - Stage Voice and Movement 3
A survey and practice of multiple theatre movement and voice theories designed to develop student awareness and skill related to the body's expressive potential.

THEA 180 - Problems in Theatre 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in speech or theatre under the supervision of a fine arts instructor.

THEA 190 - Theatre Capstone 1
Prerequisite: Consent of program coordinator. This class is designed to put all the things that students have learned together, so they will be prepared for the college or university to which they transfer. Acting students will have to have two monologues ready to perform, and technical students will have to create a portfolio.

TRiO SKILLS

TSKL 101 - TRiO Skills I 1
Prerequisite: Consent of TRiO STEPS advisor. Designed to assist incoming freshmen with basic skills needed to orient them to college and necessary for academic success. Emphasis upon basic computer skills, study skills, research skills, critical thinking skills, financial management skills, life skills, confidence building, and career exploration. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

TSKL 102 - TRiO Skills II 1
Prerequisite: Consent of TRiO STEPS advisor. Continuation of TSKL 101. Aimed at assisting TRiO STEPS students who have completed basic skills courses and have moved on to college-level courses. Topics include study skills, research skills, critical thinking skills, financial management skills, time management, life skills, confidence building, and career exploration. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

TSKL 103 - TRiO Skills III 1
Prerequisite: Consent of TRiO STEPS advisor. Continuation of TSKL 102. This TRiO STEPS course will focus on life skills and personal enrichment. Covers topics such as fiscal management, job skills, résumé writing, maintaining physical and emotional health, conflict resolution, and stress management. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

TSKL 104 - TRiO Skills IV 1
Prerequisite: Consent of TRiO STEPS advisor. Designed to assist students who are participants in the TRiO STEPS program who are in their final year at SFCC complete the activities required for graduation and to assist them in transferring to the four-year college of their choice. Students in this course will be assisted in completing applications to four-year colleges and in applying for scholarships and financial aid at their transfer institutions. Students will also be assisted in planning financially for completing their baccalaureate degrees, including calculations of manageable student debt load. Campus visits to four-year colleges are provided free of charge to students in the STEPS program. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

WEB DEVELOPMENT

WEB 103 - Introduction to Web Development 3
Students will learn the basic skills and technology for creating basic web pages, the usage of hypertext markup language 5 (HTML5), designing simple applications for Android devices, and additional web design tools.

WEB 114 - Web Scripting 3
The use and implementation of client-side scripting languages to create interactive web-based applications. Content will include using JavaScript, VBScript and other scripting languages as appropriate for creating dynamic web applications.

WEB 116 - Web Development 3
Provides enhanced instruction in the concepts, issues and techniques related to designing, developing and deploying websites. Instruction includes, but is not limited to, learning about HTML, HTML5, basic JavaScript, extensible markup language (XML), importing external videos, and cascading style sheets (CSS). The use of learning how to create sites both manually and through the use of website development software will be taught.

WEB 117 - Advanced Web Development 3
Prerequisite: WEB 116 with a grade of C or higher. Course gives instruction in the creation of dynamic web pages through a variety of formats. These methods may include, but are not limited to, hypertext preprocessor (PHP), structured query language (MySQL), active server pages (ASP), extensible markup language (XML), ColdFusion, and file transfer protocol (FTP).

WEB 118 - Digital Imaging 3
Provides extensive instruction in the creation and manipulation of images through the software package Adobe Photoshop. Course is aimed at the Photoshop beginner who wants to create sophisticated graphics for both print and web. Special emphasis on tools, selections, masking, photo treatment and design will be discussed.

WEB 120 - XML 3
Instruction includes learning to use and implement XML standards in web page creation. XML is a language for storing and delivering information on the web. Basic concepts of XML along with delivery methods for developing dynamic HTML documents that maximize the use of browser capabilities will be taught.

WEB 130 - Media Productions 3
Students will learn to create multimedia presentation videos and to edit videos as well as authoring, interfacing and implementing the fundamentals of video production.

WEB 160 - Portfolio Design 3
Instruction in designing a professional, informative and effective DVD portfolio that highlights the experience and knowledge gained from courses taken at SFCC. Design focuses on, but is not limited to, projects created in the CIS and WEB program courses. This DVD portfolio will be used so prospective employers can gain a better understanding of the student's technical skills and the subject matter learned.

WEB 175 - Web Development Internship 4
Prerequisite: Consent of program coordinator. Provides on-the-job work experience in web development. Supervised and evaluated by the instructor.

WELDING

WELD 101 - Introduction to Welding 4
Basic course beginning with instruction in the technical knowledge and skills required for oxyacetylene cutting, plasma arc cutting, shielded metal arc welding, flux core arc welding, and gas 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. (1 lecture, 3 lab)

WELD 102 - Structural Welding 4
Prerequisite: WELD 101. Basic course using the American Welding Society (AWS) D1.1 Structural Welding Code with AWS welder qualifications included. Course includes out of position welding on plate with the shielded metal arc welding, flux core arc welding and gas metal arc welding processes. The computer numerically controlled (CNC) plasma arc cutting process is introduced. (1 lecture, 3 lab)

WELD 103 - Pipe Welding 4
Prerequisite: WELD 102. Advanced technical welding course utilizing the American Society of Mechanical Engineers Section (ASME) 9 code for pipe welding with ASME welder qualification included. The course of study is the welding of pipe, using the shielded metal arc process in all positions. (1 lecture, 3 lab)

WELD 104 - TIG Welding 4
Prerequisite: WELD 101 with a grade of B or higher or WELD 102 with a grade of C or higher. Advanced technical welding course structured primarily for specialized welding operations requiring a high degree of skill. Students will study the use of gas tungsten arc welding of ferrous and nonferrous metals in all positions according to the applicable code. (1 lecture, 3 lab)

WELD 105 - Advanced Pipe Welding 4
Prerequisites: WELD 103 with a grade of C or higher and WELD 104. Corequisite: WELD 104. Course will utilize the gas tungsten arc welding (GTAW also known as TIG) process for joining pipe. ASME Section 9 will be the governing code with welder qualifications available for the successful student. (1 lecture, 3 lab)

WELD 114 - Structural Layout and Fabrication 3
Topics include whole numbers, number systems, dimensions, measurement, fractions, volume, weight, precision, accuracy, and percentages. In addition to teaching basic math concepts, the problems will give students a preview of the types of welding-related situations they will face in a work environment. Students will develop solid troubleshooting skills that will serve them throughout their careers as welders. (1 lecture, 2 lab)

WELD 116 - Print Reading for Welders 3
Study of symbols including AWS and ISO industry standards, measurement systems, terminology, and prints and diagrams associated with work performed by welders in the welding industry. Course includes reading basics prints, math and measurements, welding processes, types of welds and joints, welding symbols, shop drawings, assembly drawings, detail drawings, auxiliary views, detail views, projections, and sections.

WELD 160 - Welding Fabrication 4
Prerequisites: WELD 102, WELD 116 and WELD 114 or MATH 107 or equivalent placement score. An advanced, comprehensive class designed to put the skills obtained in the areas of welding, print reading, layout, and shapes to practical use and provide additional instruction on welding fabrication, weldments, and fixtures. Upon completion students will be able to fabricate a metal weldment using layout methods, prints and a weldment fixture. (1 lecture, 3 lab)

WELD 165 - CNC Plasma Cutting 3
Prerequisite: EDT 111 with a grade of C or higher. Students will be introduced to basic numerical control software and programming. Students will write several programs and use computer aided drafting (CAD) to communicate with the plasma cutting system. Students will program and cut two-dimensional parts and learn how to troubleshoot the equipment for problems.

WELD 180 - Problems in Welding 1 to 8
Prerequisite: Consent of program coordinator. Independent study of a special problem in welding under the supervision of a welding instructor.

WELLNESS

WELL 116 - 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 will fulfill the wellness requirement.

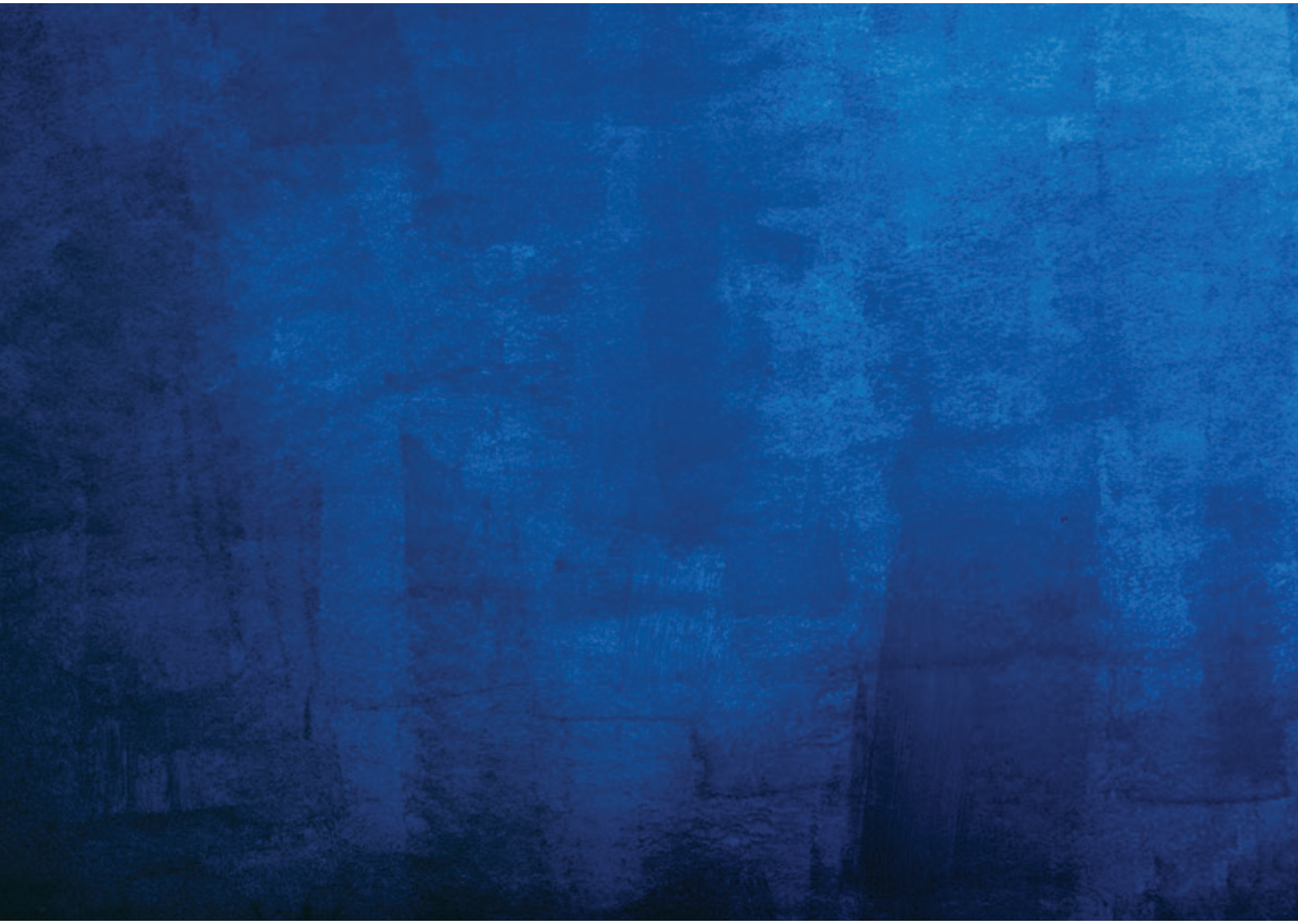
WELL 117 - Building Fitness for Life II **1**
Prerequisite: WELL 116. Course expands the student's knowledge and ability to develop a comprehensive plan of lifetime wellness utilizing fitness training. Course will fulfill the wellness requirement.

WELL 118 - Aerobics **.5 to 1**
Complete fitness program designed to combine exercise and fun. Course will fulfill the wellness requirement.

WELL 119 - Low Impact Aerobics **1 to 1.5**
Fitness program designed for anyone who wants to minimize the risk of injury but still enjoy an aerobic workout. Course will fulfill the wellness requirement.

WELL 121 - Women and Health **1**
Designed to provide students 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 effects on health and wellbeing 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 will fulfill the wellness requirement.

WELL 122 - Applied Wellness **1**
A different type of physical education activity course that can be enjoyed by any or all students regardless of age or physical condition. Designed to provide students with theoretical and practical experiences focusing on the relationship of lifestyle to productivity and quality of life. Course will fulfill the wellness requirement.



State Fair
Community College

[SECTION 1]

[ADDENDUM]

GENERAL INFORMATION

Institutional Learning Outcomes

State Fair Community College

Welcome to State Fair Community College!

This catalog is designed to help with planning your educational program. It contains information about admission, enrollment and programs. Descriptions of all active courses that are part of the regular curriculum are included, as well as the courses required for general education credits for the Associate of Arts, Associate of Fine Arts, Associate of Arts in Teaching, Associate of Science, and Associate of Applied Science degrees awarded by the college and career courses that apply to the Professional Certificates and Skill Certificates.

Mission

State Fair Community College provides relevant and innovative learning experiences that successfully prepare students for college transfer, career development and lifelong learning. SFCC is committed to being accessible and affordable; values collaborative partnerships; and strengthens and enriches the intellectual, economic and cultural vitality of the communities it serves.

Vision

State Fair Community College will be an exceptional student-centered college that empowers individuals to grow, thrive and prosper within a changing world.

Core Values

We at State Fair Community College value:

People: Work collaboratively in a supportive environment that keeps students central and values employees, the college family and the people we serve
Excellence: Focus on quality and continuous improvement in programs, services and processes
Diversity: Ensure fair and equal access for all; recognize, appreciate and celebrate the strength of diversity
Innovation: Encourage and reward new ideas, proactive thinking and use of evolving technology
Respect: Foster trust, courtesy and open communication
Integrity: Promote ethical and honest behavior
Accountability: Maintain effective and efficient programs and services
Wellness: Encourage health and wellness among students and employees
Fun: Enjoy and celebrate the work we do

Institutional Learning Outcomes

State Fair Community College students, regardless of their status or particular program of study, will, upon the completion of their general and specialized studies, be able to:

Think critically
- Gather information by listening to and reading from varied sources
- Evaluate information as a guide to belief and action
- Apply information to the solving of problems and decision making
- Broaden awareness and formulate new ideas

Communicate effectively
- Apply standard English in speaking and writing to clearly express ideas
- Use language with clarity, coherence and persuasiveness
- Recognize the role of nonverbal signals in communication

Behave responsibly
- Demonstrate personal and professional integrity and ethics
- Understand the importance and benefits of service
- Exhibit responsible citizenship

Value others
- Work cooperatively as part of a team
- Appreciate cultural diversity and its benefits
- Cultivate tolerance, civility and respect for others

Develop life skills
- Manage time and finances effectively
- Value lifelong learning
- Utilize workforce readiness skills
- Incorporate principles of a healthy lifestyle into daily activities

Utilize technology
- Demonstrate ability to adapt available technology to workplace or personal life
- Investigate world processes
- Distinguish qualities and characteristics of social, economic and political systems
- Appreciate the world's natural and physical processes
- Explore the roots and expressions of culture

Institutional Learning Outcomes
- Investigate world processes
- Distinguish qualities and characteristics of social, economic and political systems
- Appreciate the world's natural and physical processes
- Explore the roots and expressions of culture

[SECTION 1]

[ADDENDUM]

ADMISSION AND ENROLLMENT

Military Tuition

State Fair Community College

To benefit from these provisions, a student must furnish satisfactory evidence that the taxes have been paid.

Change of resident status
In order to change resident status, students must submit a written request as well as sufficient evidence to substantiate the change to the Director of Admissions and Outreach. The Director of Admissions and Outreach will review the evidence and determine whether the request is justified. Students may appeal the director's decision through the Student Grievance and Appellate Process as described in Regulation 2160. Tuition rates will not be changed mid-semester but will take effect for the next semester in which the student enrolls. Refunds will not be given for previous semesters.

It is the duty of the student to report the correct address on the application for admission and to inform the Academic Records and Registrar office of all address changes. Students shall observe the following guidelines:

1. It is the duty of each student to pay applicable tuition and fees based upon his/her resident status.
2. If there is any possibility that according to the resident classification the student should pay higher or lower tuition and fees, it is the duty of the student to raise the question at the time of enrollment.
3. A student must present a government-issued photo ID to make a change in his/her address.
4. Any student or graduate who wishes to make a change in his/her legal name must present appropriate legal documentation (i.e., a court order, a Social Security card, a government-issued photo ID).

A student who intentionally gives false or inaccurate information on a Certificate of Residency or who fails to inform the Academic Records and Registrar office of a change of address that alters his/her resident status will be subject to the following penalties:

1. The student may be dismissed from the college; and,
2. The student's record will not be released or certified until he/she has paid the appropriate tuition and fees based on the change in residency. (*Regulation 2220*)

Tuition, Fees and Books

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

Tuition and fees
Tuition is established by the college's Board of Trustees and is charged per credit hour. A detailed current tuition and fees listing is available online at www.sfccmo.edu or from the college. Tuition and fees are subject to changes and additions.

Military Tuition
The following individuals shall be charged the in-state rate, or otherwise considered a resident, for tuition purposes:

- A participant using educational assistance under either chapter 30 (Montgomery G.I. Bill – Active Duty Program), chapter 31 (Vocational Rehabilitation and Employment), or chapter 33 (Post-9/11 G.I. Bill), of title 38, United States Code, who lives in the State of Missouri while attending a school located in the State of Missouri (regardless of his/her formal State of residence) and enrolls in the school within three years of discharge from a period of active duty service of 90 days or more.
- Anyone using transferred Post-9/11 GI Bill® benefits (38 U.S.C. § 3319) who lives in the State of Missouri while attending a school located in the State of Missouri (regardless of his/her formal State of residence) and enrolls in the school within three years of the transferor's discharge from a period of active duty service of 90 days or more.
- A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. § 3311(b)(9)) who lives in the State of Missouri while attending a school located in the State of Missouri (regardless of his/her formal State of residence) and enrolls in the school within three years of the Service member's death in the line of duty following a period of active duty service of 90 days or more.
- Anyone described above while he or she remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same school. The person so described must have enrolled in the school prior to the expiration of the three year period following

discharge or death described above and must be using educational benefits under chapter 30, chapter 31, or chapter 33, of title 38, United States Code.

Primetime Learner discount of tuition waiver
Missouri residents age 65 or older may enroll in college credit classes with no tuition if space is available in that course. Students receiving the discount will not be given college credit and shall satisfy all course prerequisites. If college credit is desired, the student must enroll in the course and pay full tuition and fees. The student is responsible for any fees, supplies or books. An identification card may be obtained at the Sedalia campus in the Financial Aid office. (*Taken from Regulation 3361*)

Book costs
Most courses will require purchasing or renting textbooks. Also, workbooks, study guides, and other extras may need to be purchased.

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

Students are able to drop all but their last class online through the student portal, mySTAR, throughout the semester until the designated last day to drop a class for its part of term. A complete withdrawal form located in mySTAR must be completed to drop the last class.

All requests for refunds or credits after the refund period has ended must be made in writing. If eligible for a refund, a check will be mailed to the student; however, deductions may be made from the refund for any financial obligation due to the college. Students may make refund appeals through the Student Grievance and Appellate Process as described in Regulation 2160.

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 that lead to the completion of the specific degree or major they are pursuing.

Applying for financial aid
For federal grants, student loans and the work-study program, the Free Application for Federal Student Aid (FAFSA) needs to be completed and all required documentation submitted by the following dates to ensure funds are in place before the student's entry semester starts.

Fall – July 1
Spring – November 1
Summer – April 1

To be considered for most state programs, the FAFSA must be completed by the priority date of Feb. 1 for the upcoming fall semester. The SFCC online scholarship application needs to be completed by March 1 for the upcoming aid year.

For more information on applying for financial aid, refer to the SFCC website or visit the Financial Aid office or any extended campus location. (Taken from Regulations 2710, 2720, 2730, 2740, and 2760)

Department of Veterans Affairs
State Fair Community College programs are approved under Title 38 of the U.S. Code to be certified for the following VA Education Benefits through the Financial Aid office:

Chapter 30 – Montgomery GI Bill®-Active Duty
Chapter 31 – VA Vocational Rehabilitation
Chapter 33 – Post 9/11
Chapter 35 – Dependent or Spouse
1606 – Montgomery GI Bill®- National Guard/ Reserves

All other programs are managed through the Business office. All persons seeking VA Education Benefits are required to comply with SFCC's satisfactory academic progress standards. (Taken from Regulation 2750)

Academic Forgiveness

Academic forgiveness is designed to help students overcome previously earned poor grades in order to meet new career and/or educational goals and/or to meet graduation requirements. State Fair Community College permits students to petition for academic forgiveness of course work completed at least five years prior to the petition date. Approval of the petition permits a new start without the handicap of the prior academic record. Due to the calculation for academic standing it is recommended that a student submit a petition for academic forgiveness before the next term commences or after grades for the previous term have been posted.

[SECTION 2]

[ADDENDUM]

Programs

- Changes
  - Associate of Arts
  - Associate of Fine Arts in Art
  - Associate of Fine Arts in Music
  - Associate of Fine Arts in Theatre
  - Associate of Arts in Teaching
  - AAS in Business Management with Management Specialty
  - AAS in Diagnostic Medical Sonography
  - Professional Certificate in Nurse Aide
  - Professional Certificate in Pipe Welding

✚ Additions

Changes

✖ Deletions

State Fair Community College

Associate of Arts

The Associate of Arts (AA) degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree.

If you're undecided on a major, the AA degree can serve as a springboard to explore new interests. It allows for flexibility and provides a wide choice of classes. We're here to help you discover the huge variety of academic programs and transfer options available to you with an Associate of Arts degree.

General Education Core **42 Hours**

Written Communications **6 hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 hours**

COMM 101	Public Speaking	3
COMM 103	Small Group Communication	3
COMM 105	Interpersonal Communication	3

Social and Behavioral Sciences **9 hours**

Must include courses from at least two disciplines, including at least one civics course

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

History

HIST 108	World Civilization Before 1500	3
HIST 109	World Civilization After 1500	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Sociology

SOC 100	General Sociology	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component

Astronomy

EASC 120	Introduction to Astronomy	3

Biology

BIO 100	Introduction to Biological Sciences	3
BIO 105	Wildlife Conservation	3
BIO 112	Introduction to Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Life Sciences

BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Arts

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **9 Hours**

Must include courses from at least two disciplines

Art

ART 101	Art Appreciation	3
ART 120	Modern Art History	3

Foreign Language

FREN 101	Elementary French I	3
FREN 102	Elementary French II	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 101	Introduction to Literature	3
LIT 107	American Literature	3
LIT 109	British Literature	3
LIT 112	World Literature	3

Music

MUS 100	Fundamentals of Music	3
MUS 101	Music Appreciation	3
MUS 102	History of Rock Music	3
MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature After 1800	3

Performance

A limit of 3 credit hours can be applied to the Humanities and fine arts category and the total general education core

ART 112	Drawing I	3
MUS 119	Jazz Band I	1
MUS 175	Chamber Singers I	1
MUS 210	Jazz Choir I	2

Philosophy

PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3

Religion

PHIL 104	Living Religions	3

Theatre

THEA 107	Introduction to Theatre	3

General Education Elective **5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core

Electives **22 Hours**

Additional courses numbered 100 or above may include 12 hours of restricted electives from technical training in the military or from technical courses taken at an accredited college. A maximum of 4 credit hours may be applied for THEA 115. Physical education activity and wellness courses (PE, PEAC, WELL, WL, XWLN, or XPAC prefix) may be accepted as elective credit for a maximum of 3 credit hours. Veterans, members of the National Guard and active duty military personnel may receive 2 hours of wellness credit by presenting a copy of their DD214 or similar record.

Degree Total **64 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Art

The Associate of Fine Arts in Art degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree in Art.

General Education Core **42 Hours**

Written Communications **6 hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 hours**

COMM 101	Public Speaking	3
COMM 103	Small Group Communication	3
COMM 105	Interpersonal Communication	3

Social and Behavioral Sciences **9 hours**

Must include courses from at least two disciplines, including at least one civics course

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

History

HIST 108	World Civilization Before 1500	3
HIST 109	World Civilization After 1500	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Sociology

SOC 100	General Sociology	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component

Astronomy

EASC 120	Introduction to Astronomy	3

Biology

BIO 100	Introduction to Biological Sciences	3
BIO 105	Wildlife Conservation	3
BIO 112	Introduction to Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Art

Life Sciences

BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **6 Hours**

ART 101	Art Appreciation	3
ART 120	Modern Art History	3

Humanities and Fine Arts Elective **3 Hours**

Foreign Language

FREN 101	Elementary French I	3
FREN 102	Elementary French II	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 101	Introduction to Literature	3
LIT 107	American Literature	3
LIT 109	British Literature	3
LIT 112	World Literature	3

Music

MUS 100	Fundamentals of Music	3
MUS 101	Music Appreciation	3
MUS 102	History of Rock Music	3
MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature Since 1800	3

Performance

A maximum of 3 credit hours can be applied to the humanities and fine arts category and the total general education core

MUS 119	Jazz Band I	1
MUS 175	Chamber Singers I	1
MUS 210	Jazz Choir I	2

Philosophy

PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3

Religion

PHIL 104	Living Religions	3

Theatre

THEA 107	Introduction to Theatre	3

General Education Elective **5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core

Art Core **15 Hours**

ART 103	Design I	3
ART 104	Design II	3
ART 112	Drawing I	3
ART 113	Drawing II	3
ART 122	Sculpture I (or)	
ART 126	Ceramics I	3

Art Electives **9 Hours**

ART 106	Watercolor I	3
ART 107	Watercolor II	3
ART 108	Watercolor III	3
ART 110	Printmaking	3
ART 114	Figure Drawing I	3
ART 115	Figure Drawing II	3
ART 116	Painting I	3
ART 117	Painting II	3
ART 118	Painting III	3
ART 122	Sculpture I	3
ART 123	Sculpture II	3
ART 126	Ceramics I	3
ART 127	Ceramics II	3

Degree Total **66 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Music

The Associate of Fine Arts in Music degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree in Music. Students must attend and pass four semesters of MUS 195 Concert and Recital Attendance.

General Education Core **42 Hours**

Written Communications **6 hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 hours**

COMM 101	Public Speaking	3
COMM 103	Small Group Communication	3
COMM 105	Interpersonal Communication	3

Social and Behavioral Sciences **9 hours**

Must include courses from at least two disciplines, including at least one civics course

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

History

HIST 108	World Civilization Before 1500	3
HIST 109	World Civilization After 1500	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Sociology

SOC 100	General Sociology	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component

Astronomy

EASC 120	Introduction to Astronomy	3

Biology

BIO 100	Introduction to Biological Sciences	3
BIO 105	Wildlife Conservation	3
BIO 112	Introduction to Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Life Sciences

BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **6 Hours**

MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature Since 1800	3

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Music

Humanities and Fine Arts Elective **3 Hours**

Art

ART 101	Art Appreciation	3
ART 120	Modern Art History	3

Foreign Language

FREN 101	Elementary French I	3
FREN 102	Elementary French II	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 101	Introduction to Literature	3
LIT 107	American Literature	3
LIT 109	British Literature	3
LIT 112	World Literature	3

Performance

A maximum of 3 credit hours can be applied to the humanities and fine arts category and the total general education core

ART 112 Drawing I	3
MUS 119 Jazz Band I	1
MUS 175 Chamber Singers I	1
MUS 210 Jazz Choir I	2

Philosophy

PHIL 101 Introduction to Philosophy	3
PHIL 102 Ethics	3

Religion

PHIL 104 Living Religions	3

Theatre

THEA 107 Introduction to Theatre	3

General Education Elective **5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core

Music Core **20 Hours**

MUS 100	Fundamentals of Music	3
MUS 105	Fundamentals of Aural Training	1
MUS 106	Music Theory I	3
MUS 107	Music Theory II	3
MUS 108	Music Theory III	3
MUS 109	Aural Training I	1
MUS 110	Aural Training II	1
MUS 111	Aural Training III	1
MUS 145	Beginning Piano Class I	2
MUS 146	Beginning Piano Class II	2

Music Electives **5 Hours**

MUS 102	History of Rock Music	3
MUS 119	Jazz Band I	1
MUS 120	Jazz Band II	1
MUS 121	Jazz Band III	1
MUS 122	Jazz Band IV	1
MUS 136	Applied Instrumental Lessons	1-2
MUS 137	Applied Instrumental Lessons II	1-2
MUS 138	Applied Instrumental Lessons III	1-2
MUS 139	Applied Instrumental Lessons IV	1-2
MUS 140	Guitar Class I	2
MUS 150	Applied Piano Lessons I	1-2
MUS 151	Applied Piano Lessons II	1-2
MUS 152	Applied Piano Lessons III	1-2
MUS 153	Applied Piano Lessons IV	1-2
MUS 155	Voice Class	2
MUS 160	Applied Voice Lessons I	1
MUS 161	Applied Voice Lessons II	1
MUS 162	Applied Voice Lessons III	1
MUS 163	Applied Voice Lessons IV	1
MUS 175	Chamber Singers I	1
MUS 176	Chamber Singers II	1
MUS 177	Chamber Singers III	1
MUS 178	Chamber Singers IV	1
MUS 210	Jazz Choir I	2
MUS 211	Jazz Choir II	2
MUS 212	Jazz Choir III	2
MUS 213	Jazz Choir IV	2

Concert and Recital Attendance **4 Semesters**

MUS 195	Concert and Recital Attendance

Degree Total **67 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Theatre

The Associate of Fine Arts in Theatre degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree in Theatre.

General Education Core **42 Hours**

Written Communications **6 hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 hours**

COMM 101	Public Speaking	3
COMM 105	Interpersonal Communication	3

Social and Behavioral Sciences **9 hours**

Must include courses from at least two disciplines, including at least one civics course

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

History

HIST 108	World Civilization Before 1500	3
HIST 109	World Civilization After 1500	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Sociology

SOC 100	General Sociology	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component

Astronomy

EASC 120	Introduction to Astronomy	3

Biology

BIO 100	Introduction to Biological Sciences	3
BIO 105	Wildlife Conservation	3
BIO 112	Introduction to Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Life Sciences

BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **9 Hours**

Must include courses from at least two disciplines, with a maximum of 3 credit hours from the performance discipline and the total general education core

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Fine Arts in Theatre

Art		
ART 101	Art Appreciation	3
ART 120	Modern Art History	3
Foreign Language		
FREN 101	Elementary French I	3
FREN 102	Elementary French II	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3
Literature		
LIT 101	Introduction to Literature	3
LIT 107	American Literature	3
LIT 109	British Literature	3
LIT 112	World Literature	3
Music		
MUS 100	Fundamentals of Music	3
MUS 101	Music Appreciation	3
MUS 102	History of Rock Music	3
MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature Since 1800	3
Performance		
ART 112	Drawing I	3
MUS 175	Chamber Singers I	1
MUS 210	Jazz Choir I	2
Philosophy		
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
Religion		
PHIL 104	Living Religions	3
Theatre		
THEA 107	Introduction to Theatre	3
General Education Elective		**5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core

Theatre Core		**25 Hours**
THEA 110	Stagecraft and Lighting	3
THEA 111	Acting I	3
THEA 119	Stage Makeup	3
THEA 122	Costume Construction (or)	
THEA 113	Oral Interpretation	3
THEA 125	Theatre History	3
THEA 128	Introduction to Theatre Design	3
THEA 131	Script Analysis	3
THEA 134	Stage Voice and Movement	3
THEA 190	Theatre Capstone	1
Degree Total		**67 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Arts in Teaching

The Associate of Arts in Teaching (AAT) degree prepares students with a foundation in educational principles, theory and practice, and exposes them to complex problems and relationships in the field of education.

Teachers play an essential role in fostering the intellectual and social development of children in their formative years. Using a variety of active learning approaches, teachers help children understand abstract principles, solve problems, and develop critical thought processes.

Whether desiring to teach preschool or elementary school, teachers provide the tools and the environment for their students to develop into responsible citizens. Any Missouri community college student who has earned an AAT degree is guaranteed consistent treatment by the majority of four-year transfer institutions. Completing the AAT is the first step to achieving a Bachelor of Arts or a Bachelor of Science in an Elementary Education degree. Bachelor's degree institutions with teacher education programs have different requirements. It is essential to work with an advisor to select the correct courses (categories indicated with ** in the Program Requirements) needed for the transfer institution of choice.

The Missouri Department of Elementary and Secondary Education-Office of Educator Quality is working with representative stakeholder groups to redesign the standards for educator preparation including certification requirements. These changes and implementation schedule will be communicated to students through individual advising sessions, meetings, and/or other college communications. If there are any questions and/or concerns, please contact the Director of Educator Preparation in the Office of Educator Quality.

Other AAT Requirements

A background check is required prior to beginning the program.

A cumulative content area GPA of 3.0 or higher is required for EDUC 110, EDUC 180, EDUC 205, EDUC 209, EDUC 212, EDUC 218, EDUC 220, EDUC 228, EDUC 240 and EDUC 250 taken at SFCC or transferred in as equivalent.

Minimum cumulative GPA of 2.75 and institutional GPA of 2.0 to apply for graduation.

Successful completion of the MoGEA (180 or higher for Mathematics; 183 or higher for Reading Comprehension and Interpretation; 188 or higher for Science and Social Studies; 167 or higher for Writing). Beginning fall 2017, the state could require different scores for all areas on the MoGEA.

A student who meets all course requirements for the Associate of Arts in Teaching but does not have a 2.75 GPA, (but has at least a cumulative 2.0 GPA) and has not successfully completed the MoGEA may still apply to graduate with an Associate of Arts degree.

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

Written Communications		**6 hours**
ENGL 101	English Composition I	3
ENGL 102	English Composition II	3
Oral Communications		**3 hours**
COMM 101	Public Speaking 3	
Social and Behavioral Sciences		**9 Hours**
GEOG 101	World Geography 3	
HIST 101	U.S. History Before 1877 (or)	
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour

Mathematical Sciences		**3 Hours**
MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Associate of Arts in Teaching

Natural Sciences		**8 Hours**
BIO 112	General Biology with Lab (or)	
BIO 125	Biology I with Lab	5
EASC 101	Introduction to Earth Sciences with Lab (or)	
EASC 106	Physical Geology with Lab (or)	
PHYS 105	College Physics I with Lab	5
Humanities and Fine Arts		**9 Hours**
Must include courses from two disciplines		
Art		
ART 101	Art Appreciation	3
ART 120	Modern Art History	3
Literature		
LIT 101	Introduction to Literature	3
LIT 107	American Literature	3
Music		
MUS 100	Fundamentals of Music	3
MUS 101	Music Appreciation	3
MUS 102	History of Rock Music	3
MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature After 1800	3
Philosophy		
PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3
Religion		
PHIL 104	Living Religions	3
Theatre		
THEA 107	Introduction to Theatre	3

General Education Electives		**4 Hours**
Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core		
Program Requirements		**15.5 Hours**
EDUC 108	Introduction to the Field of Education	.5
EDUC 205^^	Teaching Profession with Field Experience	3
EDUC 209^^	Foundations of Education in a Diverse Society	3
EDUC 212^^	Educational Technology	3
EDUC 220^^	Educational Psychology	3
PSY 102^^	Child Psychology	3
Suggested Electives		**9 Hours**
ATSM 105	Autism Spectrum Disorders	3
ATSM 110	Communication and Social Competence	3
ECD 107^^	Child Nutrition, Health and Safety	3
ECON 101	Macroeconomics	3
EDUC 110^^	Introduction to Physical Education in the Elementary School	2
EDUC 218^^	Children's Literature	3
EDUC 228^^	Education of Exceptional Learners pre K-12	3
EDUC 240^^	Multicultural Education	3
FREN 101	Elementary French I	3
SOC 120	American Diversity	3
SPAN 101	Elementary Spanish I	3
Degree Total		**66.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Business Management with Management Specialty

In the Business Management with Management Specialty program, students should possess leadership and decision-making skills and 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. 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 business.

Written and Oral Communications		**9 Hours**
COMM 101	Public Speaking	3
ENGL 101	English Composition I	3
ENGL 110	Business Communications	3
Civics		**3 Hours**
HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the state requirement for the Missouri Constitution. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 102 Missouri Constitution for an additional ½ credit hour.

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
Humanities, Sciences, and Fine Arts		**9 Hours**
ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3
PHIL 102	Ethics	3

Program Requirements		**31 Hours**
ACCT 101	Principles of Financial Accounting	3
ACCT 102	Managerial Accounting	3
BADM 101	Introduction to Business	3
BADM 103	Legal Environment of Business	3
BADM 107	Personal Finance	3
BSMT 108	Principles of Management	3
BSMT 119	Customer Service Management	3
BSMT 125	Human Relations	3
BSMT 130	Business Strategies	3
CAPP 125	Microcomputer Applications	3
SS 120	Employment Strategies	1
Program Electives		**6 Hours**
BSMT 106	Principles of Marketing	3
BSMT 110	Salesmanship	3
BSMT 175	Business Management Internship	3-6
CAPP 160	Word	3
CAPP 166	Excel	3
MATH 127	Business Statistics	3
PHIL 104	Living Religions	3
PSY 101	General Psychology	3
SOC 100	General Sociology	3
Degree Total		**61 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Diagnostic Medical Sonography

Sonographers are diagnostic medical professionals who operate ultrasonic imaging devices to produce diagnostic images, scans, videos, or 3D volumes of anatomy and diagnostic data. Sonography requires specialized education and skills to view, analyze and modify the scan to optimize the information in the image. Because of the high levels of decisional latitude and diagnostic input, sonographers have a high degree of responsibility in the diagnostic process.

About the Program
Through classroom theory, laboratory practice and clinical application students learn to safely use ultrasound in the diagnosis of trauma and disease. Students are introduced to the vast opportunities in diagnostic medical sonography and achieve entry-level competency in the performance and evaluation of ultrasound examinations and procedures. This is an intense 22-month course of study.

Admission Process
Students in the program are admitted to the college on the same basis as other students, but admission to the college does not ensure admission into the program.

Enrollment in the program is selective and admission cannot be offered to all qualified applicants. A selection committee comprised of the program director, clinical coordinator, members of the advisory committee and possibly other college personnel will evaluate students for the class.

Only students meeting the minimum requirements and who have submitted a completed application packet prior to the application deadline will be presented to the Admissions Committee. Applicants will receive a letter regarding admissions status following committee review. Decisions of the Admissions Committee are final.

Students are eligible to submit the program application packet when all prerequisite courses are complete or will be complete by the end of the spring semester of the year in which they are applying, meet the Essential Qualifications for the Diagnostic Medical Sonography program, and have a cumulative GPA of 2.75 or greater on a 4.0 scale and a 3.0 GPA (B) in each individual course (GPA is checked at the end of the spring semester of the school year in which the student is applying).

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Diagnostic Medical Sonography

Courses to complete with a grade of B or higher^.
Course to complete with a grade of C or higher^^.

Program Prerequisite Requirements		**26 Hours**
BIO 207^	Human Anatomy with Lab	4
BIO 208^	Human Physiology with Lab	4
COMM 101	Public Speaking (or)	
ENGL 102	English Composition II	3
ENGL 101^	English Composition I	3
HEOC 120^	Medical Terminology I	3
HIST 101^	U.S. History Before 1877 (or)	
HIST 102^	U.S. History Since 1877 (or)	
POLS 101^	American/National Government	3
MATH 113^	Mathematical Reasoning and Modeling (or)	
MATH 114^	Precalculus Algebra (or)	
MATH 119^	Statistical Reasoning	3
PHYS 105^	College Physics I with Lab (or)	
RAD 130^	Radiation Production and Characteristics	3-5

Program Requirements		**42.5 Hours**
DMS 102^	Patient Care and Health Care Communication	2
DMS 105^	Sonography Clinical Education I	5
DMS 107^	Ultrasound Scanning Lab I	4
DMS 108^	Seminar in Sonography	2
DMS 115^	Sonography Clinical Education II	4
DMS 117^	Ultrasound Scanning Lab II	3
DMS 120^^	Sonography Principles and Instrumentation I	3
DMS 122^^	Sonography Principles and Instrumentation II	3
DMS 125^	Sonography Clinical Education III	5
DMS 135^	Sonography Clinical Education IV	5
DMS 150^	Vascular Sonography I	2
DMS 152^	Vascular Sonography II	2
DMS 154^	Vascular Sonography III	2
HEOC 135^	Allied Health Career Development	.5

Cardiac Track or General Track		**12 Hours**
Cardiac Track		
DMS 103^	Cardiac Ultrasound I	3
DMS 113^	Cardiac Ultrasound II	3
DMS 123^	Cardiac Ultrasound III	3
DMS 133^	Cardiac Ultrasound IV	3
General Track		
DMS 130^	General Sonography I	2
DMS 132^	General Sonography II	2
DMS 134^	General Sonography III	2
DMS 140^	OB/GYN Sonography I	2
DMS 142^	OB/GYN Sonography II	2
DMS 144^	OB/GYN Sonography III	2

Degree Total	**80.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Nurse Aide

The Professional Certificate in Nurse Aide consists of a combination of the Skills Certificate in Nurse Aide along with other health care related classes. Students can increase employability with completion of this certificate.

Program Requirements		**21 Hours**
HEOC 120	Medical Terminology I	3
HEOC 152	Certified Nurse Assistant	6
HEOC 155	Certified Nurse Assistant Clinical	2
HEOC 158	Certified Medication Technician	4
HEOC 160	Certified Medication Technician Clinical	1
HEOC 162	Home Health Aide	2
HEOC 164	Restorative Nurse Assistant	2
HEOC 166	Restorative Nurse Assistant Clinical	1

Program Electives		**9 Hours**
BIO 103	Human Biology	3
HEOC 122	Medical Terminology II	3
HEOC 140	Technology and Health Care	3
HEOC 168	Social Services Director/Activity Director	5
HEOC 170	Level I Medication Aide	1
HEOC 172	Insulin Administration	.5
HLTH 102	First Aid	2

Certificate Total **30 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/nurse-aide.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Pipe Welding

The Professional Certificate in Pipe Welding is for students who want to learn the skills of pipe welding. The course follows the American Society of Mechanical Engineers (ASME) section 9 codes. The course involves Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) of pipe in the 2G, 5G, and 6G positions. The successful student will be eligible for up to six ASME section 9 qualifications in pipe. In the classroom the student will learn the technological information associated with the pipe welding process and how to apply that information to practical use on the job. This program meets the needs of both the beginning and experienced welders who are seeking certification/qualifications in pipe welding.

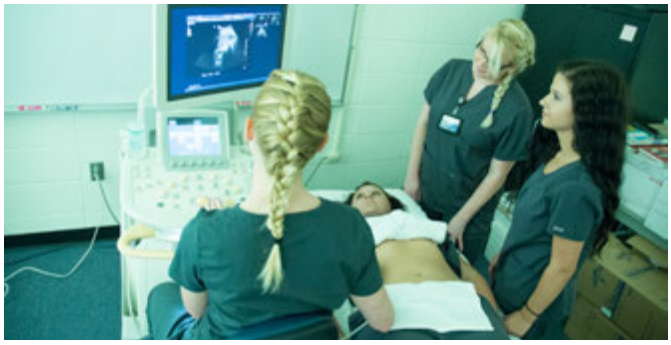
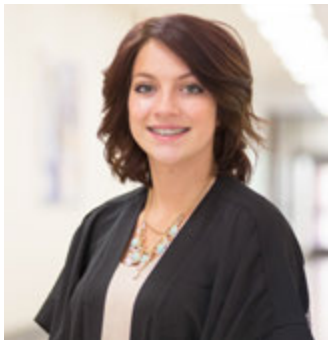
Welders need good eyesight, hand-eye coordination and manual dexterity. Students should be able to concentrate on detailed work for long periods and must be able to lift up to 45 pounds, bend, stoop, crawl, kneel, climb ladders, and work in awkward and cramped positions.

All students should be aware welding fumes produce a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). Students should review the Material Data Safety Sheets (MSDS) available in the welding department located in the Fielding Technical Center, Room 270, to be aware of the hazards of welding fumes.

Mathematical Sciences		**3 Hours**
MATH 107	Technical Math I	3
MATH 108	Technical Math II	3
MATH 110	Intermediate Algebra with Review	5
MATH 112	Intermediate Algebra	3
MATH 114	Precalculus Algebra	3
Program Requirements		**29 Hours**
CNST 162	Construction Safety	3
WELD 101	Introduction to Welding	4
WELD 102	Structural Welding	4
WELD 103	Pipe Welding	4
WELD 104	TIG Welding	4
WELD 105	Advanced Pipe Welding	4
WELD 114	Structural Layout and Fabrication	3
WELD 116	Print Reading for Welders	3
Certificate Total		**32 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/welding.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Diagnostic Medical Sonography

All prerequisite requirements require a grade of B or higher.

Program Prerequisite Requirements		**26 Hours**
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4
COMM 101	Public Speaking (or)	
ENGL 102	English Composition II	3
ENGL 101	English Composition I	3
HEOC 120	Medical Terminology I	3
HIST 101	U.S. History Before 1877 (or)	
HIST 102	U.S. History Since 1877 (or)	
POLS 101	American/National Government	3
MATH 113	Mathematical Reasoning and Modeling (or)	
MATH 114	Precalculus Algebra (or)	
MATH 119	Statistical Reasoning	3
PHYS 105	College Physics I with Lab (or)	
RAD 130	Radiation Production and Characteristics	3-5

All program requirements require a grade of B or higher.

Program Requirements		**42.5 Hours**
DMS 102	Patient Care and Health Care Communication	2
DMS 105	Sonography Clinical Education I	5
DMS 107	Ultrasound Scanning Lab I	4
DMS 108	Seminar in Sonography	2
DMS 115	Sonography Clinical Education II	4
DMS 117	Ultrasound Scanning Lab II	3
DMS 120	Sonography Principles and Instrumentation I	3
DMS 122	Sonography Principles and Instrumentation II	3
DMS 125	Sonography Clinical Education III	5
DMS 135	Sonography Clinical Education IV	5
DMS 150	Vascular Sonography I	2
DMS 152	Vascular Sonography II	2
DMS 154	Vascular Sonography III	2
HEOC 135	Allied Health Career Development	.5
Cardiac Track or General Track		**12 Hours**
Cardiac Track		
DMS 103	Cardiac Ultrasound I	3
DMS 113	Cardiac Ultrasound II	3
DMS 123	Cardiac Ultrasound III	3
DMS 133	Cardiac Ultrasound IV	3
General Track		
DMS 130	General Sonography I	2
DMS 132	General Sonography II	2
DMS 134	General Sonography III	2
DMS 140	OB/GYN Sonography I	2
DMS 142	OB/GYN Sonography II	2
DMS 144	OB/GYN Sonography III	2
Degree Total		**80.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

Professional Certificate in Medical Assisting

Medical assisting professionals are multi-skilled health science professionals specifically trained to work in settings such as physician offices, clinics and urgent care facilities performing administrative duties and clinical procedures. Medical assisting requires specialized education to assist other health care providers in health interventions. Medical assisting skills utilized in a clinic setting include scheduling appointments, greeting patients, administering injections, preparing instruments for minor surgery, assisting with health exams, assisting with health insurance requirements, and drawing blood for lab tests.

About the Program

The certificate program is an online program with some of the lab and clinical time completed on-ground. Students must complete a minimum of 160 clinical hours as part of the capstone course. The program provides theory, laboratory practice, and clinical application to meet student learning outcomes. Students are introduced to diverse opportunities in medical assisting to achieve entry–level performance as a medical assistant. Completion of a medical assisting certification exam will occur during the capstone course. Certification in medical assisting is preferred, and in many cases mandatory, in the employment setting.

Admission Process

Students in the program are admitted to the college on the same basis as other students, but admission to the college does not ensure admission into the program. Enrollment in the program is selective and admission cannot be offered to all qualified applicants. Students must have completed a high school diploma or the equivalent. Students should be able to demonstrate proficiency in English, mathematics and reading based on the college assessment. Students must have basic keyboarding skills. Students must have a minimum of a 2.0 GPA prior to starting the Medical Assisting program.

Only students meeting the minimum requirements and who have submitted a completed application packet prior to the application deadline will be reviewed for acceptance. Applicants will receive a letter regarding admissions status following the admission committee review. Decisions of the admissions committee are final. An informational packet with application materials is available online at www.sfccmo.edu/medical-assisting or in Student Services on the Sedalia campus. Students must complete all prerequisites PRIOR to entry into program. There will be no substitution of courses in the curriculum unless approved by the program director. Completing courses before beginning the program will not shorten the length of time you are in the certificate program.

Courses to complete with a grade of B or higher^.
Courses to complete with a grade of C or higher^^.

Program Requirements		**34.5 Hours**
BIO 103^^	Human Biology	3
COMM 101^^	Public Speaking	3
HEOC 120^^	Medical Terminology I	3
HEOC 135^^	Allied Health Career Development	.5
HEOC 140^^	Technology in Health Care	3
MEA 100	Medical Assisting General Orientation	.5
MEA 104^^	Medical Assisting Psychology of Human Relations	3
MEA 108^	Medical Assisting Administrative Procedures	3
MEA 112^	Medical Assisting Clinical Procedures	3
MEA 116^	Medical Assisting Laboratory Procedures	3
MEA 190^	Medical Assisting Capstone	6
NURS 102	CPR for Health Care Providers	.5
PHRM 109^^	Pharmacology for Pharmacy Technicians	3
Certificate Total		**34.5 Hours**

For more information about our graduation rates, the median debt of students who completed these certificates, and other important information, please visit **www.sfccmo.edu/medical-assisting.**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

[SECTION 2]

[ADDENDUM]

Programs

- Changes
  - » Associate of Arts
  - » AAS in Diagnostic Medical Sonography
- Additions
  - ✚ AAS in Fire Science
  - ✚ Professional Certificate in Fire Science

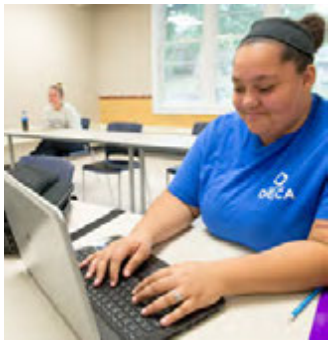
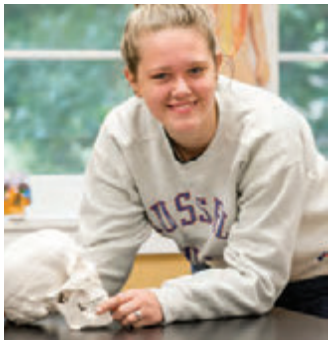
✚ Additions

» Changes

✖ Deletions

State Fair Community College

Oct. 2019

Associate of Arts

The Associate of Arts (AA) degree from State Fair Community College is designed for the student who wants to transfer to a four-year college or university to earn a bachelor's degree.

If you're undecided on a major, the AA degree can serve as a springboard to explore new interests. It allows for flexibility and provides a wide choice of classes. We're here to help you discover the huge variety of academic programs and transfer options available to you with an Associate of Arts degree.

General Education Core **42 Hours**

Written Communications **6 hours**

ENGL 101	English Composition I	3
ENGL 102	English Composition II	3

Oral Communications **3 hours**

COMM 101	Public Speaking	3

Social and Behavioral Sciences **9 hours**

Must include courses from at least two disciplines, including at least one civics course

Civics

HIST 101	U.S. History Before 1877	3
HIST 102	U.S. History Since 1877	3
POLS 101	American/National Government	3

These courses satisfy the Missouri and U.S. Constitutions state requirement. Students transferring credit for American history or national government from another institution whether in Missouri or out-of-state may need to complete POLS 109 Civics and the Constitutions for an additional ½ credit hour

Criminal Justice

CJ 102	Introduction to Criminal Justice	3

Economics

ECON 101	Principles of Macroeconomics	3
ECON 102	Principles of Microeconomics	3

Geography

GEOG 101	World Geography	3

History

HIST 108	World Civilization Before 1500	3
HIST 109	World Civilization After 1500	3

Psychology

PSY 101	General Psychology	3
PSY 210	Lifespan Development	3

Social and Behavioral Science Communications

COMM 110	Introduction to Mass Communication	3

Sociology

SOC 100	General Sociology	3
SOC 101	Social Problems	3
SOC 120	American Diversity	3

Mathematical Sciences **3 Hours**

MATH 113	Mathematical Reasoning and Modeling	3
MATH 114	Precalculus Algebra	3
MATH 119	Statistical Reasoning	3

Natural Sciences **7 Hours**

Must include courses from at least two disciplines, including one course with a lab component

Astronomy

EASC 120	Introduction to Astronomy	3

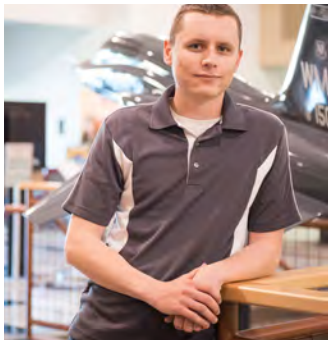
Biology

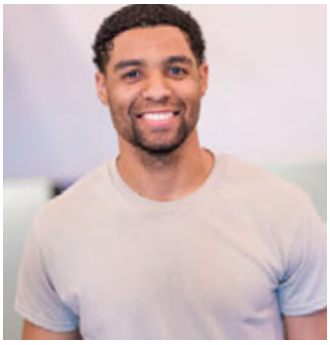
BIO 100	General Biology	3
BIO 105	Wildlife Conservation	3
BIO 112	General Biology with Lab	5
BIO 125	Biology I with Lab	5

Chemistry

CHEM 101	Introduction to Chemistry with Lab	5
CHEM 123	General Chemistry I with Lab	5

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.





Associate of Arts

Geology

EASC 101	Introduction to Earth Sciences with Lab	5
EASC 106	Physical Geology with Lab	5
EASC 118	Environmental Geology	3

Life Sciences

BIO 103	Human Biology	3
BIO 207	Human Anatomy with Lab	4
BIO 208	Human Physiology with Lab	4

Physical Sciences

PHYS 103	Introduction to Physical Science	3

Physics

PHYS 105	College Physics I with Lab	5
PHYS 118	General Physics I with Lab	5

Humanities and Fine Arts **9 Hours**

Must include courses from at least two disciplines

Art

ART 101	Art Appreciation	3
ART 120	Modern Art History	3

Foreign Language

FREN 101	Elementary French I	3
FREN 102	Elementary French II	3
SPAN 101	Elementary Spanish I	3
SPAN 102	Elementary Spanish II	3

Literature

LIT 101	Introduction to Literature	3
LIT 107	American Literature	3
LIT 109	British Literature	3
LIT 112	World Literature	3

Music

MUS 100	Fundamentals of Music	3
MUS 101	Music Appreciation	3
MUS 102	History of Rock Music	3
MUS 103	Music History and Literature Before 1800	3
MUS 104	Music History and Literature After 1800	3

Performance

A limit of 3 credit hours can be applied to the Humanities and fine arts category and the total general education core

ART 112	Drawing I	3
ART 116	Painting I	3
ART 122	Sculpture I	3
ART 126	Ceramics I	3
MUS 119	Jazz Band I	1
MUS 175	Chamber Singers I	1
MUS 210	Jazz Choir I	2
THEA 110	Stagecraft and Lighting	3
THEA 111	Acting I	3
THEA 131	Script Analysis	3

Philosophy

PHIL 101	Introduction to Philosophy	3
PHIL 102	Ethics	3

Religion

PHIL 104	Living Religions	3

Theatre

THEA 107	Introduction to Theatre	3

General Education Elective **5 Hours**

Select additional hours from the general education categories listed above for a minimum total of 42 hours to meet the general education core

Electives **22 Hours**

Additional courses numbered 100 or above may include 12 hours of restricted electives from technical training in the military or from technical courses taken at an accredited college. A maximum of 4 credit hours may be applied for THEA 115. Physical education activity and wellness courses (PE, PEAC, WELL, WL, XWLN, or XPAC prefix) may be accepted as elective credit for a maximum of 3 credit hours. Veterans, members of the National Guard and active duty military personnel may receive 2 hours of wellness credit by presenting a copy of their DD214 or similar record.

Degree Total **64 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

AAS in Diagnostic Medical Sonography

Sonographers are diagnostic medical professionals who operate ultrasonic imaging devices to produce diagnostic images, scans, videos, or 3D volumes of anatomy and diagnostic data. Sonography requires specialized education and skills to view, analyze and modify the scan to optimize the information in the image. Because of the high levels of decisional latitude and diagnostic input, sonographers have a high degree of responsibility in the diagnostic process.

About the Program
Through classroom theory, laboratory practice and clinical application students learn to safely use ultrasound in the diagnosis of trauma and disease. Students are introduced to the vast opportunities in diagnostic medical sonography and achieve entry-level competency in the performance and evaluation of ultrasound examinations and procedures. This is an intense 22-month course of study.

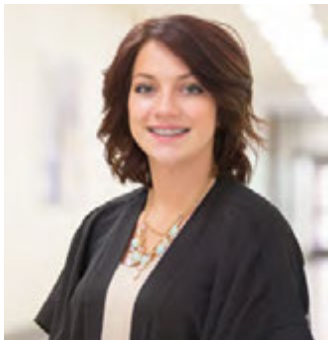
Admission Process
Students in the program are admitted to the college on the same basis as other students, but admission to the college does not ensure admission into the program.

Enrollment in the program is selective and admission cannot be offered to all qualified applicants. A selection committee comprised of the program director, clinical coordinator, members of the advisory committee and possibly other college personnel will evaluate students for the class.

Only students meeting the minimum requirements and who have submitted a completed application packet prior to the application deadline will be presented to the Admissions Committee. Applicants will receive a letter regarding admissions status following committee review. Decisions of the Admissions Committee are final.

Students are eligible to submit the program application packet when all prerequisite courses are complete or will be complete by the end of the spring semester of the year in which they are applying, meet the Essential Qualifications for the Diagnostic Medical Sonography program, and have a cumulative GPA of 2.75 or greater on a 4.0 scale and a 3.0 GPA (B) in each individual course (GPA is checked at the end of the spring semester of the school year in which the student is applying).

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.



AAS in Diagnostic Medical Sonography

Courses to complete with a grade of B or higher^.
Course to complete with a grade of C or higher^^.

Program Prerequisite Requirements		**26 Hours**
BIO 207^	Human Anatomy with Lab	4
BIO 208^	Human Physiology with Lab	4
COMM 101	Public Speaking (or)	
ENGL 102	English Composition II	3
ENGL 101^	English Composition I	3
HEOC 120^	Medical Terminology I	3
HIST 101^	U.S. History Before 1877 (or)	
HIST 102^	U.S. History Since 1877 (or)	
POLS 101^	American/National Government	3
MATH 113^	Mathematical Reasoning and Modeling (or)	
MATH 114^	Precalculus Algebra (or)	
MATH 119^	Statistical Reasoning	3
PHYS 105^	College Physics I with Lab (or)	
RAD 130^	Radiation Production and Characteristics	3-5

Program Requirements		**42.5 Hours**
DMS 102^	Patient Care and Health Care Communication	2
DMS 107^	Ultrasound Scanning Lab I	4
DMS 108^	Seminar in Sonography	2
DMS 120^^	Sonography Principles and Instrumentation I	3
DMS 122^^	Sonography Principles and Instrumentation II	3
DMS 127	Ultrasound Lab II	4
DMS 145	Sonography Clinical I	4
DMS 150^	Vascular Sonography I	2
DMS 152^	Vascular Sonography II	2
DMS 154^	Vascular Sonography III	2
DMS 155	Sonography Clinical II	7
DMS 165	Sonography Clinical III	7
HEOC 135^	Allied Health Career Development	.5
Cardiac Track or General Track		**12 Hours**
Cardiac Track		
DMS 103^	Cardiac Ultrasound I	3
DMS 113^	Cardiac Ultrasound II	3
DMS 123^	Cardiac Ultrasound III	3
DMS 133^	Cardiac Ultrasound IV	3
General Track		
DMS 130^	General Sonography I	2
DMS 132^	General Sonography II	2
DMS 134^	General Sonography III	2
DMS 140^	OB/GYN Sonography I	2
DMS 142^	OB/GYN Sonography II	2
DMS 144^	OB/GYN Sonography III	2
Degree Total		**80.5 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

✚ Professional Certificate in Fire Science

The Fire Science program prepares students to enter an exciting career as a firefighter. All fire specific courses are taught by experienced firefighters and offer the opportunity for current firefighters to upgrade job skills or prepare themselves as supervisors in their departments. It also prepares students who wish to begin a career in firefighting.

The Fire Science program offers two tracks of study, a complete two year associates degree and a shorter 30 credit hour professional certificate.

Program Requirements		**30 Hours**
FIRE 130	Firefighter I	6
FIRE 131	Firefighter II	6
FIRE 132	Introduction to Emergency Services	3
FIRE 133	Fire Behavior and Combustion	3
FIRE 134	Fire Prevention	3
FIRE 135	Fire Safety and Survival	3
FIRE 139	Tactics and Strategies	3
FIRE 175	Fire Internship	3
Certificate Total		**30 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

✚ AAS in Fire Science

The Fire Science program prepares students to enter an exciting career as a firefighter. All fire specific courses are taught by experienced firefighters and offer the opportunity for current firefighters to upgrade job skills or prepare themselves as supervisors in their departments. It also prepares students who wish to begin a career in firefighting.

The Fire Science program offers two tracks of study, a complete two year associates degree and a shorter 30 credit hour professional certificate.

Written and Oral Communications		**6 Hours**
ENGL 101	English Composition I	3
COMM 101	Public Speaking	3
Civics		**3 Hours**
POLS 101	American National Government	3

This course satisfies the Missouri and U.S. Constitutions state requirement. Students transferring credit for national government from another institution whether in Missouri or out-of-state may need to complete POLS 109 Civics and the Constitutions for an additional ½ credit hour

Mathematical Sciences		**3 Hours**
MATH 101	Business Math	3
MATH 112	Intermediate Algebra	3
Program Requirements		**45 Hours**
FIRE 130	Firefighter I	6
FIRE 131	Firefighter II	6
FIRE 132	Introduction to Emergency Services	3
FIRE 133	Fire Behavior and Combustion	3
FIRE 134	Fire Prevention	3
FIRE 135	Fire Safety and Survival	3
FIRE 136	Building Construction for Fire	3
FIRE 137	Fire Protection Systems	3
FIRE 138	Fire Investigations	3
FIRE 139	Tactics and Strategies	3
FIRE 140	Hydraulics and Water	3
FIRE 141	Fire Leadership	3
FIRE 175	Fire Internship	3
General Education Elective		**3 Hours**
CHEM 101	Introduction to Chemistry with Lab	5
PHIL 102	Ethics	3
PHYS 103	Introduction to Physical Science	3
PSY 101	General Psychology	3
SOC 100	General Sociology	3
Degree Total		**60 Hours**

Note: Some programs require essential qualifications to be admitted and retained. Visit **www.sfccmo.edu/essential-qualifications** to view these requirements. Not all courses are offered every semester. Check with your navigator or the program coordinator. Refer to the course descriptions for prerequisites.

[SECTION 3]

[ADDENDUM]

Course Descriptions

State Fair Community College

ACCOUNTING

ACCT 101 - Principles of Financial Accounting 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Introductory course covering fundamental accounting principles and financial statement preparation. Emphasis on analysis of effects of business transactions on the earnings, financial position and cash flows of business entities.

ACCT 102 - Managerial Accounting 3
Prerequisite: ACCT 101 with a grade of C or higher. Introduction to 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.

ACCT 109 - Applied Accounting Procedures 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Provides a basic understanding of accounting terminology and procedures used to record, classify and summarize financial data for a sole proprietorship. Designed for those with no previous knowledge of accounting.

ACCT 125 - Computerized Accounting Applications 3
Prerequisites: ACCT 109 and CAPP 125 with grades of C or higher. Project-intensive approach to accounting and reporting utilizing accounting software currently used in industry. Emphasis on using a microcomputer to process financial accounting data and prepare financial statements and related reports.

ACCT 126 - Introduction to QuickBooks 1
Introduction to the basic concepts and skills necessary for using QuickBooks. Emphasis on entering accounts payable/receivable and payroll transactions, completing end-of-year processes and generating reports to make business decisions.

ACCT 132 - Business Taxation 3
Prerequisite: ACCT 101 with a grade of C or higher. Introduction to the federal and state laws that affect employment practices, wage payments, benefit plans, workers' compensation, garnishments, and sales tax. Emphasis on compliance with federal and state reporting requirements.

ACCT 137 - Introduction to Federal Taxation 3
Prerequisite: ACCT 101 with a grade of C or higher. 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.

ACCT 175 - Accounting Internship 4
Prerequisite: Consent of program coordinator. Supervised on-the-job training plan, tailored to meet student and employer needs.

ACCT 203 - Intermediate Financial Accounting I 3
Prerequisite: ACCT 101 with a grade of C or higher. Financial accounting theory and practice are applied in accordance with generally accepted accounting principles for financial reporting of corporate entities. Emphasis on corporate financial statement preparation and analysis.

ACCT 220 - Current Topics in Accounting 3
Prerequisites: ACCT 102 and ACCT 203 with grades of C or higher. Accounting theory and practice are applied to selected topics related to financial reporting and management decision-making. Course will utilize case studies and current events involving the accounting profession.

AGRICULTURE

AGRI 101 - Ag Leadership and Issues I 2
Course is designed to help students begin planning a career in the agriculture industry by creating and setting goals and developing means of attaining those goals. The course focuses on leadership development, team building, problem-solving, and current issues in agriculture.

AGRI 102 - Ag Leadership and Issues II 1
Prerequisite: AGRI 101. Continuation of AGRI 101 promoting further development of the student's career plan. Course will help students identify what attributes are sought by the agriculture industry and how to prepare for the work-force. Course focuses on résumé building, creating cover letters, completing employment applications, and job interview skills.

AGRI 103 - Ag Leadership and Issues III 2
Prerequisite: AGRI 102. Course allows students to review the progress made in the previous year in AGRI 101 and AGRI 102 and continue toward the goal of employment in the agriculture industry. Course focuses on the continuing development and implementation of a career plan for entry into an agriculture-related career.

AGRI 104 - Ag Leadership and Issues IV 1
Prerequisite: AGRI 103. Continuation of AGRI 103 completing the progress of the student's plan for employment. Course focuses extensively on the process of employment ranging from job identification, the application process and interviewing for the position. Activities include job searching, contacting employers, completing applications, and experiencing a job interview.

AGRI 106 - Global Agriculture 3
Course introduces the student to economic, political, cultural, and environmental issues that affect food production and distribution in the advancement of societies in developed and developing countries.

COURSE DESCRIPTIONS

AGRI 108 - 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.

AGRI 110 - Contemporary Issues in Animal Agriculture 3
Introduction to contemporary issues in animal agriculture, including perspectives on animal rights and welfare, effects of agriculture on the environment and controversial production techniques.

AGRI 112 - Livestock and Meat Evaluation 3
Course is a study of livestock selection and meat evaluation used in marketing in the beef, swine and sheep industries.

AGRI 114 - Livestock Management 3
Course is a study of the segments of livestock production that identifies the essential ingredients needed by producers to raise productive and profitable livestock.

AGRI 116 - Animal Nutrition 3
Prerequisite: MATH 061 or equivalent placement score. Study includes the nutritional needs of livestock and the formulation of feeds, including hormones, antibiotics, minerals, vitamins, and other feed additives.

AGRI 118 - Plant Science 3
Study includes plant and seed development and selection, the cultural practices in the production of common farm crops and seed and plant identification.

AGRI 119 - Soils I with Lab 4
Prerequisite: MATH 061 or equivalent placement score. Course is designed to give students an understanding of key concepts in soil formation, composition, uses, soil conservation, cropping systems, and soil improvements. The lab provides students with real-world application of soils theories and concepts taught in the classroom. Both AGRI 119 and AGRI 120 cannot be applied to meet any certificate or degree requirements. (3 lecture, 1 lab)

AGRI 121 - Soils II 3
Prerequisite: AGRI 119. Study includes soil composition and fertilization practices needed for proper nutrition of plants.

AGRI 123 - Soil Erosion and Management 3
Prerequisite: AGRI 119. Course includes training in surveying and soil erosion control through construction of structures and management practices.

AGRI 125 - Natural Resources 3
Course includes the study of natural resources as they relate to our existence and their mutual relationship to each other.

AGRI 126 - Ornamental Woody Plants 3
Identification and evaluation of trees and shrubs for landscape use.

AGRI 127 - Farm Chemicals 3
Course includes the study of the production, distribution, handling, and application of farm chemicals such as insecticides, rodenticides, fungicides, herbicides, and brush killers.

AGRI 128 - Ornamental Herbaceous Plants 3
Identification and evaluation of annuals, biennials, perennials, ground covers, and bulbs.

AGRI 129 - General Horticulture 3
Course includes study of horticultural crops and the horticultural industry. Study includes plant propagation and fruit and vegetable production.

AGRI 131 - Introduction to Agribusiness Systems 3
Introduction to the agribusiness system career pathway. Topics include an overview of the agribusiness industry, economic principles in agribusiness and retail agribusiness sales.

AGRI 132 - 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.

AGRI 133 - Agricultural and Food Policy 3
Course presents theory and practice in agricultural and food policy creation and implementation. Study includes farm, food, environmental, and economic policies that impact agricultural business.

AGRI 134 - Marketing Farm Commodities 3
Course presents theory and practice in marketing livestock and livestock products, analyzing costs and efficiency in grain marketing processing organizations, and the price-making process.

AGRI 136 - Ag Credit and Finance 3
Course emphasizes general principles associated with evaluation of management and use of capital. Students will develop an understanding of agricultural finance to help financers satisfy credit needs of modern agriculture.

AGRI 137 - Farm Management, Recordkeeping 1
Course covers computer use in the workplace with emphasis on agribusiness situations. Computer applications including spreadsheet management will be covered.

AGRI 138 - 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.

AGRI 141 - Livestock Breeding 3
Course includes study of genetic factors contributing to animal value, selection criteria for a production operation and mating systems.

AGRI 143 - Livestock Reproduction 3
Course covers basic reproductive anatomy and physiology of farm animal species followed by reproduction management options and contemporary reproductive technologies.

AGRI 149 - Chemistry of Soil Additives 3
Course covers the basic principles of soil fertilization and includes lime application, plant nutrients, fertilizing, and management. Upon completion, students should be able to give nutrient and liming recommendations for soils.

AGRI 151 - Landscape Design and Maintenance 3
A comprehensive study of landscaping. Study incorporates computer aided drafting (CAD) software to design functional and aesthetically pleasing landscapes and landscape maintenance programs.

AGRI 154 - Greenhouse Management with Lab 4
Course presents greenhouse design, environmental control, production equipment, and management practices. Instruction includes principles and practices relative to plant nutrition, pest control, product handling, and marketing greenhouse production. (3 lecture, 1 lab)

AGRI 167 - CDL Licensing 2
Course is designed to enable students to pass the state Commercial Driver's License (CDL) exam. Students must qualify for the Class A CDL with all appropriate endorsements.

AGRI 168 - Commercial Applicator Licensing 2
Prerequisite: MATH 061 or equivalent placement score. Study complements other courses offered in weed, insect and disease control. Student will develop the skills necessary to pass the state and federal examinations for commercial applicator licensing.

AGRI 174 - Crop and Insect Scouting 2
Utilizing real-life crop growing environments, students will learn to identify weed, insect and disease infestations; determine life cycles; recognize damage symptoms; establish economic thresholds; and recommend control alternatives.

AGRI 175 - Occupational Internship 2 to 8
Prerequisite: Consent of program coordinator. Internship is 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 179 - Innovative Horticulture 1
Prerequisite: Consent of instructor. Designed to provide the student an opportunity to apply horticultural knowledge, problem-solving skills and creativity to develop and/or construct a capstone project. Student must have at least 55 credit hours completed in the AAS in Agriculture with emphasis in Horticulture program.

AGRI 180 - Problems in Agriculture 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in agriculture under the supervision of an agriculture instructor.

ART

ART 101 - Art Appreciation 3
Study of art history from the last of the 19th 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 20th century civilization.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ARTS 100 - Art Appreciation

For additional information: https://dhe.mo.gov/core42.php

ART 103 - Design I 3
Entry-level art course required of all art majors. Foundation course introducing the study of the visual elements and principles of design. Emphasis is placed on the student's ability to recognize and manipulate these elements and principles.

ART 104 - Design II 3
Prerequisite: ART 103. The second of a two-course sequence required for all art majors. 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 with color.

ART 106 - Watercolor I 3
An entry-level course for both art majors and anyone interested in beginning watercolor. This foundation course introduces materials and techniques of aqua media painting, various preparations of paper and use of brushes and other tools. Control of transparent color will be learned through experimentation. Students will be encouraged to experiment with a variety of subject matter and techniques in search for personal identity.

ART 107 - Watercolor II 3
Prerequisite: ART 106. Continuation of the search for a personal expressive identity in watercolor. The students will work from sources they have a personal relationship with, such as persons they know, or familiar places and things. In addition to observable sources, the students will be encouraged to respond to the materials used in a creative manner discovering that the process of painting itself suggests images and ideas. Students will advance their personal expressive identity through making decisions and finding solutions while exploring representation, abstraction and non-objective painting.

ART 108 - Watercolor III 3
Prerequisite: ART 107. Includes advanced problems and techniques of aqua media painting.

ART 110 - Printmaking 3
Course includes exploring and developing personal artistic identity in traditional and contemporary printing methods. Wood block, etching and monoprint methods will be explored.

ART 112 - Drawing I 3
Entry-level art course required for all art majors. Foundation course placing emphasis on drawing as an expressive medium. Content is based on a series of perceptual and conceptual assignments designed to force students to reach inside themselves to define, through their work, a sense of artistic self.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 105D - Studio Art-Introduction to Drawing

For additional information: https://dhe.mo.gov/core42.php

ART 113 - Drawing II 3
Prerequisite: ART 112. The second of a two-course sequence required for all art majors. Foundation course placing emphasis 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.

ART 114 - 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.

ART 115 - Figure Drawing II 3
Prerequisite: ART 114. 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.

ART 116 - Painting I 3
Entry-level art course for both art majors and anyone interested in beginning painting. Foundation course that concentrates on painting as an expressive medium and is designed to allow students to explore a variety of subject matter and experiment with painting techniques in a search for personal artistic identity.

ART 117 - Painting II 3
Prerequisite: ART 116. Continuation of the search for a personal expressive identity. Students will work from sources they have a personal relationship with, such as persons they know, or familiar places and things. In addition to observable sources, students will be encouraged to respond to the materials used in a creative manner discovering that the process of painting itself suggests images and ideas. Students will advance their personal expressive identity through making decisions and finding solutions while exploring representation, abstraction and non-objective painting.

ART 118 - Painting III 3
Prerequisite: ART 117 and consent of instructor. Students may concentrate in watercolor, oil, acrylics, or mixed media. Offered by appointment only.

ART 120 - Modern Art History 3
Required for art majors. Emphasis is placed on the creative nature of man and how creativity enriches society and the social, economic and political conditions that influenced and constructed modern art. Study begins with the development of impressionism and moves through the major art movements of the late 19th and 20th centuries.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ARTS 102 - Art History II

For additional information: https://dhe.mo.gov/core42.php

ART 122 - Sculpture I 3
Develops insight into the principles of sculptural organization and stresses individual development of three-dimensional forms.

ART 123 - Sculpture II 3
Prerequisite: ART 122. Continuation of ART 122 with the student developing a body of work that is interrelated. Includes exploration of a variety of materials including metal, wood and found objects, with an emphasis placed on individual exploration and development.

ART 126 - Ceramics I 3
Introduces 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.

ART 127 - Ceramics II 3
Prerequisite: ART 126. Continuation of ART 126 with students becoming more proficient in construction techniques that are appropriate for their ideas. Emphasis is placed on students developing a body of work that is interrelated.

ART 130 - Fiber Arts I 3
Explores a variety of traditional and nontraditional mediums and techniques in the fiber arts. Emphasis is placed upon process and investigation.

ART 131 - Fiber Arts II 3
Prerequisite: ART 130. Continuation of the study and exploration of traditional and nontraditional 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 fiber media.

ART 180 - Problems in Art 3
Prerequisite: Consent of instructor. Must complete courses I and II of desired subject area. 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.

AUTISM

ATSM 105 - Autism Spectrum Disorders 3
Examination of the neurological and behavioral characteristics of children with autism spectrum disorders (ASD). Course includes an overview of characteristics and learning traits, classification systems, assessment strategies, issues, approaches, and interventions related to individuals with ASD. Special emphasis will be given to selecting evidence-based practices and enhancing collaboration among individuals with ASD, their families and supporting professionals.

ATSM 110 - Communication and Social Competence 3
Overview of language development and communication strategies, issues, pragmatics, communication systems, augmentative and alternative communication systems (AAC), social deficits in autism, and approaches for teaching social skills. Includes an emphasis on the development of appropriate communication skills.

AUTOMOTIVE

AUTO 100 - Introduction to Automotive Technology 3
Many fundamental principles necessary for laying a foundation in the automotive program are covered, including shop safety; hazardous materials and environmental issues; hand tools; measuring tools; hardware and math related to the automotive industry; career and industry specific information; and an overview of many of the automotive systems. Real-world fixes and tech tips are included throughout to help illustrate how real problems are solved. Each new topic covers the preventive maintenance requirements for various components and automotive systems, including the purpose, function and operation, as well as how to service each system. (2 lecture, 1 lab)

AUTO 103 - Manual Transmissions, Drivelines and Axles 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Instruction for the development of skills and knowledge required to diagnose and repair drivelines. This includes clutches, transmissions, drive shafts, differentials, axles, wheels and bearings, transaxles, and four-wheel drive hub assemblies. (3.5 lecture, 1.5 lab)

AUTO 105 - Automatic Transmissions 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Designed to develop skills and knowledge required to diagnose and repair automatic transmissions and automatic transaxles and torque converters. Topics include the study of automatic transmission design and theory of operation, along with in and out-of vehicle repair and servicing. (3.5 lecture, 1.5 lab)

AUTO 106 - Power Train Management 5
Prerequisites: AUTO 100, AUTO 116, AUTO 118 with grades of C or higher. Automotive systems are studied in depth beginning with fundamental principles and quickly advancing to more sophisticated theories and applications. Classroom studies in fuel and emissions systems, computerized engine controls, various input and output devices, ignition, intake and exhaust systems with a lab will enhance the learning experience with hands-on demonstrations and tasks. (3.65 lecture, 1.35 lab)

AUTO 108 - Advanced Engine Performance 6
Prerequisites: AUTO 100, AUTO 106, AUTO 116, and AUTO 118 with grades of C or higher. Advanced study of automotive diagnostic equipment and troubleshooting techniques related to modern vehicle powertrains. Study includes electronic engine controls, including fuel injection, feedback systems, computer controlled engine management systems, scan tool, digital multimeter, lab scope usage, and diagnostic trouble code retrieval and troubleshooting. (5 lecture, 1 lab)

AUTO 113 - Steering, Suspension and Wheels 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Study develops skills and knowledge required to diagnose and repair steering and suspension systems, including tire and wheel service, wheel balance, four-wheel alignment, springs and torsion bar suspension, power steering pump, steering gears, and rack and pinion steering. (3.5 lecture, 1.5 lab)

AUTO 115 - Automotive Brakes 5
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Theory of operation, diagnostics and troubleshooting, repairing and servicing of brakes will be taught as well as modern anti-lock brakes and traction control systems. The diagnosis and repair of both drum and disc systems will be explored, including the fabrication of brake lines as a student project. (3.5 lecture, 1.5 lab)

AUTO 116 - Automotive Electrical System Fundamentals 3
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Students will develop skills and knowledge required to understand fundamental principles of electricity and how these principles apply to automotive systems. Study of wiring diagrams, electrical symbols and how to utilize appropriate equipment such as meters and scopes in the troubleshooting process will be included. (2.25 lecture, .75 lab)

AUTO 118 - Advanced Automotive Electrical and Electronics 3
Prerequisites: AUTO 100 and AUTO 116 with grades of C or higher. Course provides an in-depth focus on electrical theory and the understanding and application of automotive electrical and electronic and computer systems as related to modern vehicle systems. Instruction includes methods to successfully troubleshoot vehicle electrical and electronic problems that result in appropriate repairs. (2.25 lecture, .75 lab)

AUTO 119 - Automotive Heating and Air Conditioning 5
Prerequisites: AUTO 100, AUTO 116, and AUTO 118 with grades of C or higher. Students will develop skills and knowledge required to diagnose and repair problems related to automotive heating and air conditioning systems. Both automatic climate control and manual systems will be studied along with the engine coolant system. (3.65 lecture, 1.35 lab)

AUTO 121 - Automotive Engines 6
Prerequisite: AUTO 100 with a grade of C or higher. Corequisite: AUTO 100. Students will develop skills and knowledge required to understand the fundamental principles, servicing, troubleshooting, and repair of modern automotive engines. Study includes diagnosis and troubleshooting; removal and disassembly; cleaning, inspection and repairs; and reassembly and installation of engine assemblies. Students work in pairs on project vehicles so that skills learned in the classroom can be exercised in a live environment. (3 lecture, 3 lab)

AUTO 123 - Service Operation Management 3
Students will be prepared to understand the variables encountered in operating a service business. Areas of content include management, finances, inventory, investment, organization, customer and employee relations, marketing, legal guidelines, and OSHA safety requirements.

AUTO 180 - Automotive Special Projects 3
Students will be involved in automotive lab operations, including preventive maintenance and repair on equipment, tool inventory and management, ordering parts and supplies, assisting in lab set-up, recording customer repair orders, inputting data, and conducting industry-specific research. There will be opportunities to work on unique automotive projects as well. (3 lab)

BIOLOGICAL SCIENCE

BIO 100 - General Biology 3
Introduction of biology that develops understanding of basic, unifying concepts in science and biology. Topics include the scientific method, biochemistry, cell biology, metabolism, genetics, evolution, ecology, and human ecology.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR BIOL 100 - Essentials in Biology

For additional information: https://dhe.mo.gov/core42.php

BIO 103 - Human Biology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the structure and function of human body systems and human influence on the biosphere. Topics include biochemistry, body organization, homeostasis, structural maintenance of cells, tissues and organ systems of the human body, evolution, ecology, and human influence on the biosphere. Course may NOT be taken if the student already has credit for BIO 112, BIO 125, BIO 126, BIO 207, or BIO 208.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LIFS 100 - Essentials in Human Biology

For additional information: https://dhe.mo.gov/core42.php

BIO 105 - Wildlife Conservation 3
Prerequisite: ENGL 101 with a grade of C or higher. Integrated study focused on historical, cultural and scientific aspects of wildlife conservation. Topics include ecology, diversity, extinctions and extinction processes, ecosystem degradation and loss, overexploitation, invasive exotics, zoos and gardens, public attitudes and perceptions including social factors, economics and ethics, and human impact. This is a reading and writing intensive course that involves modern and historic conservation issues.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR BIOL 100 - Essentials in Biology

For additional information: https://dhe.mo.gov/core42.php

BIO 112 - General Biology with Lab 5
Introduction of biology that develops an understanding of basic, unifying concepts in science and biology through an investigative laboratory enviroment. Topics include the scientific method, biochemistry, cell biology, metabolism, genetics, evolution, ecology, and human ecology. (4 lecture, 1 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR BIOL 100L - Essentials in Biology with Lab

For additional information: https://dhe.mo.gov/core42.php

BIO 121 - Microbiology 4
Prerequisite: BIO 207 or BIO 208 or CHEM 101. Course presents basic principles of infection, immunity and the study of microorganisms; studying life at the microscopic level (including eukaryotic cells, protozoa and fungi, prokaryotic cells, bacteria, mycoplasma, and rickettsia; and viruses, prions and infectious agents). Lecture and laboratory sessions consider techniques in conventional culture methods, examination and identification of microorganisms. Topics include microbiological history, environmental constraints, taxonomy, nutritional requirements, biochemical activity, genetic make-up, pathogenicity, virulence, immunology, public health, and medical significance of microbiology. Laboratories will cover aseptic techniques, streak plates and culturing, growth and binary fission, microscopy, biochemical testing, identification, rapid testing, application of critical analysis, and presentations. Designed for Nursing and Health Science majors and other majors who require a foundation in the study of microbiology. (3 lecture, 1 lab)

BIO 125 - Biology I with Lab 5
Prerequisites: ENGL 101 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. First semester of a two-semester introduction to biological sciences intended for biology and related majors. Topics include philosophical, historical and social context of biology; scientific method and investigative techniques; biological structure and function at molecular and cellular levels; genetics; and plant form, function and diversity. (3 lecture, 2 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR BIOL 150L - Biology with Lab

For additional information: https://dhe.mo.gov/core42.php

BIO 126 - Biology II with Lab 5
Prerequisites: BIO 112 or BIO 125 and ENGL 101 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. Second semester of a two-semester introduction to biological sciences intended for biology and related majors. Topics include philosophical, historical and social context of biology; animal morphology, embryology and taxonomy and systematics; life histories; ecology; and evolution. (3 lecture, 2 lab)

BIO 130 - Topics in Biology 1 to 3
Study of a major topic in biology and science. Content and topics change and may include ecology, bio-history, evolution, science in science fiction, or history of science. Specific subjects will be announced prior to course offerings.

BIO 207 - Human Anatomy with Lab 4
Prerequisites: ENGL 070 with a grade of C or higher or equivalent placement scores and a high school biology course with a grade of C or higher or a college biology course with a grade of C or higher (BIO 103 is recommended but not required). Study of gross and microscopic anatomy of the human organs, tissues and systems. (2 lecture, 2 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LIFS 100L - Essentials in Human Biology with Lab

For additional information: https://dhe.mo.gov/core42.php

BIO 208 - Human Physiology with Lab 4
Prerequisite: BIO 207 with a grade of C or higher, or LPN license, or biology department and program approval if currently enrolled in a PN program and have completed anatomy or anatomy and physiology with a grade of B or higher. 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. (3 lecture, 1 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LIFS 150L - Human Biology with Lab

For additional information: https://dhe.mo.gov/core42.php

BIO 210 - Principles of Genetics with Lab 4
Prerequisites: BIO 112 or BIO 125 and ENGL 101 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. Course is a comprehensive introduction to fundamental principles of inheritance intended for biology and related majors. Topics include heredity concepts from classical and modern genetics; the physical, biochemical, chromosomal, cytological bases for inheritance patterns; selection and breeding; and evolution. (3 lecture, 1 lab)

BIO 280 - Problems in Biology 1 to 3
Prerequisite: Consent of instructor. Independent course presenting the study of a special problem in biology under the supervision of a science instructor.

BUSINESS ADMINISTRATION

BADM 101 - Introduction to Business 3
Prerequisite: ENGL 060 with a grade of C or higher or equivalent placement scores. Course is an introduction to the principles, practices and problems encountered in the general business environment. Topics include options for organizing a business and the basic functions of accounting, marketing, management, and finance.

BADM 103 - Legal Environment of Business 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Investigation of various legal issues encountered in the business environment. Emphasis is placed on developing an understanding of the court system. Includes specific legal topics such as contracts, torts, employment law, product liability, and consumer protection.

BADM 107 - Personal Finance 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Introduction to personal financial management. Examines the techniques necessary to analyze and make choices concerning major purchases, tax planning, insurance, borrowing, investing, and other personal finance issues.

BUSINESS MANAGEMENT

BSMT 106 - Principles of Marketing 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to the key concepts and issues underlying the modern practice of marketing that impacts today's managers. The marketing process is analyzed through the four main decision areas of products and services, distribution, promotion, and pricing.

BSMT 108 - Principles of Management 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to role of management and supervision. Examines the concepts and the practical application of fundamental supervisory skills such as planning, problem solving, motivation, staffing, leadership, training, managing conflict, and providing effective performance reviews.

BSMT 110 - Salesmanship 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to the study of selling as a major function of the marketing mix. The focus is on consumer behavior, selling techniques and includes one role-play sales presentation.

BSMT 117 - Human Resource Management 3
Prerequisite: BSMT 108. Introduction to the human resource management functions including recruitment and selection, equal employment opportunity compliance, development and training, performance appraisal, compensation, and employee benefits.

BSMT 119 - Customer Service Management 3
Introduction to the customer service function of business. Students will acquire and apply communication skills needed to be successful in today's competitive customer-oriented work environment. Topics include communication, leadership, relationship building, customer retention, problem solving, and measurement of satisfaction.

BSMT 125 - Human Relations 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to the concept of business organizations as a social system. Topics consist of motivation, perception, communication, behavior theories, and group dynamics. Utilizes activities in the classroom to demonstrate major human relations concepts.

BSMT 130 - Business Strategies 3
Prerequisite: Consent of program coordinator. Capstone course that provides business management students with an understanding of the total enterprise system. Students will draw upon prior coursework to solve business problems.

BSMT 175 - Business Management Internship 3 to 6
Prerequisite: Consent of program coordinator. On-the-job experience tailored to enforce topics taught within the degree. Student supervision will be the cooperative arrangement between the program coordinator and employer. Progress reports and a final report documenting work experience will be submitted. An approved three-hour program elective may fulfill the internship requirement.

BSMT 185 - Project Management 3
Prerequisite: CAPP 125. Course will help students understand why organizations have developed a formal project management process to gain a competitive advantage. It covers concepts and skills that are used by managers to propose, plan, secure resources, budget, and lead project teams to successful completion of their projects. The text is structured to meet the needs of those wishing to prepare for the PMP or CAPM certification exams. Same as CIS 185.

CERTIFIED PRODUCTION TECHNICIAN

CPT 102 - Safety 3
Safety training to prepare students for entry-level employment in a production position with the ability to work in a safe and productive manufacturing workplace. Skill areas include: perform safety and environmental inspections; perform emergency drills and participate in emergency teams; identify unsafe conditions and take corrective action; provide safety orientation for all employees; train personnel to use equipment safely; suggest processes and procedures that support safety of work environment; fulfill safety and health requirements for maintenance, installation and repair; monitor safe equipment and operator performance; and utilize effective, safety-enhancing workplace practices.

CPT 104 - Quality Practices and Measurement 3
Quality skills for the entry-level production employee to participate in periodic internal quality audit activities. Skill areas include check calibration of gages and other data collection equipment; suggest continuous improvements; inspect materials and product/process at all stages to ensure they meet specifications; document the results of quality tests; communicate quality problems; take corrective actions to restore or maintain quality; record process outcomes and trends; identify fundamentals of blueprint reading; and use common measurement systems and precision measurement tools.

CPT 106 - Manufacturing Processes and Production 3
Entry-level production skills include identify customer needs; determine resources available for the production process; set up equipment for the production process; set team production goals; make job assignments; coordinate work flow with team members and other work groups; communicate production and material requirements and product specifications; perform and monitor the process to make the product; document product and process compliance with customer requirements; and prepare final product for shipping or distribution.

CPT 108 - Maintenance Awareness 3
Prepare the entry-level production worker in the importance and operations of maintenance. Areas of study include: perform preventive maintenance and routine repair; monitor indicators to ensure correct operations; perform all housekeeping to maintain production schedule; recognize potential maintenance issues with basic production systems, including knowledge of when to inform maintenance personnel about problems with electrical, pneumatic, hydraulic, and machine automation systems; lubrication processes; bearings and couplings; and belts and chain drives.

CHEMISTRY

CHEM 101 - Introduction to Chemistry with Lab 5
Prerequisite: ENGL 101 with a grade of C or higher. One-semester course for nonscience majors designed to acquaint the student with scientific reasoning. A writing intensive course that introduces the principles of the nature of matter/atom, reactions, reaction pathways, solutions, measurements, instrumentation, nuclear chemistry, organic/biological molecules and their applications to current issues. (3 lecture, 2 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR CHEM 100L - Essentials in Chemistry with Lab

For additional information: https://dhe.mo.gov/core42.php

CHEM 123 - General Chemistry I with Lab 5
Prerequisites: ENGL 070 and MATH 114 with grades of C or higher or equivalent placement scores. Intended for the science major and science-oriented fields, course examines the structure of the atom, periodic classification, molecular structures, chemical reactions, aqueous solutions, and chemical energetics. (3 lecture, 2 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR CHEM 150L - Chemistry I with Lab

For additional information: https://dhe.mo.gov/core42.php

CHEM 124 - General Chemistry II with Lab 5
Prerequisite: CHEM 123 with a grade of C or higher. Continuation of CHEM 123 emphasizing chemical energetics, entropy, equilibria, reduction oxidation systems, and reaction pathways in organic/biochemistry. (3 lecture, 2 lab)

CHEM 180 - Problems in Chemistry 1 to 3
Prerequisite: Consent of instructor. Independent study and/or lab investigation of a special problem in chemistry. Instruction varies between 1 to 3 lecture hours and 1 to 3 lab hours.

CHEM 221 - Organic Chemistry I with Lab 5
Prerequisite: CHEM 123 with a grade of C or higher. The first of a two-semester sequence in organic chemistry, course studies the structure, bonding and nomenclature of organic compounds (alkanes, alkenes, alkynes, and conjugated systems); substitution and elimination reaction mechanisms; and identification of organic compounds via UV, VIS, IR, GC, and NMR spectroscopy. (3 lecture, 2 lab)

CHEM 222 - Organic Chemistry II with Lab 5
Prerequisite: CHEM 221 with a grade of C or higher. Continuation of CHEM 221 including the study of the reactions associated with aromatic compounds, carbonyl compounds and polyfunctional natural products. (3 lecture, 2 lab)

CHEM 265 - Elementary Organic and Biochemistry with Lab 5
Prerequisite: Any CHEM course with a grade of C or higher. Introduction to organic chemistry and the fundamental concepts of biochemistry; topics include functional groups, nomenclature, reactivity, organic reaction mechanisms. Course explores molecules associated with life functions, emphasizing physiological, nutritional, and comparative aspects. Required for some nonchemistry degrees; generally does not transfer for chemistry majors. (3 lecture, 2 lab)

COMMUNICATIONS

COMM 101 - 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR COMM 110 - Fundamentals of Public Speaking

For additional information: https://dhe.mo.gov/core42.php

COMM 103 - 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR COMM 125 - Small Group Communication

For additional information: https://dhe.mo.gov/core42.php

COMM 105 - Interpersonal Communication 3
Presents theories, principles and techniques of communication as they apply to one-to-one, small groups and conference interaction.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR COMM 120 - Interpersonal Communication

For additional information: https://dhe.mo.gov/core42.php

COMM 110 - Introduction to Mass Communication 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.

COMM 112 - Introduction to Public Relations 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Overview of the principles and practice of public relations in private and public organizations. Includes analysis of how various organizations' communication philosophies and practices impact their productivity and effectiveness in society.

COMM 180 - Problems in Communication 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in communications under the supervision of a communications instructor in the department.

COMPUTER APPLICATIONS

CAPP 124 - Introduction to the Personal Computer 1
Designed for those with limited or no computer experience. Emphasis is placed on keyboard and mouse usage, the Windows operating system, file storage, and software options. Includes hands-on instruction in the computer lab. This is a pass/fail course.

CAPP 125 - Microcomputer Applications 3
Prerequisite: Equivalent reading placement score into ENGL 070. Keyboarding proficiency is recommended. Learn the operations of personal computers through the use of Microsoft Office Professional software. Applications include fundamentals of word processing, spreadsheets, database management, and presentations.

CAPP 160 - Word 3
Prerequisite: CAPP 125 with a grade of C or higher. Course is designed for Windows users who seek further knowledge of the word processing program, Microsoft Word.

CAPP 162 - Desktop Publishing 3
Introduction to the basics of electronic page layout using professional publishing software. Valuable skills will be gained in image scanning, manipulation and merging text and graphics.

CAPP 164 - Access 3
Prerequisite: CAPP 125 with a grade of C or higher. Course is designed for Windows users who seek further knowledge of the database program, Access.

CAPP 166 - Excel 3
Prerequisite: CAPP 125 with a grade of C or higher. Course is designed for Windows users who seek further knowledge of the spreadsheet program, Excel.

COMPUTER INFORMATION SYSTEMS

CIS 103 - Introduction to CIS 3
Course teaches the skills necessary to understand the logic of computer programming, design and structure. Students will be presented effective tools needed to enhance their knowledge of using the latest innovations in technology.

CIS 120 - Programming in Python 3
Course provides an introduction to programming in Python. The class will focus on problem-solving skills in math processing. Students will learn syntax, loops, conditional statements, graphics, object-oriented design, and functions.

CIS 124 - Database Management 3
Course implements the relational database management system tasks. Topics include creation of databases, storing, lists and displays, indexing, report generating, creating labels, constructing screens, programming skills, control structures, menus, multi-file programming, and special techniques.

CIS 145 - Visual Basic 3
Course provides an introduction to programming within a graphical environment. Application development will focus on the process of designing, building and maintaining projects that may be used within a business setting. The end product will increase the efficiency and productivity of the organization. Instruction will include interactive design, game programming and database access.

CIS 148 - COBOL 3
Computer programming course that will use the COBOL programming language in a business environment. Instruction will include data editing, arithmetic calculations, if/then structures, loop processing, conditional statements, control level breaks, tables, and evaluate statements.

CIS 149 - Advanced COBOL 3
Prerequisite: CIS 148 with a grade of C or higher. Advanced COBOL programming techniques are presented in this course. Instruction covers tables, call statements, multi-file processing, and end-user interaction.

CIS 151 - DB2 Relational Database 3
Prerequisite: CIS 148 with a grade of C or higher. Course prepares students for programming in the DB2 environment. DB2 is a relational database. A substantial portion of the course will use SQL statements for maintaining a database.

CIS 155 - Programming in C# 3
Programming language C# is introduced as an application programming language. Top-down program development methodologies are discussed. Instruction includes learning the different C# language features to develop application programs.

CIS 157 - Advanced C# 3
Prerequisite: CIS 155 with a grade of C or higher. Course presents advanced C# programming techniques. Instruction includes data manipulation, file handling, logic processing, database access, and maintenance through SQL commands.

CIS 158 - JAVA 3
Introduction to object-oriented programming with a major emphasis in developing GUI based applications for business settings, web pages and smart devices.

CIS 161 - Systems Analysis 3
Prerequisite: CIS 124 with a grade of C or higher. Content includes the analysis and identification of multi-user computer system development. Documentation of systems requirements is stressed.

CIS 162 - Advanced Visual Basic 3
Prerequisite: CIS 145 with a grade of C or higher. Course is for the programmer who would like to program commercially in Visual Basic. Course covers file handling, multiple document interfacing, database maintenance, creating Crystal Reports, and creating web applications.

CIS 163 - Visual Basic with SQL 3
Prerequisite: CIS 145 with a grade of C or higher. Course is designed to teach extensive database administration. As databases are an integral part of interactive web and business design, the course will be useful for commercial development. Extensive use of SQL commands will be covered.

CIS 164 - Oracle I-Oracle SQL 3
Course provides the fundamental skills in SQL with additional coverage of Oracle's implementations of SQL. Course is designed to provide a practical working knowledge of essential Oracle database skills and technologies.

CIS 165 - Oracle II-PL/SQL 3
Course instructs the student in topics related to Oracle PL/SQL (Procedure Language/Structured Query Language). Subjects will include invoker's rights, object patterns, database management, and Java libraries.

CIS 168 - Game Programming 3
Fundamentals of how to write computer games in the C# programming language using Direct3D, DirectSound, DirectX, and DirectInput. Students will receive knowledge of game programming using 3D modeling, collision detection and animation. No previous knowledge of HTML or web design is assumed. Students are required to purchase a mass storage device such as a thumb or jump drive.

CIS 169 - Advanced JAVA 3
Prerequisite: CIS 158 with a grade of C or higher. Project-oriented programming course that builds upon the knowledge presented in CIS 158. Topics include database connectivity, sockets, advanced GUI programming, multi-threading, and data structures.

CIS 175 - CIS Internship 4 to 8
Prerequisite: Consent of program coordinator. Includes a minimum of 160 clock hours of supervised work experience that allows the student to apply CIS operation and programming theory. Recommended to be taken during the last year of study.

CIS 179 - Programming Project 4
Prerequisite: Consent of instructor. Must be taken during the last semester of study before completion of the CIS degree. Includes individually designed assignments that require students to develop and test a program and document program results.

CIS 180 - Problems in CIS 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in computer systems arranged under the supervision of a CIS instructor.

CIS 185 - Project Management 3
Prerequisite: CAPP 125. Course will help students understand why organizations have developed a formal project management process to gain a competitive advantage. It covers concepts and skills that are used by managers to propose, plan, secure resources, budget, and lead project teams to successful completion of their projects. The text is structured to meet the needs of those wishing to prepare for the PMP or CAPM certification exams. Same as BSMT 185.

CONSTRUCTION TECHNOLOGY

CNST 105 - Construction Materials and Methods 3
Introductory course that provides an overview of the materials and methods used in light framing and building finish systems from floor to roof and from exterior cladding to interior finishes. Includes wood light framing, light gage metal framing, roofing, glass and glazing, cladding systems, windows and doors, interior finishes, ceilings, and floors. This course will focus on development of a fundamental knowledge base through case study and detailed product analysis.

CNST 106 - Construction Estimation 3
Examines the methods used in cost estimating in the construction industry. Skills such as quantity take-off, measurement, quote and bid solicitation, etc., are developed, as well as discussion of strategy involved in bid formulation and submissions. Computerized estimating techniques are explored, as well as manual methods. Course will require completion of a cost estimate for residential, commercial, industrial, or heavy construction projects.

CNST 113 - Construction Management 3
Discusses careers in construction as well as the general business operations involved in the construction industry. Basic overview of the legal structure of businesses, contract terms and the roles of stakeholders in a construction project.

CNST 138 - Construction Planning and Scheduling 3
Discusses methods of organizing work items associated with a construction project into a logical sequence of optimizing efficiency and profitability. Manual and computerized scheduling methods are used in developing project schedules for both real and simulated projects.

CNST 142 - Building Mechanical Systems 3
Introduction to the understanding of components and design of major building mechanical systems. Topics include electrical, plumbing and HVAC systems in buildings. Design calculations for proper sizing of system components are discussed, as well as the various methods and materials used in the construction of such systems.

CNST 145 - Construction Methods I 3
Students will study the methods used to install various construction materials related to the major divisions of the Construction Specification Institute (CSI) format during their first year.

CNST 146 - Construction Methods II 3
Continuation of CNST 145 for students in their second year. Students will study the methods used to install various construction materials related to the major divisions of the Construction Specification Institute (CSI) format.

CNST 148 - Construction Codes and Law 3
Overview of legal requirements related to the design and execution of construction projects. The International Building Code is studied, and upon completion of the course, the student will be capable of navigating it and many other similar reference manuals. Other legal aspects of the construction industry are discussed including, but not limited to, contract law as well as liability issues.

CNST 150 - Building Layout and Surveying 3
Prerequisite: MATH 108 or MATH 114 with a grade of C or higher or equivalent placement score. Construction field engineering activities to include surveying, site/building layout and dimensional control. Interpretation of plot books, site plans, and topographic maps is also included.

CNST 160 - Statics and Strength of Materials 3
Prerequisite: MATH 108 or MATH 114 or equivalent placement score. Introduces the fundamentals of structural analysis and design. Materials and structural systems are discussed in terms of load bearing properties as well as economy of construction. Students will gain a greater understanding of how structures work as well as how choices are made regarding the selection of appropriate materials and systems to meet a given need.

CNST 162 - Construction Safety 3
Comprehensive discussion of job safety and best practices as they pertain to the construction industry. A general philosophy of safety awareness is achieved through study of specific hazards and case studies. Students will be required to obtain the OSHA 10-hour certification, understand OSHA regulations as well as legal implications on the construction industry.

CNST 175 - Construction Management Internship 4 to 8
Prerequisite: Consent of program coordinator. Cooperative work experience within the construction industry setting. Student will work as a management-level employee for an established construction related firm. Periodic site visits and employer interviews by the instructor will ensure that student is performing meaningful management level functions and is generally meeting the expectations of the course.

CRIMINAL JUSTICE

CJ 101 - Introduction to Law Enforcement 3
Examines the history of policing in the United States and an overview of the relationship between law enforcement and the American society. Includes an examination of the duties of law enforcement officers, the operations of police agencies, police-community relations, the police subculture, and the need for police objectives to conform to constitutional procedures.

CJ 102 - Introduction to Criminal Justice 3
Examines the history, development and function of the criminal justice system in America. Will examine the three major components of the system: police, courts and corrections, as well as their interrelationships.

CJ 103 - Traffic Safety and Investigation 3
Introduces traffic control and accident investigation in modern cities; reviews principles of organizing and administering police units for traffic enforcement, accident prevention and safety education; and presents basic techniques of accident investigation, analysis and interpretation.

CJ 104 - Criminal Investigation 3
Course includes theory, methods and procedures of criminal investigation with attention given to its historical origins, the investigator, organization and management of the investigative function; and various investigative methods such as crime scene investigation, techniques of interviewing, collection of evidence, suspect development, and case preparation.

CJ 105 - Criminal Law 3
Examination of criminal, common and statutory law with its application to the criminal justice system. Emphasis will be placed on the classification of crime and criminal behavior including the necessary elements and mental states of criminal acts. Course will also examine criminal acts based on Missouri criminal statutes.

CJ 107 - Criminology 3
Examines the various theories of criminal behavior and crime causation as well as the problems of treatment, corrections and control of crime. Course also looks at patterns of crime, research methods and the response to criminal behavior.

CJ 109 - Juvenile Delinquency 3
Examines the origins, philosophy and objectives of the juvenile justice system in America including the concept of juvenile delinquency and its causes, juvenile case dispositions and juvenile detention procedures. Close attention will be placed on the organization, function and jurisdiction of juvenile justice agencies and the application of the Missouri Juvenile Code.

CJ 111 - Introduction to Corrections 3
Examines the history, development and present components of both institutional and community-based corrections in America.

CJ 115 - Procedural Law 3
Examines the U.S. Constitution, court cases, statutes, and other sources of regulation in the field of criminal procedure. These regulatory documents will be examined and considered as to how they apply to criminal law and the administration of justice. Specific issues to be covered include search and seizure, interrogations and confessions, grand jury investigations, identification procedures, and the right to counsel.

CJ 118 - Criminal Justice Communications 3
Provides direction and guidance for students seeking entry-level careers in law enforcement and corrections with additional examination of written and verbal communications. Provides instruction concerning the reporting of factual information in an accurate and proper format. In addition to reinforcing basic writing tools, course will stress the components of typical police writing formats. Topics such as interviewing and interrogation techniques and courtroom testimony will also be covered.

CJ 122 - Current Events in Criminal Justice 3
Provides an intensive examination of major issues affecting the criminal justice system and their interaction with society and the democratic process. Topics may include capital punishment, terrorism, drug abuse, and serial killers.

CJ 124 - Drugs, Society and Criminal Justice 3
Designed to provide an overview of the relationship between drugs and crime as well as the response of the criminal justice system to illegal drug use. Course includes current U.S. drug abuse trends and patterns; review of the history of drug abuse and legal attempts to control such abuse; exploration of the physiological, psychological and sociological effects of common abused drugs; and a discussion of the connections between drug abuse and crime.

CJ 150 - Criminal Justice Seminar 1
Prerequisite: Consent of program coordinator. Capstone course for the Associate of Applied Science degree in Criminal Justice. This course must be completed during the last semester prior to graduation. Course will focus on preparing the student for employment in the criminal justice field including, but not limited to, résumé and application development, ethics in criminal justice, preparation for hiring processes in law enforcement, career choice, career search skills, and mock interviews. Students will also be required to complete the NOCTI exam as part of the program and this class.

CJ 175 - Supervised Occupational Experience in Criminal Justice 4
Prerequisites: CJ 102 and consent of program coordinator. Provides students with the opportunity to observe and experience the operation of a selected agency within the criminal justice system. Program will require the student to spend a minimum of 160 hours with the agency during the semester as well as the completion of other requirements. Students will be required to correspond with the instructor.

CJ 180 - Problems in Criminal Justice 1 to 3
Prerequisites: CJ 102 and consent of program coordinator. Independent study of a special problem in criminal justice under the direct supervision of a criminal justice instructor.

DENTAL HYGIENE

DH 102 - Dental Radiography 2
Introduction to dental radiology for students enrolled in the Dental Hygiene program. Component parts, functions, operations of the dental x-ray unit, and radiation safety is emphasized. Relationships between anatomical and radiographic landmarks are analyzed.

DH 104 - Dental Radiography Lab 1
Introduction to the radiology laboratory intended for the first year student enrolled in the Dental Hygiene program. Emphasis on dental x-ray techniques, film development and mounting. Radiation safety protection is practiced for all laboratory procedures. All films will be viewed for self-critique and instructor evaluation.

DH 106 - Dental Clinical Emergencies 1
Course presents procedures to properly manage common medical emergencies, as well as emergencies specific to the dental office. Information is also included concerning emergency protocol and medications used in the dental office. Adult, child and infant CPR, choking, and child and adult AED are included. Upon successful completion of this course, the student will receive certification from the American Heart Association for Health Care Provider CPR/AED.

DH 108 - Oral Anatomy and Histology 3
Course is designed to prepare dental hygiene students for the application of detailed knowledge about oral anatomy to planning, implementation, assessment, and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head and neck anatomy and its relationship to tooth development, eruption and health.

DH 111 - Pharmacology 3
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 understanding patient health history and developing a care plan.

DH 113 - 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 basic principles of ethics, conflict management, state dental laws, and legal liabilities of health care professionals. Professional conduct and roles in professional organizations are fostered through knowledge of the code of ethics of the profession and political involvement. The Missouri State Jurisprudence test is the final for this course.

DH 115 - Community Dental Health I **2**
Introduction to community dental health problems and disparities that exist in health care. The science of epidemiology, research and writing skills, and biostatistics. An analysis of current dental health issues and initial development of a community dental health program. Evaluation of scientific literature will be developed. (1.5 lecture, 0.5 lab)

DH 117 - Community Dental Health II **.5**
Emphasis on the steps to developing community dental health programs, including health promotion programs. Local, state and federal departments of public health services, types of fluoridation and school-based dental health programs and screenings will be presented. Evidence-based decision-making will be applied to the dental public health setting.

DH 118 - Principles of Periodontics **2**
Biological and clinical aspects of periodontal health and pathology. 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.

DH 120 - Dental Biomaterials with Lab **2**
Students will study the chemistry of biomaterials used in the oral cavity and how to discern what products to use when taking impressions, creating study models, polishing resin or alloy filling, and delivering dental sealants. Students will use alginate materials to take an impression and resins to produce a dental sealant. Other activities include personal mouth protection devices; placing a rubber dam; polishing a restoration; mixing cements, dental alloys and impression materials; as well as using periodontal dressing and removing sutures. (1 lecture, 1 lab)

DH 122 - General and Oral Pathology **3**
Course introduces the dental hygiene student to the study of disease, general pathology terminology and disorders of the human systems, with a detailed study of pathologic conditions of the oral cavity and surrounding structures. This will include concepts of immunity; infectious diseases and cancer; oral manifestations of systemic diseases; and principles of oral-systemic relationships.

DH 124 - 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. Course will prepare the dental hygiene student to fulfill his or her role in oral health education as it relates to patient home care habits, motivation and dietary effects on the oral cavity.

DH 128 - Local Anesthesia **2**
Course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia. Included are content areas in anatomy, physiology, pharmacology, and emergency management. Laboratory sessions provide actual experiences in administration of local anesthetics. (1 lecture, 1 lab)

DH 131 - Introduction to Dental Hygiene Theory **2**
Course is designed to acquaint the student with the professional, educational and therapeutic services of a dental hygienist and provide the background, knowledge and skills necessary to function in subsequent dental hygiene courses.

DH 133 - Dental Hygiene Theory I **2**
Prerequisites: DH 131 and DH 140 with grades of B or higher. Students will be introduced to the process of scientific literature review and the principles of evidence-based decision making. Concepts of fluoridation, selective coronal polishing, ultrasonic scaling, instrumentation, sharpening, and patient education will be introduced and built upon as the semester progresses.

DH 134 - Dental Hygiene Theory II **1**
Prerequisite: DH 141 with a grade of B or higher. Course is designed to introduce more advanced clinical techniques. Principles of ultrasonic scaling, air powder polishing, use of intra-oral cameras, and office management software will be introduced. Management of patients with sensitivity, dental therapeutics and locally applied antimicrobials will also be employed.

DH 135 - Dental Hygiene Theory III **2**
Prerequisites: DH 134 and DH 143 with grades of B or higher. This course will focus on the management of patients with special needs including physical, mental, social, and emotional. Additional content will relate to patients with medically compromised conditions affecting care.

DH 136 - Dental Hygiene Theory IV 2
Prerequisites: DH 135 and DH 144 with grades of B or higher. The course will involve analysis of scientific literature and preparation of a table clinic, creation of a website as well as self-directed review of program material and improvement of test-taking skills for enhanced recall of material in preparation for the National Dental Hygiene Board Examination (NDHBE).

DH 140 - Dental Hygiene Pre-Clinic I 4
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 ergonomics, instrumentation, infection control, patient examination, and education are presented in this course.

DH 141 - Dental Hygiene Pre-Clinic II 2
Prerequisites: DH 131 and DH 140 with grades of B or higher. Continuation of dental hygiene clinical practice and instrumentation techniques including periodontal examination, scaling and root planing and sharpening. Adjunctive dental hygiene procedures taught include fluorides and selective coronal polishing. Clinical activities utilize typodonts and student partners. Student's clinical performance will be evaluated.

DH 142 - Dental Hygiene Clinic I 2
Prerequisite: DH 141 with a grade of B or higher. Introduction to clinical dental hygiene practice. Emphasis on assessing, planning, dental hygiene diagnosis, and implementing comprehensive dental hygiene care on patients in a clinical setting. Students apply knowledge, critical thinking and basic clinical skills acquired in previously completed dental hygiene courses.

DH 143 - Dental Hygiene Clinic II 3
Prerequisites: DH 134 and DH 142 with grades of B or higher. Course continues skill development in the provision of dental hygiene care. Students continue clinical skill development by creating care plans that emphasize data assessment, analysis of risk factors and sequencing of care.

DH 144 - Dental Hygiene Clinic III 6
Prerequisites: DH 134 and DH 143 with grades of B or higher. Course continues skill development in the provision of dental hygiene care. Students continue clinical skill development by creating care plans that emphasize data assessment, analysis of risk factors and sequencing of care. Clinical emphasis will be on the treatment of advanced periodontal cases.

DH 145 - Dental Hygiene Clinic IV 6
Prerequisites: DH 135 and DH 144 with grades of B or higher. Dental hygiene skill will be perfected in this course. Students will be encouraged to make clinical decisions based on the evidence present by the individual patient. Clinical emphasis will be on the treatment of advanced periodontal cases. Clinical method of instruction and evaluation is competency-based.

DIAGNOSTIC MEDICAL SONOGRAPHY

DMS 102 - Patient Care and Health Care Communication 2
Entry-level patient care, professionalism and critical thinking skills utilized in the daily responsibilities of an imaging professional are presented in preparation for student clinical rotations. Best practice verbal and nonverbal communication skills within the health care setting are introduced. Students will learn about appropriate communication for health care providers in culturally sensitive and age-specific situations. Electronic communication basics as well as a brief review of fundamental writing skills will also be covered. Students will also complete training to receive American Heart Association CPR for Healthcare Providers certification. Local students must take the CPR course on campus. Nonlocal students have the option of taking the CPR course on campus or finding a local course that is approved by the American Heart Association.

DMS 103 - Cardiac Ultrasound I 3
Introduction to cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and an introduction to pathology.

DMS 105 - Sonography Clinical Education I 5
Prerequisite: DMS 107 with a grade of B or higher. Beginning internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the direct supervision of a registered sonographer. Students will begin obtaining scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 24 hours per week in clinical for a total of 384 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 107 - Ultrasound Scanning Lab I 4
Instructional lab consisting of instructor-guided hands-on scanning sessions in the Diagnostic Medical Sonography lab. Practical basic preparation for student's first clinical education experience. Students admitted as nonlocal will complete these credit hours in a clinical setting and will complete assignments and tests as assigned by the lab instructor. In addition to lab contact hours the student may be assigned to complete 2 to 16 hours in a clinical setting.

DMS 108 - Seminar in Sonography 2
This writing intensive research-based course facilitates a comprehensive overview of sonography as part of the larger health care apparatus. Topics may include, but are not limited to case studies, physician interaction, other imaging modalities, laboratory exams, health care professions, ethical and legal considerations, billing and records, and professional organizations.

DMS 113 - Cardiac Ultrasound II 3
Prerequisite: DMS 103 with a grade of B or higher. Continuation of DMS 103. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

DMS 115 - Sonography Clinical Education II 4
Prerequisite: DMS 105 with a grade of B or higher. Internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 32 hours per week in clinical for a total of 272 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 117 - Ultrasound Scanning Lab II 3
Prerequisite: DMS 107 with a grade of B or higher. Continuation of DMS 107. Instructional lab consisting of instructor-guided hands-on scanning sessions in the Diagnostic Medical Sonography lab. Practical basic preparation for student's continued clinical education experience. Students admitted as nonlocal will complete these credit hours in a clinical setting and will complete assignments and tests as assigned by the lab instructor.

DMS 120 - Sonography Principles and Instrumentation I 3
Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered.

DMS 122 - Sonography Principles and Instrumentation II 3
Prerequisite: DMS 120. Continuation of DMS 120. Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered. This course will include Sonography Principles and Instrumentation (SPI) registry review material and mock exams.

DMS 123 - Cardiac Ultrasound III 3
Prerequisite: DMS 113 with a grade of B or higher. Continuation of DMS 113. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

DMS 125 - Sonography Clinical Education III 5
Prerequisite: DMS 115 with a grade of B or higher. Internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 24 hours per week in clinical for a total of 384 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 130 - General Sonography I 2
Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures, and noncardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 132 - General Sonography II 2
Prerequisite: DMS 130. Continuation of DMS 130. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and non-cardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 133 - Cardiac Ultrasound IV 3
Prerequisite: DMS 123 with a grade of B or higher. Continuation of DMS 123. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology. Will include an introduction to pediatric echo.

DMS 134 - General Sonography III 2
Prerequisite: DMS 132. Continuation of DMS 132. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and noncardiac chest, and is a continuation of DMS 130 and DMS 132. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Abdominal Sonography registry review material and mock exams.

DMS 135 - Sonography Clinical Education IV 5
Prerequisite: DMS 125 with a grade of B or higher. Internship of the Diagnostic Medical Sonography profession. Students will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly utilize the Trajecsys system to document hours spent in the clinical site and to log all observed and performed exams. Students must also complete scanning competencies as outlined in the DMS Student Handbook. Students are required to spend 24 hours per week in clinical for a total of 384 hours. All hours must be completed by the end of the semester. Clinical education settings can include, but are not limited to, hospital imaging departments, doctor's offices, medical clinics, imaging centers, and mobile sonography practices.

DMS 140 - OB/GYN Sonography I 2
Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

DMS 142 - OB/GYN Sonography II 2
Prerequisite: DMS 140. Continuation of DMS 140. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

DMS 144 - OB/GYN Sonography III 2
Prerequisite: DMS 142. Continuation of DMS 142. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis and is a continuation of DMS 140 and DMS 142. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented. This course will include OB/GYN registry review material and mock exams.

DMS 150 - Vascular Sonography I 2
Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 152 - Vascular Sonography II 2
Prerequisite: DMS 150. Continuation of DMS 150. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 154 - Vascular Sonography III 2
Prerequisite: DMS 152. Continuation of DMS 152. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems and is a continuation of DMS 150 and DMS 152. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Vascular Sonography registry review material and mock exams.

EARLY CHILDHOOD DEVELOPMENT

ECD 101 - Introduction to Early Childhood 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening. 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.

ECD 103 - Child Growth and Development 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

ECD 107 - Child Nutrition, Health and Safety 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

ECD 109 - Observation and Planning Assessment 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. Course provides the student with opportunity to understand methods of observing children from birth to age 8, how to plan after observation, and make enhancements to curriculum based on assessment.

ECD 111 - 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, talking, writing, and learning.

ECD 115 - Child Social/Emotional Development 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Course is an overview of childhood behavior, interaction and relationships, environments and its effects on social and emotional development. Behavior and guidance concerns of children and problems facing adolescents and adults are addressed.

ECD 117 - Creative Expression and Play 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening. Presents the development of creative expressions in the young child through activities such as music, art and dance, and their incorporation into the daily curriculum. The value of children's play and discovery as learning opportunities will be emphasized.

ECD 121 - Curriculum Strategies for Early Childhood 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101, ECD 107, ECD 109 with grades of C or higher and ENGL 070 with a grade of C or higher or equivalent placement scores. 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 the Constructivist Theory.

ECD 125 - Introduction to Special Individuals 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening. Presents an introduction to characteristics of exceptional individuals and educational history and theories with exceptional individuals, especially children. Study will include effects of disability on adjustment to home, school, community, and on families of young children. Includes an overview of federal and state systems of support for children with special needs.

ECD 127 - 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 and community resources.

ECD 129 - Administration in Early Childhood Care 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101 through ECD 127 with grades of C or higher. Course presents the operation of a child care facility including staff relations, budgeting, ordering, planning, and evaluating center operations. Early childhood care center ethics, funding opportunities, licensing, curriculum, and parent involvement are also incorporated into this course.

ECD 131 - Child Development Portfolio/ Assessment Preparation 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101 and ECD 107 with grades of C or higher, and consent of instructor. Course provides a step-by-step approach of the activities necessary to complete the degree requirements. Course is a review of the functional areas along with an emphasis on the general understanding of the physical, social, emotional, language, and cognitive development of early childhood. The competencies required and the assessment processes are considered important components of this course.

ECD 175 - Child Care Practicum 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ECD 101 through ECD 129 with grades of C or higher. Course presents the operation of a child care facility including staff relations, budgeting, ordering, planning, and evaluating center operations. Early childhood care center ethics, funding opportunities, licensing, curriculum, and parent involvement are also incorporated into this course.

EARTH SCIENCE

EASC 101 - Introduction to Earth Sciences with Lab 5
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to earth science that concentrates on understanding the earth's dynamic environments through the scientific study of processes and physical and human interactions related to geology, meteorology and astronomy. Lab topics include introduction to minerals and rocks, plate tectonics, geologic time, maps, earthquakes, weather, and basic astronomy. (4 lecture, 1 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR GEOL 100L - Geology with Lab

For additional information: https://dhe.mo.gov/core42.php

EASC 106 - Physical Geology with Lab 5
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Provides an understanding of the forces that were active in the formation of the Earth, the processes whereby the surface of the Earth is sculptured, the identity of Earth materials, and the location and value of the Earth's resources. Topics include history of geology, plate tectonics, matter and minerals, rocks, volcanoes, weathering and soil, geologic time, earthquakes, plate boundaries, water and energy. Rock and mineral identification is a large part of the lab section of this course. Labs include identification of rocks and minerals, plate tectonics and geologic time. (4 lecture, 1 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR GEOL 100L - Geology with Lab

For additional information: https://dhe.mo.gov/core42.php

EASC 118 - Environmental Geology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Focuses on natural hazards and the human consequences associated with geologic processes. Topics include the study of plate tectonics, earthquakes, volcanoes, floods, tornadoes, storms, wildfires, pollution, climate change, and global warming. Emphasis is placed on how those hazards affect humans and how human activity affects Earth's environment.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR GEOL 100 - Geology

For additional information: https://dhe.mo.gov/core42.php

EASC 120 - Introduction to Astronomy 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to our present knowledge of the universe. Topics include the solar system, stellar astronomy and the structure of the universe.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ASTR 100 - Astronomy

For additional information: https://dhe.mo.gov/core42.php

EASC 180 - Problems in Earth Science 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in earth science under the supervision of a science instructor.

ECONOMICS

ECON 101 - Principles of Macroeconomics 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Examines the economy as a whole with an emphasis on how scarcity affects a nation. Topics include understanding and measuring economic growth, inflation, unemployment, monetary and fiscal policy, and exchange rates.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ECON 101 - Introduction to Macroeconomics

For additional information: https://dhe.mo.gov/core42.php

ECON 102 - Principles of Microeconomics 3
Prerequisites: ENGL 070 and MATH 061 with grades of C or higher or equivalent placement scores. Examines the price system and resource allocation, markets and efficiency, production costs, wage determination, market structures, and the role of government in regulating and supplementing the pricing system.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ECON 102 - Introduction to Microeconomics

For additional information: https://dhe.mo.gov/core42.php

ECON 180 - Problems in Economics 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in economics under the supervision of an economics instructor.

EDUCATION

EDUC 108 - Introduction to the Field of Education .5
Course is a prerequisite requirement for all potential students seeking an AAT degree in Elementary Education or an AAS in Early Childhood Development. Topics will include professionalism in the field, mandatory background screenings, health requirements, membership in professional organizations, observations and participation in classroom experiences, exit exams, and employment opportunities. The Department of Elementary and Secondary Education standards will be introduced along with state certification and transfer degree options. This is a pass/fail course.

EDUC 110 - Introduction to Physical Education in the Elementary School 2
Prerequisites: EDUC 108 and the successful completion of an approved background screening. Recommended for sophomore physical education majors and elementary education majors. Study of special methods and materials to be used in the teaching of elementary school physical education. Topics include course organization, teaching procedures and opportunities for integrating the physical education program with the school curriculum. Course will fulfill the wellness requirement.

EDUC 147 - Introduction to Teaching Online 2
Prerequisite: Consent of instructor. Introductory course designed to assist faculty in developing courses that are either web-based or web-assisted. Provides instruction for very basic course planning and will focus on topics such as methods, strategies, techniques, trends, and terminology used in instruction in general and online education in particular. Articles will be assigned for reading and discussion, and preliminary documents for teaching online courses will be created. Course is restricted to SFCC faculty.

EDUC 149 - Teaching with LMS Software 2
Prerequisite: Consent of instructor. Introductory course is designed to assist faculty in learning how to use the campus learning management system for facilitating web-based and web-assisted courses. 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. Course is restricted to SFCC faculty.

EDUC 180 - Problems in Teacher Education 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in teacher education under the supervision of the program coordinator.

EDUC 205 - Teaching Profession with Field Experience 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 101 with a grade of C or higher. Course provides an opportunity to observe teaching and learning for 30 hours or more in pre K-12 classrooms. Students are introduced to the requirements for teacher preparation and certification. Students will examine characteristics of effective teaching. Course is designed to assist students in determining if a career in teaching is an appropriate goal.

EDUC 209 - Foundations of Education in a Diverse Society 3
Prerequisite: ENGL 101 with a grade of C or higher. Course examines the historical, philosophical, sociological, political, economic, and legal foundations of the American public education system. Students will explore the nature of school environments, design and organization of school curricula, characteristics of effective schools, and instruction in grades pre K-12. Educational structures, practices and projections for the future will be studied.

EDUC 212 - Educational Technology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Students will learn to integrate instructional technology into the pre K-12 classrooms. Students will study a variety of software programs, presentation technology and telecommunication tools. Focus will also be on social, ethical, legal, and human issues surrounding the use of technology.

EDUC 218 - Children's Literature 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. Intensive introduction to various genres of literature for children and ways of presenting literature in preschool, elementary or middle school.

EDUC 220 - Educational Psychology 3
Prerequisite: PSY 101 or PSY 102 with a grade of C or higher. Course is designed to help students relate the application of psychological principles to teaching, learning and assessment, and the educational practice in pre K-12 classrooms. It will focus on the learner and the learning process, teacher characteristics and classroom processes that increase student motivation. Student diversity and appropriate instructional strategies for students with special needs will also be introduced. Writing papers in APA format is required.

EDUC 228 - Education of Exceptional Learners Pre K-12 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening and ENGL 070 with a grade of C or higher or equivalent placement scores. Survey course is an introduction to the exceptional learners and their education in grades pre K-12. Students will attain knowledge, skills and dispositions that will enable them to work effectively with exceptional learners in general education or special education. Course will cover the adaptations of daily activities in inclusive classrooms.

EDUC 240 - Multicultural Education 3
Prerequisite: ENGL 101 with a grade of C or higher. Historical and contemporary analysis of educational policies incorporating ethnic, religious and linguistic minorities. The teacher candidate will gain awareness of diversity and develop a theoretical understanding through investigations of diversity within the local community by using selected presentations, text readings and survey of a professional and classroom action plan.

EDUC 250 - Paraprofessional Educator Practicum 3
Prerequisites: EDUC 108 and the successful completion of an approved background screening, ENGL 101 with a grade of C or higher and consent of program coordinator. Students will actively participate, under supervision, in a paraprofessional setting for a total of 60 hours. Students will be responsible for implementation of duties assigned by the internship supervisor.

ENGINEERING DESIGN TECHNOLOGY

EDT 105 - Print Reading for Construction 3
Course introduces the concepts of sketching, technical drawing, measurement, scale, format, and how they are applied to reading drawings in mechanical, architectural, civil, structural, and electrical fields. The relationship between the intent of the drawings, trade practices, American Society of Mechanical Engineers (ASME) standards, and the ability to extract and utilize information found on various kinds of drawings will be emphasized.

EDT 111 - Introduction to Engineering Design 3
Course will involve the production of 2D technical drawings that meet industry standards using software. Emphasis will be placed on precision, accuracy and productivity. The use of symbols, line types, line weights, orthographic projection, multi-view placement, text format, dimensions, section views, auxiliary views, isometric views, plotting accuracy, and a variety of design fields will be reviewed.

EDT 115 - Advanced Engineering Design 3
Prerequisite: EDT 111 with a grade of C or higher. Course presents topics required for creating accurate two- and three-dimensional geometry. Study will include development of dimension styles, use of annotative objects and management of external references, blocks, attributes, and other advanced aspects of the software to maximize productivity.

EDT 120 - Architectural Design 3
Course offers the fundamentals of architectural design as it relates to light wood construction consistent with, but not limited to, residential construction. This course introduces building elements, Building Information Modeling (BIM) techniques, building code requirements, and professional and regional influences.

EDT 125 - Architectural Applications 3
Prerequisite: EDT 120 with a grade of C or higher. Course will introduce students to architectural software widely used in the commercial field to produce architectural models and working drawings. Building Information Management (BIM), design development, construction documentation, and planning techniques relating to the software will be emphasized.

EDT 130 - Manufacturing Design I 3
Course will introduce students to the fundamentals of Solid Modeling software to produce parametric models, assemblies, presentations, and drawings for the manufacturing industry. Topics will include sketches, reference planes, relations, part modeling techniques, constraints, mates, evaluation tools, redesign, and presentation techniques.

EDT 132 - Manufacturing Design II 3
Prerequisite: EDT 130 with a grade of C or higher. Advanced course presents different 3D and parametric solid modeling applications using Solid Modeling software. Studies include the development and generation of advanced 2D and 3D sketches, solid models, assemblies, presentations, and creating complex and detailed drawings, analyzing and testing solid models, and developing physical models with rapid prototyping equipment. Each student will complete an individual design project involving a mechanical assembly with appropriate documentation.

EDT 134 - Computer Aided Manufacturing 3
Prerequisite: EDT 130 with a grade of C or higher. Course presents principles of computer aided manufacturing (CAM) and computer numerically controlled (CNC) machining, including lathes and mills utilizing CAM and other software. Students will design 3D parts, generate CAM code, tool paths, and graphically verify tool paths. Students will develop physical models with rapid prototyping and CNC equipment.

EDT 155 - 3D Visualization 3
Course presents 3D modeling using a variety of currently utilized modeling software. Students will produce multiple projects using selected ACIS and parametric modeling software applying rendering and animation software to produce presentations of the models created.

EDT 175 - EDT Internship 4
Prerequisites: EDT 115 with a grade of C or higher and consent of program coordinator. Course offers a cooperative work experience within an industry setting for Engineering Design Technology students. Students work under the supervision of an approved professional or specialist in the engineering design field. The instructor is a coordinator between the student and the employer and monitors the internship. A minimum of 160 work (clock) hours on the job site is required for successful completion of the course. Students will submit progress reports and a final report documenting the work experience.

EDT 180 - Problems in EDT 3
Prerequisites: EDT 115 with a grade of C or higher and consent of program coordinator. Course includes the study of special problems and/or projects in Engineering Design Technology. The student works with industry and/or the instructor to solve a specific problem and/or complete project.

EDT 190 - EDT Capstone 3
Prerequisites: EDT 115 with a grade of C or higher and consent of program coordinator. Student will complete a complex independent study project in an architectural, civil, mechanical, or another engineering design-related field with instructor input and guidance. The capstone course will promote critical thinking skills and technical resourcefulness while allowing students to broaden and show mastery of their engineering design skills.

ENGLISH

ENGL 005 - Intensive English for Non-Native Speakers 3
Course is for students whose primary language is not English. 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.

ENGL 060 - Foundations of English I 3
Prerequisite: Equivalent placement scores. Course is designed to develop students' critical reading and writing skills. Students will learn how to independently read and understand academic texts and respond to the ideas presented in those texts through well-written paragraphs. Successful completion requires a 70 percent in the course. Does not apply toward a degree or certificate.

ENGL 070 - Foundations of English II 3
Prerequisite: ENGL 060 with a grade of C or higher or equivalent placement scores. Corequisite: ENGL 101. Course focuses on applying critical reading and writing skills for organizing, analyzing and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. Students will learn how to independently read and understand academic texts and critically respond to the ideas presented in those texts via well-organized essays. Successful completion requires a 70 percent in the course. Does not apply toward a degree or certificate.

ENGL 090 - Introduction to English Composition 1
This one-hour course is designed as a review for students with borderline reading and writing scores, preparing them to retest in order to improve their scores. The course covers active reading, common errors in writing and a source-based paper. This is a pass/fail course. Does not apply toward a degree or certificate.

ENGL 101 - English Composition I 3
Prerequisite: ENGL 070 as a corequisite or with a grade of C or higher or equivalent placement scores. Emphasizes planning, drafting and revising along with critical thinking and information management skills and their role in communicating concise written ideas to a range of audiences for a variety of purposes. Basic computer skills are essential for successful completion.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ENGL 100 - Composition I

For additional information: https://dhe.mo.gov/core42.php

ENGL 102 - English Composition II 3
Prerequisite: ENGL 101 with a grade of C or higher. Combines the process writing techniques acquired in ENGL 101 with higher-order reasoning and advanced research skills to communicate ideas in meaningful and effective writing. Basic computer skills are essential for successful completion.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR ENGL 200 - Composition II

For additional information: https://dhe.mo.gov/core42.php

ENGL 106 - Creative Writing 3
Study and practice in the techniques of writing poetry, fiction, nonfiction and/or drama. Emphasis is placed on the recognition of those techniques in published works and their utilization in original work. Peer evaluation and individual conferences with the instructor are employed.

ENGL 110 - Business Communications 3
Prerequisites: CAPP 125 and ENGL 070 with a grade of C or higher or equivalent placement scores. In-depth study of effective communication techniques and demeanor as applied in business situations. Topics may include the communication process, various business letters, oral presentations, and international communication.

ENGL 112 - Technical Writing 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Explores the theory and practice of workplace writing, emphasizing both practical and individual and collaborative decision making. Includes practice in writing instructions, proposals and reports.

ENGL 130 - Scriptwriting 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Course explores the fundamental process of writing short scripts for film, theatre and television. Students will learn to develop plot, style, characters, dialogue, setting, mood, and formatting as they draft and revise 10 to15-minute scripts for reading in class and potential production. Course includes lecture, group work and presentations.

ENGL 180 - Problems in Writing 1 to 3
Prerequisites: ENGL 101 with a grade of C or higher and consent of instructor. 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.

FRENCH

FREN 101 - Elementary French I 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the French culture.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LANG 101 - French I

For additional information: https://dhe.mo.gov/core42.php

FREN 102 - Elementary French II 3
Prerequisite: FREN 101 with a grade of C or higher. Continuation of FREN 101 for further development of the four basic skills of language communication: listening, speaking, reading, and writing. Continues study of French culture.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LANG 102 - French II

For additional information: https://dhe.mo.gov/core42.php

FREN 201 - Intermediate French I 3
Prerequisite: FREN 102 with a grade of C or higher. Course continues the study of French language and culture with a focus on communication and proficiency.

FREN 202 - Intermediate French II 3
Prerequisite: FREN 201 with a grade of C or higher. Course continues the study of French language and culture with a focus on communication and proficiency.

FREN 210 - Special Topics in French 1 to 3
Prerequisites: FREN 101, FREN 102, FREN 201, and FREN 202 with grades of C or higher. Independent study under the supervision of a French instructor.

GEOGRAPHY

GEOG 101 - World Geography 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. This introductory geography course surveys the processes of the earth's formation, climates and biomes, human culture and institutions, global environmental issues, and interactions within the global village. Designed for prospective elementary and social studies teachers, as well as general education students.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR GEOG 101 - World Regional Geography

For additional information: https://dhe.mo.gov/core42.php

HEALTH

HLTH 101 - Personal Health and Fitness 2
Presents a basic knowledge of physical fitness and personal fitness; the human body, personal hygiene, food and nutrition, diet and weight control, and mental health; alcohol, narcotics and drug abuse education; and protection against communicable diseases and other health hazards. Course will fulfill the wellness requirement.

HLTH 102 - First Aid 2
Prepares the student to make appropriate decisions regarding first aid care in minor or life-threatening situations. Course focuses on basic first aid techniques and when to call emergency medical services. cardiopulmonary resuscitation (CPR) and relief of airway obstruction of the adult, child and infant, as well as use of the automated external defibrillator (AED) for the adult and child, are included in the course. American Red Cross certification cards are given for First Aid and CPR upon completion of the course.

HEALTH INFORMATION TECHNOLOGY

HIT 100 - Introduction to Health Information Technology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the health care field and health information management. The health record is analyzed for content and use as it relates to documentation requirements, health care personnel responsibility, security, and organizational structure. Addresses the current and future direction of health information management.

HIT 105 - Health Care Technologies 3
Prerequisite: CAPP 125 with a grade of C or higher. Covers the health record and information systems, indexes, registries, and computer-based patient record.

HIT 110 - Pharmacology and Diagnostic Procedures 3
Prerequisites: HEOC 120 and HEOC 122 with grades of C or higher. A basic knowledge and understanding of clinical and diagnostic laboratory tests as performed in the acute care setting and the basics of pharmacology. Students will identify the classifications, uses and actions of the most commonly prescribed drugs for affecting each body system.

HIT 115 - Health Care and the Law 3
Prerequisite: HIT 100 with a grade of C or higher. Course covers medical records as legal documents focusing on procedures involved in court disclosure of medical records; laws pertaining to release of information from medical records; and medical record requirements for accrediting, approving, licensing, and certifying agencies. Covers laws and regulations governing preparation and use of medical records, responsibilities of physician, risk of malpractice, and physician's role in the hospital.

HIT 200 - Health Care Statistics and Quality Management 3
Prerequisites: CAPP 125 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement score. Course covers the practical applications of health information management concepts as they apply to health care data collection, calculating inpatient hospital statistics, analyzing statistical outcomes, comparing and benchmarking facility data to national statistics, and other providers of service. Students will also demonstrate management skills in presenting data making recommendations based on statistical outcomes.

HIT 204 - Coding I 3
Prerequisites: BIO 103, HEOC 120, HEOC 122, and HIT 224 with grades of C or higher. Overview of the (International Classification of Diseases, 10th Division, Clinical Modification) ICD-10-CM code book with basic coding assignment/ guidelines instructions and the basic reimbursement methodologies, specifically diagnosis related groups (DRGs). Initial preparation for CCA Exam - AHIMA.

HIT 206 - Coding II 3
Prerequisite: HIT 204 with a grade of C or higher. Continuation of HIT 204 with the overview of the (International Classification of Diseases, 10th Division, Procedure Coding System) ICD-10-PCS code book with basic coding assignment / guidelines instructions and the basic reimbursement methodologies, specifically diagnosis related groups (DRGs). Intense simulation of actual coding practices on all major body systems. Continuation of preparation for CCA Exam - AHIMA.

HIT 208 - Coding III 3
Prerequisites: HIT 206 and HIT 224 with grades of C or higher. 12 week course - Continuation of HIT 204 and HIT 206 corresponding with the overview of the CPT code book and the outpatient coding guidelines, reimbursement with major emphasis on current procedural terminology (CPT) coding. The focus is on all health information management domains. Student will study for and complete the CCA exam through AHIMA; upon passing, student will be eligible for CCA credential.

HIT 215 - Principles of Health Care Reimbursement 3
Prerequisites: ENGL 070 and HIT 206 with grades of C or higher or equivalent placement scores. Course provides an understanding of the various payment systems and how reimbursement affects providers, payers, consumers, and policy makers. Explanation will be given of the managed care, commercial insurance, and government-sponsored payment systems. The student will compare and contrast systems and how to use related resources for accurate reimbursement.

HIT 220 - Health Information Management 3
Prerequisites: BSMT 108 and HIT 100 with grades of C or higher. Course covers concepts of management as it applies to the health information management profession. Course will introduce management policies as they relate to the delivery of health care; accounting methodologies, policies and practices that support an ethical and culturally diverse workforce; managing and leading during organizational change; and process improvement.

HIT 224 - Human Disease and Conditions 3
Prerequisites: BIO 103 and HEOC 120 with grades of C or higher. Introduction to the nature of disease and its effects on body systems. Course deals with the disease processes of the more common clinical disorders. Signs, symptoms, diagnosis, treatment, and preventions are covered. Students will identify most commonly used laboratory and diagnostic tests, as well as prescribed drugs used in the treatment of diseases.

HIT 275 - Professional Practice Experience 3
Prerequisite: Consent of program coordinator. Field-based professional practice experience in a hospital, physician's office, clinic, or other health care setting with directed projects common to a health information technologist on the job. Students will be assigned specific professional practice projects to be completed at the site and will participate in management and administrative activities. This is an unpaid work experience requiring 80 to 120 hours of participation.

HEALTH OCCUPATIONS

HEOC 120 - Medical Terminology I 3
Acquire a medical terminology vocabulary related to body systems necessary to communicate information in a medical office or hospital environment. Focuses on the principles of medical word formation, including the basic rules of building medical words, identifying suffixes, prefixes, and combining forms related to the structure and function of the associated systems of the body (musculoskeletal, cardiovascular, respiratory, gastrointestinal, urinary, and male reproductive). Concentration is on pronunciation, spelling and definitions of medical terms.

HEOC 122 - Medical Terminology II 3
Prerequisite: HEOC 120 with a grade of C or higher. Continuation of HEOC 120. Focuses on identifying suffixes, prefixes, and combining forms related to the structure and function of the associated systems of the body (integumentary, nervous, sensory, endocrine, blood, lymphatic, and female reproductive).

HEOC 135 - Allied Health Career Development .5
Focuses on developing health care career potential. The job search process is presented step-by-step. Guest speakers, group activities and mock interviews will be utilized, and résumés will be constructed. Internet sites to assist in résumé writing and job searches will be explored.

HEOC 140 - Technology and Health Care 3
Provides an introduction to information technology, including hardware, software, telecommunications, medical informatics, administrative applications, and telemedicine in different care delivery areas. Addresses computer-assisted instruction, online health information, and security and privacy issues. 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.

HEOC 146 - Phlebotomy 6
Prerequisite: Consent of program coordinator. Course is designed to provide students with knowledge, skills and techniques necessary to perform as a phlebotomist in the clinical setting. Students will learn various procedures and laboratory techniques in handling human blood. Students must satisfactorily perform in a laboratory setting as well as pass written tests.

HEOC 152 - Certified Nurse Assistant 6
Prerequisite: Consent of program coordinator. Corequisite: HEOC 155. Certified Nurse Assistant training prepares individuals for employment in a long-term care facility while teaching skills in resident care under the direct supervision of a licensed nurse. CNA and CNA Clinical will meet state requirements for CNA training. Additional state mandated requirements may be required to be employed as a CNA in a long-term care facility. Note: If a student passes HEOC 152 but does not pass HEOC 155, the student will have one additional semester to retake HEOC 155 from a regularly scheduled State Fair Community College course. Any retake of HEOC 155 after one semester will require that HEOC 152 be retaken.

HEOC 155 - Certified Nurse Assistant Clinical 2
Prerequisite: Consent of program coordinator. Corequisite: HEOC 152. Clinical provides 100 hours of on-the-job training with state-approved clinical supervisors in a long-term care facility. At the conclusion of the clinical sessions, a two-part, state-approved final examination must be passed. The two-part final examination includes a written or oral assessment and a practicum examination. This is a pass/fail course.

HEOC 158 - Certified Medication Technician 4
Prerequisites: Consent of program coordinator and an active listing on the Missouri CNA Registry. Corequisite: HEOC 160. This Certified Medication Technician training program prepares individuals for employment in a long-term care facility. Skills are taught in administration of nonparenteral medications to assist licensed practical nurses (LPNs) or registered nurses (RNs) in medication therapy. Training consists of at least 60 hours of classroom instruction. Upon successful completion of both this course and HEOC 160, the student will be eligible to take the final exam to become a certified medication technician through the Missouri Department of Health and Senior Services.

HEOC 160 - Certified Medication Technician Clinical 1
Prerequisite: Consent of program coordinator. Corequisite: HEOC 158. Training includes at least 15 hours of clinical practice under direct supervision. The student will participate in administering nonparenteral medications in a long-term care facility. This is a pass/fail course.

HEOC 162 - Home Health Aide 2
Prerequisite: Consent of program coordinator. The Home Health Aide training program provides the student with basic care skills for families with unique health needs in the patient's home. The student will learn the goals of maintaining basic human needs, home management, nutrition, meal planning, adapting basic care activities, observing client's medication, and special needs, as well as special procedures in emergency care.

HEOC 164 - Restorative Nurse Assistant 2
Prerequisite: Consent of program coordinator. Corequisite: HEOC 166. The Restorative Nurse Assistant training program is designed to train aides to fulfill requirements for efficient rehabilitative care of residents in nursing homes. The student will have the opportunity to learn the rehabilitative philosophy, work with departmental organizations, understand the role of the physical therapist, and learn the proper techniques of body mechanics, transfers and ambulation.

HEOC 166 - Restorative Nurse Assistant Clinical 1
Prerequisite: Consent of program coordinator. Corequisite: HEOC 164. The training includes clinical practice under direct supervision. The student will participate in working with the physical therapist in a long-term care facility. This is a pass/fail course.

HEOC 168 - Social Services Director/ Activity Director 5
The Social Services Director/Activity Director training program provides an introduction to the long-term care setting and the various methods of providing recreation and social services in this setting. It includes information that provides understanding of the regulatory process and the quality assurance system in this setting. It will include study of human aging, an overview of social work practice, an introduction to recreation service provisions, and federal and state regulations. At the end of the training, the successful student will be qualified to hold a position as an activity director or social services director in a long-term care facility.

HEOC 170 - Level I Medication Aide 1
Prerequisite: Consent of program coordinator. The Level I Medication Aide training program prepares individuals for employment as a level I medication aide in residential care facilities and assisted living facilities. The program is designed to teach skills in medication administration of nonparenteral medications in order to qualify students to perform this procedure only in residential care facilities and assisted living facilities in Missouri. The curriculum content is a minimum of 16 hours, which includes procedures and instruction in basic human needs and relationships; drug classifications and their implications; assessing drug reactions; techniques of drug administration; medication storage and control; drug reference resources; and infection control.

HEOC 172 - Insulin Administration .5
Prerequisite: Consent of program coordinator and current Missouri Certified Medical Technician (CMT) or Level I Medication Aide (LIMA) Certificate. The Insulin Administration training program prepares medication technicians in a skilled or intermediate care facility or medication aides in a residential care facility or assisted living facility to administer insulin. The program is designed to present information on diabetes as it relates to symptoms and implications of proper or improper treatment and to teach skills in insulin administration in order to qualify students to perform this procedure in long-term care facilities in Missouri. The curriculum content includes procedures and instruction in diabetes and its treatment and complications; types of insulin; techniques of insulin administration; and methods of monitoring blood sugar levels.

HEOC 180 - Problems in Health Occupations 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in health care under the supervision of a Health Sciences instructor.

HISTORY

HIST 101 - US History Before 1877 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR HIST 101 - American History I

For additional information: https://dhe.mo.gov/core42.php

HIST 102 - US History Since 1877 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR HIST 102 - American History II

For additional information: https://dhe.mo.gov/core42.php

HIST 108 - World Civilization Before 1500 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey of the political, social, military, cultural, and religious history of Europe, Asia, and Africa from early human societies to 1500.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR HIST 201 - World History I

For additional information: https://dhe.mo.gov/core42.php

HIST 109 - World Civilization After 1500 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey of the political, social, military, cultural, economic, and ideological history of Europe, Asia, the Americas, and Africa from 1500 to the end of the Cold War.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR HIST 202 - World History II

For additional information: https://dhe.mo.gov/core42.php

HIST 180 - Problems in History 1 to 3
Prerequisites: ENGL 070 with a grade of C or higher or equivalent placement scores and consent of instructor. Independent study of a special problem in history under the supervision of the lead history instructor.

INDUSTRIAL TECHNOLOGY

INDT 140 - Mechanical and Fluid Power Principles 3
Course includes industrial technology principles and applications involving tools, hardware, mechanical advantage, bearings, belt and gear drives, lubrication, alignment, vibration, as well as fluid power systems, pressure, flow and directional controls, actuators, conduits, pumps, fluid conditioning, and a minor emphasis on maintenance/troubleshooting.

INDT 142 - Principles of Electricity 3
Course includes industrial technology principles and applications involving electrical topics of direct current, alternating current and electrical quantities and values. Topics also include Ohm's Law, electric generation, energy conversion, magnetism, electromagnetism, as well as series, parallel and combination circuits, inductance, capacitance, reactance, power factor, the application of electrical power in industry, single and poly-phase transformers, and wye and delta systems.

INDT 144 - Machine Controls 3
Course includes industrial technology principles and applications involving the devices and components of industrial automation; relays, sensors and switches; fluid power components, motor starters and drives; combination of technologies in the systems of manufacturing and industrial processes; and an introduction to line diagrams of control circuits and troubleshooting.

INDT 146 - PLC Automation 3
Course includes industrial technology principles and applications involving Rockwell Automation/Allen-Bradley hardware and software. Configuration of hardware and communications, number systems, logic circuits, and basic programming and functions such as one shot, latch, timers, counters, and data manipulation will be covered. Emphasis is on ability to visually assess the status of inputs and outputs, verify electrical signals and comprehend basic PLC operations and functions.

INDUSTRIAL ELECTRICAL MAINTENANCE

IEM 102 - Electric Fundamentals 3
Introduction to electrical theory. Topics include direct current, alternating current, electrical quantities and values, Ohm's Law, electric generation, energy conversion, magnetism, electromagnetism, series, parallel, and combination circuits.

IEM 104 - Electrical Power 3
Prerequisite: IEM 102 with a grade of C or higher. Continuation of electrical studies in alternating current (AC), inductance, capacitance, reactance, power factor, and the application of electrical power in industry, single and poly-phase transformers, and wye and delta systems.

IEM 106 - Industrial Mechanics 3
Course includes principles and applications of industrial mechanics, including tools, hardware, installation and maintenance of bearings, gear systems, belt drives, mechanical drives, principles of lubrication, vibration, and alignment.

IEM 107 - Introduction to Robotics 3
Prerequisite: Consent of program coordinator. Course is designed for someone who has no experience with robotics and has little to no experience with electronics, electricity and motors. Course breaks down the physical components that make up a robot, terminology and mathematical equations for basic design needs. The course will cover safety, understanding a robot's operational umbrella, tooling designs and applications, end of arm tooling (EOAT), power transmission systems, and basics of programming, troubleshooting and maintenance. Course will provide hands-on exposure using an industrial robot(s).

IEM 108 - Fluid Power Technology 3
Course covers principles and applications of fluid power technology in industrial systems including operating, troubleshooting and maintaining hydraulic and pneumatic pressure; flow, directional control, and electrical devices; conduits, pumps, compressors, actuators, and ancillary devices; and conditioning and filtration of fluids. Critical thinking and analytical skills are emphasized.

IEM 110 - Digital Principles and Applications 3
Prerequisite: IEM 102 with grade of C or higher. Study of decimal, binary and hexadecimal numbering systems; Boolean algebra, basic logic and truth tables; digital/discrete logic circuits; flip-flops, timers counters; and registers.

IEM 112 - Control Circuit Troubleshooting 3
Prerequisite: IEM 104 with a grade of C or higher. Introduction to the devices and components of industrial automation, sensors, switches, fluid power components, and combination of technologies in manufacturing systems and industrial processes. Primary emphasis on interpreting line diagrams and troubleshooting control circuits.

IEM 114 - Motor Controls 3
Prerequisite: IEM 112 with a grade of C or higher. Course is designed to teach students how to construct, troubleshoot and isolate malfunctions in various types of control circuits and motor starters and understand application and installation of control devices and basic principles, operation, components, and application of AC drives.

IEM 116 - Solid State Devices 3
Prerequisite: IEM 104 with a grade of C or higher. Comprehensive overview of solid state devices and their basic principles and applications; the composition and operating characteristics of diodes, transistors, SCRs, DIACs, TRIACs, and solid state transducers; and the application of solid state devices in rectification of alternating current (AC) into direct current (DC), power supply filters, voltage regulation, industrial relays, sensors, and alarm systems.

IEM 118 - Analog/Digital 3
Prerequisite: IEM 116. Covers the basic principles involving the use of analog integrated operational amplifiers in signal generation applications; integrated A/D, D/A converters and their applications; shift registers and their applications; and control and timing circuits and their applications.

IEM 122 - Introduction to PLCs 3
Prerequisite: IEM 114 with a grade of C or higher. Introduction to hardware and software of programmable logic controllers (PLCs). Course is designed to instruct students in the operating system of PLCs, configuration of hardware and communications, number systems, logic circuits, and basic programming. The ability to perform basic computer operations is necessary.

IEM 124 - Intermediate PLCs 3
Prerequisite: IEM 122 with a grade of C or higher. Study of the interface between machine and controller, advanced programming functions and troubleshooting. Emphasis is on developing programs and interfacing with industrial type devices.

IEM 126 - Industrial Safety 3
Comprehensive study of requirements and programs of 29 Code of Federal Regulations (CFR) 1910. Application of safe work practices to industrial maintenance and manufacturing, including machine guarding, confined space, lockout/tagout, hazardous communication, electrical and fire safety, personal protective equipment, and more. Additional topics selected based on student interest and industry emphasis.

IEM 128 - Maintenance Management 3
Study of contemporary maintenance management practices, statistical applications, total productive maintenance, reliability-based procedures, predictive (PDM) and preventive (PM) maintenance, coordinate measuring machine (CMM) systems, nondestructive testing, and project management.

IEM 130 - Principles of Refrigeration 3
Study of the principles of refrigeration, refrigerants, components, types of systems, operation, electrical controls, troubleshooting, servicing, and maintenance. Critical thinking and analytical skills are emphasized.

IEM 132 - Advanced PLCs 3
Prerequisite: IEM 124 with a grade of C or higher. Study of the hardware that is programmed with RSLogix 5000. Course is designed for students who already understand RSLogix 500 and are ready to advance to Tag-based programming.

IEM 134 - PLC Networks 3
Prerequisite: IEM 132 with a grade of C or higher. Course will cover the installation, operation, inspection, and maintenance of industrial communication networks using serial RS232, Ethernet and data bus. Examines various interface devices used in communication and integration of these devices with computers, PLCs and web-enabled technology.

IEM 136 - General NEC Requirements 3
Prerequisite: IEM 104 with a grade of C or higher. Students learn to understand and apply the code to general industrial applications, wiring and protection, wiring methods and materials, and general equipment. Based on the general requirements of the National Electrical Code (NEC).

IEM 138 - Power Distribution and Switchgear 3
Prerequisite: IEM 136. Course will cover the installation, operation, inspection, and maintenance of industrial electrical power systems and motor control centers; voltage, current and instrument transformers; feeder circuits and busways; switches and circuit breakers; protective devices; regulating devices; and neutral and grounding systems using the National Electric Code (NEC) as a reference.

IEM 140 - Transformers and Motors 3
Prerequisite: IEM 104 with a grade of C or higher. Course examines the principles, construction, types, and applications of transformers and motors, including DC generators and motors, alternators and AC motors. Transformers and AC motors applications include single-phase and poly-phase, wye and delta.

IEM 146 - Quality Management and Control 3
Study of quality management principles and quality control procedures. Students will study quality management from a historical perspective as well as current quality management techniques. Production quality control methods such as sampling, inspecting and testing used to insure accuracy and high standards in production quality will be studied.

IEM 148 - Inventory and Production Control 3
Study of production planning, scheduling, follow-up, and control of raw material, parts and finished goods inventories.

IEM 150 - Applications in IEM Problem Solving 1 to 4
Designed to allow a company to utilize an instructor to facilitate an actual problem or improvement project with a group of students or company employees and for individualized special instruction by the instructor.

IEM 175 - IEM Internship 4 to 8
Prerequisites: Completion of 30 technical credit hours and consent of program coordinator. Application of work skills in a supervised work environment. Companies that sponsor internships provide the supervision. The college provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. Course is designed to provide the student an opportunity to demonstrate work skills, work ethics and the ability to work with others. In addition to completing the training plan, the student must submit four to eight written technical reports.

IEM 200 - Technology Integration 3
Prerequisite: IEM 124 with a grade of C or higher. Course will evaluate a student's skill and ability to design, develop and troubleshoot a simulated manufacturing production system. Students will build a working production system in a simulated workplace environment stressing teamwork and troubleshooting skills. The goal is to prepare a student for entry into the workforce as an IEM technician.

LITERATURE

LIT 101 - Introduction to Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LITR 100 - Introduction to Literature

For additional information: https://dhe.mo.gov/core42.php

LIT 107 - American Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LITR 101 - American Literature

For additional information: https://dhe.mo.gov/core42.php

LIT 109 – British Literature
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Study of major English authors, genres and works from Beowulf to the present, emphasizing the development of concepts that have shaped English life and literature.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LITR 102 - British Literature

For additional information: https://dhe.mo.gov/core42.php

LIT 112 - World Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Students will examine selected works of various Asian, African and European literature in translation from the ancient world to the 20th century.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LITR 200 - World Literature

For additional information: https://dhe.mo.gov/core42.php

LIT 114 - Topics in Literature 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Study of a major writer, a literary type or a theme in literature. Specific subjects are announced each semester in which the course is offered.

LIT 180 - Problems in Literature 1 to 3
Prerequisites: LIT 101 and consent of instructor. Independent study of a special problem in literature under the supervision of an instructor in the department.

MACHINE TOOL

MACH 101 - Introduction to Machining 4
Introduction to measuring tools used for work in machining or inspection processes. Introduces the proper setup and use of drilling machines, band saws and lathes. Theories will include use of tools and tool holders, cutting tool applications and facing and turning on the lathe. Areas of study include safety, blueprint interpretation, hand tools, layout, and various gages and precision measuring instruments used to complete and inspect a machined part. (1 lecture, 3 lab)

MACH 102 - Lathe and Milling Machine Operations 4
Prerequisite: MACH 101 with a grade of C or higher. Continuation in the application of lathe operations including inner and outer (ID/OD) diameter turning, threading, boring, and tapering. Introduces the proper use and setup of the vertical milling machine. Applications include squaring the machine and indicating angle pieces. Areas of study include safety, blueprint interpretation and the selection of cutters, feeds and speeds. (1 lecture, 3 lab)

MACH 103 - Milling and Grinding Machine Applications 4
Prerequisite: MACH 102 with a grade of C or higher. Continuation of milling machine operations including dividing heads, precise movement of machines, turntable operations, and keyways. Introduces surface grinders, including wheel selections, truing and dressing, work holders, and solutions in surface grinding. Areas of study include safety, blueprint interpretation and proper setup and use of milling and grinding attachments. (1 lecture, 3 lab)

MACH 104 - Advanced Machining 4
Prerequisite: MACH 103 with a grade of C or higher. Introduces the use of the sine bar and sine plates on milling machines and surface grinders. Course presents advanced applications of lathes, mills and surface grinders. Advanced projects will be timed. Areas of study include estimation of project time and bidding process, quality control and International Standards Organization (ISO). (1 lecture, 3 lab)

MACH 106 - CNC Machining 3
Provides fundamental technical information and some practical experience necessary for programming, editing and operating computer numerically controlled (CNC) machine tools. Applications will include CNC mill and CNC lathe using manual data input (MDI) techniques. (1 lecture, 2 lab)

MACH 109 - Advanced CNC Machining 3
Prerequisite: MACH 106 with a grade of C or higher. Provides technical information and considerable practical experience in preparation, setup and operation of CNC machining center and CNC lathe. Proofing, editing and post processing of programs will be emphasized using computer aided manufacturing (CAM) software. Tooling and tool path generation methods will be explained along with fixed and canned cycles. (1 lecture, 2 lab)

MACH 112 - Machine Tool Equipment Repair 4
Prerequisite: MACH 106 with a grade of C or higher. Designed to teach correct procedures for repair and maintenance of machine tools. Study includes safety, repair and replacement of worn parts and diagnosis and repair of hydraulics and pneumatics and electrical components. (1 lecture, 3 lab)

MACH 113 - Print Reading for Machinists 3
Study of symbols, industry standards, measurement systems, terminology, prints, and diagrams associated with work performed by professional welders and machinists, including the interpretation of tool and die, machine prints, welding symbols and prints, and related technologies.

MACH 114 - Quality and Precision Measurement 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, to help eliminate costly repairs and scrap.

MACH 115 - Heat Treating and Metallurgy 3
Knowledge of heat treatable steel and alloys will be presented in this course. Study of the operation of heat treating and drawing furnaces, quenching mediums, color spectrum, and hardness testing is included. Students will become familiar with the process involved in making iron and steel, noncarbon diagrams and identification of ferrous and nonferrous metals.

MACH 175 - Machine Tool Internship 1 to 8
Prerequisite: Consent of program coordinator. Provides opportunity to work with a skilled machinist to better understand skills and knowledge needed and to determine how the student likes actual machine tool work.

MACH 180 - Problems in Machine Tool 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in machine tool technology under the supervision of a machine tool instructor.

MARINE TECHNOLOGY

MRN 101 - Marine Systems Rigging I 6
Course provides a foundation of information and skills for a marine career. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 105 - Marine Ignition Systems 3
Outboard, inboard, inboard/outboard, and personal watercraft ignition systems are explored in this course. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 107 - Marine Starter and Charging Systems 2
Course follows the progression of starter and charging systems in the outboard, inboard/outboard and the personal watercraft. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 109 - Marine Cooling Systems 2
Course covers the systems used in the cooling process. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 111 - Marine Lubrication Systems 2
Course begins with the manual mixing of oil and fuel to provide lubrication and progresses into the different automatic oiling systems. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 113 - Marine Engine Component and Precision Measuring 3
Course provides the student with the skills to determine if an engine component is reusable. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 115 - Marine Shop Procedures and Business Operations 2
Properly completing a repair order, providing proper communication with the customer, keeping track of the unit(s) brought in for service, recording the diagnosis and repair process, and the date promised for repair completion. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 117 - Marine Engine Systems Analysis 2
Course covers proper break-in procedure. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 119 - Marine Systems Preventive Maintenance 4
Course covers maintenance items the student must be responsible to complete. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 121 - Marine Power Transfer Systems 4
Transom plate and adapter systems, couplers, upper gear case, driveshaft housing, jet pumps, gear housings, strut bearings, and surface-piercing drive systems are part of the course. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 123 - Marine Systems Troubleshooting 3
Course covers correct troubleshooting techniques. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 125 - Marine Fuel Systems 4
Course will cover the complexities of marine fuel systems and automatic oiling systems. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 127 - Marine Instrumentation Systems 2
Course promotes understanding the different manufacturer systems and sending units. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 129 - Marine Power Trim/Tilt Systems 2
Course will enable students to understand how hydraulic pumps can manage the pressure in a hydraulic system. Course is offered through an agreement with the Lake Career and Technical Center.

MRN 175 - Marine Technology Internship 4
The internship consists of approximately 160 clock hours at an approved marine facility. Course is offered through an agreement with the Lake Career and Technical Center.

MATHEMATICS

MATH 061 - Pre-Algebra 3
Prerequisite: Equivalent placement score. Course is designed for review of basic math skills to prepare for MATH 101, MATH 107, MATH 110, or MATH 111. Students will achieve proficiency in the fundamental concepts including the manual process used for adding, subtracting, multiplying, and dividing with whole numbers, integers, fractions, decimals, percentages, exponents, least common multiple (LCM) and greatest common factor (GCF), ratio/proportions, unit analysis, and an introduction to graphing, including evaluation of algebraic expressions. Successful completion requires a 70 percent on the comprehensive departmental final and a 70 percent in the course. Does not apply toward a degree or certificate.

MATH 101 - Business Math 3
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. 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.

MATH 107 - Technical Math I 3
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. Course is designed to stress applications to practical problems as they apply to trade. Topics include whole numbers, number systems, dimensions, fractions, powers, roots, exponents, scientific notation, basic algebra (linear and nonlinear equations), rate, base and percentage, precision, accuracy, tolerance, simple equations, complex equations, and trigonometric functions especially as they relate to the right triangle and the six trigonometric functions of sine, cosine, tangent, cotangent, secant, and cosecant.

MATH 108 - Technical Math II 3
Prerequisite: MATH 107 with a grade of C or higher or equivalent placement score. Designed to stress applications to practical problems as they apply to trade. Topics include plane geometry, solid geometry, angular measure, probability, statistics, Pythagorean Theorem, and fundamentals of trigonometry.

MATH 110 - Intermediate Algebra with Review 5
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. Course covers real and complex number systems, linear and absolute value equations and inequalities, linear graphs, systems of equations, rational expressions and equations, rules of exponents, rational exponents, radicals and their equations, operations on and factoring of polynomials, and solving quadratic equations using various techniques.

MATH 111 - Review of Essential Mathematics 2
Prerequisites: MATH 061 or equivalent placement score. Corequisite: MATH 113, MATH 117 or MATH 119. This corequisite course is designed to review essential mathematical concepts and techniques while providing structured support through practice and review. This course is for students who place just below MATH 113, MATH 117 or MATH 119. Topics include using graphical representations of data, rational and irrational numbers, 1- and 2-variable equations, inequalities, rational and exponential expressions, functions, and mathematical formulas. In order to provide customized support for each student, additional topics may be added.

MATH 112 - Intermediate Algebra 3
Prerequisite: Equivalent placement score. Topics include equations and inequalities involving absolute value, rational expressions and equations, graphs of inequalities in the plane, systems of equations in two unknowns, rational exponents and radicals, radical equations, imaginary and complex numbers, and quadratic equations.

MATH 113 - Mathematical Reasoning and Modeling 3
Prerequisite: MATH 110, MATH 111 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 111. Provides humanities students with a comprehensive overview of the skills required to navigate the mathematical demands of modern life and a deeper understanding of mathematical information. Students will develop critical thinking and problem-solving skills in order to draw conclusions, make decisions, and communicate effectively in mathematical situations that depend upon multiple factors.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MATH 120 - Mathematical Reasoning & Modeling

For additional information: https://dhe.mo.gov/core42.php

MATH 114 - Precalculus Algebra 3
Prerequisite: MATH 110 or MATH 112 with a grade of C or higher or equivalent placement score. This course prepares students for fields of study that require a high level of algebraic reasoning or calculus. Topics include the foundational principles of functions, the analysis of functions, algebraic reasoning, and matrices. Students will study the following functions: linear, quadratic, exponential, logarithmic, rational, piecewise, and absolute value.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MATH 130 - Pre-Calculus Algebra

For additional information: https://dhe.mo.gov/core42.php

MATH 117 - Contemporary Mathematics 3
Prerequisite: MATH 110, MATH 111 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 111. Designed for students in the field of elementary education, this course will cover mathematical concepts with historical perspectives from various branches of mathematics including an introduction to set theory, logic, number theory, statistics, probabilities, combinatorics, and geometry.

MATH 119 - Statistical Reasoning 3
Prerequisite: MATH 110, MATH 111 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 111. This is a first course in statistics for students, such as social science majors, whose college and career paths require knowledge of the fundamentals of the collection, analysis and interpretation of data. Topics include interpretation of univariate and bivariate data using graphical and numerical methods, probability, discrete and continuous probability distributions, linear regression, an understanding of good practice in study design, statistical inference, confidence intervals, and hypothesis testing. Data-collection methods, statistical thinking and techniques, simulation, and the use of technology will support decisions and conclusions.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MATH 110 - Statistical Reasoning

For additional information: https://dhe.mo.gov/core42.php

MATH 120 - Precalculus Trigonometry 3
Prerequisite: MATH 114 or equivalent placement score. Corequisite: MATH 114. This course prepares students for the fields of science, technology, engineering, or mathematics as well as other fields that require a high level of algebraic reasoning or would require calculus. Topics include radius vector, right triangle and unit circle definitions of trigonometric functions, trig identities, graphs, inverse trig functions, trig equations, De Moivre's Theorem, and conics.

MATH 125 - Calculus for Business 3
Prerequisite: MATH 114 with a grade of C or higher 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.

MATH 127 - Business Statistics 3
Prerequisites: CAPP 125 and MATH 114 with grades of C or higher or equivalent placement score. Emphasizes data analysis, data production and statistical inference. Topics include descriptive statistics, probability, normal distributions, sampling, the central limit theorem, confidence intervals, and hypothesis testing. Correlation and regression will be discussed time permitting.

MATH 130 - Calculus and Analytic Geometry I 5
Prerequisites: MATH 114 and MATH 120 with grades of C or higher or equivalent placement score. Topics include limits, continuity, derivatives, integrals of algebraic and transcendental functions, and appropriate applications.

MATH 131 - Calculus and Analytic Geometry II 5
Prerequisite: MATH 130 with a grade of C or higher. Topics include parametric and polar coordinates, methods of integration, series, conic sections, and application of these topics.

MATH 132 - Calculus and Analytic Geometry III 5
Prerequisite: MATH 131 with a grade of C or higher. Topics include parametric equations of lines and curves in space; vectors and calculus of vector functions; multivariable, differential and integral calculus; introduction to vector analysis; and application of these topics.

MATH 134 - Differential Equations 3
Prerequisite: MATH 132 with a grade of C or higher. Course presents linear differential equations with application, series solutions and Laplace transforms.

MATH 180 - Problems in Math 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in mathematics under the supervision of a mathematics instructor.

MEDICAL ASSISTANT

MEA 100 - Medical Assisting General Orientation .5
This course is part of the MEA program. Students abide by the admission requirements for the program. Introduction and review of the program curricular component that includes discovering the role of medical assistant, effective communication, professionalism, legal and ethical issues, interdisciplinary teamwork, and safety. Furthermore, students will achieve 100 percent of course designated MAERB core competencies for this course. Students must maintain a grade of C or higher to successfully pass the class.

MEA 104 - Medical Assisting Psychology of Human Relations 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Topics covered will include abnormal behavior patterns, terminally ill patients, patient advocacy, developmental stages of life, gender, sexuality, self-identity, morals, information processing, and working with diverse populations. Furthermore, students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a C or higher to successfully pass the class.

MEA 108 - Medical Assisting Administrative Procedures 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Course includes records management, financial practices, insurance and coding, scheduling, office environment, and communication. Furthermore, students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a B or higher to successfully pass the class.

MEA 112 - Medical Assisting Clinical Procedures 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Course includes infection control, patient screening, general/ physical examination, specialty examination, procedure/ minor surgery, medication administration, office emergencies, patient education, alternative health care/ community resources, communication strategies, and adaptations. Furthermore, students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a B or higher to successfully pass the class.

MEA 116 - Medical Assisting Laboratory Procedures 3
This course is part of the MEA program. Students abide by the admission requirements for the program. Course includes quality control, Clinical Laboratory Improvement Amendments (CLIA)-waived tests, biohazards, specimens, specimen collection, and patient instructions. Students will achieve 100 percent of designated MAERB core competencies in the course. Students must maintain a B or higher to successfully pass the class.

MEA 190 - Medical Assisting Capstone 6
Prerequisite: MEA 108, MEA 112 and MEA 116 with grades of B or higher and MEA 100 and MEA 104 with grades of C or higher. Students must have met the course progression and grade requirements. This course applies the concepts learned throughout the Medical Assistant program in the clinical setting. The student will complete a minimum of 160 hours in an ambulatory care outpatient setting applying the knowledge learned throughout the program. Students must maintain a B or higher to successfully pass the class.

MEDICAL LABORATORY TECHNICIAN

MLT 150 - Introduction to Lab Science Methods 2
Course orients the student to the concepts in the laboratory environment including safe specimen handling, testing procedures, reporting results, basic quality control, laboratory organization, and professionalism.

MLT 210 - Immunology 3
Course consists of the principles and theories of antigen and antibody reactions and the immune system as related to diagnostic serologic procedures.

MLT 220 - Clinical Chemistry and Urinalysis 5
Course introduces the student to methods of analysis of chemical components found in the human body, the testing methodologies for those constituents and the results as applied to normal and abnormal disease states.

MLT 250 - Hematology and Coagulation 5
Course studies the cellular structures in blood, normal and abnormal cell development, alterations present in disease and the mechanisms of coagulation.

MLT 260 - Phlebotomy 2
Course covers various procedures in performing venipuncture and other specialized collection techniques in addition to laws and regulations for safe phlebotomy practices.

MLT 270 - Immunohematology 5
Course consists of concepts, applications and discrepancies of blood group testing, screening and crossmatch procedures and identifying unexpected antibodies.

MLT 280 - Clinical Microbiology 4
Course consists of the role of pathogenic bacteria and other microorganisms that includes bacterial culturing, differentiation and identification of human normal flora and disease-causing microorganisms.

MLT 290 - Parasitology, Mycology and Virology 1
Course introduces the student to parasites, fungus and viruses and their role in human health and disease.

MLT 291 - Hematology and Coagulation Practicum 2
Supervised clinical practice coordinated by the consortium in the hematology lab of selected clinical affiliates.

MLT 292 - Clinical Chemistry Practicum 2
Supervised clinical practice coordinated by the consortium in the clinical chemistry lab of selected clinical affiliates.

MLT 293 - Clinical Microbiology Practicum 2
Supervised clinical practice coordinated by the consortium in the microbiology lab of selected clinical affiliates.

MLT 294 - Clinical Immunohematology Practicum 2
Supervised clinical practice coordinated by the consortium in the immunohematology lab of selected clinical affiliates.

MUSIC

MUS 100 - Fundamentals of Music 3
Prerequisite: MUS 100B or music theory placement test. Corequisites: MUS 100B and MUS 105. Introduction to musical elements of notation, scales, key signatures, rhythms, melodies, and harmonies, and their application within the context of music theory. Students must possess at least a basic understanding of music notation (names of notes, note values, etc.) when enrolling in this course as demonstrated by a grade of C or higher on the music theory placement exam given on the first day of class. Those students not earning a C or higher will be concurrently enrolled in MUS 100B for the semester in order to strengthen foundation skills and continue as a music major.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MUSC 101 - Music Fundamentals

For additional information: https://dhe.mo.gov/core42.php

MUS 100B - Exploring Music Theory 2
For students interested in enhancing their musicianship, exploring how music works, preparing for more serious collegiate study of music theory, or strengthening their fundamental music theory skills.

MUS 101 - Music Appreciation 3
Overview providing knowledge of the basic elements of music, the important musical masterpieces of various eras and the significant composers in musical history. A portion of the course time is devoted to listening to recordings and viewing supporting video footage of selected composers and performers. Students enrolled in this course must be able to independently attend two live concerts at some point in the course.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MUSC 100 - Music Appreciation

For additional information: https://dhe.mo.gov/core42.php

MUS 102 - History of Rock Music 3
Analyses by decade of the many styles of modern music that have fallen under the descriptive term of rock and roll resulting in an understanding of rock music's importance as a cultural, generational and historical force in the 20th century. Focus will be given to key performing artists, groups and music trends in each decade from 1950 to the present. Lecture and discussion will also include the role that gender, race and socio-political events played in the music of the second half of the 20th century.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MUSC 100RP - Music Appreciation-Rock/Pop

For additional information: https://dhe.mo.gov/core42.php

MUS 103 - Music History and Literature Before 1800 3
Survey of music history and literature from its beginnings through the Baroque era as well as the role of music in the historical fabric of each era. Instrumental and vocal/choral genres and major composers will be studied. A significant portion of course time will be devoted to listening to recordings of appropriate music, composers and performers.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MUSC 103 - Music History I

For additional information: https://dhe.mo.gov/core42.php

MUS 104 - Music History and Literature Since 1800 3
Survey of music history and literature from the Classical era to the present as well as the role of music in the historical fabric of each era. Instrumental and vocal/choral genres and major composers will be covered. A significant portion of course time will be devoted to listening to recordings of appropriate music, composers and performers.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR MUSC 104 - Music History II

For additional information: https://dhe.mo.gov/core42.php

MUS 105 - Fundamentals of Aural Training 1
Corequisite: MUS 100. Introduction to musical elements of notation, scales, key signatures, rhythms, melodies, and harmonies, and their application within the context of music theory. Students must possess at least a basic understanding of music notation (names of notes, note values, etc.) when enrolling in this course as demonstrated by a grade of C or higher on the music theory placement exam given on the first day of class. Those students not earning a C or higher will be concurrently enrolled in MUS 100B for the semester in order to strengthen foundation skills and continue as a music major.

MUS 106 - Music Theory I 3
Prerequisite: MUS 100. Corequisite: MUS 109. Continuation of MUS 100, developing theoretical competency in music notation, rhythm and meter, scales, intervals, triads, and melodic and harmonic analysis.

MUS 107 - Music Theory II 3
Prerequisite: MUS 106. Corequisite: MUS 110. Continuation of MUS 106 resulting in the application of more advanced theory concepts including the use of primary and secondary triads and seventh chords, the introduction of altered chords, modulations, and the use of cadential figures.

MUS 108 - Music Theory III 3
Prerequisite: MUS 107. Corequisite: MUS 111. Continuation of MUS 107 that will introduce advanced theory topics such as the use of modality and counterpoint in music as well as late 19th century harmonic functions and early 20th century compositional techniques. This is the terminal theory course for all music majors.

MUS 109 - Aural Training I 1
Prerequisite: MUS 105. Corequisite: MUS 106. Provides practical application of the skills being learned in MUS 106 through sight singing, solfege and rhythmic, melodic, and harmonic dictation. Enhances and supports confidence in music composition and performance through the aural process.

MUS 110 - Aural Training II 1
Prerequisite: MUS 109. Corequisite: MUS 107. Provides practical application of the skills learned in MUS 107 through more advanced sight singing, solfege and rhythmic, melodic, and harmonic dictation experiences. Enhances and supports confidence in writing and performing music through the aural process.

MUS 111 - Aural Training III 1
Prerequisite: MUS 110. Corequisite: MUS 108. Provides practical application of the skills learned in MUS 108 through advanced sight singing, solfege and rhythmic, melodic, and harmonic dictation experiences. Enhances and supports confidence in writing and performing music through the aural process. This is the terminal aural training course for all music majors.

MUS 119 - Jazz Band I 1
Prerequisite: Consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Instruction will focus on skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 102B - Music Performance-Band

For additional information: https://dhe.mo.gov/core42.php

MUS 120 - Jazz Band II 1
Prerequisites: MUS 119 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Second enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 121 - Jazz Band III **1**
Prerequisites: MUS 120 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Third enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 122 - Jazz Band IV **1**
Prerequisites: MUS 121 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Fourth enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 123 - Jazz Band V **1**
Prerequisites: MUS 122 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Fifth enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 124 - Jazz Band VI **1**
Prerequisites: MUS 123 and consent of instructor. A select ensemble that performs band literature representing the various styles and genres of traditional and nontraditional jazz. Sixth enrollment in Jazz Band will focus on advancing those skills required for successful performance (tone, articulation, breathing, balance, rhythm, etc.).

MUS 136 - Applied Instrumental Lessons I **1 to 2**
Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 137 - Applied Instrumental Lessons II **1 to 2**
Prerequisite: MUS 136. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 138 - Applied Instrumental Lessons III **1 to 2**
Prerequisite: MUS 137. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 139 - Applied Instrumental Lessons IV **1 to 2**
Prerequisite: MUS 138. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 139B - Applied Instrumental Lessons V **1 to 2**
Prerequisite: MUS 139. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 139C - Applied Instrumental Lessons VI **1 to 2**
Prerequisite: MUS 139B. Performance-oriented study of the technique and literature associated with a specific musical instrument through weekly private lessons and student independent study. Performance on one recital and final jury required.

MUS 140 - Guitar Class I **2**
Practical study of the guitar designed for beginning students with less than one year of experience.

MUS 141 - Guitar Class II **2**
Prerequisite: MUS 140 or approval of instructor. Continuation of those skills learned in MUS 140 leading to more advanced guitar performance skills. Designed to allow the student to continue studying guitar beyond MUS 140.

MUS 145 - Beginning Piano Class I **2**
Study of piano performance skills, especially for students with little or no previous training. Covers rudiments of music, hand positions, and performing hands separately and together; intervals, triads and scales are also covered. Required for music majors.

MUS 146 - Beginning Piano Class II **2**
Prerequisite: MUS 145. Continuation of the study of piano performance skills learned in MUS 145. Continued work performing hands separately and together, intervals, triads, simple harmony, and scales are covered. Required for music majors.

MUS 147 - Intermediate Piano Class I **2**
Prerequisite: MUS 146. Continuation of the study of piano performance skills learned in MUS 146 with emphasis on specific skills necessary to pass the piano proficiency examination. Required for music majors.

MUS 148 - Intermediate Piano Class II **2**
Prerequisite: MUS 147. Continuation of the study of piano performance skills learned in MUS 147 with emphasis on specific skills necessary to pass the piano proficiency examination. Required for music majors.

MUS 150 - Applied Piano Lessons I **1 to 2**
Prerequisite: One year of a piano course. Private piano lessons. Intended only for serious piano students.

MUS 151 - Applied Piano Lessons II **1 to 2**
Prerequisite: MUS 150. Second enrollment in piano lessons. Private piano lessons. Intended only for serious piano students.

MUS 152 - Applied Piano Lessons III **1 to 2**
Prerequisite: MUS 151. Third enrollment in piano lessons. Private piano lessons. Intended only for serious piano students.

MUS 153 - Applied Piano Lessons IV **1 to 2**
Prerequisite: MUS 152. Fourth enrollment in piano lessons. Private piano lessons. Intended only for serious piano students.

MUS 155 - Voice Class **2**
Study of vocal techniques and beginning vocal performance. Open to any interested students. Will include both group and individual singing.

MUS 160 - Applied Voice Lessons I **1**
Prerequisite: One year of a voice course. Performance-oriented study of voice through weekly private applied lesson and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 161 - Applied Voice Lessons II **1**
Prerequisite: MUS 160. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 162 - Applied Voice Lessons III **1**
Prerequisite: MUS 161. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 163 - Applied Voice Lessons IV **1**
Prerequisite: MUS 162. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 163B - Applied Voice Lessons V **1**
Prerequisite: MUS 163. Performance-oriented study of voice through weekly private applied lesson and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 163C - Applied Voice Lessons VI **1**
Prerequisite: MUS 163B. Performance-oriented study of voice through weekly private applied lessons and student independent study. Instruction will focus on individual vocal needs and strengths. Performance on one recital and final jury required.

MUS 175 - Chamber Singers I **1**
Prerequisite: Consent of instructor. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 102C - Music Performance-Choir

For additional information: https://dhe.mo.gov/core42.php

MUS 176 - Chamber Singers II **1**
Prerequisites: MUS 175 and consent of instructor. Second enrollment in csingers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 177 - Chamber Singers III **1**
Prerequisites: MUS 176 and consent of instructor. Third enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 178 - Chamber Singers IV **1**
Prerequisites: MUS 177 and consent of instructor. Fourth enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 178B - Chamber Singers V **1**
Prerequisites: MUS 178 and consent of instructor. Fifth enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 178C - Chamber Singers VI **1**
Prerequisites: MUS 178B and consent of instructor. Sixth enrollment in chamber singers. Select choir of mixed voices that performs chamber music from all historical periods. Instruction will focus on ensemble skills necessary for successful performance (tone production, diction, blend, balance, phrasing, etc.).

MUS 180 - Problems in Music **1 to 3**
Prerequisite: Consent of instructor. Independent study of a special problem in music under the supervision of a music instructor.

MUS 195 - Concert and Recital Attendance 0
Attendance of at least eight music concerts and/or recitals in a semester performed by college soloists and ensembles or community nonacademic performing groups such as professional or semi-professional ensembles, operas or university musicals. Community performances must be pre-approved by the Music Arts program coordinator prior to attending. This is a pass/fail course.

MUS 210 - Jazz Choir I 2
Prerequisite: Consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/ contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 102C - Music Performance-Choir

For additional information: https://dhe.mo.gov/core42.php

MUS 211 - Jazz Choir II 2
Prerequisites: MUS 210 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 212 - Jazz Choir III 2
Prerequisites: MUS 211 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/ contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 213 - Jazz Choir IV 2
Prerequisites: MUS 212 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 214 - Jazz Choir V 2
Prerequisites: MUS 213 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

MUS 215 - Jazz Choir VI 2
Prerequisites: MUS 214 and consent of instructor. This small vocal ensemble performs a wide range of vocal jazz/contemporary periods and styles. Instruction focuses on those vocal skills unique to jazz including harmonies, rhythms, scat singing, and improvisation.

NETWORKING

NET 101 - Introduction to Networks 3
Introduces the architecture, structure, functions, components, and models of the internet and computer networks. The principles of Internet Protocol (IP) addressing, fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple local area networks (LANs), perform basic configurations for routers and switches and implement IP addressing schemes.

NET 102 - Networking Essentials 3
Introduces the student to the use and implementation of local area networks and basic network design concepts. Subject matter covered during this course all align with current Network+ certification topics and help prepare a student for this certification.

NET 103 - Routing and Switching Essentials 3
Prerequisite: NET 101 with a grade of C or higher. Corequisite: NET 101. Describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area open shortest path first (OSPF), virtual LANs, and inter-virtual LAN routing in both IPv4 and IPv6 networks.

NET 106 - Introduction to Network Security 3
Prerequisite: NET 101 with a grade of C or higher. Course will introduce students to a basic understanding of computer, network and organizational security as it relates to the information technology field.

NET 120 - Network Server 3
Prerequisite: NET 101 with a grade of C or higher. Course will cover the current popular server operating system. Topics include planning a network, installing hardware and software, management, client accounts, and troubleshooting. Course will be structured to the requirements for certification.

NET 125 - Linux Operating Systems 3
Prerequisite: NET 101 with a grade of C or higher. Course will cover the basics of operating and managing a Linux-based operating system.

NET 126 - Network Client 3
Prerequisite: NET 101 with a grade of C or higher. Study of the operating system used on today's workstations. Installation, administration, configuring files, security, and local and network printing will be presented from a network administrator's viewpoint. Troubleshooting and networking the operating system will be included.

NET 135 - SQL Server System Administration 3
Prerequisite: NET 120 with a grade of C or higher. Couse covers how to install, configure and administrate a structured query language (SQL) server. Topics 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.

NET 136 - Exchange Server Administration 3
Prerequisite: NET 120 with a grade of C or higher. Study of 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 email, instant messaging and chat. Learn to troubleshoot messaging connectivity and how to resolve problems with clients, routing, foreign mail systems, and links between servers. Additional topics include enhanced Exchange Server Security using v3 certificates, virtual servers, and Microsoft 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.

NET 138 - Network Directory Services 3
Prerequisite: NET 120 with a grade of C or higher. Study of Tthe planning, configuring and administering 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.

NET 140 - PC Hardware 3
Presents microcomputer architecture, input/output (I/O) and systems operation. Other topics include peripherals, diagnostics, drives, memory, and maintenance procedures. Laboratory consists of troubleshooting selected computer systems.

NET 142 - PC Operating Systems 3
Study of computer operating systems including Windows, Linux and DOS, with requirements of necessary hardware and known problems and features. Laboratory consists of installation, maintenance and repair of operating systems.

NET 158 - Network Firewalls 3
Prerequisites: NET 106 and NET 203 with grades of C or higher. Course will cover the functions, features and configuration of a firewall as applied in a network. Covers setup, management, traffic filtering, and virtual private networks (VPNs). Students will configure and implement firewalls to protect the network from external threats. Hands-on coursework is included in the course.

NET 175 - Network Administration Internship 4
Prerequisite: Consent of program coordinator. 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.

NET 180 - Networking Project 1 to 3
Prerequisite: Consent of program coordinator. Independent study of a special problem in networking under the supervision of a networking instructor.

NET 201 - Scaling Networks 3
Prerequisite: NET 103 with a grade of C or higher. Describes the architecture, components and operations of routers and switches in a large and complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with open shortest first path (OSPF), enhanced interior gateway routing protocol (EIGRP), spanning tree protocol (STP), and virtual local area networking trunking protocol (VTP) in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement dynamic host configuration protocol (DHCP) and domain name system (DNS) operations in a network.

NET 202 - Digital Forensics 3
Prerequisites: NET 101 and NET 106 with grades of C or higher. Course will introduce students to the basics concepts and skills used when investigating possible computer crimes. Such skills could be beneficial in a variety of roles, i.e., working with law enforcement, private contractors, etc.

NET 203 - Connecting Networks 3
Prerequisite: NET 201 with a grade of C or higher. Corequisite: NET 201. Discusses the wide area network (WAN) technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement internet protocol security (IPSec) and virtual private network (VPN) operations in a complex network.

NET 206 - Ethical Hacking 3
Prerequisites: NET 101 and NET 106 with grades of C or higher. Course will introduce students to the basics of scanning, testing, hacking, and securing resources. Expanding upon the basics of general security practices, students will gain a better understanding of how to better secure resources.

NET 222 - Enterprise Applications I 3
Prerequisites: NET 120 and NET 138 with grades of C or higher. Course will introduce students to various server applications that are widely utilized throughout the information systems industry.

NET 223 - Enterprise Applications II 3
Prerequisites: NET 120 and NET 138 with grades of C or higher. Course will introduce students to various server applications that are widely utilized throughout the information systems industry.

NET 231 - Mobile Networking 3
Prerequisites: NET 101 and NET 126 with grades of C or higher. This course will teach students the basics of configuration, supporting and managing mobile devices in the corporate network.

NET 238 - Server Virtualization 3
Prerequisite: NET 120 with a grade of C or higher. Course will teach students in the setup, configuration and management of virtualized servers.

NET 240 - Enterprise Storage 3
Prerequisite: NET 120 with a grade of C or higher. Course is designed to introduce students to technologies utilized for data storage in the enterprise environment.

NURSING

NURS 102 - CPR for Health Care Providers .5
American Heart Association course teaches health care providers how to recognize and respond to life-threatening emergencies such as respiratory arrest, cardiac arrest and foreign-body obstruction in infants, children and adults. The skills necessary to respond to these emergencies are demonstrated and practiced during the course. Course includes use of an automated external defibrillator (AED). Upon successful completion the student will be issued an American Heart Association Cardiopulmonary Resuscitation (CPR) card for Health Care Providers. This is a pass/fail course.

NURS 103 - CPR Recertification .25
Prerequisite: Consent of instructor. Course is required to maintain American Heart Association CPR certification in the health care field. A current American Heart Association CPR card for Health Care Provider is required to enroll in the course. This is a pass/fail course.

NURS 110 - Personal Vocational Concepts 1
Evidence-based practice concepts in nursing are introduced as they relate to standards of care, behavioral concepts important to the nurse, history of nursing, role identification and responsibility, interprofessional collaboration, the quality improvement process, and ethical and legal aspects of the licensed practical nurse and registered nurse.

NURS 112 - Introduction to Psycho-Social Health 2
Basic concepts of wellness and illness, caring, communication techniques, and growth and development across the life cycle are introduced with an emphasis on evidence-based care. Special circumstances and interpersonal relationships, such as the impact of violence and abuse, cultural awareness, the grieving process, and spiritual needs of the individual and family will be explored. Special treatment modalities such as medications will be discussed with regard to concepts of mental health.

NURS 114 - Fundamentals I 2
Essential nursing skills utilizing current standards of practice required for entry- level nurses are introduced. The learner will demonstrate an understanding of how to assist clients with important daily activities and basic nursing assessment skills through both classroom and hands-on learning experiences. (1 lecture, 1 lab)

NURS 117 - Fundamentals II 3
Presents more advanced essential nursing skills based upon current standards of practice that are required for entry-level nurses. The learner is introduced to the nursing process that is utilized in the delivery of nursing care. Skills are presented through both classroom and hands-on learning experiences and includes development of nursing assessment skills, medication administration, intravenous (IV) therapy, use of information technology, and other technical skills.

NURS 118 - Fundamentals II Clinical 1.5
Essential nursing skills utilizing current standards of practice presented in NURS 114 and NURS 117 will be applied in both long-term and acute care clinical settings. Skills that will be mastered include physical assessment, therapeutic communication, basic nursing care, IV therapy, and nursing documentation. This is a pass/fail course.

NURS 119 - Allied Health Pharmacology 3
Basic pharmacologic, pharmacodynamics and pharmacokinetic principles for the most common drug classifications and specific select drugs will be explored using evidence-based practices. Emphasis on patient safety needs are incorporated through individualized teaching related to the most common drug classifications.

NURS 122 - Adult Health I 4
Entry-level, evidence-based nursing care will be discussed for adult and elderly clients experiencing alterations in the integumentary, respiratory and cardiac systems; clients undergoing surgery; and clients with cancer.

NURS 124 - Adult Health II 4
The basic nursing course addresses evidence-based practice principles and nursing care of adult and elderly clients experiencing alterations in renal, neurological and gastrointestinal systems, as well as the client who has developed diabetes mellitus. Included are basic strategies for leadership and conflict resolution.

NURS 126 - Adult Health Nursing Clinical 3
Basic nursing concepts utilizing current standards and evidence-based best practices are applied to the acute clinical setting. The student will provide nursing care to the client and family with altered health status, while evaluating laboratory and diagnostic findings, medication effectiveness and client responses. This is a pass/fail course.

NURS 128 - Adult Health III 2
Principles of evidence-based nursing care are addressed for adult and elderly clients experiencing alterations in the endocrine, sensory, musculoskeletal, hematological, and immune systems.

NURS 130 - Adult Health Care Coordination Clinical 2
Focuses on the utilization and application of basic skills gained from the practical nursing curriculum and incorporates current standards and evidence-based practices for the role of an entry-level nurse. Emphasis is placed on principles of leadership, conflict resolution, coordinating client care, and applying basic principles across the lifespan, particularly the elderly client. This is a pass/fail course.

NURS 132 - Nutrition 3
Essential nutrient digestion, absorption, metabolism, and excretion are emphasized, throughout various cultures. Diet analysis and current issues in nutrition will aid the student in applying evidence-based practice to the basic concepts of everyday situations throughout the life cycle.

NURS 134 - Nursing Care Childbearing Family 2
Foundational learning that focuses on the uncomplicated health care and wellness promotion, by using evidence-based, culturally sensitive care for the family during the reproductive years, including the laboring woman, postpartum patient/family, the newborn, and gynecological issues.

NURS 136 - Childbearing Family Clinical 1.5
Foundational learning that focuses on the uncomplicated health care and wellness promotion, by using evidence-based care for the family during the reproductive years, including the laboring woman, postpartum patient/family, the newborn, and gynecological issues. This is a pass/fail course.

NURS 140 - Nursing Care Child Rearing Family 2
Concepts of assessment, growth and development, nutrition for the pediatric patient, medication administration for children, common recurring health conditions, and evidence-based nursing care of the hospitalized child are discussed.

NURS 142 - Child Rearing Family Clinical 1.5
Participation in activities to develop skills in family-centered nursing care of children is expected. Experiences will include health promotion activities in the community, providing evidence-based patient centered nursing care of ill children, and promoting interpersonal relationships within the family unit. This is a pass/fail course.

NURS 210 - Nursing Transition Course 2
Prerequisite: Acceptance to Year Two of the Associate Degree Nursing (ADN) program. Building upon the knowledge obtained from the practical nursing curriculum, the advanced placement student reviews the philosophy, outcome-based curriculum and use of evidence-based practice. The student transitioning into the ADN program will have opportunities to demonstrate competencies in pharmacology (including dosage calculations), IV starts and maintenance, physical assessment, and more. The student will explore safe and effective care, health promotion, care of the older adult, and cultural awareness. Completion of the course with a B or better is required to continue in the ADN program.

NURS 213 - Introduction to Professional Nursing 2
Building upon the knowledge obtained from the practical nursing curriculum and incorporating current standards of practice and evidence-based care for the entry-level professional nurse, the student's current leadership and management abilities are explored and enhanced. Exploration focuses on the roles and functions of the professional registered nurse in various health care settings. Topics of discussion include cultural awareness, quality improvement, professionalism, leadership and management styles, communication, delegation, disaster management, and priority setting when caring for diverse and aging populations and cultures.

NURS 215 - Complex Health: Mental Health 2.5
Building upon the knowledge obtained from the practical nursing curriculum, the nurse's role in promoting evidence-based psychosocial integrity for the client and family/ significant others are explored. Topics include the use of coping mechanisms, crisis intervention, therapeutic communication, psychopathology, and case management. Emphasis is placed on cultural awareness, client education, available resources and strategies, and current trends in providing care in the community setting to promote wellness.

NURS 216 - Complex Health: Mental Health Clinical 2
Focuses on managing clients in the mental health setting by incorporating current standards and evidence-based practice to the professional registered nurse role. Emphasis will be on planning and managing the care of a client in an inpatient mental health facility by participating and leading therapeutic groups. Application from NURS 215 will be demonstrated in the clinical settings. This is a pass/fail course.

NURS 219 - Complex Health: Elimination 3
Building upon the knowledge obtained from the practical nursing curriculum and incorporating current standards for the professional registered nurse, complex features of selected diseases and disorders of the liver, gastrointestinal and renal systems are discussed and explored. Topics will include pathophysiology and the medical and/or surgical management, and interprofessional collaboration needed for the patient with these diseases or disorders. The discussions will be centered on using evidence-based practice to guide the nursing process and the Gordon's Functional Health patterns framework. Cultural and psychosocial issues, including involvement of patients in decision making and best practices for promoting healthy lifestyles and providing patient-centered care are also discussed.

NURS 221 - Complex Health: Nutrition/Metabolic 2.5
Building upon the knowledge obtained from the practical nursing curriculum and the first semester of professional nursing school, the student will be incorporating current standards, interprofessional collaboration, and evidence-based practice for the professional registered nurse. Complex features of selected acid-base, fluid and electrolyte disorders; selected exocrine disorders and injuries; and management of immune system problems are discussed and explored. The student will evaluate safe and effective care, health promotion, care of the older adult, and cultural awareness. The discussions will be centered on the nursing process and the Gordon's Functional Health patterns framework.

NURS 227 - Complex Health: Family 3
Advances the student's ability to provide patient-centered, culturally sensitive, evidence-based complex care for the newborn, pediatric and obstetric clients with complicated issues or at high risk for developing complications addressing individual patient needs. Discussions will be centered on the nursing process.

NURS 228 - Complex Health: Family Clinical 1
Focuses on managing clients with complex health care needs and incorporates current standards of evidence-based practice to the professional registered nurse role. Emphasis is placed on problem-solving, advanced physical assessment techniques and time management activities. Application of the principles from NURS 227 will be demonstrated in the appropriate clinical settings. This is a pass/fail course.

NURS 230 - Complex Health: Adult Clinical I 1
In this clinical, the student will begin to utilize and apply appropriate advanced nursing concepts from Introduction to Professional Nursing and medical surgical knowledge to the professional registered nurse role, including principles of the nursing process, current standards of evidence-based practice, leadership, management, communication, interprofessional collaboration, and use of information technology where applicable to care for adults and older adults. This is a pass/fail course.

NURS 231 - Complex Health: Adult Clinical II 1
This clinical course is a continuation of Complex Adult Health I and preparation for Complex Health Adult III. Using current standards of care and evidenced-based practice, the student will begin to coordinate and manage care for multiple clients at the acute care clinical site. The emphasis will be on further development of the professional nursing role in prioritization and coordination of patient care for adults and older adults. This is a pass/fail course.

NURS 233 - Complex Health: Adult Clinical III 3
Building upon the knowledge obtained from the practical nursing curriculum and the first semester of professional nursing school, students will work in an inpatient clinical area focusing on managing clients with complex health care needs. The student will manage care for clients in medical and surgical units, intensive care units (ICU), emergency rooms (ER) and step-down units. There will be an emphasis on prioritization, critical thinking, delegation, problem-solving, advanced physical assessment techniques, cultural awareness, care of the aged, and time management activities. Evidence-based practice is used in applying the assessment process to nursing care. Application of the principles from NURS 213, NURS 221, NURS 234, and NURS 237 will be demonstrated in the appropriate clinical settings while building upon NURS 230 and NURS 231 clinical. This is a pass/fail course.

NURS 234 - Complex Health: Activity and Rest 3
Building upon the knowledge obtained from the practical nursing curriculum and the first semester of professional nursing school, students will incorporate current standards and evidence-based practice for the professional registered nurse. This will include complex features of selected cardiovascular, respiratory, gastrointestinal, and traumatic disorders and injuries and discussion of the nursing care. Nursing that includes safe and effective care, health promotion and age and culture implications are explored as part of the learning process. The discussions will use evidence-based practice centered on the nursing process, application of the nursing assessment to case studies, and review of prioritization and implementation in conjunction with Gordon's Functional Health patterns framework.

NURS 237 - Complex Health: Cognitive/Perceptual 3
Building upon the knowledge obtained from the practical nursing curriculum and incorporating current standards and evidence-based practice for the professional registered nurse, complex features of selected neurological diseases, disorders and injuries are discussed and explored. Corresponding pharmacological interventions and interdisciplinary collaboration will be discussed. The discussions will be centered on the nursing process and the Gordon's Functional Health patterns framework.

NURS 243 - Professional Nursing Capstone Clinical 2.5
Focuses on the utilization and application of complex skills and knowledge gained from the associate nursing curriculum and incorporates current standards and evidence-based practice to the professional registered nurse role. Emphasis is placed on mastery of assessment, documentation, teaching, medication knowledge and administration, prioritization, time management, and communication with clients, families, staff, and peers. Application and demonstration of leadership, management, legal and ethical principles of delegation for the registered nurse in various community and acute care settings is also expected. This is a pass/fail course.

OCCUPATIONAL SAFETY HEALTH ADMINISTRATION

OSHA 102 - OSHA 10-hour Construction Industry 1
Course is provided for those seeking employment in a field that operates on construction sites governed by the safety regulations of 29 CFR 1926, Occupational Safety and Health Administration (OSHA) standards for the construction industry. Upon successful completion of this course, the student will earn an OSHA 10-hour completion card. This is a pass/fail course.

OCCUPATIONAL THERAPY

OTA 200 - Foundations of Occupational Therapy 4
Course presents an introduction to occupational therapy including history, philosophical base, values, ethics, practice framework, and clinical reasoning. Students will learn selected theories and frames of reference as they pertain to interventions in mental health, physical disabilities, pediatrics, and community practice areas. An overview of the occupational therapy process, including assessment, treatment planning, treatment implementation, and discontinuation of intervention will be presented. Role delineation and collaboration of the occupational therapy assistant with other occupational therapy and health care personnel are discussed.

OTA 205 - Medical Conditions in Occupational Therapy 3
Course will provide a framework for students to learn about common medical conditions seen by occupational therapy practitioners and to facilitate learning of these conditions from an occupational therapy perspective. It is not intended to emphasize treatment of a diagnosis; however, students will learn about specific factors unique to given conditions that may impact an individual's occupational roles and functions. These factors must be understood and analyzed regarding the relative impact on the individual's occupational performance. The knowledge gained from this course is a necessary prerequisite to Physical Disabilities Practice.

OTA 210 - Analysis of Occupations 2
Course is designed to foster a beginning exposure to individuals experiencing a variety of physical or mental disabilities, including caregivers of individuals with disabilities, through community experiences. Through these experiences, students will develop skills in observation, analysis, interview, assessment and data collection, and relational skills. Students will complete writing assignments with an emphasis on their observations, analysis and performance of human occupation across the lifespan, with an emphasis on contextual factors impacting occupational performance. Through the written assignments, students will learn the style of professional writing required for OTAs. Professional and therapeutic relationships will be emphasized throughout the course.

OTA 215 - Mental Health and Psychosocial Practice 4
Course presents the role of the occupational therapy assistant in the psychosocial area of occupational therapy practice. Students will learn selected frames of reference and explore the effects of psychosocial dysfunction on areas of occupation. Students will learn skills necessary to assess, implement and document intervention in a variety of mental health settings. Client factors, including culture and diversity, therapeutic interactions and methods are studied. Students will develop skills in administering individual and group interventions, professional communication, conflict negotiation, and advocacy. Lab activities, in-class activities, and level I fieldwork opportunities will enable students to participate in and apply psychosocial principles to practice.

OTA 220 - Pediatric and Adolescent Practice 4
Treatment of pediatric and adolescent conditions. Normal and delayed development of the infant, child and adolescent are explored. The lab component incorporates theoretical principles and provides opportunities for students to develop assessment, intervention planning and implementation, and documentation skills to address a range of childhood sensory-motor, cognitive and psychosocial performance deficits. Students will learn to adapt the environment, tools, materials, and occupations to meet the self-care, work/play and leisure needs of the pediatric and adolescent population. Lab activities, site visits and level I fieldwork opportunities will enable students to participate in and apply pediatric and adolescent treatment principles to practice.

OTA 250 - Functional Kinesiology 2
In this course, students use and apply their knowledge of anatomy and physiology to study muscle groups and their function relative to performing various activities. Analysis of functional movement patterns required for work, self-care, play, and leisure activities is emphasized. Manual muscle testing, range of motion, goniometry and basic transfer skills are practiced. Principles of energy conservation, joint protection and work simplification are presented. Prevention, health maintenance and safety procedures relevant to functional mobility are reviewed.

OTA 255 - Physical Disabilities Practice 4
Course provides in-depth opportunities for students to develop assessment, intervention planning, intervention, and documentation skills to address a wide range of adult and geriatric physical disabilities and conditions typically treated by occupational therapists and occupational therapy assistants. Topics include, but are not limited to, stroke, spinal cord injury, fractures and joint replacement, head injury, and cardiopulmonary disorders. The use of splinting, orthotics, modalities, and assistive technology in treatment will also be presented. Students will learn to adapt the environment, tools, materials, and occupations to meet the self-care, work, play, and leisure needs of the adult and geriatric population. Lab activities and level I fieldwork opportunities will enable students to participate in and apply physical disabilities treatment principles to practice.

OTA 260 - Community Practice 3
Site visits and level I fieldwork opportunities will enable students to participate in and apply occupational therapy assessment and intervention principles to a wide range of community settings, including vocational, vocational rehabilitation, home health, and emerging community practice areas. Emphasis will be on community settings in the students' state and geographic region. The course also provides a broad exposure to the social, political, legislative, economic, and cultural factors that influence service delivery.

OTA 265 - Ethics, Management and Leadership 3
Course focuses on the OTA role in managing and directing occupational therapy services. It covers ethical provision of services, departmental operations, program development, supervisory requirements, personnel development and supervision, professional team building, quality assurance, compliance with regulations, reimbursement, and national and state credentialing requirements. Techniques for developing a résumé and job interview skills are practiced. The importance and responsibility for ongoing OTA professional development, ethical practice, contributing to research and evidence-based practice, attention to emerging practice issues and areas, and international perspectives are explored.

OTA 270 - Professional Skills 3
Course is designed to foster practical professional skills in critical thinking using literature to make evidence-based practice decisions and recommendations and using theory to guide practice, all through the completion of a professional portfolio.

OTA 290 - Level II Fieldwork A 8
Full-time clinical fieldwork experience in mental health, physical disabilities, geriatric, pediatric, and/or community-based practice working under the supervision of an OTR and/or COTA. Focus is on achieving entry-level competence in planning and implementing interventions.

OTA 295 - Level II Fieldwork B 8
Full-time clinical fieldwork experience in mental health, physical disabilities, geriatric, pediatric, and/or community-based practice working under the supervision of an OTR and/or COTA. Focus is on achieving entry-level competence in planning and implementing interventions.

OFFICE ADMINISTRATION

OADM 102 - Introduction to Keyboarding 1
Optional test out. Individualized course that provides the student with a mastery of touch-typing. Emphasis is placed on developing speed and accuracy through instruction, guided practice and timed writings. Course is not intended for health information technology or office management majors. There is not any document production in this course.

OADM 104 - Keyboarding 3
Optional test out. Individualized course provides the beginning student with a mastery of touch-typing and an introduction to basic formats of letters, memos, tables, and reports. All office management students are required to take this course as part of their core curriculum.

OADM 106 - Document Formatting 2
Optional test out. Prerequisite: OADM 104. Individualized course that includes processing various business and professional documents and forms. Emphasis is placed on accuracy, speed development, and ability to follow directions. Core requirement for all office management majors.

OADM 116 - Records Management 3
Emphasize principles and practices of effective records and information management for physical and electronic records systems. Emphasis is placed on the need to understand the changes occurring with the volume of information, the need for compliance to government regulations and advances in technology.

OADM 118 - Business English for Office Management 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Consists of concentrated drill and discussion of business English usage, punctuation and style as applied to editing and proofreading documents.

OADM 121 - Calculators 1
Course is designed to teach touch operation of 10-key printing and display calculators along with their special time-saving features. Emphasis is placed on speed and accuracy.

OADM 125 - Skillbuilding for Office Support Services 1
Prerequisite: OADM 104 or optional test out. Individualized course designed to improve accuracy and speed. Office Support Services certificate candidates must achieve a grade of C or higher in order to complete graduation requirements for the program.

OADM 127 - Skillbuilding for Office Management 1
Prerequisite: OADM 104 or optional test. Individualized course designed to improve accuracy and speed. Office Management degree candidates must achieve a grade of B or higher in order to complete graduation requirements for the program.

OADM 134 - Office Management 3
Prerequisite: Consent of program coordinator. Capstone course for the Professional Certificate in Office Support Services and the Associate of Applied Science in Business Management with Office Management Specialty. Course includes activities and information in human relations, personal and professional qualities, decision making, office supervision, incoming and outgoing mail, minutes, office procedures, work ethics, time management, appearance, record keeping, office organization, personnel management, and demeanor.

OADM 175 - Office Management Internship 3
Prerequisite: Consent of program coordinator. An on-the-job work experience that provides the student the opportunity to work in an office environment. Students are evaluated by the instructor and employer.

PHARMACY TECHNOLOGY

PHRM 105 - Pharmacy Technician I 3
Prerequisite: Basic computer skills. Introduction to the fundamentals and knowledge necessary to take the Pharmacy Technician Certification Board (PTCB) exam. Contents of this course include a brief history of pharmacy and how it has evolved into today's pharmacy, drug regulation and control, pharmaceutical terminology, factors that make up a prescription, pharmaceutical calculations, and different routes and formulations of various medications.

PHRM 107 - Pharmacy Technician II 3
Prerequisites: PHRM 105 with a grade of C or higher and basic computer skills. Course will provide additional necessary knowledge needed for the Pharmacy Technician Certification board (PTCB) exam. Contents of this course include compounding, biopharmaceutics and other factors affecting drug activity, utilizing appropriate resources, inventory management, and financial issues. Course will also go further in depth to the different areas of pharmacy where a pharmacy technician is needed.

PHRM 109 - Pharmacology for Pharmacy Technicians 3
Course introduces basic pharmacological principles needed by pharmacy technicians, including basic understanding of the drug action, how antagonists and agonists work, the significance and meaning of blood concentration-time profiles, and other aspects of pharmacology suited for pharmacy technicians.

PHRM 111 - Practicum for Pharmacy Technicians 3
Prerequisites: PHRM 105 and PHRM 107 with grades of C or higher and basic computer skills. Course provides a study of and an introduction to the pharmacy in providing patient care. There will be an opportunity for students to observe activities in a pharmacy setting of their choice. There will be practical, general workplace training supported by an individualized learning plan developed by the employer, program coordinator and student.

PHRM 115 - Pharmacology Certification 3
Course will cover the nationally accredited and state-licensed program and prepare students for the PTCB exam to achieve their Certified Pharmacy Technician (CPhT) designation.

PHRM 175 - Professional Practical Experience 3
Prerequisite: Consent of program coordinator. Field-based professional practice experience in a hospital or commercial pharmacy setting. Students will be assigned specific professional practice objectives and skills to be completed at the site and will participate in daily pharmacy activities. This is an unpaid work experience requiring 80 to120 hours of participation.

PHILOSOPHY

PHIL 101 - Introduction to Philosophy 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. An introduction to historical and topical themes in philosophy, such as free will, God, personal identity, the limits of knowledge, the nature of inferential reasoning, morality, and social justice.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PHIL 100 - Introduction to Philosophy

For additional information: https://dhe.mo.gov/core42.php

PHIL 102 - Ethics 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. An introductory examination of the foundations of moral discourse and ethical practice. This course includes both an introduction to a number of moral theories and discussion of contemporary moral issues.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PHIL 102 - Introduction to Ethics

For additional information: https://dhe.mo.gov/core42.php

PHIL 104 - Living Religions 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. An introduction to a wide variety of the world's living religions as both beliefs and practices, and an analysis of the historical-cultural value systems underpinning their various divergent or overlapping value systems. Religions reviewed include Hinduism, Buddhism, Judaism, Christianity, Islam and to a lesser extent Jainism, Sikhism, Confucianism, Daoism, and Shinto.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR RELG 100 - World Religion

For additional information: https://dhe.mo.gov/core42.php

PHYSICAL EDUCATION-ACTIVITY

PEAC 124 - Varsity Basketball - Men 1
Prerequisite: Consent of athletic director. Participation in the men's varsity basketball program.

PEAC 125 - Varsity Basketball - Women 1
Prerequisite: Consent of athletic director. Participation in the women's varsity basketball program.

PHYSICAL EDUCATION-PROFESSIONAL

PPRO 101 - Sports Officiating I 2
Includes lectures, readings, class discussions, and field experience in the officiating of fall sports, including football, soccer, basketball, etc.

PPRO 102 - Sports Officiating II 2
Includes lectures, readings, class discussions, and field experience in the officiating of spring sports, including softball, baseball, volleyball, etc.

PPRO 104 - 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.

PPRO 108 - 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.

PPRO 180 - Problems in Professional PE 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in professional physical education under the supervision of a physical education instructor.

PHYSICAL SCIENCE

PHYS 103 - Introduction to Physical Science 3
Prerequisites: ENGL 070 and MATH 110 or MATH 112 with grades of C or higher or equivalent placement scores. Introduction to physical science that includes the basic concepts of chemistry, physics and astronomy. Not open to students with college credit in PHYS 105 or higher-level course.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PHYS 110 - Essentials in Physical Sciences

For additional information: https://dhe.mo.gov/core42.php

PHYS 105 - College Physics I with Lab 5
Prerequisite: MATH 110 or MATH 112 with a grade of C or higher or equivalent placement score. An introduction to the fundamental ideas of physics. Topics include mechanics, wave motion and heat. (4 lecture, 1 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PHYS 150L - Physics I with Lab

For additional information: https://dhe.mo.gov/core42.php

PHYS 106 - College Physics II with Lab 3
Prerequisite: PHYS 105 with a grade of C or higher. Continuation of PHYS 105. Covers electricity, magnetism, optics, and modern physics. (2 lecture, 1 lab)

PHYS 118 - General Physics I with Lab 5
Prerequisite: MATH 130 with a grade of C or higher. Corequisite: MATH 131. An introduction to the fundamental ideas of physics. Topics include mechanics, oscillatory motion and thermodynamics. First course in calculus-based physics for the science and engineering student. (4 lecture, 1 lab)

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PHYS 200L - Advanced Physics I with Lab

For additional information: https://dhe.mo.gov/core42.php

PHYS 119 - General Physics II with Lab 5
Prerequisite: PHYS 118 with a grade of C or higher. Continuation of PHYS 118. Topics in the field of electromagnetism will be covered. (4 lecture, 1 lab)

PHYS 125 - Technical Science 4
Prerequisite: MATH 108, MATH 110 or MATH 112 with a grade of C or higher or equivalent placement score. Corequisite: MATH 108, MATH 110 or MATH 112. 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.

PHYS 180 - Problems in Physics 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in physics under the supervision of a science instructor.

PHYS 203 - Statics 3
Prerequisite: PHYS 118 with a grade of C or higher. Application of the principles of mechanics to engineering problems of equilibrium. Topics include resultants, equilibrium, friction, trusses, center of gravity, and moment of inertia.

POLITICAL SCIENCE

POLS 101 - American/National Government 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey course of the American government and political systems. 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR POSC 101 - American Government

For additional information: https://dhe.mo.gov/core42.php

POLS 102 - Missouri Constitution .5
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Designed to meet requirements of Senate Bill No. 4. Intended for students testing out of history or government courses or transferring these courses from another state. Course is available on an individual basis. This is a pass/fail course.

POLS 103 - Introduction to Political Science 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Study of the nature of government, politics, the state, relations among 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 of governments around the world. Does not meet requirements of Senate Bill No. 4.

POLS 175 - Political Science Internship 1 to 4
Prerequisite: Consent of instructor. On-the-job work experience provides an opportunity for the student to work in a state or local government office or in a political action setting.

POLS 180 - Problems in Political Science 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in political science under the supervision of a political science instructor.

PSYCHOLOGY

PSY 101 - General Psychology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the scientific study of behavior and mental processes. Includes a survey of historical and current theories, theorists and perspectives in psychology. Goals include increasing critical thinking and intellectual curiosity about psychological phenomenon and provides a basis for further study in the field. Topics include neurology, sensation and perception, consciousness, learning, psychometrics, personality development, and mental illness and wellness. Writing papers in APA format is required.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PSYC 100 - General Psychology

For additional information: https://dhe.mo.gov/core42.php

PSY 102 - Child Psychology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Investigation into the interaction of biological and environmental factors affecting the physiological, intellectual and emotional development of the child from conception through adolescence. Writing papers in APA format is required.

PSY 104 - Psychology of Personal Adjustment 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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.

PSY 180 - Problems in Psychology 1 to 3
Prerequisites: PSY 101 with a grade of C or higher and consent of instructor. Writing papers in APA format is required. Students are advised to have completed ENGL 101 prior to enrolling. Independent study of a special problem in psychology under the supervision of a psychology instructor.

PSY 210 - Lifespan Development 3
Prerequisite: PSY 101 with a grade of C or higher. Writing papers in APA format is required. Students are advised to have completed ENGL 101 prior to enrolling. Study of major theories of psychological development during infancy, childhood, adolescence, and adulthood. Topics include physical, psychosocial and cognitive development across the lifespan giving consideration to cultural and individual variations.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PSYC 200 - Life Span Human Development

For additional information: https://dhe.mo.gov/core42.php

PSY 220 - Abnormal Psychology 3
Prerequisite: PSY 101 with a grade of C or higher. Not offered every semester. Writing papers in APA format is required. Students are advised to have completed ENGL 101 prior to enrolling. Study of the historical and cultural context of abnormal behavior and diagnosis of mental disorders. Topics include a survey of the causes and treatment of major mental illness such as mood disorders, anxiety disorders, substance abuse, schizophrenia, and personality disorders. Writing papers in APA format is required.

RADIOLOGIC TECHNOLOGY

RAD 106 - Clinical Education I 3
Radiology student will complete an average of 240 contact hours, which equates to 3 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete seven mandatory competencies.

RAD 109 - Clinical Education II 2
Radiology student will complete an average of 160 contact hours, which equates to 2 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete nine competencies.

RAD 111 - Clinical Education III 2
Radiology student will complete an average of 160 contact hours, which equates to 2 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete nine competencies.

RAD 113 - Clinical Education IV 4
Radiology student will complete an average of 160 contact hours, which equates to 2 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete nine competencies.

RAD 115 - Clinical Education V 4
Radiology student will complete an average of 360 contact hours, which equates to 4 credit hours. Supervised clinical rotations will be performed at assigned clinical sites. Clinical education provides the students 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. Students are expected to complete the remainder of required competencies.

RAD 117 - CT Clinical Education 4
Prerequisite: RAD 169 with a grade of C or higher. Clinical education provides the student with the opportunity to practice the skills and theory taught in the classroom. Students will demonstrate CT exam competency while practicing patient care and professionalism. Exam performance skills and critical thinking will be evaluated in this course.

RAD 120 - Radiographic Procedures I 3
Students will learn and practice the proper steps in the completion of radiographic exams including utilization of imaging equipment and proper patient positioning. Radiographic anatomy, radiation safety practices and patient care skills are reinforced. Students are introduced to basic film critique. Course will cover exams of the chest, abdomen and extremities. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (1 lecture, 2 lab)

RAD 122 - Radiographic Procedures II 3
Students will learn and practice the proper steps in the completion of radiographic exams including utilization of imaging equipment and proper patient positioning. Radiographic anatomy, radiation safety practices and patient care skills are reinforced. Students are introduced to basic film critique. Course will cover exams of the thorax and spines, as well as contrast exams. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (1 lecture, 2 lab)

RAD 124 - Radiographic Procedures III 3
Students will learn and practice the proper steps in the completion of radiographic exams including utilization of imaging equipment and proper patient positioning. Radiographic anatomy, radiation safety practices and patient care skills are reinforced. Students are introduced to basic film critique. Course will cover exams of the skull, facial bones, and geriatric and pediatric imaging. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (2 lecture, 1 lab)

RAD 128 - Introduction to Radiologic Sciences and Patient Care 3
Introduces students to an overview of the foundations in radiologic technology and the practitioner's role in the health care system. Students become cardiopulmonary resuscitation (CPR) certified. Students are introduced to Joint Review Committee on Education in Radiology Technology (JRCERT) standards and basic radiation safety. Instruction will also include basic concepts of routine and emergency patient care procedures, infection control, standard precautions, and the legal and ethical aspects of professional radiologic technology.

RAD 130 - Radiation Production and Characteristics 3
An overview of electricity, electromagnetic theory, circuitry, x-ray generation, production, interaction, and the basic characteristics of natural radiation.

RAD 134 - Radiographic Exposures and Quality Control 3
Introduction to factors involved in quality image production and the correlation of these factors and their control. Overview of image receptors, scatter control and radiographic exposure techniques is provided. Students will identify and evaluate acceptable limits for equipment operation.

RAD 137 - Radiation Protection 3
Student radiologic technologists must be able to protect patients and themselves from overexposure to radiation. Students will learn about dose limits and proper shielding, as well as radiation monitors and detectors. Radiation effects and potential biological damage of ionizing radiation will be discussed. The as low as reasonably achievable (ALARA) principle will be taught as well as the objectives of a radiation protection program. Students will have a basic understanding of the varieties of interactions between ionizing radiation and living cells.

RAD 140 - Radiologic Pharmacology 3
Overview of the foundations of pharmacology, including pharmacokinetics, pharmacodynamics, pertinent laws, and safety issues. Students will gain an understanding of drug categories, their actions and commonly used drugs in each category. Additionally, this course will emphasize contrast media commonly used in medical imaging, routes of administration and venipuncture techniques.

RAD 142 - Trauma and Advanced Imaging 3
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 skills will continue to be stressed. Course is a portion of the five steps to clinical competency and must be completed with a score of 85 percent or better. (2 lecture, 1 lab)

RAD 144 - Radiation Biology 2
Reinforcement of the varieties of interactions between ionizing radiation and living cells. Acute and chronic effects of radiation are described.

RAD 146 - Imaging Equipment 3
Presents information about image intensified fluoroscopy, mobile equipment and automatic exposure devices. Image acquisition utilizing film/screen, computed radiography (CR) and digital radiography (DR) systems and the appropriate processing units will be discussed.

RAD 150 - Radiographic Pathology 3
Provides a basic understanding of disease processes as they relate to radiographic procedures. Course will include facts, etiology, symptoms, treatments, and radiographic appearance of many diseases and discussion of how one must adjust the radiographic technique for each of these disorders.

RAD 152 - Image Analysis 3
Utilizes 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, how to accomplish the change, and why a change is necessary.

RAD 154 - Sectional Anatomy 3
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 computed tomography (CT), magnetic resonance (MR) and ultrasound.

RAD 169 - Comprehensive CT Course for Technologists 5
This course will prepare registered radiologic technologists or future registered radiologic technologists for post-primary certification and registration in Computed Tomography. This course will consists of the four major CT content categories (patient care, safety, image production, and procedures).

RAD 170 - Preparing for Professionalism 3
A series of review assessments are administered enabling students to identify their strengths and weaknesses. Students will prepare for employment through the development of a letter of intent, a résumé and a thank you letter. Employment skills are researched and discussed.

RAD 180 - Problems in Radiologic Technology 1 to 3
Prerequisite: Consent of program coordinator. Independent study course designed to allow the students to more deeply research specific areas of radiologic technology that are of interest to them under the supervision of a radiologic technology instructor. Students also will explore more advanced health care degrees and/or managerial opportunities available to radiologic technologists.

RENEWABLE ENERGY-BIOMASS

RETB 105 - Biomass/Biofuels Energy Generation 3
Survey of energy generation systems that use biomass, biofuels and bioproducts, including landfill gas, for power generation. Discussion includes demand, technology issues, policy, and regulatory factors.

RETB 110 - Power Plant Systems 3
Overview of power plant operations, function and terminology. Provides an understanding of the similarities and differences between conventional power plants and renewable energy power plants. Topics include fuels, boilers, turbines, feedwater heaters, ash removal, condensate, controls, instrumentation, carbon emissions, and monitoring.

RETB 115 - Plant Boilers and Operations 4
Prerequisites: MATH 108 and RETB 110 with grades of C or higher. Introduction to boiler operations and types of boilers, including those fired with renewable fuels, startup and shutdown procedures, monitoring systems, and emergency procedures. Examines the steam cycle in a steam generation plant, auxiliary equipment and maintenance requirements. Includes power plant simulator exercises.

RETB 120 - Turbines and Generators 3
Prerequisite: RETB 110 with a grade of C or higher. Examination of operation of power turbines, basic turbine components and turbine driven generators. Discussion includes fuel requirements, maintenance requirements, engine controls, and emergency procedures.

RETB 125 - Power Plant Chemistry with Lab 5
Prerequisite: RETB 115 with a grade of C or higher. Introduction of wastewater treatment, environmental protection systems and chemistry unique to renewable energy power systems. Topics include treatment systems, demineralization, pollutants, wastewater, waste treatments, and recovery systems. (4 lecture, 1 lab)

RETB 175 - Biomass Generation Internship 8
Prerequisites: Completion of 30 technical credit hours and consent of program coordinator. Application of work skills in a supervised work environment. Sponsoring companies provide the supervision. The program coordinator provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. Designed to be an opportunity to demonstrate work skills, work ethics and the ability to work with others. Requires completion of training plan and submission of four to eight written technical reports.

RENEWABLE ENERGY-SOLAR PV

RETS 102 - Introduction to Renewable Energy 3
Prerequisite: ENGL 060 with a grade of C or higher or equivalent placement scores. Introduces concepts of renewable energy and gives an overview of the associated technology. Outlines the basic principles of energy production from solar, wind and biomass systems, and applications in both urban and rural environments. Emphasis is on how renewable energy technologies work and their practical use.

RETS 106 - Introduction to Solar PV Systems 1
Overview of different types of solar energy technologies, how photovoltaic systems (PV) compare to other systems and the advantages and disadvantages of installing a PV system. Also discussed are the differences between solar power and solar energy and why this is important in solar installations. Evaluation of factors affecting the sun's apparent position and how solar radiation and climate data are used in sizing and estimating performance for PV systems.

RETS 110 - Solar PV Site Planning 2
Prerequisites: IEM 102 and RETS 106 with grades of C or higher. Overview of process of determining potential array locations and factors that must be considered and discussed with customers. Examine purposes and functions of components of PV systems and what various energy sources can be interfaced with PV systems. Study includes construction and features of PV modules, current-voltage characteristics and parameters, and how a PV device converts light to electricity.

RETS 114 - Solar PV System Design 3
Prerequisites: MATH 108 and RETS 110 with grades of C or higher. Determine the system energy and power requirements from a load analysis and how to calculate the critical design parameters based on monthly load and insulation information. Key considerations for integrating arrays on buildings and other structures and how to differentiate between the various types of mounting configurations and their features. Knowledge of electrical codes, regulations and practices applicable to PV systems. Calculate voltage and current limits and how to determine appropriate conductor ampacities and overcurrent protection ratings for various circuits.

RETS 118 - Solar PV Balance of Systems 2
Prerequisite: RETS 110 with a grade of C or higher. Identify major battery components, functions, discharging and charging characteristics, and differentiate between types and classifications of batteries. Functions and features of charge controllers, charge controller applications, and installation will be covered. Identify basic waveform types and properties and what types are used in PV systems.

RETS 122 - Solar PV Utility Interconnection 1
Prerequisite: RETS 114 with a grade of C or higher. Identify applicable codes and standards for utility interconnection, how PV systems affect utility operations, and how to differentiate between load-side and supply-side interconnections. Learn the common requirements for permit applications and applicable articles of the National Electrical Code (NEC) for both general electric system requirements and PV-specific requirements.

RETS 126 - Solar PV Instrumentation and Metrology 4
Prerequisite: RETS 110 with a grade of C or higher. Instrumentation and measurement tools, techniques and methods used in renewable energy production systems will be covered. Types of measurements will include electrical, optical, thermal, physical, chemical, structural, and mechanical. Hands-on training to demonstrate proficiency with various techniques and devices.

RETS 130 - Practical Solar PV Experience 4
Prerequisite: RETS 122 with a grade of C or higher. Combination of study and hands-on practical applications of the NEC 2008 codes in PV systems, North American Board of Certified Energy Practitioners (NABCEP) certification studies, Occupational Safety and Health Administration (OSHA) training, and practical inspection experience. (3 lecture, 1 lab)

RETS 134 - Solar PV Commissioning 2
Prerequisite: RETS 130 with a grade of C or higher. Examine steps for commissioning new PV systems, maximizing array output battery health and other operations, troubleshooting PV systems, and developing a maintenance plan based on system configurations, installation and location. Discussed are incentive options, how to calculate present and future costs, and making a comparison of energy-production systems based on total life-cycle costs.

RETS 175 - Solar PV Internship 8
Prerequisites: Completion of 30 technical credit hours and consent of program coordinator. Application of work skills in a supervised work environment. Companies that sponsor internships provide the supervision. The college provides general guidance and works with the sponsoring company in developing an outline of the work experiences unique to the site. Designed to provide an opportunity to demonstrate work skills, work ethics and the ability to work with others. In addition to completing the training plan, the student must submit four to eight written technical reports.

SERVICE EDUCATION

SRVE 101 - Emerging Leaders I 1
Prerequisite: Consent of instructor. Provides students with opportunities to develop and enhance a personal philosophy of leadership that includes the understanding of self, others, and community, and acceptance of responsibilities inherent in community membership. Involvement in at least one leadership experience is required for the course. A full list of qualifying experiences is provided to all students who enroll.

SRVE 180 - Problems in Service Learning and Leadership 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem relating to service learning and leadership under the supervision of an instructor in a related discipline.

SRVE 201 - Emerging Leaders II 1
Prerequisite: Consent of instructor. Continuation of SRVE 101. Provides students with additional opportunities to develop and enhance a personal philosophy of leadership that includes the understanding of self, others, and community, and acceptance of responsibilities inherent in community membership. Involvement in at least one leadership experience is required for the course. A full list of qualifying experiences is provided to all students who enroll.

SOCIOLOGY

SOC 100 - General Sociology 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Introduction to the basic principles, concepts, research strategies, and empirical findings representative of the field today. Explores the relationships of individuals and groups in the context of broader social patterns. Establishes a basis for further study in the field. Course topics may include gender and racial inequality, deviance, economic and political institutions, social mobility, and concepts related to current social and cultural change.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR SOCI 101 - General Sociology

For additional information: https://dhe.mo.gov/core42.php

SOC 101 - Social Problems 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Examines objective social conditions that have been defined as social problems. Focuses on gaining factual and theoretical knowledge to build better explanations for the existence and persistence of social problems in light of social controls and democratic values. Explores options for solutions to specific social problems. Topics include racial inequality, gender stratification, poverty, mass media, and education among others.

SOC 102 - Marriage and Family 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Explores the social and historical roots of marriage as both a social institution and an intimate relationship. Examines the sources of and the challenges created by the diversity of family forms. Topics include intimacy, dating and courtship, conflict and communication, singlehood and cohabitation, divorce, and parenting.

SOC 103 - Introduction to Social Work 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Provides background knowledge of the field, an overview of social problems and social services, and methods of social work practice. Topics may include poverty, substance abuse, mental illness, crime, family, education, racism, and sexism among others. Each topic is discussed with an interest in identifying the opportunities for and challenges to effective social work.

SOC 120 - American Diversity 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Overview of global and American diversity resulting from cultural interactions, especially in the areas of art, government, economics, and religion, as well as a historical perspective. Students will gain a greater understanding of diversity from an individual and community perspective.

SOC 180 - Problems in Sociology 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in sociology under the supervision of a sociology instructor.

SPANISH

SPAN 101 - Elementary Spanish I 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the Spanish culture. Concentrates on the present indicative tense with the course conducted primarily in Spanish.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LANG 103 - Spanish I

For additional information: https://dhe.mo.gov/core42.php

SPAN 102 - Elementary Spanish II 3
Prerequisite: SPAN 101. Concentrates on the preterit and imperfect tenses and reflexive constructions for students to further enhance their ability to listen, speak, read, and write. Course is conducted primarily in Spanish.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR LANG 104 - Spanish II

For additional information: https://dhe.mo.gov/core42.php

STUDENT SUCCESS

SS 090 - Student Orientation 0
Designed to provide interactions with other students, staff and faculty that will help students get a sense of the campus culture and how to conduct business with the college. Emphasis is on assisting students with understanding how to use the different online elements. This is not a gradable course.

SS 104 - College Skills 3
Designed to enhance the college learning experience and prepare students for personal and professional success. Concepts presented include time management, managing change, setting and achieving goals, and thinking in ways to create success. Note taking, library research, test taking, and study skills are also included. This course will include an eight-hour service learning project.

SS 108 - Career Choice 1
Designed to guide students who may be 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.

SS 114 - Computer Skills for College 2
Designed to build a foundation of basic computer skills necessary to be successful within an educational setting. Topics include basic computer functions and functional navigation and practical application of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Internet, email, mySTAR, and SFCC Online.

SS 120 - Employment Strategies 1
Designed to help students develop employment search skills and career growth potential.

SS 125 - Leadership through Cultural Experiences 3
Prerequisite: Consent of instructor. Spring semester only. Students practice various leadership themes and principles to foster interaction in a global society.

THEATRE

THEA 107 - Introduction to Theatre 3
Introductory hands-on course where students examine the major contributors to the theatrical event: the director, actor, scene designer, and lighting designer. Students will be required to see at least two live theatre productions for which admission may be charged.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR THEA 100A - Theatre Appreciation

For additional information: https://dhe.mo.gov/core42.php

THEA 110 - 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 classroom time with direct involvement in operation of specialized theatre equipment. Required course for speech and theatre majors and minors.

THEA 111 - Acting I 3
Intensive study of the techniques of acting with concentration on bodily movement, balance, diction, voice, and characterization.

THEA 113 - 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.

THEA 115 - Theatre Practicum 1 to 2
Includes student participation in plays, either in performance or backstage work. No more than four credit hours of Theatre Practicum may be applied toward an Associate of Arts degree.

THEA 119 - Stage Makeup 3
Provides a hands-on look at stage makeup. Students will learn the basics of corrective, old age, effects makeup, and what is required in creating a character.

THEA 122 - Costume Construction 3
Course intends to introduce the student to the field of costume technology through the practical experience in the execution of theatrical costume techniques, basic sewing skills and costume crew.

THEA 125 - Theatre History 3
Introductory examination of theatre as a living and viable artistic medium. Course examines the historical development of the audience; dramatic literature and structure; and the role of the actors, directors, designers, and technicians.

THEA 128 - Introduction to Theatre Design 3
Students taking this course will be given the opportunity to identify, analyze and implement the elements of successful theatrical design. In addition, students will be given the opportunity to learn how to evaluate their own personal reactions to a given aesthetic. Students are expected to discuss designs from local shows they see.

THEA 131 - Script Analysis 3
The purpose of script analysis is to examine various methods of analyzing play scripts for performance. Specific emphasis will be placed on the working environment of the actor, director and designer in examining how a script is produced for a public performance. The course is designed to help students develop tools for use in their profession, not to survey the history of dramatic literature.

THEA 134 - Stage Voice and Movement 3
A survey and practice of multiple theatre movement and voice theories designed to develop student awareness and skill related to the body's expressive potential.

THEA 180 - Problems in Theatre 1 to 3
Prerequisite: Consent of instructor. Independent study of a special problem in speech or theatre under the supervision of a fine arts instructor.

THEA 190 - Theatre Capstone 1
Prerequisite: Consent of program coordinator. This class is designed to put all the things that students have learned together, so they will be prepared for the college or university to which they transfer. Acting students will have to have two monologues ready to perform, and technical students will have to create a portfolio.

TRiO SKILLS

TSKL 101 - TRiO Skills I 1
Prerequisite: Consent of TRiO STEPS advisor. Designed to assist incoming freshmen with basic skills needed to orient them to college and necessary for academic success. Emphasis upon basic computer skills, study skills, research skills, critical thinking skills, financial management skills, life skills, confidence building, and career exploration. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

TSKL 102 - TRiO Skills II 1
Prerequisite: Consent of TRiO STEPS advisor. Continuation of TSKL 101. Aimed at assisting TRiO STEPS students who have completed basic skills courses and have moved on to college-level courses. Topics include study skills, research skills, critical thinking skills, financial management skills, time management, life skills, confidence building, and career exploration. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

TSKL 103 - TRiO Skills III 1
Prerequisite: Consent of TRiO STEPS advisor. Continuation of TSKL 102. This TRiO STEPS course will focus on life skills and personal enrichment. Covers topics such as fiscal management, job skills, résumé writing, maintaining physical and emotional health, conflict resolution, and stress management. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

TSKL 104 - TRiO Skills IV 1
Prerequisite: Consent of TRiO STEPS advisor. Designed to assist students who are participants in the TRiO STEPS program who are in their final year at SFCC complete the activities required for graduation and to assist them in transferring to the four-year college of their choice. Students in this course will be assisted in completing applications to four-year colleges and in applying for scholarships and financial aid at their transfer institutions. Students will also be assisted in planning financially for completing their baccalaureate degrees, including calculations of manageable student debt load. Campus visits to four-year colleges are provided free of charge to students in the STEPS program. Course is restricted to students who have been officially accepted into the TRiO STEPS program at SFCC.

WEB DEVELOPMENT

WEB 103 - Introduction to Web Development 3
Students will learn the basic skills and technology for creating basic web pages, the usage of hypertext markup language 5 (HTML5), designing simple applications for Android devices, and additional web design tools.

WEB 114 - Web Scripting 3
The use and implementation of client-side scripting languages to create interactive web-based applications. Content will include using JavaScript, VBScript and other scripting languages as appropriate for creating dynamic web applications.

WEB 116 - Web Development 3
Provides enhanced instruction in the concepts, issues and techniques related to designing, developing and deploying websites. Instruction includes, but is not limited to, learning about HTML, HTML5, basic JavaScript, extensible markup language (XML), importing external videos, and cascading style sheets (CSS). The use of learning how to create sites both manually and through the use of website development software will be taught.

WEB 117 - Advanced Web Development 3
Prerequisite: WEB 116 with a grade of C or higher. Course gives instruction in the creation of dynamic web pages through a variety of formats. These methods may include, but are not limited to, hypertext preprocessor (PHP), structured query language (MySQL), active server pages (ASP), extensible markup language (XML), ColdFusion, and file transfer protocol (FTP).

WEB 118 - Digital Imaging 3
Provides extensive instruction in the creation and manipulation of images through the software package Adobe Photoshop. Course is aimed at the Photoshop beginner who wants to create sophisticated graphics for both print and web. Special emphasis on tools, selections, masking, photo treatment and design will be discussed.

WEB 120 - XML 3
Instruction includes learning to use and implement XML standards in web page creation. XML is a language for storing and delivering information on the web. Basic concepts of XML along with delivery methods for developing dynamic HTML documents that maximize the use of browser capabilities will be taught.

WEB 130 - Media Productions 3
Students will learn to create multimedia presentation videos and to edit videos as well as authoring, interfacing and implementing the fundamentals of video production.

WEB 160 - Portfolio Design 3
Instruction in designing a professional, informative and effective DVD portfolio that highlights the experience and knowledge gained from courses taken at SFCC. Design focuses on, but is not limited to, projects created in the CIS and WEB program courses. This DVD portfolio will be used so prospective employers can gain a better understanding of the student's technical skills and the subject matter learned.

WEB 175 - Web Development Internship 4
Prerequisite: Consent of program coordinator. Provides on-the-job work experience in web development. Supervised and evaluated by the instructor.

WELDING

WELD 101 - Introduction to Welding 4
Basic course beginning with instruction in the technical knowledge and skills required for oxyacetylene cutting, plasma arc cutting, shielded metal arc welding, flux core arc welding, and gas 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. (1 lecture, 3 lab)

WELD 102 - Structural Welding 4
Prerequisite: WELD 101. Basic course using the American Welding Society (AWS) D1.1 Structural Welding Code with AWS welder qualifications included. Course includes out of position welding on plate with the shielded metal arc welding, flux core arc welding and gas metal arc welding processes. The computer numerically controlled (CNC) plasma arc cutting process is introduced. (1 lecture, 3 lab)

WELD 103 - Pipe Welding 4
Prerequisite: WELD 102. Advanced technical welding course utilizing the American Society of Mechanical Engineers Section (ASME) 9 code for pipe welding with ASME welder qualification included. The course of study is the welding of pipe, using the shielded metal arc process in all positions. (1 lecture, 3 lab)

WELD 104 - TIG Welding 4
Prerequisite: WELD 101 with a grade of B or higher or WELD 102 with a grade of C or higher. Advanced technical welding course structured primarily for specialized welding operations requiring a high degree of skill. Students will study the use of gas tungsten arc welding of ferrous and nonferrous metals in all positions according to the applicable code. (1 lecture, 3 lab)

WELD 105 - Advanced Pipe Welding 4
Prerequisites: WELD 103 with a grade of C or higher and WELD 104. Corequisite: WELD 104. Course will utilize the gas tungsten arc welding (GTAW also known as TIG) process for joining pipe. ASME Section 9 will be the governing code with welder qualifications available for the successful student. (1 lecture, 3 lab)

WELD 114 - Structural Layout and Fabrication 3
Topics include whole numbers, number systems, dimensions, measurement, fractions, volume, weight, precision, accuracy, and percentages. In addition to teaching basic math concepts, the problems will give students a preview of the types of welding-related situations they will face in a work environment. Students will develop solid troubleshooting skills that will serve them throughout their careers as welders. (1 lecture, 2 lab)

WELD 116 - Print Reading for Welders 3
Study of symbols including AWS and ISO industry standards, measurement systems, terminology, and prints and diagrams associated with work performed by welders in the welding industry. Course includes reading basics prints, math and measurements, welding processes, types of welds and joints, welding symbols, shop drawings, assembly drawings, detail drawings, auxiliary views, detail views, projections, and sections.

WELD 160 - Welding Fabrication 4
Prerequisites: WELD 102, WELD 116 and WELD 114 or MATH 107 or equivalent placement score. An advanced, comprehensive class designed to put the skills obtained in the areas of welding, print reading, layout, and shapes to practical use and provide additional instruction on welding fabrication, weldments, and fixtures. Upon completion students will be able to fabricate a metal weldment using layout methods, prints and a weldment fixture. (1 lecture, 3 lab)

WELD 165 - CNC Plasma Cutting 3
Prerequisite: EDT 111 with a grade of C or higher. Students will be introduced to basic numerical control software and programming. Students will write several programs and use computer aided drafting (CAD) to communicate with the plasma cutting system. Students will program and cut two-dimensional parts and learn how to troubleshoot the equipment for problems.

WELD 180 - Problems in Welding 1 to 8
Prerequisite: Consent of program coordinator. Independent study of a special problem in welding under the supervision of a welding instructor.

WELLNESS

WELL 116 - 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 will fulfill the wellness requirement.

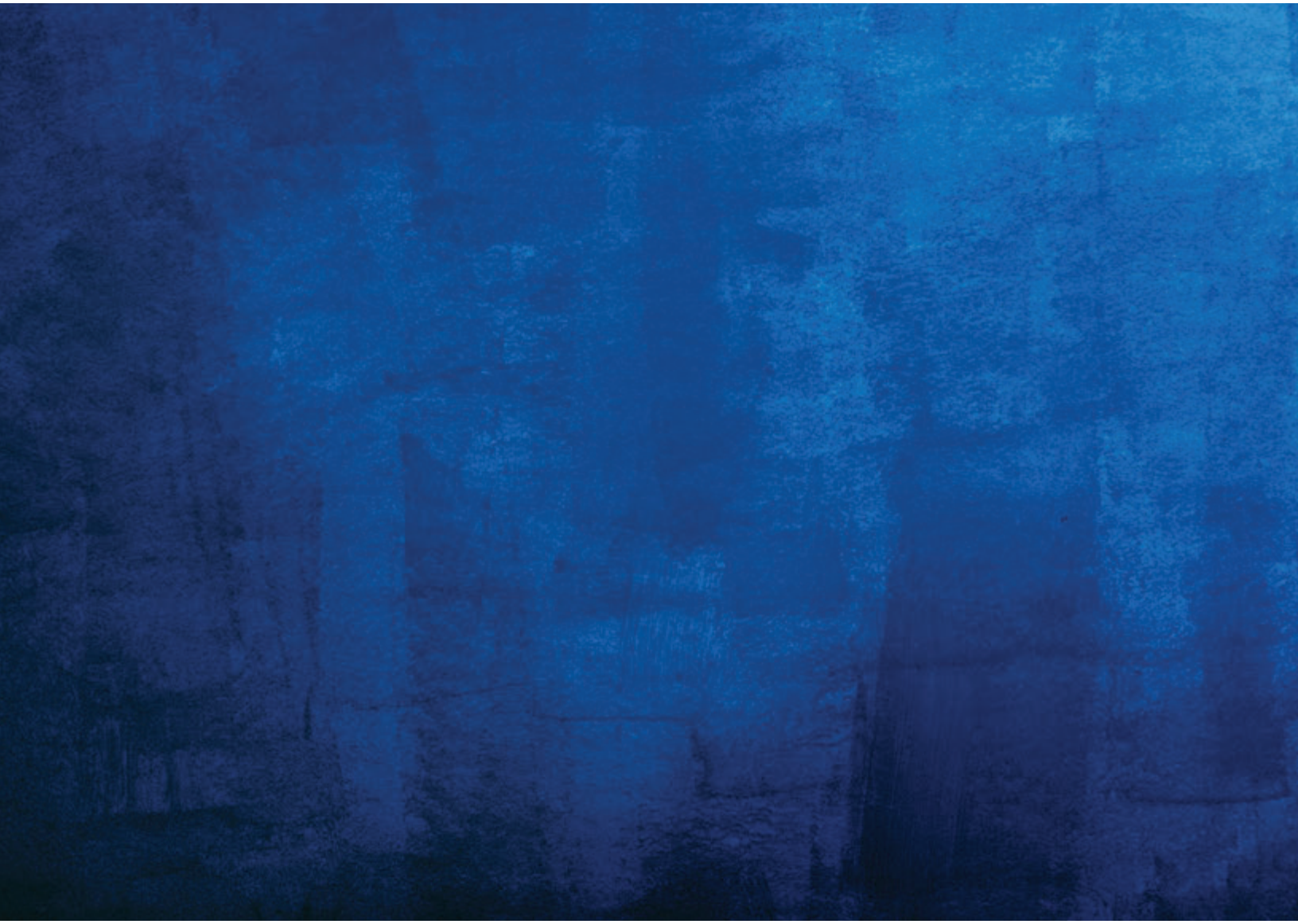
WELL 117 - Building Fitness for Life II 1
Prerequisite: WELL 116. Course expands the student's knowledge and ability to develop a comprehensive plan of lifetime wellness utilizing fitness training. Course will fulfill the wellness requirement.

WELL 118 - Aerobics .5 to 1
Complete fitness program designed to combine exercise and fun. Course will fulfill the wellness requirement.

WELL 119 - Low Impact Aerobics 1 to 1.5
Fitness program designed for anyone who wants to minimize the risk of injury but still enjoy an aerobic workout. Course will fulfill the wellness requirement.

WELL 121 - Women and Health 1
Designed to provide students 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 effects on health and wellbeing 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 will fulfill the wellness requirement.

WELL 122 - Applied Wellness 1
A different type of physical education activity course that can be enjoyed by any or all students regardless of age or physical condition. Designed to provide students with theoretical and practical experiences focusing on the relationship of lifestyle to productivity and quality of life. Course will fulfill the wellness requirement.



State Fair
Community College

[SECTION 3]

[ADDENDUM]

Course Prerequisite/Description Changes

» Diagnostic Medical Sonography
» Health Information Technology
» Mathematics

Course Additions

✚ Industrial Electrical Maintenance
✚ Machine Tool
✚ Student Success

Course Inactivations

✖ Service Education

✚ Additions
» Changes
✖ Deletions

State Fair Community College

DIAGNOSTIC MEDICAL SONOGRAPHY

DMS 103 - Cardiac Ultrasound I 3
Prerequisite: Admission to DMS program or consent of program director. Introduction to cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and an introduction to pathology.

DMS 113 - Cardiac Ultrasound II 3
Prerequisite: DMS 103 with a grade of B or higher or consent of program director. Continuation of DMS 103. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

DMS 120 - Sonography Principles and Instrumentation I 3
Prerequisite: Admission to DMS program or consent of program director. Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered.

DMS 122 - Sonography Principles and Instrumentation II 3
Prerequisite: DMS 120 with a grade of C or higher or consent of program director. Continuation of DMS 120. Comprehensive instruction on acoustic physics, Doppler ultrasound principles, hemodynamics, and ultrasound instrumentation. Bioeffects, safety and the interactions between ultrasound and tissues will be presented. Quality assurance, quality improvement and sonography department protocols will also be covered. This course will include Sonography Principles and Instrumentation (SPI) registry review material and mock exams.

DMS 123 - Cardiac Ultrasound III 3
Prerequisite: DMS 113 with a grade of B or higher or consent of program director. Continuation of DMS 113. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology.

DMS 130 - General Sonography I 2
Prerequisite: Admission to DMS program or consent of program director. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures, and non-cardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 132 - General Sonography II 2
Prerequisite: DMS 130 with a grade of B or higher or consent of program director. Continuation of DMS 130. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and non-cardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

DMS 133 - Cardiac Ultrasound IV 3
Prerequisite: DMS 123 with a grade of B or higher or consent of program director. Continuation of DMS 123. Cardiac ultrasound fundamentals including principles of imaging, scan modes, cardiac anatomy and physiology, embryology, evaluation methods, and hemodynamics. Discusses diagnostic adult cardiac ultrasound including normal appearance, scanning techniques, patient care, and pathology. Will include an introduction to pediatric echo.

DMS 134 - General Sonography III 2
Prerequisite: DMS 132 with a grade of B or higher or consent of program director. Continuation of DMS 130 and DMS 132. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human abdomen, superficial structures and noncardiac chest. Pathology and pathophysiology specific to the general concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the human thoracic, abdominal and superficial anatomy will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Abdominal Sonography registry review material and mock exams.

DMS 140 - OB/GYN Sonography I 2
Prerequisite: Admission to DMS program or consent of program director. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

DMS 142 - OB/GYN Sonography II 2
Prerequisite: DMS 140 with a grade of B or higher or consent of program director. Continuation of DMS 140. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the

obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented.

» DMS 144 - OB/GYN Sonography III 2
Prerequisite: DMS 142 with a grade of B or higher or consent of program director. Continuation of DMS 140 and DMS 142. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human gravid and nongravid pelvis. Pathology and pathophysiology specific to the obstetrics and gynecology concentration will be presented. Recognition of the normal and abnormal sonographic appearances of the female human gravid and nongravid pelvis will be taught. Best practice examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. Human embryology as appropriate will be presented. This course will include OB/GYN registry review material and mock exams.

» DMS 150 - Vascular Sonography I 2
Prerequisite: Admission to DMS program or consent of program director. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

» DMS 152 - Vascular Sonography II 2
Prerequisite: DMS 150 with a grade of B or higher or consent of program director. Continuation of DMS 150. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed.

» DMS 154 - Vascular Sonography III 2
Prerequisite: DMS 152 with a grade of B or higher or consent of program director. Continuation of DMS 150 and DMS 152. Course includes a brief review of the anatomy, physiology and sectional anatomy of the human venous and arterial systems. Pathology and pathophysiology specific to the vascular concentration will be presented. Recognition of the normal and abnormal sonographic appearances of human vascular anatomy will be taught. Best practice direct and indirect examination methods utilizing ultrasound technology are presented. Basic exam protocols will be discussed. This course will include Vascular Sonography registry review material and mock exams.

HEALTH INFORMATION TECHNOLOGY

» HIT 204 - Coding I 3
Prerequisites: BIO 103, HEOC 120 and HEOC 122 with grades of C or higher. Corequisite: HIT 224 with a grade of C or higher. Overview of the (International Classification of Diseases, 10th Division, Clinical Modification) ICD-10-CM code book with basic coding assignment/guidelines instructions and the basic reimbursement methodologies, specifically diagnosis related groups (DRGs). Initial preparation for CCA Exam - AHIMA.

MATHEMATICS

» MATH 110 - Intermediate Algebra with Review 5
Prerequisite: MATH 061 with a grade of C or higher or equivalent placement score. Course is designed to provide just-in-time structured support through practice and review of beginning algebra concepts. Topics include linear equations, inequalities, and their graphs, systems of equations in two unknowns, absolute value equations, rules of exponents, operation on and factoring of polynomials, rational expressions and equations, rational exponents, radicals and their equations, complex numbers, and solving quadratic equations using various techniques.

» MATH 112 - Intermediate Algebra 3
Prerequisite: Equivalent placement score. Topics include linear equations, inequalities, and their graphs, systems of equations in two unknowns, absolute value equations, rational expressions and equations, rational exponents, radicals and their equations, complex numbers, and solving quadratic equations using various techniques.

INDUSTRIAL ELECTRICAL MAINTENANCE

✚ IEM 109 - Robotics Automation Technician I 3
Prererquisite: IEM 107 with a grade of C or higher. Course is designed to provide more hands on experience and exercise for programming six axis robotic arms. Students will learn the programming functions beyond basics, and explore more operational performance features of robotics using a input sensory systems. Course will provide hands on exposure using an industrial robot(s).

MACHINE TOOL

✚ MACH 107 - Introduction to CNC Programming 3
Prerequisite: MACH 106 with a grade of D or higher. Includes basic programming of the CNC turning and machining centers. Each student will gain the following skills; creating and editing basic CNC programs, the use of canned cycles, cutter compensation, programming lineal and circular interpolation, and safe setup and operation of machine tools.

✚ MACH 109 - Advanced CNC Machining 3
Prerequisite: MACH 106 with a grade of C or higher. Provides technical information and considerable practical experience in preparation, setup and operation of CNC machining center and CNC lathe. Proofing, editing and post processing of programs will be emphasized using computer aided manufacturing (CAM) software. Tooling and tool path generation methods will be explained along with fixed and canned cycles. (1 lecture, 2 lab)

STUDENT SUCCESS

✚ SS 225 - Problems in Leadership through Cultural Experiences 3
Prerequisite: Consent of instructor. Spring semester only. Independent study of a special problems relating to various leadership themes and principles to foster interaction in a global society under the supervision of an instructor in a related discipline.

SERVICE EDUCATION

✖ SRVE 201 - Emerging Leaders II 1

✖ SRVE 180 - Problems in Service Learning and Leadership 1 to 3

[SECTION 3]

[ADDENDUM]

Course Prerequisites/Descriptions

Course Changes

- DH 108
- FREN 101
- MATH 110
- MATH 112
- SPAN 101

Course Additions

- AUTO 130
- NURS 211

Course Reinstatement

- COMM 114

✚ Additions
» Changes
❖ Reinstatements

State Fair Community College

AUTOMOTIVE

✚ AUTO 130 - Introduction to Light Duty Diesel 3
To give students a better understanding of how the automotive diesel engine functions, list and recognize the different components of a diesel engine compared to gas engines, discuss the differences in diagnostic procedures for the automotive diesel engine and its complex emission system. (2.1 lecture, .90 lab)

COMMUNICATIONS

❖ COMM 114 - News reporting I 3
Prerequisite: ENGL 070 with a graade of C or higher or equivalent placement scores. Includes the examination of news value, rights and responsibilities of the press, news gathering and reporting techniques, leads, interviewing, style, and specialized articles.

DENTAL HYGIENE

❱❱ DH 108 - Oral Anatomy and Histology 3
Course is designed to prepare dental hygiene students for the application of detailed knowledge about oral anatomy to planning, implementation, assessment, and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head and neck anatomy and its relationship to tooth development, eruption and health.

FRENCH

❱❱ FREN 101 - Elementary French I 3
Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the French culture.

Note: Missouri Higher Education Core Curriculum (CORE 42)
Course Number: MOTR LANG 101 - French I

For additional information: https://dhe.mo.gov/core42.php

MATHEMATICS

❱❱ MATH 110 - Intermediate Algebra with Review 5
Prerequisite: Equivalent placement score. This course is designed to include review of some essential mathematical concepts while providing structured support through practice and review. Topics include linear equations, inequalities, and their graphs, systems of equations in two unknowns, absolute value equations, rules of exponents, polynomials, rational expressions and equations, rational exponents, radicals and their equations, complex numbers, and solving quadratic equations using various techniques.

❱❱ MATH 112 - Intermediate Algebra 3
Prerequisite: Equivalent placement score. Topics include linear equations, inequalities, and their graphs, systems of equations in two unknowns, absolute value equations, rational expressions and equations, rational exponents, radicals and their equations, complex numbers, and solving quadratic equations using various techniques. (3 lecture)

NURSING

✚ NURS 211 - Paramedic Transition Course 2
Prerequisite: Acceptance to Year Two of the Associate Degree Nursing (ADN) program. Course is designed to build upon existing knowledge and skill obtained from a formal paramedic education program. Utilizing outcome-based curriculum, the advanced placement student learns to apply nursing knowledge, skills, and attitudes to provide high-quality, safe, and effective care. The student transitioning into the ADN program will have opportunities to demonstrate competency in the application of the nursing process, display expected professional behaviors, examine the dynamics of the healthcare team, and utilize nursing skills. This course will emphasize and explore the importance of evidence-based practice, cultural awareness, health promotion, and care considerations for clients across the lifespan. Completion of the course with a grade of B or higher is required to continue into the ADN program.

SPANISH

❱❱ SPAN 101 - Elementary Spanish I 3
Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the Spanish culture. Concentrates on the present indicative tense with the course conducted primarily in Spanish.

Note: Missouri Higher Education Core Curriculum (CORE 42)
Course Number: MOTR LANG 103 - Spanish I

For additional information: https://dhe.mo.gov/core42.php

[SECTION 3]

[ADDENDUM]

Lecture/Lab Change
» DH 117

Course Description Changes
» EDUC 240
» HIST 101
» HIST 102
» MATH 061
» POLS 101

Prerequisite Changes
» BSMT 108
» BSMT 185
» CIS 185
» ENGL 110

✚ Additions
» Changes
✖ Deletions

New Courses
✚ AUTO 102
✚ AUTO 104
✚ AUTO 120
✚ DMS 127
✚ DMS 145
✚ DMS 155
✚ DMS 165
✚ FIRE 130
✚ FIRE 131
✚ FIRE 132
✚ FIRE 133
✚ FIRE 134
✚ FIRE 135
✚ FIRE 136
✚ FIRE 137
✚ FIRE 138
✚ FIRE 139
✚ FIRE 140
✚ FIRE 141
✚ FIRE 175
✚ GERM 101
✚ POLS 109
✚ STEM 110

Course Inactivations
✖ DMS 105
✖ DMS 115
✖ DMS 117
✖ DMS 125
✖ DMS 135
✖ HIT 110
✖ POLS 102

CORE 42 Course Additions
CJ 102
COMM 110
SOC 101
SOC 120
ART 116
ART 122
ART 126
THEA 110
THEA 111
THEA 131

No longer CORE 42 Courses
COMM 103
COMM 105

State Fair Community College

ART

ART 116 - Painting I
Entry-level art course for both art majors and anyone interested in beginning painting. Foundation course that concentrates on painting as an expressive medium and is designed to allow students to explore a variety of subject matter and experiment with painting techniques in a search for personal artistic identity.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 105P – Painting I

ART 122 - Sculpture I
Develops insight into the principles of sculptural organization and stresses individual development of three-dimensional forms.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 105S – Sculpture I

ART 126 - Ceramics I
Introduces 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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 105C – Ceramics I

AUTOMOTIVE

✚ AUTO 102 - Introduction to Automotive Industry
Students will learn the application of math in automotive, i.e: equations for Ohm's Law, bore, stroke and other component measurements, and in specification/out of specification measurements. The application of science in automotive with emphasis in safety of chemical handling, physics associated with inertia, force, and friction; the effect of displacement to power and electro-mechanical hydraulics. Students will also learn proper tool nomenclature, identification and usage. (*1.5 lecture, 1.5 lab*)

✚ AUTO 104 - Introduction to Automotive Technology
Many fundamental principles necessary for laying a foundation in the automotive program are covered, including shop safety; hazardous materials and environmental issues; hand tools; measuring tools; hardware and math related to the automotive industry; career and industry specific information; and an overview of many of the automotive systems. Real-world fixes and tech tips are included throughout to help illustrate how real problems are solved. Each new topic covers the preventive maintenance requirements for various components and automotive systems, including the purpose, function and operation, as well as how to service each system. (*1 lecture, 3 lab*)

✚ AUTO 120 - Advanced Electrical Systems Diagnosis
Prerequisites: AUTO 104, AUTO 116 and AUTO 118 with grades of C or higher. This course is lab only to allow students to diagnosis faults previously set in training vehicles and faults in real world customer vehicles using technological advanced industry standard diagnostic equipment and service information. (*4 lab*)

BUSINESS MANAGEMENT

BSMT 108 - Principles of Management 3
Prerequisite: Equivalent reading placement score into ENGL 070. Introduction to role of management and supervision. Examines the concepts and the practical application of fundamental supervisory skills such as planning, problem solving, motivation, staffing, leadership, training, managing conflict, and providing effective performance reviews.

BSMT 185 - Project Management 3
Prerequisite: Equivalent reading placement score into ENGL 070. Course will help students understand why organizations have developed a formal project management process to gain a competitive advantage. It covers concepts and skills that are used by managers to propose, plan, secure resources, budget, and lead project teams to successful completion of their projects. The text is structured to meet the needs of those wishing to prepare for the PMP or CAPM certification exams. Same as CIS 185.

COMMUNICATION

COMM 110 - Introduction to Mass Communication
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.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR SBSC 100 - Introduction to Mass Communications

COMPUTER INFORMATION SYSTEMS

CIS 185 - Project Management 3
Prerequisite: Equivalent reading placement score into ENGL 070. Course will help students understand why organizations have developed a formal project management process to gain a competitive advantage. It covers concepts and skills that are used by managers to propose, plan, secure resources, budget, and lead project teams to successful completion of their projects. The text is structured to meet the needs of those wishing to prepare for the PMP or CAPM certification exams. Same as BSMT 185.

CRIMINAL JUSTICE

CJ 102 - Introduction to Criminal Justice
Examines the history, development and function of the criminal justice system in America. Will examine the three major components of the system: police, courts and corrections, as well as their interrelationships.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR CRJS 101 - Introduction to Criminal Justice

DENTAL HYGIENE

❯❯ DH 117 - Commuity Dental Health II .5
Emphasis on the steps to developing community dental health programs, including health promotion programs. Local, state and federal departments of public health services, types of fluoridation and school-based dental health programs and screenings will be presented. Evidence-based decision-making will be applied to the dental public health setting. (0 lecture, .5 lab)

DIAGNOSTIC MEDICAL SONOGRAPHY

✚ DMS 127 - Ultrasound Lab II 4
Prerequisite: DMS 107 with a grade of B or higher or permission of program director. Instructional lab consisting of hands-on scanning sessions in the Diagnostic Medical Sonography lab. Practical basic preparation for student's clinical education experience. Students admitted as non-local will complete these credit hours in a clinical setting. All students will complete assignments and tests as assigned by the lab instructor.

✚ DMS 145 - Sonography Clinical I 3
Prerequisite: DMS 127 with a grade of B or higher or permission of program director. Beginning internship of the Diagnostic Medical Sonography profession. Students will be assigned to a clinical site(s) and will actively participate in the daily activities and patient examinations of an ultrasound department under the direct supervision of a registered sonographer. Students will begin obtaining scan competencies in this course. They must properly document hours spent in the clinical site and log all observed and performed exams. Students must complete clinical hours and scanning competencies as outlined in the DMS Student Handbook. All assigned hours must be completed by the end of the semester.

✚ DMS 155 - Sonography Clinical II 7
Prerequisite: DMS 145 with a grade of B or higher or permission of program director. Internship of the Diagnostic Medical Sonography profession. Students will be assigned to a clinical site(s) and will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly document hours spent in the clinical site and log all observed and performed exams. Students must complete clinical hours and scanning competencies as outlined in the DMS Student Handbook. All assigned hours must be completed by the end of the semester.

✚ DMS 165 - Sonography Clinical III 7
Prerequisite: DMS 155 with a grade of B or higher or permission of program director. Final internship of the Diagnostic Medical Sonography profession. Students will be assigned to a clinical site(s) and will actively participate in the daily activities and patient examinations of an ultrasound department under the supervision of a registered sonographer. Students will obtain scan competencies in this course. They must properly document hours spent in the clinical site and log all observed and performed exams. Students must complete clinical hours and scanning competencies as outlined in the DMS Student Handbook. All assigned hours must be completed by the end of the semester.

EDUCATION

❯❯ EDUC 240 - Multicultural Education 3
Prerequisite: ENGL 101 with a grade of C or higher. Course is designed to examine the multicultural context of education and prepare students to understand and teach learners from diverse backgrounds, with diverse characteristics, and with differing social identities. The course will address issues of educational equity, sociocultural influences on teaching and learning, and how teachers and schools can contribute to interpersonal and intercultural understanding and respect, social justice, and democratic citizenship.

ENGLISH

✚ ENGL 110 - Business Communications 3
Prerequisites: ENGL 060 with a grade of C or higher or equivalent placement scores. In-depth study of effective communication techniques and demeanor as applied in business situations. Topics may include the communication process, various business letters, oral presentations, and international communication.

FIRE SCIENCE

✚ FIRE 130 - Firefighter I 6
Course places emphasis on those skills and related information necessary to develop a recruit firefighter into a usable member of the firefighting team. Recruit firefighters will gain essential knowledge through both lecture and practical skill development. Topics include: fire behavior, building construction, firefighter safety, rescue, extrication, fire control, hazardous materials, and EMS. Successful completion of this course and FIRE 131 will prepare recruit firefighters for the Missouri Fire Fighter certification exam.

✚ FIRE 131 - Firefighter II 6
Course places emphasis on those skills and related information necessary to develop a recruit firefighter into a usable member of the firefighting team. Recruit firefighters will gain essential knowledge through both lecture and practical skill development. Topics include: fire behavior, building construction, firefighter safety, rescue, extrication, fire control, hazardous materials, and EMS. Successful completion of FIRE 130 and this course will prepare recruit firefighters for the Missouri Fire Fighter certification exam.

✚ FIRE 132 - Introduction to Emergency Services 3
Course provides an overview of fire protection, career opportunities in fire protection and related fields, philosophy and history of fire protection/service, fire loss analysis, organization and function of public and private fire protection services, fire departments as part of local government, laws and regulations affecting the fire service, fire service nomenclature, specific fire protection functions, basic fire chemistry and physics, introduction to fire protection systems, introduction to fire strategy and tactics.

✚ FIRE 133 - Fire Behavior and Combustion 3
Categorizes the components of fire and explains the physical and chemical properties of fire. Provides an understanding of basic fire chemistry, the fire combustion process, general fire behavior, the development of a compartment fire, and how fire behavior impacts the safety of firefighters.

✚ FIRE 134 - Fire Prevention 3
Course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built - in fire protection systems, fire investigation, and fire and life-safety education.

✚ FIRE 135 - Fire Safety and Survival 3
Course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.

✚ FIRE 136 - Building Construction for Fire 3
Course provides the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.

✚ FIRE 137 - Fire Protection Systems 3
Course provides information relating to the features of design and operation of fire alarm systems, water - based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

✚ FIRE 138 - Fire Investigations 3
Course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene analysis and interpretations, including recognizing and conducting origin and cause, preservation of evidence, evidence collection, scene documentation, scene security, motives of the fire setter, and types of fire causes.

✚ FIRE 139 - Tactics and Strategies 3
Course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. The course will cover aspects of incident command, company operations, special situations and occupancies, and post incident activities.

✚ FIRE 140 - Hydraulics and Water 3
Course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

✚ FIRE 141 - Fire Leadership 3
Course introduces the student to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis will be placed on fire service leadership from the perspective of various positions.

✚ FIRE 175 - Fire Internship 3
Provides students with the opportunity to observe and experience the operation of a selected agency within the criminal justice system. Program will require the student to spend a minimum of 120 hours with the agency during the semester as well as the completion of other requirements.

GERMAN

✚ GERM 101 - Elementary German I 3
Begins the four basic skills of language communication: listening, speaking, reading, and writing. Includes an introduction to the German culture. Concentrates on the present indicative tense with the course conducted primarily in German.

HISTORY

» HIST 101 - US History Before 1877 3
Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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. Students will also pass the Missouri Higher Education Civics Exam with a 70 percent or higher in compliance with Senate Bill No. 807.

CORE 42 MOTRANSFER GUARANTEED **Note:** Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR HIST 101 - American History I

❯❯ HIST 102 - US History Since 1877 3

Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. 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. Students will also pass the Missouri Higher Education Civic Exam with a 70 percent or higher in compliance with Senate Bill No. 807.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR HIST 102 - American History II

MATHEMATICS

❯❯ MATH 061 - Pre-Algebra 3

MATH 061 is a 3-credit hour course designed to review basic math skills in preparation for one of the following courses: MATH 101, MATH 107, MATH 110, or the Co-Requisite course combination of MATH 111/113, MATH 111/117, MATH 111/119. This course does not apply toward a degree or certificate. Students must earn a C or higher in the course (70% +) to advance to the next math class. This includes both earning at least 70% overall average and at least a 70% on the comprehensive departmental final exam. This is a developmental course designed to help students prepare for college level mathematics. The course covers arithmetic operations for rational numbers (integers & fractions), and applying: ratios/rates, proportions, percentages, and perimeter/area. In addition, students will simplify numeric and algebraic expressions, solve algebraic equations, graph linear equations, write numbers in scientific notation, and perform measurement conversions.

POLITICAL SCIENCE

✚ POLS 101 - American/National Government

Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Survey course of the government of the United States and its political values, processes and structures. Attention is given to the government's origins, politics, branches of government, rights and responsibility of the residents of the U.S. and Missouri. A study of federalism and the Missouri Constitution is included to satisfy the state requirement of Senate Bill No. 807.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR POSC 101 - American Government

POLS 109 - Civics and the Constitutions .5

Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Designed to meet the requirements of Senate Bill 807. Intended for students testing out of history or government courses or transferring these courses from another state. This is a pass/fail online course.

SOCIOLOGY

SOC 101 - Social Problems

Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Examines objective social conditions that have been defined as social problems. Focuses on gaining factual and theoretical knowledge to build better explanations for the existence and persistence of social problems in light of social controls and democratic values. Explores options for solutions to specific social problems. Topics include racial inequality, gender stratification, poverty, mass media, and education among others.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR SOCI 201 - Social Problems

SOC 120 - American Diversity

Prerequisite: ENGL 070 with a grade of C or higher or equivalent placement scores. Overview of global and American diversity resulting from cultural interactions, especially in the areas of art, government, economics, and religion, as well as a historical perspective. Students will gain a greater understanding of diversity from an individual and community perspective.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR SOCI 202 - American Diversity

STEAM

✚ STEM 110 - STEAM Explorations 3

Prerequisites: ENGL 060 and MATH 061 with grades of C or higher or equivalent placement scores. In this course, science, technology, engineering, arts, and math will be taught in an interdisciplinary and applied approach. The course will bridge STEAM content and utilize humanities skills such as critical analysis and communication. This course will lead to an in-depth understanding of STEAM current events and careers in the STEAM industry. The course will culminate with a STEAM project and exploratory learning through place-based education.

THEATRE

THEA 110 - Stagecraft and Lighting

Basics of set construction, painting, scene design, lighting design, and wood shop safety. Students will be required to spend 30 clock hours outside classroom time with direct involvement in operation of specialized theatre equipment. Required course for speech and theatre majors and minors.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF104S - Stagecraft

THEA 111 - Acting I
Intensive study of the techniques of acting with concentration on bodily movement, balance, diction, voice, and characterization.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF 100 - Acting I

THEA 131 - Script Analysis
The purpose of script analysis is to examine various methods of analyzing play scripts for performance. Specific emphasis will be placed on the working environment of the actor, director and designer in examining how a script is produced for a public performance. The course is designed to help students develop tools for use in their profession, not to survey the history of dramatic literature.

Note: Missouri Higher Education Core Curriculum (CORE 42) Course Number: MOTR PERF103SA - Script Analysis