Tulsa Community College

2009 | 2010 Catalog

Tulsa Community College

2009-2010 Catalog

Tulsa Community College

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The regulations in this bulletin are based upon conditions and are subject to change without notice.
The College reserves the right to modify any statement in accordance with unforeseen conditions.

Tulsa Community College May 2009

It is one of the operational policies of Tulsa Community College to practice non-discrimination in employment. It is against the policy of the community college to discriminate against, or exclude from participation in benefits or activities either on the staff or in the student body, any person on the grounds of race, color, religion, age, sex, disability national origin, or status as a veteran. This publication was prepared and distributed on authorization of the Tulsa Community College Regents as part of the regular work of the College. There were 20,000 copies printed by Printing Inc. at a cost of $41,307.00 ($2.03985 per copy).

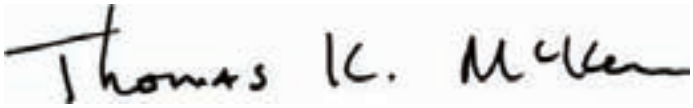
Greetings
from the President

Thank you for choosing to learn more about Tulsa Community College. You will find in this college catalog a wealth of information about TCC ranging from general information about our four campuses to specific information about the more than 200 degree and certificate programs available and the hundreds of courses taught by outstanding faculty who specialize in teaching.

It might interest you to know that TCC serves more students in higher education in northeastern Oklahoma than any other public higher education institution. More than 3,500 first-time freshmen begin their college experience at TCC each year.

Tulsa Community College is committed to facilitating student learning. We believe that we can best fulfill that commitment by providing a supportive learning-centered environment that focuses on the individual. Students tell us that they like the small class sizes and accessible faculty they find at TCC. The College's faculty and staff are second to none in providing quality education opportunities and services to our students and our community. Our faculty includes outstanding educators who have been honored by organizations including the Carnegie Foundation for the Advancement of Teaching, the Oklahoma Heritage Society, and numerous other professional educational organizations.

Let me encourage you to take some time to browse this catalog and discover all the options and opportunities that await you. On behalf of the Board of Regents, faculty, and staff, I invite you to make this your first step toward a rewarding college experience at TCC.



Dr. Thomas K. McKeon
President & CEO

OUR VISION

TCC will excel as an inclusive, engaged center of life-long learning that transforms the world by empowering learners intellectually, culturally, and socially.

Learning - for students, faculty, staff, and community member - comprises the heart of our institutional mission, and our core values ensure the primacy of learning. An aspiration without end, learning must be undertaken with passion, tended with reason, and shared with integrity. A collaborative endeavor, learning reveals the possibilities of our world, thus making our lives more meaningful and more productive.

Accordingly, our priorities are as follows:

- TCC academic programs will be timely and timeless.
- TCC will foster a dynamic, collaborative intellectual environment wherein students are fully engaged in the learning process, thereby becoming independent, globally aware, life-long learners.
- TCC will nurture the development of the whole student.
- TCC will promote professional development among faculty and staff.
- TCC will enrich the community through active participation and dedicated leadership in the public sphere.
- TCC will secure the financial and human resources necessary to achieve our vision.

CORE VALUES

As an educational institution charged with providing lifelong learning opportunities for its students and its community, Tulsa Community College identifies integrity and quality as the cornerstones upon which all other values rest - shaping both priorities and decision making throughout the institution.

Student Success is the reason TCC exists. We strive for all students to be successful in their educations and we strive for the education to effectively prepare students for their lives. Learning is the focus because it is the essence of an institution of learning.

Excellence drives us. We strive to provide excellent education to our students, excellent resources to our community, and excellent administration and management for our employees.

Stewardship guides our daily decision-making. We investigate community needs and expectations and then respond by providing quality education that is responsive, convenient and affordable.

Innovation sparks our creativity and ensures that the hearts and minds of our students, faculty, staff and administration are actively engaged in acquiring learning, increasing our knowledge, and leading the community forward.

Diversity is our common bond. Sincere appreciation for and cultivation of differences enriches our lives, the community, and the education we offer. It is a source of our pride and integral to our success.

OUR MISSION

Tulsa Community College betters its community through the intellectual achievement, creative energy, and responsible citizenship of its students, faculty, and staff by their engagement in teaching, learning, and service opportunities that transform and enrich lives. Tulsa Community College commits to innovative, flexible, and affordable public higher education that responds to a dynamic global environment.

OUR FUNCTION WITHIN OUR COMMUNITY

The mission of Tulsa Community College as defined by the Oklahoma State Regents for Higher Education is to:

- Provide general education for all students.
- Provide education in several basic fields of university-parallel study for those students who plan to transfer to a senior institution and complete a bachelor's degree.
- Provide one and two-year programs of workforce development education to prepare individuals to enter the labor market.
- Provide programs of remedial and developmental education for those whose previous education may not have prepared them for college.
- Provide both formal and informal programs of study especially designed for adults and out-of-school youth in order to serve the community generally with a continuing education opportunity.
- Carry out programs of institutional research designed to improve the institution's efficiency and effectiveness of operation.
- Participate in programs of economic development with comprehensive or regional universities toward the end that the needs of each institution's geographic service area are met.

The College is committed to excellence in instruction, student services, and programs relevant to the needs and interests of the greater Tulsa area. Tulsa Community College offers educational opportunities leading to Associate Degrees, Certificates of Achievement, and/or self-improvement in a supportive learning environment conducive to the development of the student's potential. Tulsa Community College will develop a globally and multi culturally competent citizenry to ensure the survival and well-being of our community.

ACADEMIC CALENDAR 2009-2010

16 WEEK SEMESTER	FALL SEMESTER 2009	SPRING SEMESTER 2010	SUMMER SEMESTER 2010
Enrollment, Schedule Adjustment and Fee Payment Deadline	March 30 - August 17 Monday - Monday	October 26 - January 11 Monday - Monday	April 5 - June 7 Monday - Monday
Enrollmen, Add, Drop & Fee Continues	August 17 - 23 Monday - Sunday**	January 11 - 17 Monday - Sunday**	June 7 - 13 Monday - Sunday**
Classes Begin	August 17 - 23 Monday	January 11 - 17 Monday	June 7 Monday
100% Refund on Drop(s)* *See other terms noted below	August 17 - 28 Monday - Friday	January 11 - 22 Monday - Friday	June 7 - 13 Monday - Sunday
Labor Day, Martin Luther King Jr. Day & Memorial Day (College is closed)	September 7** Monday	January 18** Monday	May 31** Monday
Deadline to file for Graduation	October 30 Friday	March 26 Friday	July 9 Friday
Last day to change from credit to audit & last day to withdraw with 'W'	November 6 Friday	April 9 Friday	July 16 Friday
Thanksgiving, Spring Break & Independence Day (No Classes)	November 25 - 29** Wednesday - Sunday	March 15 - 21 Monday - Sunday	July 5** Monday
Final Examinations	December 5 -11 Saturday - Friday	May 1 - 7 Saturday - Friday	July 28 - 30 Wednesday - Friday
Graduation		May 7 Friday	
Semester Closes	December 13 Sunday	May 9 Sunday	August 1 Sunday
Winter Break** (College is closed)	December 24 - January 3 Thursday - Sunday**		
Fall Term* **First 8-week session begins** Last day to withdraw and/or change from credit to audit **First 8-week session ends** **Second 8-week session begins** Last day to withdraw and/or change from credit to audit **Second 8-week session ends** **16-week session ends**	August 17, Monday September 25, Friday October 9, Friday October 10, Saturday November 20, Friday December 11, Friday December 11, Friday		
Spring Term* **First 8-week session begins** Last day to withdraw and/or change from credit to audit **First 8-week session ends** **Second 8-week session begins** Last day to withdraw and/or change from credit to audit **Second 8-week session ends**		January 11, Monday February 19, Friday March 5, Friday March 6, Saturday April 23, Friday May 7, Friday	
Intersession Term* begins Last day to withdraw and/or change from credit to audit **Intersession Term* ends**			May 10, Friday May 28, Friday June 4, Friday

*Classes of a duration less than a regular semester will have different enrollment dates, refund policies, etc.
Schedule adjustment or 100% refund on a drop: 8-week terms - the first week of the term and for short courses it is prior to the second day of class for internet classes or before 5pm of the next regular work day for all other classes.
**College Closed - Use automated systems to add, drop or pay daily hours 7 AM - 11 PM. Go to TCC home page: www.tulsacc.edu, click on TED.

GENERAL INFORMATION

College Overview

Tulsa Community College has served Tulsa and the surrounding communities since 1970. Since its inception, TCC has established a tradition of offering students a personal approach to higher education, an education that is designed to be practical and useful. When the College first opened its doors in September 1970, initial enrollment was 2,800 students. In the 38 years that the College has served the Greater Tulsa area, TCC has provided quality educational services to more than 450,000 people.

For the eighth consecutive year, TCC is ranked in the top two percent of more than 1,150 community colleges nationally in the number of associate degrees awarded in all disciplines. TCC serves more students in higher education in northeastern Oklahoma than any other public college or university. The College is regularly among the state's top three institutions in first-time college freshman enrollment.

The largest two-year college in Oklahoma, TCC serves approximately 27,000 students per semester in college credit and continuing education classes. Of the first-time freshmen enrolling in a public college or university within the Oklahoma State System for Higher Education in recent years, sixty-five percent (65%) of the Tulsa County students begin their college education at Tulsa Community College.

TCC has four campuses in operation: the Metro Campus, located in the heart of downtown Tulsa; the Northeast Campus, located at Apache and North Harvard; the Southeast Campus, located at 81st and Highway 169; and the West Campus, at 7505 W. 41st Street. In addition, the Education Outreach Center at 21st and Garnett provides a variety of services to students in that neighborhood.

Tulsa Community College is recognized as the leader in Oklahoma in the offering of distance learning classes, including telecourses, online courses of varying lengths from 1 to 16 weeks, and interactive television. The primary reasons for TCC's growth are:

- Wide variety of courses
- Qualified and dedicated faculty
- Emphasis on student learning
- Low cost
- Day, evening, and weekend classes
- Located close to home and/or work
- Career guidance and advisement program
- Job placement service
- Comprehensive services for part-time as well as for full-time students

The College provides programs of study for people who are:

- Preparing to transfer to the junior level at a four-year college or university
- Preparing for specific occupational careers
- Retraining or updating in specific career skills
- Seeking continuing education opportunities
- Needing developmental or remedial programs in basic skills

Tulsa Community College programs are designed to prepare students for advanced studies or careers in their chosen fields of interest. For many students, the College remains an ongoing source of continuing education.

Why Should I Go To Tulsa Community College?

You don't have to leave home or friends to get a good college education. You can find it right here. Tulsa Community College, one of the largest and most comprehensive community colleges in the country, has a reputation for offering academic quality at a reasonable cost. Our faculty members dedicate themselves to teaching and offer students the individual attention needed in any academic pursuit. Our many choices in courses give you flexibility to explore your interests.

How Much Does It Cost?

The combined tuition and fees for Oklahoma residents is only approximately $90.15* per credit hour. Costs could range from approximately $90.15* for a one-credit course to $2163.60* for tuition and fees for a full-time student (12 credit hours a semester) for a full academic year. For example, if you enroll in a three-credit history course, the cost would be approximately $270.45*.

*Tuition and fees are subject to change. Lab, ID fee, admission fee, international student fee, parking fees and book costs are not included.

Can I Get Financial Aid?

Financial aid bridges the gap between your resources and the cost of attending Tulsa Community College. The Financial Aid and Scholarship Office offers many ways to assist students in financing their educational costs. Financial aid is made available through grants, scholarships, loans, and part-time employment from federal, state, institutional, and private sources. To apply for financial aid, you should obtain a Free Application for Federal Student Aid, a Financial Aid Application Form, a Tuition Waiver Application and/or Scholarship Application from any campus Financial Aid and Scholarship Office.

What Degrees Are Offered?

Tulsa Community College awards three degrees: Associate in Arts, Associate in Science, and Associate in Applied Science. Each degree requires the completion of a program of study totaling a minimum of 60 credit hours. A full-time student can complete degree requirements in two years or less, but many of our students are employed and take longer. Certificate programs are designed for students who are not currently studying for an associate degree but who want certification that they have completed a program of study.

Who Can Attend?

You are eligible to enroll at Tulsa Community College if you are a graduate of an accredited high school or at least 18 years of age and capable of benefiting from the courses offered. Admissions/Enrollment Services may grant special permission to others. Prior to registration, your official transcripts should be sent to any Admissions/Enrollment Service Office directly from the high school or college you previously attended. Also, CPT, ACT, SAT or a similar battery of tests should be taken before you enroll. Students meeting the criteria can enroll at TCC while in high school, as a high school concurrent student.

What If I Enroll and Then Can't Attend?

Students who enroll at Tulsa Community College will be charged tuition unless they complete all formal withdrawal procedures during the applicable withdrawal period for their course(s).
See withdrawal procedures on page 23 and academic calendar on page 8.

Will My Courses Transfer?

All state-supported four-year colleges and universities **in Oklahoma** have an articulation agreement with Tulsa Community College. This means that if you earn the Associate in Arts (A.A.) or Associate in Science (A.S.) degree at Tulsa Community College, you automatically satisfy the **general education requirements** of these four-year colleges or universities. The articulation agreement does not apply to out-of-state colleges/universities or to private Oklahoma colleges/universities. Any student who wants to be assured that a specific course, group of courses, or degree program will transfer **for equivalent credit** should work with a TCC academic advisor or contact the senior transfer institution fro academic advisement. Many courses in workforce development Certificate of Achievement or Associate in Applied Science (A.A.S.) degree programs will also transfer. Again, students who want to be assured that a specific course, group of courses, or workforce degree program will transfer for equivalent credit should work with a TCC academic advisor or contact the senior transfer institution for academic advisement.

What About Student Activities?

Student Activities provide a multitude of programs in the areas of education, recreation, entertainment, discounts, and services. Students can participate in league sports, free movies, family events, lectures and discount theatre tickets — just to name a few. The Student Union on each campus provides a relaxed and enjoyable atmosphere. Students can also get involved in student government or join any of the student organizations offered on each campus. Most activities are free and designed to enhance the social, recreational, and educational aspects of your college life. Each campus has a Wellness-Fitness Center where students may take classes or engage in independent fitness activities.

ACCREDITATION

Tulsa Community College is accredited by the Oklahoma State Regents for Higher Education (655 Research Parkway, Suite 200, Oklahoma City, OK 73104; 405-225-9100) and the Higher Learning Commission, (www.ncahigherlearningcommission.org or 1-312-263-7462). The College is a member of the American Association of Community Colleges, the North Central Council of Two-Year Colleges and is also approved by the federal government to offer education under the Veterans and Social Security laws. Some programs at TCC receive accreditation approval from additional organizations or agencies. These programs are listed below.

Tulsa Community College supports all accreditation processes for the purpose of program education and improvement in order to maximize student achievement. The College recognizes that participation in the rigorous and detailed self-study activities necessary for accreditation assures quality programs that will reflect the preparation necessary for our graduates to successfully transition to the workplace.

Tulsa Community College continuously strives to maintain good standing with each accrediting organization or agency by voluntarily complying with all accreditation criteria. This includes the timely submission of required fees and any documentation requested by the accrediting agency. Tulsa Community College will also notify the appropriate accrediting body of any changes in program leadership, administrative structure, significant decreases in resources available to the program, substantive changes in class size, curriculum pattern or the establishment of an expansion program.

PROGRAM	NAME OF ACCREDITING GROUP	STATUS
Dental Hygiene	**American Dental Association Commission on Dental Accreditation** (800) 621-8099 211 E. Chicago Avenue Chicago, IL 60611	Full Approval
Health Information Technology*	**Associate Degree Program** **Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)** (312) 233-1132 233 N. Michigan Ave., Suite 2150 Chicago, IL 60601-5519 **Coding & Reimbursement Specialist Certificate Program** **American Health Information Management Association** (800) 224-4621 233 N. Michigan Avenue, Suite 2150 Chicago, IL 60601-5519	Full Approval
Medical Laboratory Technology	**National Accrediting Agency for Clinical Laboratory Sciences** (733) 714-8880 8140 W. Bryn Mawr, Suite 670 Chicago, IL 60631	Full Approval
Medical Assistant	**Commission on Accreditation of Allied Health Education Programs** (727) 210-2350 1361 Park Street Clearwater, FL 33756	Full Approval
Nursing	**Oklahoma Board of Nursing** (405) 962-1800 2915 N. Classen Blvd., Suite 524 Oklahoma City, OK 73106 **National League for Nursing Accrediting Commission** (212) 363-5555 61 Broadway New York, NY 10006	Full Approval
Occupational Therapy Assistant	**Accreditation Council for Occupational Therapy** (301) 652-2682 4720 Montgomery Lane Bethesda, Maryland 20814-3425	Full Approval
Patient Care Technician	**Oklahoma Board of Nursing** (405) 962-1800 2915 N. Classen Blvd., Suite 524 Oklahoma City, OK 73106	Full Approval
Phlebotomy Certificate	**National Accrediting Agency for Clinical Laboratory Sciences** (733) 714-8880 8140 W. Bryn Mawr, Suite 670 Chicago, IL 60631	Full Approval
Physical Therapist Assistant	**Commission on Accreditation in Physical Therapy Education** (703) 706-3245 1111 North Fairfax St. Alexandria, VA 22314 www.apta.org/CAPTE	Full Approval
Radiography	**Joint Review Committee on Education in Radiologic Technology** (312) 704-5300 20 N. Wacker Dr., Suite 900 Chicago, IL 60606	Full Approval
Respiratory Care	**Commission on Accreditation of Allied Health Education Programs** (312) 553-9355 35 East Wacker Drive, Suite 1970 Chicago, IL 60601-2208	Full Approval
Surgical Technology	**Commission on Accreditation of Allied Health Education Programs** (312) 553-9355 35 East Wacker Drive, Suite 1970 Chicago, IL 60601-2208	Full Approval
Veterinary Technology	**American Veterinary Medical Association/Committee on Vet. Tech. Education & Activities** Headquarters: (800) 248-2862 Wash. D.C.: (847) 925-8070 (202) 789-0007 193 N. Meacham Rd., Suite 100 Schaumburg, IL 60173-4360	Full Approval

Day, Evening, and Weekend Classes

Tulsa Community College operates on a daytime, evening, and weekend schedule to serve both full- and part-time students from the Greater Tulsa Metropolitan Area. Currently, more than 80 percent of Tulsa Community College students work either full or part time, and the College's flexible schedule is designed to offer a wide range of courses at various times for students with different educational interests and work hours. Students can choose classes that are 16 weeks long (one semester), or more concentrated classes that meet eight weeks, four weeks, or shorter. Courses are also available on weekends. In addition, more than 245 courses are offered online.

The wide variety of courses is offered not only for the benefit of those working toward a degree, but also for those who need courses to improve their employment opportunities, who are changing occupations, or who desire personal enrichment. Instruction is provided by the full-time faculty, as well as highly competent professionals from business, industry, and other professional areas. All College policies apply to day, evening, and weekend students.

Summer Classes

The College offers a summer program in professional, occupational, and general education for: (1) current Tulsa Community College students; (2) high school graduates who plan to attend Tulsa Community College during the fall; (3) high school graduates who plan to attend another college or university during the fall; (4) Tulsa area students who are home from other colleges or universities for summer vacation; and (5) high school students ranked as juniors or seniors (see concurrent enrollment for high school students) who intend to accelerate their collegiate program to reduce their academic load during the fall and spring semesters. Students attending another college should coordinate these Tulsa Community College classes with their primary college.

The summer term consists of one eight-week session, day and evening, usually beginning during the first week of June, with each daytime class meeting two or four times a week (depending on the scheduled time), and evening classes meeting twice a week. Shorter courses are also available within the eight week summer term.

Intersession Courses

May Intersession begins on the day after spring graduation and is completed the day prior to the start of summer classes. Intersession courses are also available in August, December, and January.

Student Enrollment and Achievement Data

Enrollment in collegiate credit classes for Fall 2008 was 24,665. Full-time enrollment was 44 percent and part-time enrollment was 56 percent. TCC has nearly 9,000 enrollments in distance learning courses each semester. Not all students enroll to pursue a degree objective. Approximately 2.5 percent of those enrolled in credit programs already had obtained baccalaureate or higher degrees. Student surveys indicate that many students complete their educational objective long before accumulating the required credit hours for an associate degree. Forty-seven percent of the students enrolled were between ages 22 and 41, with the average age of all students being 27 years.

Based upon a follow-up study of university-parallel students with 12 or more credit hours leaving Tulsa Community College and transferring to a university, the overall grade point average attained at the end of one university semester was nearly the same as the overall average of the same group at Tulsa Community College.

ADMISSIONS AND REGISTRATION

The admission criteria set forth below are the minimum standards established by the Oklahoma State Regents for Higher Education. Although they provide for "open door" admission to the College, certain programs require additional standards to be met before a student is admitted. Selected workforce development programs require that a separate program application for admission be submitted prior to entry into specific courses.

The policies and procedures of Tulsa Community College have been formulated and adopted to assure the student of comprehensive services by the institution. They are designed to assure the institution of complete recognition and services from accrediting agencies, other institutions of higher education, employers, and funding agencies.
We believe student success is enhanced with assessment of basic skills, orientation to college, and placement in courses that will meet the individual's needs. Details on the assessment/orientation/placement policies for Tulsa Community College are available in the fall, spring, and summer class schedules and in this catalog.

Qualifications for Admissions

The Oklahoma State Regents for High Education require students to document their prior education within completion of the first nine credit hours of college coursework. As a result, although students may enroll for their first semester at TCC without presenting their creditentials (ex: high school transcript or transcripts from other colleges attended), students must submit the required records prior to re-enrollment to avoid an enrollment "hold." For questions, visit any TCC Enrollment Services Office.

The Oklahoma State Regents require students to clear all curricular and/or academic performance deficiencies within their first 24 credit hours of college coursework. Students who have not removed all deficiencies or demonstrated appropriate proficiencies at the time will have a "hold" placed on enrollment and must work with a TCC enrollment advisor, who will enroll the student in appropriate courses to clear all remaining curricular and/or academic performances deficiencies. For questions, visit any TCC Academic Advisement Center.
Students may qualify for admission to Tulsa Community College in a variety of ways. The different types of admissions are as follows:

I. Admission Directly from High School/GED

A. For Students Seeking Admission to Associate Degree Programs.

Any individual who (a) is a graduate of an accredited high school or has achieved a high school equivalency certificate based on the GED (high school class must have graduated), and (b) has participated in the ACT or a similar acceptable battery of tests is eligible for admission. (If there is an enrollment limit, Oklahoma residents will be given priority.) GED recipients whose high school class has not graduated should contact the Admissions/Enrollment Service Office on any TCC campus to inquire about the current admissions requirements and admission procedure.

B. High School Curricular Requirements for Programs Leading to Associate in Arts, Associate in Science, and Baccalaureate Degrees:

UNITS (YEARS)	COURSE AREAS
4	English (Grammar, Composition, Literature; should include an integrated writing component)
2	Lab Science (Biology, Chemistry, Physics, or any lab science certified by school district; General Science with or without a lab may not be used to meet this requirement)
3	Mathematics (from Algebra I, Algebra II, Geometry, Trigonometry, Mathematics Analysis, Calculus, Applied Mathematics with Algebra I & II, Advanced Placement statistics)
3	History (including 1 unit of U.S. History) Citizenship skills, two additional units from: Economics, Geography, History, Government and Non-Western Culture
3	Other (from any of the subjects listed above or selected from the following: Computer Science, Foreign Language, or any Advanced Placement Course)
15 Total	

In addition to the previous requirements, the following subjects are recommended for college preparation:

UNITS (YEARS)	COURSE AREAS
2	additional units: Fine Arts - music, art, drama, speech
1	additional units: Lab Science (as described previously)
1	additional units: Mathematics (as described previously)
4 Total	

Basic skills courses: English, Science and Mathematics (deficiencies may be removed through testing.)

Guided electives: History, Citizenship, and others (deficiencies are removed by college level coursework). World History will count toward Non-Western Culture.

While these curricular requirements will normally be met by students in grades 9 through 12, advanced students who complete these courses in earlier grades will not be required to take additional courses for purposes of admission. The remainder of the units required by the State Board of Education for high school graduation may be selected from courses to meet students' individual needs and interests.

Students lacking curricular requirements in the basic skills courses (English, Mathematics and Science) are admissible into Associate in Science or Associate in Arts programs in the community colleges but must remove the deficiencies at the earliest possible time but within the first 24 hours attempted or have all subsequent enrollments restricted until the deficiencies are removed. In addition, students must remove curricular deficiencies in a discipline area before taking a collegiate level course in that discipline.
(See 1D) Guided electives must be completed prior to TCC graduation.

C. High School Curricular Requirements for Admission to Other Degree or Certificate Programs

1. See 1.A.

2. Students entering Associate in Applied Science degree programs must meet high school curricular requirements before taking courses in the same discipline as part of this degree. Students admitted under this provision may transfer into an Associate in Arts, Associate in Science or baccalaureate program by meeting all the high school curricular requirements (See 1.B. and 1.D.)

D. Removing High School Curricular Deficiencies

Zero-level courses do not count toward satisfaction of degree program requirements.
Deficiencies may be removed by the following options:

1. Successful completion (grade "C" or higher) of a zero-level course: English - ENGL 0933; Lab Science - BI0 0123 or PHSC 0123; Mathematics - MATH 0123 or MATH 0105.

2. Testing (ACT or Computer Placement Test) at the appropriate proficiency levels may remove a curricular deficiency in the basic skills disciplines.

3. Scoring at the appropriate level on the standardized tests designated for high school equivalency courses. (Successfully passing the GED exam does not satisfy the curricular requirements.)

4. A history deficiency may be removed by successfully completing a three-credit-hour history course in addition to the three-credit-hour U.S. History needed for graduation.
Other guided electives may be met by enrolling in stated subject area as listed on page 16.

II. Special Admission Programs

A. Adult Admission

1. Students who are 21 years of age or older or on active military duty may be admitted based on criteria established at the campus level and submitted to and approved by the State Regents. For students admitted under the adult admission category, the campus must consider the probability of the academic success of the student. Related to the curricular requirements, students admitted under the adult admission category must demonstrate proficiency to the satisfaction of the admitting institution in the curricular area the student desires to pursue. Students should contact the Admissions/Enrollment Services on any campus for admissions processing. Institutions will be required to submit an annual report of those students admitted in this category to the State Regents.

2. Any student who (1) is not a high school graduate but whose high school class has graduated and (2) has participated in the ACT, Computer Placement Test or similar battery of tests is eligible for admission to any of the two-year colleges in the State System. Remediation may be required depending on level of test score. Contact the Admissions/Enrollment Services Office for admissions processing. GED students not meeting the above criteria should contact any Admissions/Enrollment Services.

B. Special Non-Degree-Seeking Student

Students who wish to enroll in courses without intending to pursue a degree may enroll in no more than nine hours without transcripts. Proficiency assessments and prerequisite verification may be required before enrolling in certain courses. Retention standards will be enforced for all students. Students must be degree seeking and provide all credentials to be eligible for financial aid. Contact the Admissions/Enrollment Services Office to request information on the non-degree objective.

C. Home Study or Unaccredited High Schools

An individual who is a graduate of a private, parochial, or other non-public high school which is not accredited by a recognized accrediting agency is eligible for admission to an institution in the State System as follows:

1. The student must have participated in the American College Testing or Scholastic Aptitude Test program.
2. The student's high school class of his or her peers must have graduated.
3. The student must satisfy the high school curricular requirements for the institution to which he/she is applying, as certified by the school or, in the case of home study, the parent.

Note: Students under 17 years of age are not eligible for Federal Title IV funds. (Pell, SEOG, Loans)

D. Concurrent Enrollment of High School Students

Admission & Enrollment Requirements for students interested in enrolling concurrently at their high school and Tulsa Community College are as follows:

- Students must be juniors or seniors. Students who are home schooled or attending unaccredited high schools must be at least 16 years of age as a junior and 17 years of age as a senior.
- Students must have participated in the ACT and made the following composite scores: juniors 21 (ACT) and seniors 19 (ACT).

or

- Those who have participated and did not meet the score requirements may be considered for admission purposes based on their high school GPA. Juniors must have a 3.5 GPA and seniors must have a 3.0 GPA on a 4.0 scale *and*
- Juniors and seniors must score 19 (ACT) in the area in which they want to enroll.

Students must provide the following documents to the Director of Enrollment Services on the campus offering the class:

- Tulsa Community College Admission Application
- Concurrent Enrollment Application*
- Current official high school transcript
- Official ACT

All documents must be received in advance of intended enrollment to allow time for processing.

ACE Tuition Waiver Scholarships are awarded on a "First come-first serve basis" as funds are available. Students must be enrolled in a minimum of three (3) and a maximum of six (6) credit hours per semester and must follow the policy regulations. *See Attend College Early (ACE) brochure for high school concurrent enrollment details.*

High school students who have provided the appropriate documents and meet score requirements must follow the criteria below:

- Enrollment will not exceed 19 credit hours per long semester or 9 credit hours in the summer.
- Students may not enroll in zero-level courses designed to remove deficiencies.
- Re-enrollment is contingent upon the student achieving a 2.0 GPA at TCC.

All other students not qualified by grade level may be considered for enrollment under the Opportunity Admissions category. A detailed explanation of the Oklahoma State Regents' policy on concurrent enrollment is available from any TCC Admission/Enrollment Services Office.

Note: *Questions regarding admissions or enrollment should be directed to theAdmission/Enrollment Services Office on the campus the student plans to attend. Admission to the institution does not guarantee eligibility for course placement.*

** The High School Concurrent Application may be obtained from your principal, counselor, or the Admissions/Enrollment Services Office on any TCC campus.*

E. Opportunity Admissions Category

Students who have not graduated from high school whose Composite Standard Score on the American College Test places them at the 99th percentile using Oklahoma norms or whose combined Verbal and Mathematical score on the Scholastic Aptitude Test places them at the 99th percentile using national norms may apply for full enrollment at a college or university of The Oklahoma State System of Higher Education. The college or university will determine admissibility based on test score, evaluation of the student's level of maturity and ability to function in the adult college environment, and whether the experience will be in the best interest of the student intellectually and socially. Proficiency assessments may be required before enrolling in certain courses.

F. Cooperative Agreement Enrollment of Career Technology Center Students

- Eligible adult and high school students in approved cooperative programs may be co-enrolled and earn college credit for coursework taken at a Career Technology Center.
- Students must meet respective admission requirements for adult or high school students at both the Career Technology Center and the College. Students should contact any TCC Admissions/Enrollment Services Office for information on approved programs and eligibility requirements.

G. Undocumented Eligible High School Graduates
(HB 1804 Title 70, Section 3242 [2007])

Students with undocumented immigration status must meet the requirements set forth by law to be eligible for enrollment in an institution of the Oklahoma State System of Higher Education. Students should contact any Admissions/Enrollment Office for admissions criteria, procedures and the Affidavit of Intent form.

H. Senior Citizens (Oklahoma Residents Age 65 or Older)

Tuition waivers are available for Oklahoma residents age 65 or older who wish to audit a course. Auditing of academic courses is contingent upon space available on the date the class begins. See section "Audit of Courses," in this same chapter for detailed procedures. Questions regarding this process should be directed to the Admissions/Enrollment Office on the campus the student plans to attend.

I. International Student Admissions

Tulsa Community College is authorized under federal law to enroll international students. An international student is defined as "a student who is, or will be, in the U.S. on a student visa." At Tulsa Community College, this refers specifically to the student (F) visa. The International Student Service Office provides admission and support services to these students. International admission information is available from the International Student Services Office located on the Northeast Campus, by telephone at (918) 595-7478 or online at www.tulsacc.edu.

J. Admission of Students for Whom English is a Second Language

All students , for whom English is a second language, shall be required to present evidence of proficiency in the English language prior to admission to a college or university of the State System, either as first-time students or by transfer from another college or university. The intent of this policy is to admit into an institution only those students who have a reasonable chance of success based on their ability to comprehend and use spoken and written English.

The following minimum standards shall be utilized by all State System institutions to determine English language proficiency:

1. Students must either demonstrate their competency in English through passing the test as described or demonstrate proficiency through successfully completing the State Regents' high school core requirements in an English-speaking school or graduate from an English-speaking high school and demonstrate competency through the "Remediation of High School Curricular Deficiency Policy" (I.D.).
2. Applicants for first-time admission at the undergraduate level must present evidence of English language proficiency. The Test of English as a Foreign Language (TOEFL) or the International English Language Testing

System (IELTS) are used to satisfy the requirement.
Applicants must attain at least a score of:

- 500 on the traditional TOEFL
- 173 on the computerized TOEFL version, or
- 61 on the Internet based TOEFL version, or
- a score of 6 on the IELTS.

Applicants who do not meet these requirements may be admitted to the English as Second Language program by meeting the following requirements:

- presenting a score of 460 or higher on the traditional TOEFL, or
- a score of 140 on the computerized TOEFL version, or
- a score of 48 on the Internet based version, or
- a score of 5 on the IELTS or
- immediately, after taking the TOEFL and prior to admission, successfully complete a program of 12 weeks of study at an approved English language center or program operated by an institution of higher learning or a private school approved by the State Regents.

System institutions with an approved program of English as a second language may admit students into this program, but no other courses without meeting the other requirements of this policy. Results of TOEFL tests administered at Institutional Testing Centers are not accepted by colleges and universities other than the administrating institution. Information about the TOEFL and a testing schedule is available from the Testing Center, located on the Northeast Campus, by telephone at (918) 595-7534 or online at www.tulsacc.edu/Testing.

3. Applicants seeking admission by transfer who have attended an accredited college or university for a minimum of 24 semester credit hours with passing grades shall be admitted on the same basis as other transfer students.

4. Students who do not have the 500 TOEFL score may study English as a Second Language after taking the ESL Placement test. This test measures the English language proficiency of non-native speakers. To schedule a free testing appointment, please call (918) 595-8411, Multicultural Language Center, Northeast Campus, www.tulsacc.edu/esl.

III. Admission by Transfer from a State System Institution

An Oklahoma State System student who wishes to transfer to another State System institution may do so under the following conditions:

A. Admission Requirements

1. Provide official transcripts from each college/university previously attended and high school transcript with graduation date or passing GED scores.

2. A student under 21 years of age must meet the high school curricular requirements as indicated in Section I of this policy and have a grade point average high enough to meet TCC's retention standards (see page 51, Policy for Continued Enrollment II B, in this catalog).

B. Transfer Credit Policies

1. Transfer Credit Evaluation

a. Courses will be listed under the name of the transferring institution. Courses will be equated to TCC discipline and course numbers, credit hour and the grade assignment made by the transferring institution.

b. Courses evaluated as semi-equivalent or a general elective are accepted for transfer credit and may be applicable toward graduation requirements (as elective credits).

c. Courses evaluated with passing grades (P or S) will be accepted for credit.

d. Courses recognized as semi-equivalents are accepted, and the credit is given. However, TCC does not have a like equivalent for that course.

2. Academic Status of Transfer Students
- **a.** Transfer students with a cumulative GPA of 2.0 or higher (as calculated by A, B, C, D, and F systems, 4.0 scale) will be admitted to Tulsa Community College in good standing.
- **b.** Students with a cumulative GPA of less than 2.0 average will be admitted to their first enrollment at TCC on academic probation or academic notice and will be expected to meet the standards for continued enrollment.
- **c.** Students returning to TCC after enrollment at another institution or institutions will be considered for admission based on academic records at all the college(s), including the grades earned at TCC.

3. Disciplinary Probation or Suspension — Students on disciplinary suspension or social probation from another institution will not be considered until the suspension or probation is removed by the enacting institution, or the student is accepted by the Admissions Committee.

IV. Admission of Nonresidents of Oklahoma

A. Admission of First-time Entering Freshmen

In order to be eligible for admission to any institution in The Oklahoma State System of Higher Education, a non-resident of Oklahoma (a) must be a graduate of a high school accredited by the appropriate regional association or by an appropriate accrediting agency of his/her home state, (b) must have participated in the ACT or a similarly acceptable battery of tests, and must meet the high school curricular requirements outlined in Section I of this policy.

B. Undergraduate Students Entering by Transfer From Out-of-State

Undergraduate students wishing to transfer from an out-of-state college or university to Tulsa Community College may do so as follows:

1. Transcripts of record from colleges or universities accredited by the Higher Learning Commission or other regional associations will be given full value.
- **a.** Each nonresident applicant must be in good standing in the institution from which he/she plans to transfer.
- **b.** Each nonresident applicant must have made satisfactory progress (an average grade of "C" or better or meets this policy's current retention standards, whichever is higher) in the institution from which he/she plans to transfer.
- **c.** Each nonresident applicant must meet the high school curricular requirements outlined in the "Qualifications for Admissions" section.

2. Transcripts of record from institutions not accredited by a regional association may be reviewed for acceptance transfer when appropriate to the student's degree program and when the receiving institution has had an opportunity to validate the courses or programs.
- a. Each nonresident undergraduate applicant must meet the conditions of 1-a, 1-b, and 1-c listed previously.
- b. Each nonresident undergraduate applicant who meets IV B. 1-a, 1-b, and 1-c above also will be required to validate the transferred credit by making satisfactory progress (an average of "C" or better) for at least one semester.

3. Any student who does not meet the criteria stated above may petition the Admissions Committee for further consideration.

C. This school is authorized under Federal law to enroll non-immigrant alien students.

Admission Procedures

I. First Enrollment at Tulsa Community College

A. Application for Admission

1. An application is required for admission and should be submitted prior to expected enrollment. All questions must be answered. Application information may be submitted initially by mail or fax, in person, or via TCC website at www.tulsacc.edu (click on Student Web). This information must be verified upon each registration at the College.
2. A twenty dollar ($20) one-time, non-refundable processing fee will be assessed with the first semester's tuition and fees. The Social Security number is used by Tulsa Community College for identification purposes only and will not be given out to any individual or agency (unless required by law or as provided for in federal regulations), without the student's written permission. TCC will assign a student identification number, but will collect your Social Security number for business transactions and verification purposes. Omission or falsification of information on the application is grounds for rejection of the application and/or disciplinary action against an enrolled student. Students seeking Financial Aid must use their Social Security numbers.
3. High school transcript, ACT, SAT, Computer Placement Test scores and/or college transcript should be sent to the Admissions/Enrollment Services Office on the campus of planned attendance prior to enrollment. (See "Qualifications for Admissions" section). Credentials submitted to the College will not be copied or returned.
4. First-time college students are encouraged to participate in the student orientation program and are required to be assessed for placement in courses. (See "Student Activities" and "Assessment Services" sections in this catalog for details.)

II. Re-admission After One Regular Semester of Non-Enrollment

A. Application information is verified to update student information.

B. Re-entering Degree-seeking Students

Students must submit transcripts from each college attended since the last enrollment at Tulsa Community College, and any credentials not submitted previously. Previous attendance at TCC does not mean a student was officially admitted to the College.

III. Admission After Suspension

A. Academic

Students who have been placed on suspension from Tulsa Community College may petition the Admissions Committee for admission after a one-semester lapse in enrollment (not including summer). The student must:

1. Complete an admission application.
2. Write a letter which includes the reason(s) he/she would like to be admitted, his/her work schedule, proposed course load, educational goals and any other information the committee should consider in reviewing the request.
3. Provide official transcripts from all previous schools. (It is the student's responsibility to contact the Admissions and Records Office to verify all credentials are received.)

The request letter and all supporting credentials must be received 30 days before registration. Please mail all items to:

Admissions Committee
Admissions and Records Office
Tulsa Community College
10300 E. 81st Street
Tulsa, Oklahoma 74133-4513

4. Upon receipt of the completed application, all credentials, and letter of petition, the request will be reviewed by the Admissions Committee and the student will be notified of the results. See "Policy for Continued Enrollment." Students suspended from another college or university may attend TCC immediately after suspension; contact the Admissions/Enrollment Services on any campus.

B. Disciplinary Suspension

Students who have been placed on disciplinary suspension from Tulsa Community College must contact the Associate Vice President for Student Affairs for re-admission. All criteria outlined in the suspension letter must be met before a suspended student may apply for re-admission after disciplinary suspension.

Admission to Continuing Education (non-credit)

Continuing Education (non-credit) classes and programs are scheduled throughout the academic year. Continuing Education students are not required to submit academic credentials such as transcripts. In addition, formal application for admission to the College and the application fee are not required for these classes. Enrollment forms for Continuing Education classes are available in the Admissions/Enrollment Services Office on each campus or on the TCC website at www.tulsacc.edu/TED, and are also included in the Continuing Education class schedules which are distributed each semester.

College Credit for Military Training Experience

In evaluating armed services credit, Tulsa Community College follows recommendations of the Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education. Credit for military service will be granted only for equivalent courses offered in the Tulsa Community College curriculum after the student has earned twelve (12) hours in residency at TCC. A maximum of 34 credits may be awarded for military training. Tulsa Community College may accept, modify, or reject military training credit depending upon the evaluation. Documents submitted by the student to the Admissions/Enrollment Services Office become a part of the student's official records and will be retained by the College.

Credit by Advanced Standing

Students who believe they are qualified to establish college credit as a result of previous training or experience should inquire about advanced standing options. Credit is limited to existing TCC courses. Students who establish credit through advanced standing will be assigned a grade of "S" on their record to indicate successful completion. No more than one-half the hours presented for a certificate or an associate degree may be in advanced standing credit. All advanced standing credit must be validated by successful completion of twelve semester hours of resident academic work. Fees for advanced standing tests are listed in the Fees, Books and Refunds section of this publication. No refund of fees will be given for advanced standing examinations that are not passed. Credit for military training falls under the American Council on Education (ACE) guide as extra-institutional credit. TCC may recognize these credits as advanced standing. Questions relating to advanced standing testing should be directed to the Counseling and Testing Office. Credit may be established by several different methods. More information about advanced standing testing can be found in the Counseling and Testing Offices on each campus or online at www.tulsacc.edu/Testing.

I. Credit may be established in specific academic programs by the evaluation of documents indicating formal education, test scores, and/or transcripts relating directly to a specific course. These documents will be reviewed by the related academic division or designate and the ensuing recommendation will be considered final. Contact the Admissions/Enrollment Services Office for procedures.

II. Credit may be established by successfully completing an Advanced Standing Credit Examination in one of the following methods: (See III procedures)

III. In order to qualify for advanced standing credit or advanced standing examinations given at TCC, a student must **1)** be or have been enrolled, **2)** complete twelve semester hours of resident academic work, **3)** complete the application for advanced standing credit and receive approval, **4)** pay for the advanced standing exam, and **5)** have not taken the examination within the last six months. Fees for the departmental examination are to be paid prior to the end of the fifth week of a regular semester (second week of a summer semester). Fees for the CLEP exams are paid on the testing date. The advanced standing examinations are administered during the ninth week of the semester (fifth week of the summer semester).

A. College Level Examination Program (CLEP)

Tulsa Community College is a national test site for the College Board's College Level Examination Program (CLEP) examinations are administered in the Testing Center on the Northeast Campus. For a list of exams accepted at TCC or for minimum scores required for establishing credit through CLEP, contact Counseling, Testing, or Admissions/ Enrollment Services Office on each campus or online at www.tulsacc.edu/Testing.

B. Departmental Examinations Offered by TCC

Currently or previously enrolled students who feel they are qualified for advanced standing credit by examination in an area not offered or administered through the CLEP program may attempt to establish credit through a departmental examination. Students seeking these examinations should inquire through the campus Advisement Center and may be required to have approval for the examination by the associate dean of the division for that discipline. The departmental examinations are written and scored by TCC faculty and are intended to measure competence comparable to what would be required if the student took and received credit for that course at TCC. A score equivalent to a grade of "C" shall be the cut-off score.

C. Advanced Placement Program (APP)

This program enables high school students to take comprehensive examinations for credit at the college level. Inquiries concerning this program should be directed to the high school counselor and arrangements for taking the examination and scoring will be coordinated at the high school in which the student is enrolled. TCC does not administer the AP exam. TCC will award college credit with qualifying scores in specified subject areas that are determined by the academic division that administers the discipline of that course. Submit score sheets to the Admissions and Records Office.

D. Tulsa Community College Area Career and Technology Schools Articulation/Cooperative Agreements

Students should contact any TCC Admissions and Records Office for specific procedures for requesting college credit. Aviation majors should contact the TCC Flight Center at the Riverside Campus at (918) 828-4270.

E. Proficiency Certification of Foreign Languages

Language proficiency may be certified for the languages taught at TCC. Arrangements are made through the International Language Center. CLEP is accepted for Spanish, but the CLEP and the APP are not accepted for other foreign languages. Foreign language advanced standing credit follows a different procedure and timeline. Contact Global Education, 595-7851.

F. Extra-Institutional Learning

Advanced standing for credit awarded for military training schools, business and industry, labor union, governmental agencies and other non-collegiate learning shall not exceed the criteria or recommendations contained in publications of the American Council on Education. Contact the Admissions/Enrollment Services Office.

G. International Baccalaureate

Advanced standing credit may be awarded to a student who has taken "higher level" courses in the International Baccalaureate program and has scored at least a four (on a seven-point scale) on the higher level course examination. Such credit shall be awarded on a course-by-course basis. Contact the Admissions and Records Office.

Classification of Students

The classification of students is determined as follows:

1. Freshman: 0-30 earned semester credit hours.
2. Sophomore: 31 or more earned semester credit hours.
3. Full-time: students enrolled in 12 or more semester credit hours in a 16-week semester term (6 or more semester credit hours in a summer academic term).
4. Part-time: students enrolled in 11 or fewer semester credit hours in a regular academic term (5 or fewer in a summer academic term).

Academic Advisement

TCC, through its academic advising program, may assist students in selecting a program of study and the number of credit hours needed to enroll in the College. Such programs will be recommended to meet the needs and abilities of the student as demonstrated by previous academic record and evaluative examinations administered by the College.

Proficiency Requirements

In compliance with the requirements of the Oklahoma State Regents for Higher Education (OSRHE), all TCC students must demonstrate proficiency in English, math, and science before enrolling in college-level courses in these disciplines Students should demonstrate college-level reading competency before enrolling in General Education courses. ACT scores, Computerized Placement Test scores, and college transcripts can be used to demonstrate proficiency. Support for students for whom English is a second language who do not meet proficiency requirements for placement in English and Reading on the computerized placement test will be referred to the Language Center at Northeast Campus to take the TCC ESL Placement test. The ESL Placement test measures the English language proficiency of non-native speakers. To schedule a free testing appointment, please call (918) 595-8411, room 1521, Northeast Campus, www.tulsacc.edu/esl.

Computer Proficiency Requirement

To receive an AA or AS degree from TCC, students must demonstrate computer proficiency, including a basic knowledge of operating systems, word processing, and the ethical use of Internet research capabilities, via one of the following options:

- Successful completion of CSC 1203 or a CSC/CIS course that lists CSC 1203 as a prerequisite
- Successful completion of an advanced standing exam for CSC 1203
- Successful completion of the TCC computer proficiency exam
- Documented work experience or other academic coursework involving the following competencies:
  - **i.** Proper use of common computer terms
  - **ii.** Saving, retrieving, and organizing data stored on a computer
  - **iii.** Using word processing, spreadsheets, and presentation software, as well as the Internet, to perform a task or solve a problem

Smoking

TCC prohibits smoking or the use of other tobacco products within all College-owned or leased buildings.

Standards of Conduct

The college student is considered a responsible adult. The student's admission indicates acceptance of those standards of conduct which appear in the Student Code of Conduct. The Student Code of Conduct is published on the TCC website at www.tulsacc.edu and is available in print form on all TCC campuses.

Resident Classification

The definition of a legal resident of Oklahoma to be used in the assessment of fees at TCC is as follows: The legal residence of a dependent person is that of his/her father, mother or legal guardian(s) as defined by the Oklahoma State Regents for Higher Education. Proof (if requested) of residency may be defined as establishing domicile in Oklahoma and physical residence for the previous 12 months. Domicile is defined as having two components—residence and the intention to remain. If it is determined that an applicant entered the state with the express purpose of attending college, non-resident

status will be assigned. Other classification options may be available for military personnel or spouses and dependents. Contact the Admission and Records Office for details. A person holding permanent-resident or amnesty status, who has resided in Oklahoma for at least 12 consecutive months and who meets any other applicable criteria for establishment of domicile may file for resident classification. Contact the Director of Enrollment Services on any campus for clarification and to petition for resident classification.

Drop From the College During the Schedule Adjustment Period

Students who enroll at Tulsa Community College will be charged tuition and fees for courses not dropped during the applicable drop period for their courses. It is the student's responsibility to be sure unwanted courses are dropped by the scheduled deadline. Students may drop classes using the TCC Student Self Service at: www.tulsacc.edu and click on TED or in person by contacting any Admission and Records Office. See Refund Policy on page 27 for more information.

Withdrawing From a Class After the Schedule Adjustment Period

The procedure for withdrawing from a class is as follows:

1. Obtain a withdrawal form in the Advisement Center at any TCC campus.
2. Print student identification number, name and course information on the form.
3. The Academic Advisement staff will check the form for accuracy and advise students with financial aid to talk with their Financial Aid counselor.
4. Student signs form and it is initialed in the Advisement Center.
5. Student keeps student copy of withdrawal form.
6. The deadline to withdraw shall not exceed three-fourths of the duration of any class. See the academic calendar on page 8 for deadlines.

Complete Withdrawal from the College

If a student needs to completely withdraw from the College, the following steps should be followed.

1. Student must appear personally at any college Advisement Center and request the form used in processing a complete withdrawal.
   a. If circumstances prohibit a personal appearance, the student should send a letter to a campus Advisement Center and include his/her name, I.D. number, class(es) to be withdrawn, reason for withdrawal and student signature.
   b. The date of withdrawal by written correspondence will be the date the letter is received by the Advisement Center.
2. The student is expected to fulfill any outstanding financial obligations to the College. Any student receiving Federal Title IV Funds (Pell, SEOG, Loans) who completely withdraws from the College prior to the completion of 60% of a semester will be required to return any federal aid received that was in excess of the aid "earned" for the time period the student was enrolled. See the "Financial Aid and Scholarships" section of this catalog on page 29 for more information.
3. Special Notes:
   a. Requests for withdrawal cannot be accepted by telephone.
   b. Notifying your instructors of your intent to withdraw does not constitute an official withdrawal.
   c. Withdrawal requests received after the deadline in the catalog will not be accepted and the official date of withdrawal in all cases is the date the request is received and approved in the Advisement Center.
4. The deadline to withdraw shall not exceed three-fourths of the duration of any class. See the academic calendar for withdrawal deadlines.

Audit of a Course

I. Regular Course Audit

The student must complete the "Audit Contract" for each class being audited. The student and appropriate instructor must sign the form and the request to audit must be completed prior to the close of the withdrawal period for the specific class. A student may revert from audit to credit only during the schedule adjustment period for the specific course. The auditing student must adhere to the instructor's class attendance and participation requirements. A student not adhering to the instructor's requirements may be withdrawn by the instructor for non-attendance. A grade of AU (audit) does not count in hours attempted or earned. Audited courses will not apply toward graduation requirements, or for financial aid or veteran's benefits. For other options, see II. Special Admission Programs, Audit Admission section on page 14 of this catalog.

II. Audit for Oklahoma Residents Who Are Age 65 or Older and Desire a Tuition Waiver

The Oklahoma State Regents for Higher Education approved a policy authorizing institutions of the State System to waive the fees for Oklahoma residents who are sixty-five (65) years of age, or older, for auditing of academic courses - contingent upon space being available in the classrooms and laboratories housing such courses. Information relative to this program is as follows:

A. Enrollment is open on a space-available basis on the date the class begins. People will be allowed to enroll at TCC under this plan only after the regular enrollment period preceding each semester and at times designated by the College. Enrollment is allowed only if the normal class limit has not been met. No class overloads will be allowed. Students must meet any proficiency requirements or prerequisites prior to enrollment.

B. Students must meet Oklahoma residency requirements as defined by the Oklahoma State Regents, be age sixty-five (65) or older, and must verify both residency and age (i.e., by presenting a valid birth certificate, driver's license, etc.).

C. A maximum of seven (7) semester credit hours per regular semester and four (4) semester credit hours in a summer term is allowed under this policy. If a student wishes to enroll in more than the maximum credit hours allowed, he/she must pay the regular fees for hours beyond the maximum.

D. Since audit is mandatory under the fee waiver, the Director of Enrollment Services signature will authorize the audit status in lieu of other College officials.

TUITION AND FEES*

Fee amounts are approved by the State Regents for Higher Education and may be changed by direction of the State Regents. General enrollment fees and nonresident tuition and other fees for special educational services are due prior to the first day of class.

	National Testing Agency Rate
Oklahoma Residents:	
Enrollment Fee	$62.20 per credit hour
Non-Oklahoma Residents:	
Enrollment Fee	$217.75 per credit hour
Audit-Without Credit	Same charge as regular fee
Advanced Standing	
Department Exams	$5.00 per credit hour (non-refundable)
CLEP	National Testing Agency Rate
ACT	National Rate + $5.00
Other Special Fees	
Facility Fee	$2.00 per credit hour
Remedial Fee	$13.00 per credit hour
Student Assessment Fee	$1.50 per credit hour
Technology Fee	$8.00 per credit hour
Library Fee	$2.75 per credit hour
Fees for Student Services	
Student Activity Fee	$5.15 per credit hour
Student Center Fee	$7.30 per credit hour
Cultural & Recreational Service Fee	$1.25 per credit hour
Student ID Card (non-refundable)	$2.00 per semester
Parking Fee	$1.50 per credit hour (up to $18)
Continuing Education (non-credit)	

*Tuition and fees subject to change

Former Prisoners of War

Persons Missing in Action - Dependents. Any former prisoner of war or person missing in action, as defined by the provisions of O.S. Supp. 1991, Title 70, Section 2281, and any dependent of a prisoner of war or person missing in action, and neither yet returned to the United States or to control by its armed forces, upon being duly accepted for enrollment into Tulsa Community College shall be allowed to obtain an associate degree, or certificate of completion, for so long as he/she is eligible, free of general enrollment fees.

Children of Peace Officers and Fire Fighters

No general enrollment fee or nonresident tuition shall be charged to the children of Oklahoma peace officers or fire fighters who have given their lives in the line of duty. TCC shall grant tuition waivers to eligible persons upon presentation of evidence that the deceased person was a duly appointed police or peace officer or fire fighter as defined in O.S. 1991, Section 3218.7. Such waivers shall be limited to a period of five years from the date of the first waiver.

Special Course Supplies and Institutional Services

Students are expected to furnish expendable supplies in certain courses. The institution may furnish a portion of all these expendable supplies to the student at a fixed cost per course, and these materials will be available at the proper scheduled time. Certain other services may also be provided for the student by the College at a fixed cost. The price schedule is listed below:

Application Fee.....$20.00 non-refundable (one-time charge)
Aviation Technology Service Fees Private.....Direct cost of service
Commercial with Instrument Rating.....Direct cost of service
Aviation - Air Traffic Control Program Fee (AVST 1343).....$150.00 (one-time fee)
Aviation - Air Traffic Control Lab Fee.....$75.00 per course
Dental Hygiene Clinical Equipment Utilization Fee.....$100.00 per semester(3 sem.)
International Student Status Maintenance Fee
Fall, Spring & Summer Terms.....$50.00 per semester

Lab Fees
- Accounting (Software Courses).....$7.00 per semester
- Allied Health.....$12.00 per semester
- Art.....$12.00 per semester
- Child Development.....$12.00 per semester
- Computer Integrated Manufacturing.....$12.00 per semester
- Computer Information Systems
  - 1 Credit Hour Course/ 2 Credit Hour Course.....$7.00/$15.00 per course

Dental Hygiene.....$20.00 per course
Drafting.....$12.00 per course
Electronics.....$12.00 per course
Engineering.....$12.00 per course
English Developmental Studies.....$7.00 per course
Health Information Technology.....$12.00 per course
Horticulture.....$12.00 per course
Interior Design.....$12.00 per course
Numerical Control/Machinist.....$20.00 per course
Nursing.....$12.00 per course
Paralegal.....$12.00 per course
Science (Lab Courses).....$12.00 per course
Telecommunications.....$12.00 per course
Veterinary Technology.....$25.00 per course
Legal Research Law Library Fee.....$30.00 per course
Private Music Lessons Fee.....$50.00 per course
- Music 1 credit hour/2 credit hour.....$50.00 per course/ $100.00 per year

Student Malpractice Insurance.....$13.00 per course
Student Medical Insurance.....$45.00 per course

Special Instruction Fees
- First Aid Fee.....$8.00 per course
- Nursing Assessment Fee.....$78.50 per course
- Nursing Drug Screen Fee.....$50.00 per course
- Veterinary Technology Vaccination Fee.....$475.00 per course
- Career Tech Fee.....$8.00 per credit hour

REFUNDS

Refund Procedure

When a student enrolls in a class at Tulsa Community College, he/she reserves a place which cannot be made available to another student until he/she officially withdraws from the class. Many students cannot enter Tulsa Community College each semester because classes are filled. Students processing a complete withdrawal prior to the first day of classes may receive a 100 percent refund, except for the application fee, ID fee, and/or international student status maintenance fee, TOP fees and Deferred payment service fees. Refunds will not be honored unless all financial obligations to Tulsa Community College have been cleared.

Refund Policy

I. Complete Withdrawal from the Institution

A. 100 percent Refund for dropping all classes during the first two weeks of a regular semester, first week of a summer or eight week mini term or before the second class session of a course that is less than eight weeks in length. For courses shorter in duration than eight weeks, in order to receive a refund, the student must drop the class before 5p.m. on the second day of class for internet classes or before 5p.m. of the next regular work day for all other classes.

B. 0 percent Refund for students withdrawing after the second week of a regular semester or after the first week of a summer or 8-week mini term. For courses shorter in duration than eight weeks, there is no refund if the student drops the class after 5pm on the second day of class for internet classes or after 5pm of the next regular work day for all other classes.

NOTE: Financial aid recipients who complete a full withdrawal from the institution should refer to the Return of Title IV funds policy in the "Financial Aid Probation and Suspension" section of this catalog; refer to page 44.

II. Schedule Adjustments (DROP)

A. 100 percent Refund for dropping class(es) during the first two weeks of a regular semester, during the first week of the summer or eight-week mini-term or prior to the second class meeting of a class less than 8 weeks in length. For courses shorter in duration than 8 weeks, in order to receive a refund, the student must drop the class before 5pm on the second day of class for internet classes or before 5p.m. of the next regular work day for all other classes.

B. 0 percent Refund for withdrawing from a class after the first two weeks of a regular semester, after the first week of a summer or eight week mini-term. For courses shorter in duration than eight weeks, in order to receive a refund, the student must drop the class before 5p.m. on the second day of class for internet classes or before 5pm of the next regular work day for all other classes.

All tuition and fees will be refunded if a class is cancelled due to insufficient enrollment. Refunds may require 30 days to process.

III. Refund Policy for Continuing Education (non-credit classes)

100 percent refund will be given if a written, telephone, faxed, or in-person request is made to the Continuing Education office **two full business days (M-F) before the first scheduled class meeting.** Refunds cannot be issued for non-attendance. All fees will be refunded if class is cancelled due to insufficient enrollment. Refunds require up to 30 days to process. The Continuing Education Department reserves the right to amend this policy for specialized events and programs.

IV. Refund Policy for Students Entering Military Service

If a student enters military service during the term in which he/she is enrolled and he/she has not completed sufficient work for receiving his/her grades, but is in good standing academically, Tulsa Community College will refund to the student the full amount of his/her fees paid. If a student enters military service during the term and is not in good academic standing at the time, the regular fee refund policy would apply. The student must forward a copy of the induction orders with a written request for a refund directed to the Refund of Tuition and Fees for Students with Hardship Circumstances Committee. See address on the back of this catalog.

Fees Applicable Only Current Semester

Fees are applicable only for the current semester or term. If a student withdraws and is entitled to a refund, the amount of the refund cannot be carried forward as a credit to a subsequent session.

PAYMENT OPTIONS (Credit Classes)

Payment in Full - Pay tuition and fees in full. Fee payment deadline is the first day of the semester or the start date of the earliest class enrolled. You may pay in person, by mail, phone, or student web. No enrollment fees or monthly service charge.

Tuition Option Plan (TOP) - Enroll by student web. There is a $20 enrollment fee. Monthly installments are automatically charged to your payment method (credit card or checking account) on the 15th of each month.

Deferred Payment - No sign up required. If you do not pay your account balance in full or sign up for the Tuition Option Plan, you are automatically placed on Deferred Payment. Payments should be made by the 15th of each month. There is a 1.5 percent monthly service charge (50 cent minimum) assessed to your account on the 15th of each month for any unpaid balance based on enrollment. Service charges will continue to be assessed to the student account until the balance is paid in full. An additional $50 fee will be assessed to your account at the end of the semester if all current charges are not paid in full.

Should your account be placed with a collection agency, you may be charged the collection costs, court costs, and any attorney fees.

An enrollment and transcript hold will be placed on the student account prior to enrollment for the next semester for any unpaid balance.

Students Receiving Financial Aid - Financial Aid will be applied to the student account. Any remaining amount will be refunded to the student. If the financial aid received does not pay the charges on the account in full, the student can choose a TCC Payment Option.

For detailed information concerning TCC Payment Options, contact any Campus Bursar Office.

BOOKS

Campus Store Refund Policy

For College credit and non-credit classes, coursebooks and supplies will be available for student purchase two weeks before classes begin.

Books are eligible for refunds:

1. First TWO WEEKS of a sixteen week semester
2. FIRST WEEK of an eight week semester
3. Until the first class meeting of a course lasting less than eight weeks

The Campus Stores will only grant coursebook refunds to students with a current-semester cash register receipt. Books must also meet the following conditions.

1. A 100 percent refund will be given on a new coursebook that is clear of any marks or erasures and is in new condition.
2. If a new coursebook has been marked or is not in new condition, it will be refunded at 75 percent of the new coursebook price.
3. Used books still in saleable condition will be refunded at 100 percent of the price paid at the time of purchase.

Refunds will be given on defective class supplies and materials.

Campus Store Coursebook Buy-Back Policy

The Campus Stores will conduct a Coursebook Buy-Back on each campus at the end of each semester. The Buy-Back is presented as a service to the TCC student. It is an opportunity afforded to the student to reap some benefit from the sale of those coursebooks no longer wanted or needed.

Buy-Back Policy is as follows:

1. The Buy-Back will be held the last five days of finals during the fall and spring semesters and the last two days of finals during the summer semester.
2. The student will receive up to fifty percent (50%) of the established TCC new book price for any book the College Stores need.
3. Books not needed by the TCC Campus Stores that are of marketable value may be sold at a price established by the Wholesale Book Company.

FINANCIAL AID AND SCHOLARSHIPS

Please visit the Financial Aid portion of the TCC website. Some regulations and procedures for the 2009-2010 academic year had not been finalized by various federal agencies when the printed catalog went to press.

The Financial Aid and Scholarship Office at Tulsa Community College is available to assist qualified students to meet the costs of their education. Financial aid is designed to supplement the financial resources of the student and student's parent(s).

Financial aid is available through grants, scholarships, loans, and part-time employment from federal, state, institutional and private sources. Grants and scholarships are financial aid that students do not have to pay back. Loans are borrowed money that must be repaid with interest. Work-study allows students to work and earn money for school expenses. The types and amounts of aid awarded are determined by financial need, availability of funds, student classification, and academic performance.

The Higher Education Act of 1965, as amended, requires that each recipient of funds under the Federal Pell Grant, Academic Competitiveness Grant, Federal Supplemental Educational Opportunity Grant, Federal Work-Study, Oklahoma Tuition Aid Grant (OTAG), Stafford Student Loans, or PLUS programs maintain satisfactory progress in his/her course of study. The following policy does not preclude a recipient from continuing to enroll as a student or to receive other types of financial aid. The applicant must have a high school diploma, GED, or demonstrate the "ability to benefit" in order to receive financial aid at the institution to which he/she is applying according to the guidelines set forth by the Department of Education.
Some additional requirements for financial aid are:

- Students must maintain a cumulative 1.70 grade point average (GPA) for the first 30 credit hours attempted; and a cumulative 2.00 GPA for all hours attempted thereafter.
- Students must successfully complete at least 67 percent of all attempted course hours, regardless of whether financial aid has been received for those hours. Withdrawals, I, F, and other unsatisfactory grades are examples of grades that will be counted against this completion rate.
- Audit grades do not qualify for financial aid. Should a student receive financial aid for any classes, or hours, that are later changed to audit, the student will be required to repay any applicable financial aid funds.
- Students attempting 95 or more college hours will be required to justify the applicability of all coursework by submitting a Request For Continued Financial Aid Form and an evaluated degree audit, which will be presented to the Financial Aid Advisor for determination of continued financial aid.
- Any student who completely withdraws, drops out, is dismissed or takes a leave of absence prior to completion of 60 percent of a semester will be subject to the return of Title IV funds. The student will be required to return to the federal aid program the amount of aid received that is in excess of aid "earned" for the time period the student remained enrolled. Students who receive any Title IV funds (Pell, SEOG, and Stafford Loans) should consult with their financial aid counselor before completing a full withdrawal.
- Any student operating "under appeal" will be suspended from financial aid their next entering semester, if they achieve less than a 2.0 GPA.

Financial Aid Programs Requiring the Free Application for Federal Student Aid (FAFSA)

There are a number of financial aid programs available at Tulsa Community College. Some scholarships are need based and require FAFSA application. The FAFSA application is used to apply for the following programs:

- **Federal Pell Grant**
- **Federal Work Study**
- **Federal SEOG**
- **Federal Subsidized Stafford Loan**
- **Oklahoma Tuition Aid Grant**
- **Federal Unsubsidized Stafford Loan**
- **Need Based State Regents Tuition Waiver**
- **Need Based Grants (Tribal, Voc-Rehab, etc.)**
- **Academic Competitiveness Grant**

Other programs available through TCC Financial Aid and Scholarship Office that require a separate application:

- **State Regents Tuition Waiver**
- **State Regents Leadership Scholarships**
- **TCC Provost Scholarship**
- **Federal Parent Loan (PLUS)**
- **TCC Foundation & Trust Scholarships**
- **TCC Honors Scholar Tuition Waiver**

If a student qualifies for financial aid, awards from a combination of programs may be packaged by the TCC Financial Aid and Scholarship Office. Some programs are need based. Need is the difference between expected educational expenses and available family financial resources. The student and parent(s) should be prepared to verify information reported on the FAFSA. Documentation may be required to verify income, federal income tax paid, household size, dependent or independent status, citizenship, Social Security, veterans' benefits, etc. Failure to provide the requested documentation may result in a delay, or the termination of the financial aid application process. When the awards are determined, an award notification is sent to the student (The award notification will direct the student to the appropriate website to accept awards). To ensure that financial aid will be available by start of the semester, students MUST have their FAFSA application completed, Financial Aid Notification Letter signed, and entrance counseling completed on or before the financial aid priority deadline. Financial Aid priority deadlines are June 1st for Fall semester, November 1st for Spring semester and April 1st for Summer semester. Early application is encouraged as some funds are limited.

GRANTS

Federal Pell Grant

The Federal Pell Grant, unlike a loan, does not have to be repaid. The Pell Grant is intended to be the "floor" of a financial aid package. An undergraduate student who has not received a bachelor's degree and is a U.S. citizen, or eligible non-citizen, is eligible to apply. Eligibility to receive a Federal Pell Grant is determined by the U. S. Department of Education based upon a standard formula, established by Congress, using family financial information submitted on the FAFSA and reported on the SAR. The formula produces an Expected Family Contribution (EFC) number. Your Student Aid Report (SAR) contains this number. Students must be degree-seeking, enrolled, and making reasonable satisfactory progress toward the completion of their course of study.

Academic Competitiveness Grant (ACG)

The ACG is available for students who are eligible for a Pell Grant, enrolled at least half-time, have remaining financial need, and graduated from high school completing a rigorous high school program as identified by the U.S. Department of Education. A student must be a recent high school graduate and may only receive a maximum of two disbursements per academic year for the first two years of a program.

Oklahoma Tuition Aid Grant (OTAG)

OTAG is grant based on need for up to 75percent of tuition and fees to Oklahoma resident students making reasonable satisfactory academic progress. To apply, submit the FAFSA by April 15 for best consideration, as funds are limited. This program is administered by the Oklahoma State Regents for Higher Education.

Federal Supplemental Educational Opportunity Grant

The FSEOG provides grants to students with the greatest financial need as determined from the SAR analysis and on the availability of funds. The grant may not exceed $4,000 a year. Students must be enrolled in at least half-time status and be making reasonable satisfactory academic progress.

Tribal Grants

For Native American students. Application procedures are initiated in the appropriate Tribal Education Office and by submitting the FAFSA.

SCHOLARSHIPS

Tulsa Community College offers many scholarships to students with scholastic achievement and/or economic need. Students may apply for scholarships of varying amounts which are generally for specific educational costs. A current descriptive list is available in any TCC campus Financial Aid and Scholarship Office. Recipients are selected by the TCC Scholarship Committee during the spring term for the following academic year. To apply, submit the TCC Scholarship Application to the Financial Aid and Scholarship Office by the announced deadline(s). New scholarship opportunities become available throughout every semester. Check the Scholarship Opportunities Bulletin Board at any Financial Aid and Scholarship Office and the TCC Connection for new scholarships.

TUITION WAIVERS

TCC State Regents Tuition Waiver

Tulsa Community College offers a waiver of tuition of 3 to 12 credit hours per semester, for Oklahoma resident students with a 3.00 cumulative grade point average. Recipients are determined by their GPA and completion rate, with 70 percent of the scholarships awarded to students with financial need. Students who are awarded based on financial need are required to have only a 2.50 cumulative grade point average. To apply, submit the appropriate application to any Financial Aid and Scholarship Office by April 3 to receive priority consideration. Application is required each academic year. Students are required to complete 3 credit hours in the Fall to maintain eligibility in the Spring.

TCC Honors Scholar State Regents Tuition Waiver

Tulsa Community College offers a waiver of tuition of 3 to 18 credit hours per semester for students who are TCC Honors Scholars in good standing. To apply, submit the TCC Honors Scholar application to any TCC campus Honors Office. To remain eligible for the waiver, students are required to maintain a TCC grade point average of at least 3.5 and complete a minimum of three credit hours each semester, including (until minimum Honors Scholar requirements are fulfilled) at least one Honors course each semester.

TCC State Regents Leadership Scholarship

Tulsa Community College offers a waiver of tuition only of 3 to 18 credit hours per academic year for Oklahoma High School Valedictorian, Salutatorian, and some Honor students. To apply, have your high school counselor submit a Leadership Scholarship Application by April 3 to any TCC Financial Aid and Scholarship Office. Students are required to complete three credit hours in the Fall to maintain eligibility in the Spring.

TCC Provost Scholarship

Each year campus Provosts will nominate up to ten (10) students from their campus for the Provost Scholarship. This award waives up to 18 credit hours of tuition each semester. This award is based on scholarship, leadership, and community service involvement. Students should contact the campus Dean of Student Services Office for criteria and application information. Students are required to complete six credit hours in the Fall to maintain eligibility in the Spring.

TCC State Regents Tuition Waivers

TCC State Regents Tuition Waivers are also available for Oklahoma residents who are 65 years of age or older; former POW/MIA; dependents (children) of POW/MIA; and, dependents of Oklahoma peace officers and firefighters who have given their lives in the line of duty. Students should contact campus Director of Enrollment Services for more information.

TCC ACE Tuition Waiver Scholarships

Concurrently enrolled students who take three to six credit hours per semester may be eligible for ACE Tuition Waiver Scholarship. ACE is Attend College Early and ACE Tuition Waiver Scholarships are awarded on a first-come, first-serve basis as funds are available. Concurrently enrolled students should contact the Admissions/Enrollment Services and Records Office for more information about the ACE Tuition Waiver Scholarship.

LOANS

Federal Direct Loan Program (FDL)

The FDL program offers subsidized, unsubsidized and PLUS loans through the federal treasury for students enrolled at least half-time in an eligible program. Dependent undergraduate students can borrow up to $5,500 if they are first-year students enrolled in a program of study that is at least a full academic year, and $6,500 if they have completed their first year of study and the remainder of their program is at least a full academic year. The maximum for an independent undergraduate student loan is up to $9,500 for the first year and up to $10,500 for the second year. A student completing prerequisites for an approved program of study may receive up to $2,625 for one academic year.

The aggregate amount a student will qualify for is $31,000 for a dependent undergraduate and $57,000 for an independent undergraduate (only $23,000 of this amount may be in subsidized loans). Regardless of the type of loan students borrow, they must receive entrance counseling before they can be given their first loan disbursement, and they must complete exit counseling upon dropping below half-time status, such as withdrawal, graduation or transfer. These counseling sessions are available online at **www.dl.ed.gov.borrower** and provide student borrowers with important information about their loan, borrower rights, and repayment.

According to federal guidelines, all student loans must come in two disbursements per loan period, and delivery to TCC for first year, first time borrowers must be delayed for thirty days.

Stafford Loans

A **subsidized** loan is awarded on the basis of financial need. Student borrowers will not be charged any interest before they begin repayment or during authorized periods of deferments. The federal government "subsidizes" the interest during these periods.

An **unsubsidized** loan is not awarded on the basis of need. Interest is charged from the time the loan is disbursed until it is paid in full. If interest is allowed to accumulate, it will be **capitalized**—that is, the interest will be added to the principal amount of the loan and additional interest will be based upon the higher amount.

Both a subsidized loan and an unsubsidized loan may be received for the same enrollment period.

PLUS Loan

PLUS loans enable parents with good credit histories to borrow to pay the education expenses of each child who is a dependent undergraduate student enrolled at least halftime. The yearly limit on a PLUS Loan is equal to the student's cost of attendance at TCC minus any other financial aid he or she receives. Interest is charged on the loan from the date the first disbursement is made until the loan is paid in full. Parents will be notified by lender or service provider of interest rate changes throughout the life of their loan. Loan funds are sent to TCC by the U.S. Department of Education in two installments.

Federal Work Study

Students may earn up to $7.92 an hour, depending on the position, for up to 20 hours a week during the academic year, which includes semester breaks. Placement may be either on or off campus with public or private non-profit agencies. Maximum earnings are determined from the estimated family contribution as determined by the FAFSA and the availability of funds. Applicants must be enrolled at least half-time, complete a TCC work- study employment application, and be interviewed for placement. Students seeking Federal work-study employment should visit the TCC FWS website for more information at: **www.tulsacc.edu/federalworkstudy.**

Financial Aid Application Procedure and Process

The 2009-2010 FAFSA is for the Fall 2009, Spring 2010 and Summer 2010 terms.

1. After January 1 **and** after completing the 2008 federal income tax return, submit the Free Application for Federal Student Aid (FAFSA).

2. Students must file their FAFSA electronically. Students may access "FAFSA on the Web" at **http://www.fafsa.ed.gov.** Be sure to use the 2009-2010 FAFSA on the Web.

3. After the FAFSA application is sent to the federal processor, the student will receive a Student Aid Report (SAR) in approximately one to six weeks from the U.S. Department of Education. The student must carefully review the instructions on the SAR. If the SAR is incorrect, refer to the instructions on the SAR for correction information. The Financial Aid and Scholarship Office will notify the student by mail or email of any additional information needed or students may monitor the progress of their Financial Aid application by logging on to the Student Web using their CWID and pin number**.** If no additional information is needed and the student meets all the aid eligibility requirements, Financial Aid and Scholarship Office will email the student a link to the student web. which will list the types and amounts of financial aid the student has been awarded.

4. Submit other applications for financial aid, including BIA or Tribal Grants, outside agency scholarships, or Vocational Rehabilitation by their application deadline. Each agency will have its own application forms and deadlines. Follow the instructions carefully, as funds are limited.

5. Submit the TCC Application for Admission to the Admissions and Records Office. To receive financial aid, a student must be admitted as a degree-seeking student in an eligible degree or certificate program.

6. Request official academic transcripts from previously attended high schools, post-secondary schools, colleges, and universities. All transcripts must be on file to receive financial aid.

7. Respond quickly to requests for additional information by all TCC offices to avoid delays. To ensure that financial aid funds will be available by start of the semester , students MUST have their FAFSA application completed, Financial Aid Notification Letter signed, and entrance counseling completed on or before the financial aid priority deadline. Financial Aid priority deadlines are June 1st for Fall semester, November 1st for Spring semester and April 1st for Summer semester.

8. All first-time student loan borrowers at TCC are required to participate in Entrance Counseling regarding their student loan before loan funds may be delivered. Online entrance counseling may be completed at **https://www.dl.ed.gov/borrower.**

9. According to federal guidelines, student loans must always come in two disbursements per loan period, and delivery to first-year, first-time borrowers must be delayed for at least 30 days.

Additional information is available on our website: **www.tulsacc.edu/finaid/**

FINANCIAL AID REASONABLE ACADEMIC PROGRESS POLICY

Federal regulations (CRF 668.16) require that a student maintain reasonable academic progress in the course of study being pursued, according to the standards and practices of the institution in which he/she is enrolled, in order to receive aid under the Higher Education Act. These programs at TCC include Federal Pell Grant, Academic Competitiveness Grant, Federal Work-Study, Federal Supplemental Educational Opportunity Grant, Oklahoma Tuition Aid Grant, FDL Stafford Loans (subsidized and unsubsidized) and the Federal PLUS Loan Program.

The student is encouraged to become familiar with this reasonable academic progress policy and any policy that may govern outside sources of financial aid for which the student may have qualified for such as: Vocational Rehabilitation, JTPA, Department of Veterans Affairs Educational Benefits, etc.

I. Qualitative and Quantitative Requirements

Both qualitative and quantitative standards for reasonable academic progress shall be applied uniformly to **ALL** students whether or not the student has previously participated in a Title IV program. In order to satisfy both qualitative and quantitative requirements, ALL students must satisfy the minimum standards as described below:

For financial aid purposes, grades of F, W, AW, WP, WF, I, U, etc. shall be considered hours **attempted**. However, these are **NOT** considered hours satisfactorily completed. Audit grades do not qualify for financial aid. Should a student receive financial aid for any classes, or hours that are later changed to audit, the student will be required to repay any applicable financial aid funds. Cumulative grade point average (calculated by College Directors of Enrollment Services), and hours attempted, shall be used to determine a student's eligibility to participate in the Title IV programs.

II. Transfer and Continuing Students

ALL transfer students entering Tulsa Community College **and** ALL continuing TCC students who apply for financial aid must have their Ability to Benefit documented by one of the following: HS transcript, GED, Home School Diploma, six credit hours at the collegiate level, or a passing score on an Ability to Benefit test. Continuing students must meet the minimum qualitative and quantitative requirements described below in order to receive federal aid. Transfer students who do not meet minimum requirements may be placed on probation for the current entering TCC semester. Progress will be reviewed upon completion of the semester to update the student's reasonable academic progress status accordingly. Credit from an institution without recognized accreditation will not be used to calculate a student's academic progress; however, students who have a bachelor's degree - even from an unaccredited institution - may not receive Pell or SEOG funds.

III. Evaluation Increment Period

ALL students participating in the Title IV programs may be evaluated at the end of **EACH** semester if necessary (summer school included, if applicable) to determine if reasonable satisfactory academic progress is being maintained.

IV. Financial Aid Probation and Suspension

In the event a student fails to meet minimum requirements, as described in the table below, the student will be placed on probation for the subsequent semester, during which time the student may continue to receive Title IV aid. At the end of the probationary semester, if the student fails to meet minimum criteria, the student will be suspended from participating in ALL Title IV programs and must attend WITHOUT benefit of the Title IV assistance until such time as eligibility is re-established. Students who receive Title IV financial aid and complete a full withdrawal, drop out, or are dismissed prior to completion of the semester will be subject to the Department of Education Return of Title IV policy.

Hours Attempted	1-30 credit hours	31 or more credit hours
Cumulative GPA	1.70	2.00
% of total hours	67% successful completion	67% successful completion

V. Re-Establishing Eligibility

A student may re-establish eligibility to participate in the Title IV programs by completing sufficient hours to meet both qualitative and quantitative standards in the applicable category as described in the table above.

VI. Appeal of Financial Aid Suspension

Students who are denied financial aid may appeal the decision, if there are extenuating circumstances. **EXTENUATING CIRCUMSTANCES INCLUDE, BUT ARE NOT LIMITED TO: DEATH IN THEA FAMILY, ILLNESS AND HOSPITALIZATION. The appeal letter must be submitted in written form no later than noon on the Wednesday before the appeal committee meeting to your home campus Financial Aid and Scholarship office** explaining the extenuating circumstances. The student is advised to provide supporting documentation. The Appeal Committee may request specific documentation of the reason(s) stated in the student appeal. The student will be notified, by email, of the Appeal Committee's decision. The decision of the Appeal Committee is final. Any student whose suspension status has been appealed and previously approved must follow the terms and conditions of that appeal to continue receiving Title IV financial aid. Any student unable to adhere to the requirements of the approval will be suspended.

VII. Limitation of Student Eligibility

All students enrolled in an eligible degree program may receive Title IV aid up to 150% of the hours required in pursuit of a degree or certificate. The total number of hours allowed at Tulsa Community College to receive Title IV aid is ninety-five (95). It is the option of the Financial Aid Appeal Committee and/or Financial Aid office to grant an extension to the 150% maximum hours allowed. Reasons for approval include, but are not limited to, change of major, transfer between institutions, or new degree program. Students who have exceeded the maximum time frame for degree completion because they have not completed a sufficient percentage of coursework or are putting off completion to continue to receive aid, will not be approved. Students with a prior bachelor's degree are prohibited by regulation from receiving Pell Grants or SEOG. If approved, students who have exceeded the 150% maximum will be elgible for aid only for 150% of the hours necessary to complete the approved program of study. When those hours are completed, a student will have exhausted his or her aid eligibility at TCC.

STUDENTS ARE RESPONSIBLE FOR KNOWING THEIR ELIGIBILITY STATUS AT THEA END OF EACH SEMESTER. IF IN NEED OF ASSISTANCE OR CLARIFICATION, STUDENTS ARE ENCOURAGED TO COME TO ANY CAMPUS FINANCIAL AID AND SCHOLARSHIP OFFICE FOR VERIFICATION OF ELIGIBILITY.

Student Record and Financial Aid Holds

According to federal guidelines it is the option of the College to place a hold on the release of a student's record for failure to comply with a requirement or meet an obligation of the offices of Admission and Records, Bursar, Learning Resource Center, Counseling and Testing, Student Activities, and Financial Aid and Scholarship Office.

It is part of the regular office procedure of the Financial Aid and Scholarship Office to place a hold on a student's academic record for various reasons. Examples for a hold being placed on an academic record include, but are not limited to, an institutional, state, or federal financial aid overpayment due by the student.

Resolution of the infraction must occur before release of the academic records. A student may make a written request to the Financial Aid and Scholarship Office for release of an unofficial record prior to resolution.

Default Management Plan

There are consequences for schools with official cohort default rates that exceed certain thresholds and in some cases an institution may be ineligible to participate in financial aid programs. As required by The Department of Education, Tulsa Community College has implemented and practices a strict Default Management Plan. In part, this Default Management Plan includes requiring an Entrance Interview for all student borrowers, Exit Interviews for students in less than halftime enrollment whether due to withdrawal or graduation.

Misrepresentation, Forgery, Fraud and Abuse

The TCC Financial Aid Office is required to report any suspected fraud or misrepresentation to the Inspector General's Office. Whenever a staff member becomes aware that a student and/or a student's parent or spouse may have allegedly misrepresented facts relevant to the student's financial aid application, or have committed forgery or fraud, the staff member must report this promptly to the Director of the Financial Aid and Scholarship Office for appropriate follow-up. The Director will contact the student to attempt to determine if the misrepresentation was unintentional and to explain the consequences of the action. Should resolution not occur, the case would be referred to the Inspector General's Office for appropriate resolution. A hold will be placed on the student's record and financial aid until resolution has occurred.

VETERANS SERVICES

Tulsa Community College maintains a full-time office of Veterans Services at Metro Campus for the convenience of veterans and their dependents attending school and receiving educational benefits under the following chapters of Title 38 United States Code.

Entitlement Programs

1. Chapter 30, Title 38, U.S.C. - Montgomery Gl Bill
2. Chapter 31, Title 38, U.S.C. - Disabled Veterans, Vocational Rehabilitation Program
3. Chapter 32, Title 38, U.S.C. - Veterans Educational Assistance Program (VEAP)
4. Chapter 35, Title 38, U.S.C.
   a. Spouse of 100% and Permanently and Totally Disabled Veteran
   b. Spouse of a Deceased Veteran (Service Connected)
   c. Spouse of Deceased 100% and Permanently Disabled Veteran
   d. Children of a, b, or c
5. Chapter 1606, Title 38, U.S.C. - Selected Reserve Educational Assistance Program Policies

The Department of Veterans Affairs (DVA) requires all veterans to abide by the policies and regulations of the College concerning academic standing and progress, class attendance, and conduct. The TCC Veterans Services Office will monitor compliance with these policies and is required to report any deviations to the DVA. All school policies are stated elsewhere in this catalog. Concurrent with school policies, the DVA requires the following.

A. Academic program. A recipient of DVA benefits must select and designate the academic program under which he or she will be receiving educational benefits. Any change of academic program must be acceptable to the DVA.

B. Course work. Educational benefits will be paid only on courses applicable toward the academic program. Any course substitution, i.e., course outside the catalog listing for a particular program, must be verified as an approved substitution. The DVA will not award educational benefits for repeated courses in which a passing grade has already been received or for courses in which an incomplete "I" is earned.

C. Previous or transfer credit. Applicants for benefits having earned college credit at another institution must submit transcripts from each institution he or she has attended before the TCC Veterans Services Office can certify enrollment to the DVA.

D. Class attendance. The DVA requires the institution to report all excessive absences from classes. Failure to attend classes while receiving benefits will result in an overpayment and the student is liable for repayment to the DVA.

Procedures

A. Apply for admission to the College in the Admission and Records Office, or online at www.tulsacc.edu.

B. First time veteran students at TCC need to contact the Advisement Center and acquire a Program Curriculum Plan. Take a copy to the Veterans Services Office at Metro Campus. Returning students may verify applicability of courses toward graduation by reviewing their Program Curriculum Plan on file in the Advisement Center or the Veterans Services Office.

C. Register for classes.

D. After the registration for classes is completed, go to the TCC Veterans Services Office at Metro Campus and request certification for benefits. The following documents must be presented by veterans enrolling under the Veterans Educational program for the first time.

1. Chapter 30 and 32. Verification of service on VA form 22-1990V, or copy #4 or certified true copy of DD-214 (Report of Separation).
2. Chapter 31. Approved VA Form 22-1905 from DVA Vocational Rehabilitation counselor.
3. Chapter 33 - See website for details.
4. Chapter 35 - Disabled veteran's claim number
5. Chapter 1606. Approved DD Form 2384, Notice of Basic Eligibility (NOBE) from reserve unit. And, if eligible, a copy of the kicker contract.

E. All campuses' certifications for veterans benefits will be processed through the Veterans Services Office on the Metro Campus. Students taking courses at locations other than the four principal campuses must contact the Metro Campus Veterans Services Office for information and certification.

F. Veterans pursuing concurrent enrollment at more than one college or university may do so, but must coordinate with Veterans Services Office at both institutions to insure proper certification. All courses taught by TCC, regardless of campus, are approved by the same college and are not concurrent enrollments.

ACADEMIC POLICIES AND PROCEDURES

Grade and Record Policies

I. Final grades for each term are recorded and preserved.

II. Grade points are earned and recorded as follows:

Grades	Definition	Grade points
A	Excellent	4
B	Good	3
C	Average	2
D	Below Average	1
F	Failure	0
I	Incomplete Grade	GPA Neutral
AU	Audit Status	GPA Neutral
W	Withdrawal	GPA Neutral
AW	Administrative Withdrawal	GPA Neutral
***S-U**	Satisfactory-Unsatisfactory	GPA Neutral
N	Semester grade not reported	GPA Neutral

*Courses must be specifically approved in order to use this definition
NOTE: Zero-level courses are not included in any GPA calculation

III. "I" grades may be assigned provided the student is passing the course and has completed a substantial portion of the coursework for the semester. The instructor and student complete and sign an "I Grade Completion Form" and agree on the work to be performed and a deadline for completion. The "I" is changed by the instructor through the grade change procedure. An "I" grade not changed by the end of the next long (fall or spring - sixteen week) semester will remain a permanent "I" and will become grade point neutral.

IV. "W" - A grade of "W" is assigned when a student completes the withdrawal process by the published withdrawal deadline. The deadline to withdraw shall not exceed three-fourths of the duration of any semester/term. See catalog calendar or contact any Admission/Enrollment Services Office.

V. An "AW" is assigned when a student is administratively withdrawn from a course. The reason for such a withdrawal could be financial, disciplinary, non-attendence/non-participation, inadequate attendance/inadequate participation, or extenuating circumstances (see Class Attendance/Participation on page 40). During the last quarter of the regular semester, the assignment of the AW is the responsibility of the instructor of the class; however, in emergency situations, the AW may be assigned by the appropriate Associate Dean.

The time during which a student may be administratively withdrawn extends from the end of the schedule adjustment period through the last day of classes. This policy will be adjusted proportionately to fit any other semester or term.

VI. AU - Audit status is used for students not seeking to obtain course credit. Students must meet curricular and proficiency requirements and must obtain the instructor's approval by completing the Audit Form and submitting it to the Admissions/Enrollment Services Office. The time in which a student may change from credit to audit is the same as the student withdrawal period. A student may change from audit to credit only during the schedule adjustment period. A student may change from audit to credit only during the schedule adjustment period for the semester or eight-week term. This option is not available to Financial Aid students.
See Audit of a Course on page 24.

VII. Academic Forgiveness: Students may be granted academic forgiveness in three circumstances: **(1)** For pedagogical reasons, a student will be allowed to repeat a course and, **(2)** When a student has performed poorly in an entire enrollment due to extraordinary circumstances, all courses and grades will be reflected on a student's transcript with the cumulative GPA, but those courses that are forgiven will not be used in calculating the student's retention and graduation GPAs. **(3)** A student may be returning to college after an extended absence and/or under circumstances that warrant a fresh academic start.

A. Repeated Courses: Students can retake courses and have only the second grade earned count in the retention/graduation GPA calculation up to a maximum of four courses, not to exceed 18 hours, in courses in which the original grade earned was a "D" or "F." Forgiveness applies to the first four courses repeated.

B. Academic Reprieve: A student may request an academic reprieve of up to two consecutive semesters if he/she can demonstrate to the appropriate institutional officials extraordinary circumstances which contributed to or caused the student to do poorly. Guidelines for reprieves include but are not limited to **(1)** at least three years must elapse between the time grades were earned and the reprieve request; **(2)** prior to requesting the reprieve, the student must have earned a GPA of 2.00 or higher with no grade lower than a "C" in all regularly graded course work (minimum of 12 hours) excluding activity or performance courses; **(3)** a student must petition for a reprieve according to institution policy; and **(4)** a student cannot receive more than one reprieve in his/her academic career.

C. Academic Renewal: The student may request to be considered for academic renewal **(1)** if at least five years has elapsed between the last semester being renewed and the renewal request; **(2)** the student must have earned a GPA of 2.00 or higher with no grade lower than a "C" in all regularly graded course work (minimum of 12 hours) excluding activity or performance courses; **(3)** it will include all of the courses completed before the date specified in the request for renewal; **(4)** the student must petition for academic renewal according to institutional policy; **(5)** neither the content nor credit hours of forgiven renewal coursework may be used to fulfill any degree or graduation requirements.

All courses remain on the student's transcript, but are not calculated in the student's retention and graduation GPA. All forgiven courses will still be calculated in the student's cumulative GPA and will appear on the student's transcript. Academic reprieve and renewal once granted may or may not be recognized by other colleges and universities.

For further details or to petition to be considered for forgiveness contact any Admissions/Enrollment Services Office.

Policy for Continued Enrollment

I. Retention GPA Requirements for Continued Enrollment

A student will be placed on academic notice or probation if he/she fails to meet the following requirements:

Credit Hours	Retention GPA Requirement
0 through 30 semester credit hours	1.7
Greater than 30 semester credit hours	2.0

Freshman students, 30 or fewer credit hours, with a GPA of 1.7 to less than 2.0 will be placed on academic notice.

All courses in which a student has a recorded grade will be counted in the calculation of the grade point average for retention purposes excluding any courses repeated or reprieved, any zero-level course and any physical education activity and performance course as detailed in the State Regents' Grading Policy. Any student not maintaining the required progress as indicated in the chart will be placed on probation for one semester. At the end of that semester, he/she must have a semester GPA of 2.0 in regularly graded course work, not to include activity or performance courses, or meet the minimum retention GPA standard required to continue as a student*. Students not meeting either of these criteria will be suspended and may not be reinstated until one regular semester (fall or spring) has elapsed.

** Freshman students, 30 or fewer credit hours, with a GPA of 1.7 to less than 2.0 will be placed on academic notice.*

II. Re-admission of Suspended Students

A. Students who are academically suspended by an institution will not be allowed to reenter the suspending institution for at least one regular semester (fall or spring). Suspended students may be admitted only one time Students re-admitted on probationary status must maintain a 2.0 grade point average each semester attempted while on probation, not to include activity or performance courses, or raise their retention GPA to the designated level. Should a reinstated student be suspended a second time, he/she cannot return to the suspending school until such time as he/she has demonstrated, by attending another institution, the ability to succeed academically by raising his/her retention GPA to a 2.0 or higher.

B. Students suspended from other institutions may transfer without the lapse of one semester. Such admissions would be at the discretion of the receiving institution and such admission would be probationary.

Academic Notice, Probation and Suspension Definitions

A. Academic Notice: Freshman students, 30 or fewer credit hours, with a cumulative GPA of 1.7 to less than 2.0 will be placed on academic notice.

B. Academic Probation: Any student whose retention GPA falls below those designated in the chart on page 39 at the end of a given semester is on academic probation.

C. Academic Suspension: Any student who was on academic probation and fails to raise his/her GPA to the required retention level or to achieve a 2.0 in regularly graded course work, not to include activity or performance courses, in any semester following academic probation, will be suspended from the institution.

D. Good Standing: Eligible for re-enrollment.

Recommended Academic Load

Students who are in academic good standing may enroll in up to 18 semester hours in a regular 16 week semester. In an eight week or shorter term of enrollment, the maximum number of hours of enrollment is proportionate to the 16 week term. Students may enroll in up to nine (9) semester hours in a regular eight-week summer term. Exceptions to course credit hour limits per term may be considered and granted by permission of an authorized counselor.

Students who are employed while being enrolled are encouraged to use the following guide to course load during any academic semester or term: Work 40 hours per week, carry three to six semester hours; work 30 hours per week, carry six to nine semester hours; work 20 hours per week, carry nine to 12 semester hours; work 15 hours per week, carry 12 to 15 semester hours.

Class Attendance/Participation

Students are expected to regularly attend and participate in all classes in which they are enrolled. Class attendance/participation is the responsibility of the student. It is also the responsibility of the student to consult with the Instructor when an absence must be excused. Instructors have the responsibility of determining whether an absence is excused or unexcused and may initiate an administrative withdrawal (AW) for non-attendance/non-participation. Students receiving benefits from government agencies must adhere to attendance policies stipulated by the specific agency.

Student Grades and Transcripts

- Grades are available to each student once grades are posted by the instructor via the TCC website at **www.tulsacc.edu** (click on TED). Current semester grades will not appear on an official TCC Transcript until the end of the semester.
- The Enrollment Services office will send an official TCC transcript upon the student's signed request to any college or agency named.
- Transcripts will be withheld if the student has not paid financial obligations to the College.

Grade Changes

Questions regarding the student's grades assigned must be directed to the student's instructor. This procedure must be initiated by the end of the fourth week of the semester/term immediately following the semester/term in which the grade was assigned. Students must follow the grade appeal process outlined in the Student Handbook and Code of Conduct. The appropriate Associate Dean, or designate, must approve any change to this record. Once the grade change has been processed, students may request an official transcript reflecting the change.

Student Grades and Transcripts from Tulsa Community College

The Admissions/Enrollment Services Office will send an official transcript upon the student's signed request to any college or agency named. Grades are available to each student at the end of each semester via the TCC website at **www.tulsacc.edu** (click onTED). Transcripts will be withheld if the student has not paid financial obligations to the College.

Access to Student Records

Student records at Tulsa Community College are maintained in compliance with the Family Educational Rights and Privacy Act of 1974 as Amended in 1995. The Act affords students certain rights with respect to their educational records. These rights include the right of students to request access to their personal records and also the right to request the amendment of the student's education records that the student believes are inaccurate. The student must submit in writing a request precisely noting the record for review. Additionally, students have the right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. Upon request, the College discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The Act affords students the right to file a compliant 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:

Family Policy Compliance Office, U. S. Department of Education
400 Maryland Avenue, SW Washington, DC 20202-4605

Directory Information

The Family Educational Rights and Privacy Act (FERPA) further provides that certain portions of a student record may be deemed directory information and be released to a third party without the written consent of the student. TCC designates student name, mailing address, degrees or certificates earned, major, last semester of attendance, and honor awards as directory information. The College may release a student's directory information without the written release of the student as allowed by FERPA. The College is authorized to obtain or provide educational records as allowed by law. A directory is printed each semester listing student name, city, and state, to comply with the Oklahoma Records Act.

A student may request the College not to release directory information. The request must be in writing, signed by the student, and submitted to the Admissions/Enrollment Services Office prior to the end of the fourth week of a semester or the end of the second week of a summer term. Students registering after this deadline may sign an information withholding request at the time of enrollment.

Annual Notification of Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act

Tulsa Community College, through the Department of Public Safety/Campus Police complies with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act by publishing an annual campus security report in the Student Handbook. The report is a compilation of crime statistics, as well as procedures and programs for preventing and dealing with incidents of sexual assault, sexual harassment, and substance abuse. The report also contains security policy statements regarding timely notification of criminal activity, including sexual assault policies which assure basic victim's rights, details about the law enforcement authority of campus security officers and where students should go to report crimes. Paper copies are made available through the Campus Police office, Admissions/Enrollment Services Office, and the Office of Student Activities on each campus.

This report is available on the Web at **http://www.tulsacc.edu/campuspolice.**

Right to Know Graduation/Completion Rates

Graduation/completion rates are available in any TCC Admissions/Enrollment Services Office. This information is available to be in compliance with the Student Right-To-Know Act of 1990. (Public Law 101 -542)

High Scholastic Achievement

Tulsa Community College has numerous ways of recognizing superior scholastic achievement. They include the President's Honor Roll, the Dean's Honor Roll, the Honors Scholar program, and Phi Theta Kappa, the international honor society for two-year colleges.

A. Honor Roll

1. The President's Honor Roll includes the names of students who have the semester grade point average of 4.0.

2. The Dean's Honor Roll includes the names of students who have a semester grade point average of 3.0 to 3.99.

B. Graduation

The College recognizes scholastic achievement at the annual commencement for students achieving a cumulative grade point average of 3.5 or higher at the end of their last completed semester.

1. "Honors" — Graduating with a 3.5-3.99 cumulative grade point average.

2. "Highest Honors" — Graduating with a 4.0 cumulative grade point average.

Recognition for "Honors" or "Highest Honors" does not appear on the official transcript or diploma.

Students who successfully complete the Honors Scholar program receive the designation "Honors Scholar" on their official transcripts and wear pewter medallions at commencement.

GRADUATION AND DEGREES

GRADUATION

Tulsa Community College recognizes the successful completion of program requirements by awarding an associate degree or a certificate of achievement. The associate degree is granted in programs requiring at least 60 academic credit hours and the certificate of achievement is granted in programs requiring less than 60 academic credit hours.

General Policies

- Specific course requirements in a degree or certificate program must be completed.
- To meet residency requirements, one-fourth of the total credit hour requirements must be earned at Tulsa Community College. Advanced standing, zero-level courses, correspondence, and/or extension may not be used toward the TCC resident credit-hour requirements.
- A 2.0 retention grade point average is required to meet graduation requirements (see specific degree requirements for AA/AS degree and AAS degree). Effective January 1992, zero-level courses are not included in any GPA calculation.
- Physical education "activity" and any reprieved or repeated courses may not be utilized for credit toward the credit hour requirement of any program. Physical education lecture or theory courses may be used in completing the degree requirements for the PE majors.
- An associate degree for a different major may be granted by accumulating an additional 15 credit hours earned in residence at Tulsa Community College.

• An additional option to an associate degree may be granted by completing the required courses in the option in residence at Tulsa Community College.

Reprieved or repeated courses are defined in the Academic Policies and Procedures section (Grade and Record Policies) elsewhere in this catalog.

Program Plan Procedures

Degree-seeking students should follow the major curriculum plan listed in the catalog in effect at the time of entry or re-entry. The program requirements remain in effect as long as uninterrupted enrollment is maintained with the exception of summer terms. A re-entering student should file a program plan specified by the current academic year catalog. A final graduation checklist must be filed in the Advisement Center prior to declaring candidacy for graduation.

Students should request assistance from the Advisement Center in planning their programs of study, particularly if planning to transfer to a four-year college or university. Close, early coordination between TCC academic advisors and advisors from selected four-year institutions can streamline the transfer process.

The Advisement Center should be notified if a change of major is made. After meeting with an advisor, the student should follow the curriculum plan for the new major as listed in the catalog in effect at the time of the change of major.

Any substitution of course requirements listed for the associate degree should be requested through the Advisement Center.

Graduation Candidacy Procedure

Students seeking a certificate or a degree should prepare for graduation as follows:

- Final official transcripts from all schools attended must be on file at TCC before an official program plan can be prepared.
- Students are expected to have an official program plan filed in the Advisement Center prior to declaring for graduation.
- A final graduation check should be made in the Advisement Center at the time of enrollment for the last semester of attendance.
- Students admitted to the Honors Scholar program should also complete a graduation check in the Honors Office at the beginning of their final Fall or Spring semester.
- The Advisement Center will advise and refer the student to declare for graduation in the Admissions/Enrollment Services Office.
- All declared candidates will be contacted by the Admission/Enrollment Services Office and the College graduation marshal with information about the graduation.
- Once grades are recorded for final semester of enrollment, a final review will take place and students contacted as to their status.
- Degree notes are recorded on the graduate's TCC transcript, and diplomas and certificates of completion are issued by the Admissions/Enrollment Services Office.

Formal graduation will be scheduled at the end of the second semester of each academic year. Students meeting requirements at the end of any semester in that academic year should arrange to participate in the graduation ceremonies unless a written request for graduation in absentia is received and approved by the Dean of Student Services of his/her resident campus.

DEGREES

Degrees awarded to students planning to continue to a bachelor's degree program are the Associate in Arts or the Associate in Science. The degree awarded to a student completing a workforce development program is the Associate in Applied Science.

The degrees awarded to students with specific major fields are listed with each program description in this catalog.

I. Associate in Arts/Science

A. Students recommended for the Associate in Arts or Associate in Science degrees must achieve a grade point average of 2.0 as a minimum on all course work attempted (a minimum of 60 hours) excluding any courses repeated or reprieved as detailed in the State Regents' Grading Policy and excluding physical education activity courses.

B. General Education Core Courses

1. English Composition: A minimum of six credit hours that must include ENGL 1113 and ENGL 1213.

2. U.S. History and U.S. Government: A minimum of six credit hours that must include HIST 1483 or 1493 and POS 1113.

3. Science: A minimum of six credit hours. At least one course must be a laboratory science.

4. Humanities: A minimum of six credit hours chosen from non-performance courses defined as humanities.

5. Mathematics: A minimum of three credit hours.

Courses used to fulfill general education requirements at TCC are listed in the Catalog section titled **GENERAL EDUCATION REQUIREMENTS.** A code letter preceding a course title designates the general education category for which the course may be used, as follows:

- **A: Analytical and Quantitative Thought**
- **L: Scientific Investigation (Lab)**
- **H: Humanities**
- **S: Social and Behavioral Sciences**
- **I: International or Non-Western Dimension**
- **D: Diversity component of domestic, not international scope**

C. Required Electives: One three-hour course from one of the following disciplines: psychology, social sciences, foreign language, fine arts (music, art, theatre).

D. Additional liberal arts and science courses needed to meet the minimum total of 37 credits. See section titled, "Associate Arts/Science Degree General Education Requirements" in this catalog.

E. As required by State Regents policy, to receive an A.A. or A.S. degree from TCC, students must demonstrate computer proficiency, including a basic knowledge of operating systems, word processing, and the ethical use of Internet research capabilities. Please see page 29 for complete requirements.

F. The remaining minimum of 23 semester credit hours of academic work shall be applicable to the student's major objective, including any prerequisite courses necessary for his/her anticipated upper-division program. A majority of such student credit hours should be taken in courses classified as liberal arts and sciences. Requirements are listed in specific degree patterns.

G. Curriculum patterns for these majors are designed to meet the above requirements and are provided for each student in the catalog. Students and advisors should consult the designated bachelor's degree institutions to make the specific course selections to meet the aforementioned requirements and transfer requirements.

II. Associate in Applied Science

A minimum of 60 credit hours and completion of all specific courses listed in the curriculum pattern for the major and a minimum 2.0 ("C") grade point average on all work submitted for a degree (excludes PE activity courses).

III. Certificate of Achievement

Completion of the required courses in a specified area and a 2.0 ("C") grade point average on all work submitted.

STUDENT SERVICES

Academic Advisement

Advisement services on each campus are integral parts of the Counseling and Testing Offices. These services are designed to help students determine their educational objectives. Academic Advisors are available for the purpose of guiding students in their college careers and in the enrollment process each semester. For specific information about advisement/enrollment programs and procedures, contact the Counseling and Testing Center on any campus. Upon request, advisors will formulate a degree plan for a student. This is helpful to students transferring credits into TCC, to anyone changing majors, and to those students wanting to take the minimum number of courses necessary to complete their degree or certificate program.

For graduating students, a final graduation checklist must be completed through the Counseling and Testing Offices during the semester they intend to graduate. Transfer guides, degree requirements, and catalogs from institutions of higher education throughout Oklahoma are available in the Counseling Offices on each campus. Those available include publications from Langston University, Northeastern State University, Oklahoma State University, The University of Oklahoma, The University of Tulsa and Oral Roberts University. TCC catalogs are also available in the Centers. The Counseling and Testing Centers coordinate university visits. University representatives from major universities meet with TCC students on-campus to assist them in planning for transfer while completing requirements for a degree at TCC.

New Student Advisement

The Counseling staff are available to provide one-to-one personal assistance to first-time enrolling TCC students. This session begins an individualized orientation to TCC admissions and enrollment procedures, academic programs, and student services. New student advisement is designed to help ease the transition into college and is provided in the Counseling Offices on each campus.

Assessment Services

The Counseling staff administers and interprets a wide variety of tests which can help students in numerous ways. A student can be tested for achievement, aptitude, or interest. Some of the testing programs available through the Counseling Offices include:

ACT Assessment

ACT Assessment results may be used by TCC Academic Advisors to place students in courses appropriate to their skill level. Also, certain programs at TCC require the ACT as part of their application process. The National ACT Assessment is administered on specific dates, open to anyone, and the scores can be reported to other colleges other than Tulsa Community College. The Residual ACT Test is administered on-campus for enrolled and admitted TCC students who were unable to test on a national test date. Results are reported only to TCC. Information about the ACT and a testing schedule is available from the Northeast Campus, Testing Center, by telephone at (918) 595-7534 or online at **www.tulsacc.edu/Testing.**

Advanced Standing Credit by Exam

Students who believe they are qualified to earn college credit as a result of previous training or experience may do so by taking either the College-Level Examination Program (CLEP) subject exams or TCC departmental exams. CLEP may not be used for foreign language except Spanish. Additional information is stated in this catalog under the heading of Credit by Advanced Standing.

Accuplacer Computerized Placement Tests (CPT) or COMPASS Placement Tests

Selected exams are administered through the Assessment Centers for admission purposes and/or to determine the appropriate courses for student enrollment. Those exams are normally administered throughout each semester.

ESL Placement Examination

Students for whom English is a second language and who do not meet the required TOEFL scores, may study English as a Second Language after taking the TCC ESL Placement test. To schedule a free testing appointment, please call (918) 595-8411, Multi-Cultural Language Center, Northeast Campus, **www.tulsacc.edu/esl.**

General Educational Development Test (GED)

The GED is administered at the Northeast Campus to provide Certificates of High School Equivalency.

Test of English as a Foreign Language (TOEFL)

The TOEFL is administered at the Testing Center on the Northeast Campus at the beginning of each semester to meet state guidelines for the admission of students for whom English is a second language. Information about the TOEFL and a testing schedule is available from the Testing Center, located on the Northeast Campus, by telephone at (918) 595-7534 or online at **www.tulsacc.edu/Testing.**

Campus Store

Each of the four Tulsa Community College campuses has its own Campus Store. Students may purchase their coursebooks for classes in which they are enrolled as well as supplies and materials such as notebooks, pens and pencils. Available also in the Campus Stores is a variety of merchandise which includes computer software, greeting cards, snacks, backpacks, and an assortment of gift items. Various clothing items bearing the TCC monogram are available for student selection as well. The Campus Store distributes caps and gowns for commencement and coordinates orders for graduation announcements, rings, and class pins.

Campus Information
There are many ways in which the student can keep abreast of the various programs and activities on campus. They include announcements made by faculty members in class, information on bulletin boards scattered throughout each of the campuses, and the TCC Connection newspaper. In addition, the Student Handbook and Activities Calendar are posted on the TCC web site (**www.tulsacc.edu**). Monthly activities calendars are available in the Student Activities Office on each campus.

Career Services
Whether you are choosing a major, exploring occupations, or needing help with the job search process, Career Services can help! We have a wide variety of resources available free of charge to current TCC students or graduates. The Career Exploration Program is a popular career planning tool to assist you in making a better informed career decision. You will have the opportunity to explore your interests, abilities, and work-related values in addition to gathering information on hundreds of different occupations. If you need assistance with any part of the job search process, including resumes, interviewing skills, cover letters, etc., our staff is here to help. Career Services, located on each campus, include a variety of resources and opportunities for assistance in obtaining career and employment information. Information about Career Services is available online at **www.tulsacc.edu/careerservices.**

Career Exploration
The Career Exploration program is an opportunity for self-discovery, whether choosing a career, changing majors, or setting goals. This service is free to all currently enrolled TCC students or as a one-credit-hour course. Career Exploration is customized to meet individual needs, and appointments are made at the convenience of the participant.

Student Email Account (mytcc.tulsa.edu)
This email address and account must be used for all college academic and business written correspondence, including applications, enrollment, financial aid, etc. All correspondence with students about TCC and classroom assignments will be via your MyTCC account.

Education Outreach Center
TCC has opened the Education Outreach Center at 21st and Garnett to serve as a convenient, neighborhood bridge to college for anyone wishing to pursue higher education. At the center, students can apply at TCC, complete college placement testing, enroll in TCC classes and learn about financial aid.

Student Employment
The Student Employment program is a free service designed to assist students, TCC graduates, and employers with their employment needs. Student Employment services are located on each campus. More information is available online at **www.tulsacc.edu/careerservices.**

New Student Orientation
Various programs have been designed to orient new students to TCC. Emphasis is placed on familiarizing students with College facilities and services, academic information, and other general information which will help students feel comfortable in a new environment.

Any student new to TCC is encouraged to attend the orientation program. Contact the Counseling Office or Student Activities Office for more information about orientation programs on each campus.

Tutorial Assistance
Any student needing academic assistance outside the classroom may inquire in the Counseling and Testing Center or instructional labs on each campus.

Workshops and Seminars
Special workshops and interest sessions are periodically offered throughout the semester. These activities are coordinated through the various Student Services offices. They include such topics as "Study Skills," "Test-Taking Techniques," "Stress Management," and other areas of student interests.

Department of Public Safety/Campus Police

The Department of Public Safety/Campus Police functions primarily to protect life and property of TCC students and staff and provides numerous services to students as a routine part of the College operation. Included in these services are personal escorts to the student's vehicle. The Campus "Lost and Found" is located in the Department of Public Safety/ Campus Police Office. Campus Police makes its annual Campus Security Report available in the Student Code of Conduct and Policy Handbook. This report is a compilation of crime statistics, as well as procedures and programs for preventing and dealing with incidents of sexual harassment, assault, and substance abuse. The codebook and aforementioned procedures and programs are provided annually to all current students and staff via the Dean of Student Services Office or computer network in compliance with the Higher Education Amendments of 1998 and the Jeanne Clery Disclosures of Campus Security Policy and Crime Statistics Act (20USC1092f). To receive your own copy of the report, stop by any TCC Campus Police Office or view the posting electronically on the web at **www.tulsacc.edu/campuspolice.**

Services for Students with Disabilities

Tulsa Community College provides accommodations for qualifying students in compliance with the Americans with Disabilities Act. For more information students should contact the disABLED Student Resources Center 918-595-7115 or the Resource Center for the Deaf and Hard of Hearing 918-595-7428V, 918-595-7434TTY.

disABLED Student Resource Center (dSRC)

The disABLED Student Resource Center (dSRC) is located at the Metro Campus. The purpose of the Center is to extend, reinforce, and supplement the learning experience of the student with documented disabilities in classes and college-related activities. The Center serves all campuses of the College. Each campus has a dSRC liaison for students to coordinate services where they are attending class(es). The Center's staff works with other areas of the College to provide an opportunity for students to attempt to meet the challenges of a college career. The student registration process is initiated in the dSRC and serves as an aid in providing accurate academic support services. Specialized equipment including computer-assisted instruction, videotapes, tape recorders, a variety of specially modified computers and other assisting technology is available for use by students in the Center and the classroom. Students may register with the dSRC on their own, or be referred by their parents, TCC administrators, counselors, instructors, nurses, and community agencies. Students may utilize this Center for studying, tutoring, and for additional academic support services.

The Resource Center for the Deaf and Hard of Hearing

The Resource Center is located on the Northeast Campus. The purpose of the Resource Center is to extend, reinforce, and supplement the learning experiences of the deaf or hard of hearing student for classes and college-related activities on all four campuses. The Center's staff works with instructors and students to facilitate classroom accommodations such as notetakers, listening devices, captionists and interpreters. Students may be referred by instructors or counselors, or they may refer themselves. The Center is open for studying, tutoring and/or social interaction with other deaf or hard of hearing students. Courses are offered to assist students in achieving the skills necessary to proceed through the Developmental Studies Program and/or through a planned college program. Students should contact the Resource Center for the Deaf and Hard of Hearing to apply for accommodations provided under the Americans With Disabilities Act.

Fitness Centers

The Fitness Centers at Tulsa Community College, located inside the Student Unions at Metro, Northeast, Southeast, and West campuses, are available to all TCC students, full-time faculty, and staff. Currently enrolled credit students on all campuses may participate at any site at no charge.

Fitness Centers are open Monday through Saturday, early morning to evening (although they will be closed when the College is closed). These centers feature basketball/volleyball courts, an indoor track, an aerobics room, a free weight room, as well as cardio and strength exercise areas. Operating hours are reduced between semesters.

Professional staff members are dedicated to assisting users as they work toward personal fitness goals. A wide variety of course offerings and activities through credit enrollment, continuing education, student activities, and fitness center staff will be available to all users. For additional information, contact the Metro Fitness Center at **595-7FIT (595-7348)**, Northeast Campus Fitness Center at **595-8GYM (595-8496)**, Southeast Campus Fitness Center at **595-8640** and West Campus Fitness Center **595-8225**.

Food Services
Tulsa Community College offers a variety of food services for the convenience of TCC students and employees. Food and drink vending machines are also available in various locations on each campus.

Housing
Tulsa Community College does not operate residence halls or maintain listings of available housing for students. Students who do not reside in the area must make their own arrangements for housing.

International Student Services
International Student Services, located on Northeast Campus, provides information, programs and services that help to make the international student's U.S. experience productive and positive. Services provided include admission processing, academic advising, immigration assistance, and cultural activities. The staff helps in creating an international educational environment at Tulsa Community College for all students, faculty, and staff. Contact International Student Services at (918) 595-7478 or **www.tulsacc.edu/iss.**

Parking
Tulsa Community College attempts to provide adequate parking facilities for all of its students and staff. Parking is provided on each campus and is generally accessible during normal operating hours of the College. Parking is available for currently enrolled students for a nominal parking fee which is assessed on the basis of the number of credit hours in which a student is enrolled during a given semester. Parking on any TCC lot is available on a first-come, first-served basis and is intended for use by the student or staff member only while he/she is attending class or conducting college-related business on campus. Students are required to display a valid parking decal. Information about parking services and regulations is available in the Department of Public Safety/Campus Police Office located on each campus. Public transportation is also available for student use in most cases.

Student Activities

The Student Activities program is designed to provide each student the opportunity to participate in significant activities planned to complement educational pursuits. Opportunities are available for students to develop leadership, responsibility, and social skills through participation in numerous activities at the College. The students, faculty, and staff are kept aware of these activities through student activities calendars and notices on bulletin boards. Information concerning student activities is available in the Student Activities Office on each campus.

Educational and Entertaining Activities

A variety of activities such as films, music presentations, various entertainers, lectures, exhibits, trips, contests, discussions, workshops, and family-oriented programs are presented throughout the year by the Student Activities Office. They are scheduled with input from both students and faculty members. Anyone wishing to suggest programs should contact the Student Activities Office on any campus.

Recreational Activities

The recreational program is designed to meet the needs of TCC students regardless of age, skill or ability. It offers students the opportunity to participate in team and individual sports and enjoy the benefits of physical activity, group cooperation, and spirit. Intramural sports offered during the year include basketball, flag football, soccer, softball, volleyball, tennis, pool, table tennis, and others, as interest dictates. Both intramural leagues and tournaments are planned in these various sports. Dates, times, locations, and entry requirement information is available in any Student Activities Office. Questions concerning the recreational program should be referred to the Student Activities Office at the Metro, Northeast, Southeast, or West Campus.

Discounts and Services

A variety of discounts and services is available in the Student Activities Office on each campus. Although not all items are available on all campuses, items offered include discount tickets for area movie theatres, athletic event tickets, MTTA bus passes, area theme park tickets, and memberships to the Philbrook Museum of Art.

Sponsored Programs

Educational Opportunity Center

The Tulsa Community College Educational Opportunity Center is funded through the United States Department of Education and is a sponsored program also identified as a TRIO program. The EOC was first funded at Tulsa Community College in September 2002. The purpose of the program is to promote postsecondary education by providing information and assistance on educational and career opportunities and available financial aid options to eligible adults in a three-county area.

The EOC staff works out of a central campus-based office and satellite offices in the surrounding counties. The staff helps adults, who wish to continue their education, select and apply to schools suited to their abilities and career interests. They also provide assistance with identifying grants and loans to help pay for educational expenses, and help with the completion of admissions and financial aid applications. Additional information may be obtained from the program director or by visiting the program website: **www.tulsacc.edu/eoc.**

RISE Student Support Service Program

RISE is a Student Support Service program committed to the academic success of students that are first generation (neither parent has earned a four year baccalaureate degree), economically disadvantaged (as determined by federal guidelines) or have a documented disability and attend TCC. The acronym RISE stands for Reflective, Integrated, Scholarly, Excellent.

Students interested in the RISE program can pick up an application in the Metro Campus Career and Assessment Center, First Stop Enrollment Center, disABLED Student Resource Center, or you can stop by the RISE Program office, Metro Campus, Room 1003.

Students must complete the RISE application and submit a copy of last year's tax return (1040, 1040A) for income documentation purposes. They will then have an opportunity to meet with one of the professional staff persons in the

RISE office to review their eligibility requirements and get a more in-depth look at the services that are available through the program.

Some of the support services that will be offered to program participants are:

- Detailed orientation
- Frequent academic advising
- Financial aid application assistance
- Provision of supplemental PELL grant aid to reduce loan burden
- Cultural Activities
- Workshops on study skills
- Career exploration
- Supplemental instruction that provides additional "class" time with professional tutors
- Tutoring and mentoring

Student Government Association

Each student who enrolls at TCC, full time or part time in credit courses, automatically becomes a member of the student body. This entitles a student to vote in student elections and to take part in student activities. The representative governing group of the student body is the Student Government Association (SGA). All students enrolled in at least 6 credit hours who are in good standing with the College are eligible for SGA membership. The SGA represents the students at TCC in matters related to student campus life. The SGA also coordinates various activities for the student body. All students are encouraged to take an active part in the student government and activities program. Questions concerning SGA activities or elections should be referred to the campus Student Activities Office.

Student Unions

The Student Union on each campus meets a variety of student needs. The Campus Store, dining facility ("Campus Cafe"), and Student Activities Office in each Union are available along with student lounges, game rooms, and meeting areas Students may also call the Student Activities Information line for up-to-the-minute activities updates: Metro Campus, 918-595-7280; Northeast Campus, 918-595-7593; Southeast Campus, 918-595-7793; West Campus, 918-595-8228.

Student Health Services

Student Health Services offices are available on each campus to provide health care and health education to students and staff. Each is staffed by a registered nurse who will evaluate and treat injuries and advise treatment for illness Students with health concerns are referred to their personal physicians or to agencies in the Tulsa area. Supplemental literature and student health insurance information is available in the pamphlet racks in the hallway adjacent to the Health Center or from the nurse.

Each semester a variety of health related workshops or programs is presented allowing individuals a chance to participate A few topics include: chemical dependency, holiday blues, coping with stress, and physical fitness. Student Health Services also sponsors a Red Cross Blood Drive each semester. Blood pressure, diabetes, hearing, vision, cholesterol, and triglyceride screenings are done periodically or by appointment. Temporary parking permits for temporarily disabled students and staff may be obtained from the Student Health Services office. Information and applications for permanent state handicap parking decals are available.

Student Organizations

Student organizations provide opportunities for students to broaden their experiences, to develop leadership abilities, to provide a sense of responsibility, and to give service to the College and community. Individuals interested in starting a student organization should contact the Student Activities Office on any campus.

METRO CAMPUS

African American Student Association • Arabic Language Association • Chinese Language Association • French Language Association • Future Medical Laboratory Technologist's Club • Hispanic Student Association • Japanese Language Association • Journalism & Mass Communications Student Organization (JMCSO) • Medical Assistant Student Association • New Horizons • Organization for Christian Fellowship • Phi Theta Kappa (Omega Alpha Chapter) • RISE Student Association • Science Club • Student American Dental Hygienist's Association • Student Art Association • Student Association of Respiratory Therapy • Student Association of Legal Assistants • Student Government Association • Student Nurse Association • Student Nurse Christian Fellowship • Students of Occupational Therapy Assistant Club • Students of Physical Therapy Assistant Club • Student Radiologic Technologist Association • TCC Pharmacy Club

NORTHEAST CAMPUS

Amateur Radio Club • American Public Works Association • African American Student Association • Baptist Collegiate Ministry • Behavioral Science Association • Engineering & Science Association • Fire Protection Association • Horticulture Association • International Association • Italian Association • Modeling & Design Club • Phi Beta Lambda • Phi Theta Kappa (Alpha Zeta Alpha Chapter) • Sign Language Club • Silent Friends Club • Speech/Forensics Club • T.A.C.K.L.E. • Student Government Association

SOUTHEAST CAMPUS

Adults in Career Transition • African American Student Alliance • Baptist Collegiate Ministry • Chess Club • Club of Medical & Natural Sciences • Feminist Majority Leadership Alliance • Forensics Club • Future Medical Technologist's Club • German Club • Interior Design Club • International Student Support Club • Muslim Student Association • People to People International • Phi Theta Lambda • Phi Theta Kappa (Alpha Mu Iota Chapter) • Rock Climbing Club • Sexuality Alliance for Equality • Spanish Club • Student Firm Association • Student Government Association • Student Music Association • Student Nurse's Association • Student Nurse Christian Fellowship • Student Theatre Association • Weight Lifting Club • Writers' Bloc

WEST CAMPUS

M.A.D. (Making a Difference) Scientist Club • Native American Student Association • P.A.C.E. (Professional Association of Childhood Educators) • Phi Beta Lambda • Phi Theta Kappa (Beta Theta Epsilon Chapter) • Student Government Association • Students for Christ • Veterinary Technology Student Association

ACADEMIC SUPPORT SERVICES

Communications Centers

Students may find immediate help with reading, writing, and study skills by visiting the Communications Centers Individual tutoring and a wide range of materials in a friendly, personalized setting make the Centers a popular place with students. Open both day and evening hours, the Centers assist students with a particular class assignment or with an entire skill development program. Many students also enjoy the Centers' atmosphere for studying between classes.

Computer Instructional Labs

The Computer Instructional Labs are designed to provide many services to students. These services include microcomputers to support courses where microcomputer technology is used, computer-aided instruction packages to supplement classroom work for certain courses, assistance for students with programming problems, instructional assistance for equipment and software usage and a centralized workspace for students. The labs are staffed with personnel to assist in these areas.

Computer Lab

Each campus has a variety of computer labs, many of which are open for general use. Staff in the open labs provide free assistance to students in using computers and software.

Dental Hygiene Clinic

Dental hygiene care is provided by dental hygiene students under the supervision of licensed faculty. This service consists of cleaning, fluoride treatment, oral health education, x-rays and sealants. Fillings, extractions and prosthetic appliances are not available through the Clinic. Appointments can be made by calling (918) 595-7022. The Dental Hygiene Clinic is located in the Metro Philips Building, Room MP300.

Developmental Programs for the Deaf and Hard of Hearing

The Resource Center for the Deaf and Hard of Hearing's developmental courses are designed to assist students with a hearing loss to improve basic English, reading, math, study, sign language, computer science and personal development skills. The courses enable students with a hearing loss to achieve the skills necessary to proceed through the Developmental Studies Program and on through a planned college program. The specific courses offered through the Resource Center for the Deaf and Hard of Hearing are:

CARS 0811 Orientation to College for the Deaf and Hard of Hearing
CSCI 0802 Computer Concepts for the Deaf and Hard of Hearing
CSCI 0811 Computer Exploration for the Deaf and Hard of Hearing
ENGL 0801 Study Skills for the Deaf and Hard of Hearing
ENGL 0813 Reading and Vocabulary Skills for the Deaf and Hard of Hearing
ENGL 0823 Writing Skills for the Deaf and Hard of Hearing
INED 0612 Conversational Sign Language for the Deaf and Hard of Hearing I
INED 0622 Conversational Sign Language for the Deaf and Hard of Hearing II
INED 0802 Sign Language for the Deaf and Hard of Hearing I
INED 0812 Sign Language for the Deaf and Hard of Hearing II
MATH 0803 Mathematics Skills for the Deaf and Hard of Hearing
MATH 0822 Consumer Math for the Deaf and Hard of Hearing
SOCI 0613 Deaf Studies for the Deaf and Hard of Hearing

For more detailed information on each course, please refer to the course descriptions in the back of this catalog. Each course is listed within its own discipline heading and course prefix number. For more information on the Resource Center for the Deaf and Hard of Hearing, please see the "Services for Students with Disabilities" listing in this catalog.

Developmental Studies

Tulsa Community College Developmental Studies are designed to help students improve in reading, writing, mathematics, and study skills. The courses enable students, especially those who have been out of school for a period of time, to achieve skills necessary to do well in specific courses in Developmental Studies include:

Mathematics		
MATH	0003	Basic Mathematics
MATH	0013	Beginning Algebra
MATH	0055	Basic Mathematics & Beginning Algebra
MATH	0123	Intermediate Algebra
MATH	0105	Beginning & Intermediate Algebra

Reading		
ENGL	0903	Reading 1
ENGL	0913	Reading 2
ENGL	0753	Computer-Enhanced Reading

Student Success		
ENGL	0963	College Survival
ENGL	1003	Strategies for Academic Success
ENGL	1091	College Orientation

Writing		
ENGL	0923	Writing 1
ENGL	0933	Writing 2
ENGL	0990	Selected Topics in Developmental English

Self-Paced Developmental Studies Courses					
ENGL	0601	Basic Grammar	ENGL	0651	Study Skills
ENGL	0611	Sentence Improvement	ENGL	0661	Writing Skills
ENGL	0621	Punctuation	ENGL	0681	Reading Comprehension
ENGL	0631	Spelling and Phonics	ENGL	0711	Essay Writing
ENGL	0641	Basic Vocabulary	ENGL	0731	Research Paper

Additional developmental courses in specific areas are described under English course descriptions.
The reading classes are highly individualized. Primary emphasis is placed on developing interest in reading, improving comprehension of coursebook materials, identifying main ideas, and building vocabulary. Students begin at their own reading levels and move at their own rates of speed.

The writing classes are designed to help students improve skills in sentence, paragraph and essay writing so that they may proceed successfully through college-level courses. Students gain practical skills they can apply in all their academic, business, and personal writing. These courses include individualized practice in sentence structure, punctuation, grammar, spelling, and diction.

The Strategies for Success course is an integral component of Developmental Studies, designed to assist students in successfully completing their college classes. The curriculum emphasizes study skills strategies and familiarizes students with college resource areas such as the Career Center, the Learning Resource Center, and the Reading, Writing, and Mathematics labs.

The Mathematics courses are designed for students who need further development ofmathematical skills. The basic course covers the four fundamental operations: addition, subtraction, multiplication, and division of whole numbers, fractions, and decimal fractions. The course also covers percentage, interest, and simple equations. The beginning algebra course provides an introduction to algebra.

Contact the Advisement Centers for additional information concerning Developmental Studies. The Oklahoma State Regents for Higher Education requirements state that credits and grades earned in classes with a coursenumber beginning with "0" cannot be used for purposes of admission, retention, or graduation.

DISTANCE LEARNING

Internet/Online Courses

Tulsa Community College offers students the flexibility to take classes anytime day or night - 7 days a week through Internet or online courses. Internet courses offered via Distance Learning include a variety of disciplines and may require some on-campus orientations or exams. Many other Internet courses are offered totally online (100%) and have no on campus requirements.

Online classes are recommended for students who are highly self-motivated and disciplined. The rewards are flexibility of schedule and availability of course materials anywhere at anytime via the Internet. For more information about internet courses and how to enroll, please visit the Tulsa Community College website at: **http://tulsacc.edu/dl.** Please check the Tulsa Community College website for degrees offered online.

Interactive TV Courses (ITV)

Tulsa Community College has state of the art Interactive Television classrooms at each campus location which allow for two-way video conferencing to several locations around the world. This highly interactive and visual medium is great for group discussions, presentations and traditional lecture format classes. Many colleges and high schools throughout Oklahoma have ITV classrooms that allow each institution the ability to offer and receive unique classes that may not be available on their campus.

ITV is also a great tool to cut down on travel nationally and internationally. TCC has hosted many conference meetings between local groups and international groups. For more information about scheduling a conference meeting or to discuss hosting or receiving an ITV class, please contact the Office of Distance Learning at 918-595-7143.

Telecourses

A student can earn college credit through Tulsa Community College telecourses at home via cable television. Telecourses are comparable in content and rigor to on-campus courses. The student should have high self-motivation and discipline to be successful in taking a telecourse.

Telecourses are currently available via Cox Cable channel 21 each semester. Students may also rent the video tapes from ACT Media for the semester or view the programs online via streaming video (Broadband Internet access recommended). Programs are also available via streaming video at any TCC computer lab or LRC computer area. Access to video streams requires logging into your Blackboard class site. You must also provide your own computer headphones.

For more information and a schedule of airing times, call the Office of Distance Learning at 918-595-7282. You can also view the current telecourse offerings and broadcast schedule online at **http://tulsacc.edu/dl.**

English as a Second Language

(See Course Descriptions English as a Second Language, ESL). Please call (918) 595-8411 for more information.

Fast Track Program

The Fast Track Program provides courses for day and evening students in four-week blocks. The opportunity to begin a class every four weeks allows students flexibility in managing work, home and educational commitments. The four-week format also allows a student to focus on one or two subjects at a time rather than four or five subjects with conflicting deadlines. Credit earned in the Fast Track Program format will apply to any degree plan. Students may enroll in one or two courses per block. Those taking two courses each four-week block will complete an associate degree in liberal arts or business in approximately one year. Students taking one course each block will complete the degree in approximately two academic years. Students can obtain a degree even sooner by supplementing the blocks with other options available (i.e., telecourse, Internet, May Intersession, other short courses, CLEP or Advanced Standing Credit).

The Fast Track program is attractive to goal-oriented day and evening students who wish to earn a degree in a short period of time, whether their goal is job promotion or a four-year degree. Some students may want only a few accelerated courses, but not the liberal arts associate degree. Those students may take Fast Track general education requirements in order to reach their goals more quickly. The Fast Track courses have been designed to transfer to most four-year colleges and universities as well as meet the general education requirements for workforce development degrees. Those students who have already begun their degree programs will find the accelerated pace of the Fast Track classes allows them to finish their degree sooner than through the traditional semester format. Whether students take only Fast Track courses or take Fast Track courses in combination with other classes, they will be able to build a schedule convenient for them.

Honors Program

The Honors Program at TCC offers academically motivated students an exciting and stimulating option to satisfy their graduation requirements. All interested students, both full-time and part-time, regardless of age or previous educational background, are welcome to take Honors classes. No formal application process is required; however, a 3.0 grade point average is expected.

Participants in Honors courses enjoy lively interaction in small class settings, as each class is limited to 20 enrollments. Faculty are able to take a more creative approach to the design of class curriculum, often including greater depth of investigation into the subject matter, wider breadth of reading, and stronger emphasis upon critical thinking, discussion, and writing. Students may also have opportunities to pursue topics of special interest and work closely with faculty. The purpose of all Honors classes is to allow students to be more active participants in their own learning.

Qualified students may be interested in applying to become TCC Honors Scholars. Applications are available from the Honors coordinator on any TCC campus. Once accepted, the Scholar proceeds through a curriculum of 24 credit hours of Honors classes (or 21 Honors credit hours with an approved, student-proposed project). Successful completion of the program with a grade point average of at least 3.5 leads to the designation of Honors Scholar on the student's TCC transcript. Special scholarship opportunities, such as the TCC Honors Scholar State Regents Tuition Waiver, are among the benefits available to TCC Honors Scholars.

Honors offerings include courses in the sciences, mathematics, liberal arts, and business. Because the Honors schedule changes each semester, students should check for class titles preceded by the letters "HON," for example, HON/COMP I or HON/SPEECH COM. This same designation appears on student transcripts once the class is completed. For more information about specific courses or the Honors Scholar Program, contact the Honors Program at 918-595-7378.

International Campus

A major component of the International Studies program, the International Campus allows students to earn credit for TCC coursework taught in a foreign country by TCC faculty. It promotes an awareness of global issues, languages, and cultures.

International Language Center

Presently fourteen languages are available to students: Arabic, Chinese, ESL, French, German, Greek, Italian, Hebrew, Japanese, Latin, Portuguese, Russian, and Spanish, as well as American Sign Language. The associate degree, applied science degree, and certificate programs include languages and cultures. Electronic computerized laboratories are an

important component of the International Language Center on each campus. Available to day and evening students, these labs provide video as well as audio samples to facilitate language learning. The labs are also used for proficiency and placement examinations for persons with previously learned language skills. Special maps, international clocks, foreign periodicals, foreign language videos, and foreign language music are available to students.

International Studies

The programs (Associate in Applied Science Degree and Certificate of Achievement) in International Language Studies or International Business are designed to prepare future workers for the international marketplace. Also, the Associate in Arts/Science Degrees in Business, Liberal Arts, and Science (International Emphasis) increase awareness of the 21st century's global interdependence. The International Studies Associate in Arts Degree provides concentration in one of five areas: Asia, the Americas, Europe, Africa, or Middle East.

Internet/Online

See Distance Learning, page 55

Learning Resources Center

The Learning Resources Centers on each campus serve students in many ways. They house growing book and periodical collections, including supportive materials for course work, and a variety of titles for leisure reading. The Media Department is a vital part of each Learning Resources Center. Software, such as records, colored slides, filmstrips, etc., and the necessary equipment for their utilization are found in these areas. The Learning Resources Centers are equipped with tables, carrels, and chairs for study and leisure reading. A staff of professionals is available to assist students in locating LRC information on each campus.

Mathematics Laboratories

The campus Mathematics Laboratories offer complete mathematical assistance to any TCC student. The purposes of the labs are 1) to continue the learning process that begins in the classroom by providing individual instruction, computer tutorial software, and videotape tutorials, and 2) to provide a relaxing, friendly, and encouraging atmosphere in which to help students learn and understand mathematics. Additionally, the labs provide informal counseling and advisement on the sequence of mathematical studies. All services are free to TCC students.

Reading Laboratories

See Communications Centers, page 53

Telecourses

See Distance Learning, page 55

Writing Laboratories

See Communications Centers, page 53

AIR FORCE ROTC at TCC

By agreement with the United States Air Force, eligible full-time students at Tulsa Community College may participate in Air Force ROTC and receive an officer's commission in the Air Force upon completion of a baccalaureate degree. They enroll in the Air Force ROTC program at OSU-Tulsa but they remain students at TCC until ready for upper division classes.

Eligibility

TCC students in any academic major may participate. A cadet must be a full-time student, a U.S. citizen, less than age 34 in the year of commissioning (some exceptions apply), have a cumulative GPA of at least 2.00, and not be a single parent (some exceptions apply). Other eligibility requirements apply and are subject to change.

Scholarships

TCC students may be eligible for AFROTC scholarships providing money for tuition and fees, a book allowance and a monthly tax-free allowance. Some scholarships are targeted toward specific majors but others are available to students in any major. Juniors, seniors, and graduate students not on AFROTC scholarship who meet eligibility criteria receive a monthly tax-free allowance.

Obligation

In most cases, students may take the freshman or sophomore AFROTC courses without obligation. Students who successfully complete the ROTC program become second lieutenants in the U.S. Air Force with a four-year active duty service obligation. Those selected for pilot or navigator training incur a longer commitment.

The Air Force ROTC Curriculum

Air Force ROTC courses are listed in the OSU catalog as Aerospace Studies (AERO). Freshman and sophomore AFROTC classes are one credit hour. Junior and senior AFROTC classes are three credit hours. All require the cadet to enroll in and attend a weekly Leadership Laboratory.

To learn more call the Air Force ROTC unit toll free at 888-ROTC-OSU, send an e-mail to afrotc@okstate.edu or visit web sites afrotc.okstate.edu or www.afrotc.com for more details.

TCC DUAL ADMISSION AGREEMENTS

The Dual Admission program will allow students who are fully admissible to Langston University or Oklahoma State University, either as high school seniors or as transfers, to gain admission to Tulsa Community College and either selected institution at the same time. Dually admitted students are able to take full advantage of academic and student development programs and resources at TCC and on all campuses of the selected educational partner. Admission to the dual enrollment program is contingent upon meeting the admission requirements of LU or OSU. Applications are available through the Office of Admissions and Recruitment at LU Langston or Tulsa, Office of Undergraduate Admissions at OSU Stillwater or Tulsa, at the Admissions and Enrolllment Services Office on any Tulsa Community College campus, or via institutional website.

ARTICULATION AND TRANSFER

A principle function of Tulsa Community College is to provide general education courses, associate degrees for university transfer, and workforce development programs for students who want direct entry into the workforce. TCC has made "articulation agreements" with both public and private, (in-state and out-of-state) institutions to provide many transfer options for TCC students. These agreements include both on-campus and Internet courses and programs. Students are cautioned to work closely with an academic advisor to ensure transferability of their courses, as requirements often differ among four-year institutions.

Some of the institutions with which TCC has developed articulated transfer agreements are: Oklahoma State University, the University of Oklahoma, Langston University, Northeastern State University, Southern Nazarene University, The University of Tulsa, Oral Roberts University, Emporia State University (KS), Northwest Missouri State University, the University of Phoenix, and Oklahoma City University.

COOPERATIVE ALLIANCE AND PROGRAM AGREEMENTS

Linking career and technology education with higher education in the Tulsa area, Tulsa Community College and Tulsa Technology Center have become members of a Cooperative Alliance that represents a joint vision of a collaborative partnership designed to benefit students and enhance the technical workforce in Northeastern Oklahoma. Through this alliance, TCC works with a number of institutions to develop cooperative academic program agreements that provide special opportunities for students. These agreements address issues such as the transferability of credit and earning a college degree. Approved cooperative program agreements allow students to receive credits toward an associate degree or a certificate awarded by TCC. Eligible co-enrolled high school and adult students in approved Cooperative Alliance programs can have college credit transcribed when it is earned at the technology center.

Tulsa Community College has cooperative program agreements with: Tulsa Technology Center, Central Technology Center, and Tri County Technology Center. Students should contact any TCC Registrar's Office for information on approved programs and eligibility requirements.

CONTINUING EDUCATION

(Non-Credit Classes/Programs)

With interested faculty, small classes, short time commitments, and lots of hands-on experiences, Continuing Education can make your life richer and more meaningful. Three avenues are available for students:

Business and Career Solutions - Open enrollment classes focusing on business skills and contract training.

Academic, Family and Youth Enrichment - Classes to prepare students academically; enrichment classes for youth in grades K-12.

Personal Growth - Opportunities to gain knowledge, sample a hobby or develop a skill.

Classes depend on enrollment fees to be self-supporting. Most classes have no enrollment requirements and no grades.

Business & Career Solutions	918-595-8930
• Business & Office Skills • Communications • Computer Classes • Contract Training • Customer Focus • Supervisory & Management Development • Health, Safety & Certification • Human Resources Certifications • Payroll & Accounting Fundamentals • Personal & Small Business • Professional Development/Careers	

Personal Growth	918-595-7766
• Fine Arts & Crafts • Flight Classes • Health, Fitness & Recreation • Home & Garden • Language & Travel • Music, Dance & Theater • Personal Development/Careers • Personal Financial Management • Photography	

Academic, Family & Youth Enrichment	918-595-7566
• Family Programs • Personalized Tutoring • Test Preparation • Summer Kids • Youth Programs	

For further information, contact a Continuing Education Office or visit www.tulsacc.edu/ce

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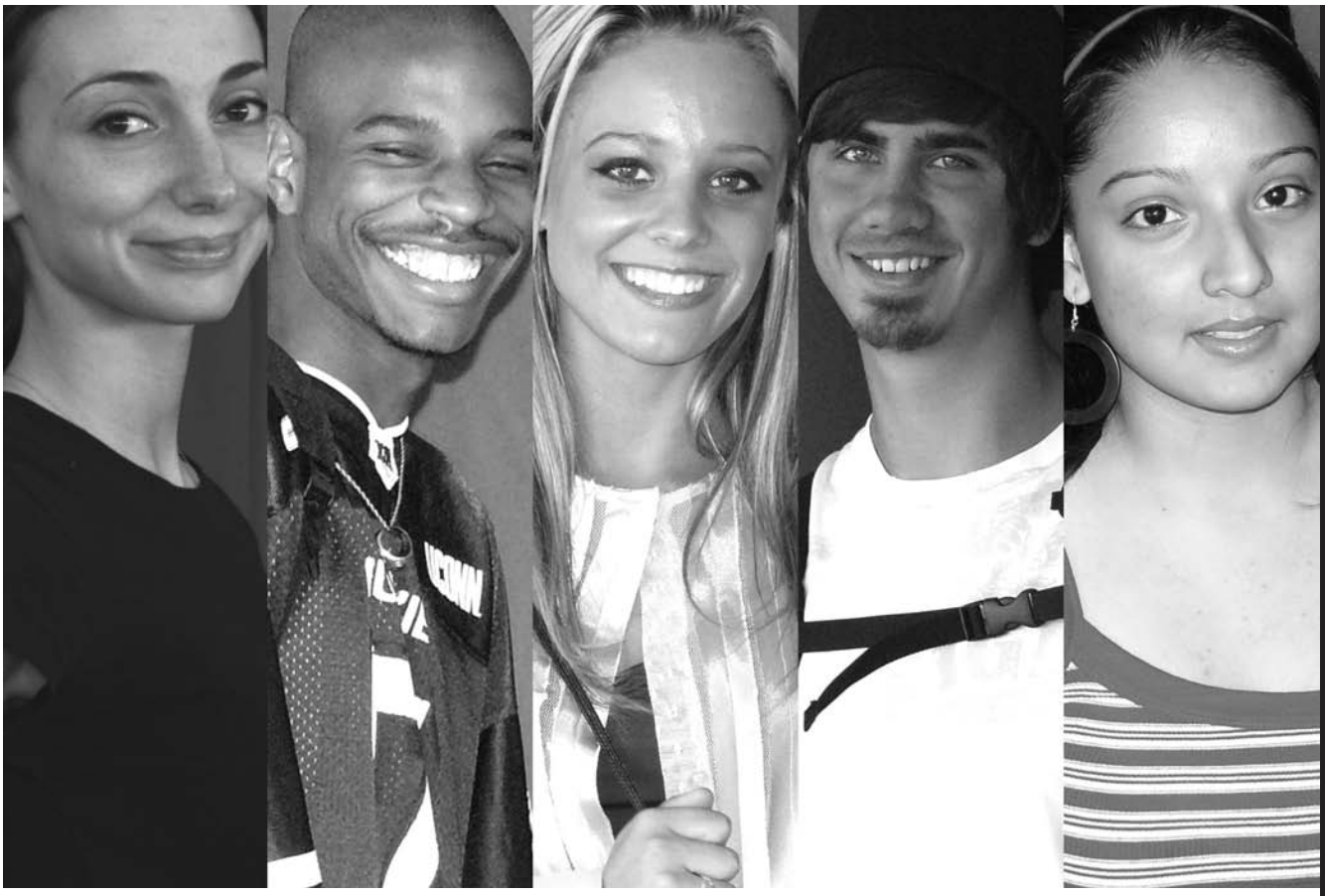


Tulsa Community College

Degree & Certificate Programs

DEGREE & CERTIFICATE PROGRAMS

GENERAL EDUCATION GOALS FOR ALL DISCIPLINES AND PROGRAMS

General education is at the core of the academic curriculum for all degree-seeking students. The general education goals of the College are met by combining the general education course requirements with the coursework for each major or program as listed in the curriculum patterns found in the College catalog. Together, courses taken for the general education requirements and those taken for specific degrees will ensure that graduates of Tulsa Community College have the skills, knowledge, and attitudes to carry them successfully through their work and their personal lives. Tulsa Community College students will be able to demonstrate:

Goal #1: Critical Thinking

Critical thinking is the ability to use reasoning skills or strategies to analyze, evaluate and integrate information. Students who have developed critical thinking skills will be able to demonstrate at least one of the following:

- comprehend complex ideas, data, and concepts
- make inferences based on careful observation
- make judgments based on specific and appropriate criteria
- solve problems using specific processes and techniques
- recognize relationships among the arts, culture, and society
- develop new ideas by synthesizing related and/or fragmented information
- apply knowledge and understanding to different contexts, situations, and/or specific endeavors
- recognize the need to acquire new information

Goal #2: Effective Communication

Effective communication is the ability to develop organized, coherent, unified written and oral presentations for various audiences and situations.

Students who have developed effective communication skills will be able to demonstrate at least one of the following:

- organized, coherent and unified written presentations (in the language of your discipline) for various audiences and situations
- organized, coherent and unified oral presentations (in the language of your discipline) for various audiences and situations

Goal #3: Engaged Learning

Engaged Learning is meaningful participation in civic, scholarly and cultural activities.

Students who are engaged learners will be able to demonstrate at least one of the following:

- involvement in any collegiate or civic organization or a social action project
- participation in a campus, municipal, state and/or national campaign
- participation in an event or service-learning activity designed to increase awareness of another culture, a current issue, and/or an academic discipline
- an understanding of significant social, political, economic and/or historical concepts related to the United States
- knowledge of the geography, history, culture, values and/or language of another country
- an understanding of the impact of economic, political, and/or technological changes on diverse cultures

Goal #4 Technological Proficiency

Technological proficiency includes knowledge of productivity and communication application tools, electronic research capability, and discipline-related technologies. Students who have developed technological proficiency will be able to accomplish at least one of the following:

- complete an assignment using an appropriate application software
- use Blackboard for course related assignments and information
- search for and use information electronically
- demonstrate the usage of instrumentation related to a specific discipline

ARTICULATION & TRANSFER

A principle function of Tulsa Community College is to provide general education courses, associate degrees for university transfer, and workforce development programs for students who want direct entry into the workforce. TCC has made "articulation agreements" with both public and private, (in-state and out-of-state) institutions to provide many transfer options for TCC students. These agreements include both on-campus and Internet courses and programs. Students are cautioned to work closely with an academic advisor to ensure transferability of their courses, as requirements often differ among four-year institutions in Oklahoma and in other states.

Some institutions with which TCC has developed articulated transfer agreements are: Oklahoma State University, the University of Oklahoma, Langston University, Northeastern State University, Southern Nazarene University, The University of Tulsa, Oral Roberts University, Emporia State University (KS), Northwest Missouri State University, the University of Phoenix, and Oklahoma City University.

PROGRAMS DESIGNED TO TRANSFER TO SENIOR COLLEGES & UNIVERSITIES

Students may take freshman and sophomore level courses at Tulsa Community College which lead to a baccalaureate degree or professional degree in practically any field of study. To determine whether all courses in a degree program will transfer for degree credit at the receiving institution, in Oklahoma or another state, work closely with a transfer counselor.
Some of these fields of study are:

Accounting
American Studies
Art
Aviation
Biology
Biotechnology
Business Administration
Business Education
Chemistry
Child Development
Communications Disorders
Computer Science
Criminal Justice
Dentistry
Early Childhood Education
Economics
Education
Education (Elementary)
Education (Secondary)
Electronics Engineering Technology
Engineering
English
Environmental Science & Natural Resources
Fire and Emergency Services
French
Geography
Geology
German
Health and Human Performance
Health Sciences-Pre-Nursing
History
Horticulture
Hospitality and Gaming Operations
Humanities
Human Services
International Business
Interpreter Education
Italian
Japanese
Journalism and Mass Communications
Liberal Arts
Management
Marketing
Mathematics
Medicine
Music
Optometry
Paralegal
Pharmacy
Philosophy
Physical Education
Physics
Political Science
Psychology
Quality Control Technology
Religious Studies
Russian
*Social Work
Sociology
Spanish
Speech
Theatre
**Therapeutic Recreation
Veterinary Medicine

Students may complete many of the freshman and sophomore prerequisite courses at TCC. Since students cannot earn an associate degree in the fields listed below, they should visit with their advisor in a Counseling and Testing Center to determine the appropriate TCC major/degree plan that will transfer to the university of their choice.

Agriculture Science
Architecture
Astronomy
Ecology
Forestry
Health Education
Interior Design
Law
Library Science
Oceanography
Physical Science
Physical Therapy
Recreation
Social Science
Social Welfare

If you do not find your field of study listed, our Counseling staff will help you match TCC courses to your area of interest.
*Social Work - See Human Services Pre-Social Work in the Community Services section
**Therapeutic Recreation - See Human Services Therapeutic Recreation in the Community Services section

Courses used to fulfill general education requirements at TCC are listed on page 69. A code letter preceding a course title designates the general education category for which the courses may be used, as follows:

A: Analytical & Quantitative Thought
H: Humanities
I: International or Non-Western Dimension
L: Laboratory Science
S: Social & Behavioral Sciences
D: Diversity component of domestic, not international, scope

WORKFORCE DEVELOPMENT PROGRAMS by CAMPUS

These degree and certificate programs are designed to prepare students for direct entry into the workforce. They may advance students within their current career positions or open doors to new career opportunities. Coursework may apply towards a degree at a four-year university; check with an advisor for further information. The number of hours that apply to a degree will vary from one university to another.

A: ASSOCIATE IN APPLIED SCIENCE DEGREE
C: CERTIFICATE OF ACHIEVEMENT

Arts & Communications	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Digital Media option				
Adobe Master Design Specialist	A/C			
Broadcast Production Specialist	A/C			
Digital Media Specialist	A/C			
Print & Online Reporting Specialist	A/C			
Web Design option	A/C			
Graphics & Imaging Technology				C
International Language Skills				
Chinese	C	C	C	C
French	C	C	C	C
German	C	C	C	C
Italian	C	C	C	C
Japanese	C	C	C	C
Russian	C	C	C	C
Spanish	C	C	C	C
Spanish Interpreting Skills	C			
Spanish Translating Skills	C	C		
Stage Production Technology			A	
Costume			C	
Entertainment Construction			C	
Lighting			C	
Rigging			C	
Sound			C	
Stage Management			C	

Business	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Accounting				
Accounting Assistant	C	C	C	C
Accounting Associate	A/C	A/C	A/C	A/C
Microcomputer Accounting option	C	C	C	C
Payroll Administration option	C			
Business	A/C	A/C	A/C	A/C
Business, Administrative Careers	A			C
Administrative Careers, General	C			
Administrative Careers, Legal	C			
Administrative Careers, Medical	C			
Customer Account Representative	A/C			
Healthcare Business Operations	A/C			
Healthcare Business Operations/Accounting	C			
Hospitality & Tourism				
Hospitality & Gaming Operations				A
Hospitality Certificate				C
Gaming/Operations/Protection Certificate				C
Restaurant Management Certificate				C
Human Resources			A/C	
Information Technology				
Computer Information Systems options:				
Business Applications Professional/Specialist	A/C	A/C	A/C	A/C
Computer User	C	C	C	C
Information Assurance & Forensics, OSU-Okmulgee option		A		
Networking		A/C	A/C	
Programming	A/C	A/C	A/C	A/C
System Support Technician		A/C	A/C	
UNIX	A/C	A/C		
Web Development			A/C	
Web-site Management			A/C	
Information Technologies Convergence options:				
ITC Basics		C		
ITC Essentials		C		
ITC General		A		
CIsco Routing Basics		C		
Cisco Routing		A/C		
Information Security Essentials		C		
Information Security		A/C		

Business	Metro Campus	Northeast Campus	Southeast Campus	West Campus
System Support		A/C		
ITC Management		A/C		
International Business	C	C	C	C
Interior Design			A/C	
Management				
Management options:				
General Management		A/C	A/C	
International Management		A/C	A/C	C
Management Internship		A/C	A/C	
Management Leadership Certificate		C		
Marketing			A/C	
Customer Service			C	
Disney Internship			A	
E-Business			A/C	
Paralegal	A			

Community Service	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Child Development				
Child Development option in:				
Center Director				A
Child Development Cert. of Mastery				C
Child Development Credential Preparation (CDA)				C
Early Childhood				A
Head Start Credential				C
Infant/Toddler				A
Infant/Toddler Cert. of Mastery				C
Middle Childhood				A
Residential & Youth Professional				C
Youth Development Certificate				C
Youth Development Cert. of Mastery				C
Teacher Assistant				A
Emergency Medical Technology		A		
Fire & Medical Services		C		
Emergency & Community Preparedness option		C		
Human Services, *options in:*		A/C		
Chemical & Alcohol Dependency Counseling		A		
Community Services Management		A		

Community Service	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Human Services options in:				
Corrections			A	
Developmental Disabilities			A	
Direct Support Professional I			C	
Family Studies		A		
Gerontology			A	
Interpreter Education			A/C	
Law Enforcement			A	
Collegiate Officer option			A	

Health Sciences	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Allied Health				
Dental Assisting	A			
Dental Hygiene	A			
Medical Laboratory Technician			A	
Phlebotomy			C	
Occupational Therapy Assistant	A			
Pharmacy Technology	C			
Physical Therapist Assistant	A			
Radiography	A			
Respiratory Care	A			
Medical Office Support				
Health Information Technology:				
Medical Records	A			
Coding & Reimbursement Specialist	C			
Medical Assistant				
Clinical Administrative	C			
Transcription	C			
Nursing				
Nursing	A		A	
Geriatric Technician	C			
Patient Care Technician	C			
Surgical Technology	A			

MANUFACTURING	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Manufacturing Engineering Technology		A		
Process Technology		A/C		
Quality Control		A/C		

SCIENCE, TECHNOLOGY, ENGINEERING & MATH	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Biotechnology			A/C	
Civil Engineering/Surveying Technology		A/C		
Construction option		A		
Drafting & Design Engineering		A		
Drafting & Computer Aided Design		C		
Electronics Technology		A/C		
Alternative Energy		A/C		
Biomedical Equipment Technology		A/C		
Electromechanical Manufacturing Technology		A		
Nanotechnology		A/C		
ELE US Navy Option		A		
Horticulture Technology				
General Horticulture		A/C		
Golf & Sports Turf		A/C		
Greenhouse & Nursery Production		A/C		
Floral Design & Interiorscape		A/C		
Landscape Design & Construction		A/C		
Landscape Maintenance		A/C		
Interior Plant Care Specialist		A/C		
Landscape Specialist		A/C		
Veterinary Technology				A

TRANSPORTATION, DISTRIBUTION & LOGISTICS	Metro Campus	Northeast Campus	Southeast Campus	West Campus
Air Traffic Control		A		
Aviation Sciences Technology, *options in:*		A		
Flight Simulator Specialist Technician		A		
Aviation Maintenance Technology		A		
Avionics		A		
Management		A		

General Education Requirements: 37 Hours

English Composition.....6 Hours

*ENGL 1113 Freshman Composition I and *ENGL 1213 Freshman Composition II

American History.....3 Hours

HIST 1483 U.S. History 1492-Civil War Era or HIST 1493 U.S. History Civil War Era-Present

U.S. Government.....3 Hours

POLS 1113 American Federal Government

Science (One course must be a laboratory science (L).....7 Hours

	ASTR	1104	General Astronomy
(L)	BIOL	1114	General Biology for Non-Majors
(L)	BIOL	1224	Intro to Biology for Majors
(L)	*BIOL	1404	General Botany
	BIOL	1383	Nutrition
(L)	*BIOL	1604	Zoology
	BIOL	2123	Human Ecology
(L)	*BIOL	2134	Human Anatomy
(L)	*BIOL	2144	Marine Biology
(L)	*BIOL	2154	Human Physiology
(L)	*BIOL	2164	Microbiology
	*BIOL	2213	Brain and Behavior
(L)	*CHEM	1114	Principles of Chemistry
(L)	*CHEM	1315	General Chemistry I
(L)	*CHEM	1415	General Chemistry II
(L)	*CHEM	2145	Organic Chemistry I
(L)	*CHEM	2245	Organic Chemistry II
(L)	GEOL	1014	General Geology (Physical)
(L)	GEOL	1024	General Geology (Historical)
(L)	GEOG	1014	Geography (Physical)
	GEOG	2013	Meteorology
	GEOL	2113	Introduction to Oceanography
	GEOG	2153	Human Ecology
	HORT	1303	Principles of Horticulture
(L)	PHYS	1014	Conceptual Physics
(L)	*PHYS	1114	General Physics I
(L)	*PHYS	1214	General Physics II
(L)	*PHYS	2034	Engineering Physics I
(L)	*PHYS	2124	Engineering Physics II
(L)	*PHSC	1114	General Physical Science

Humanities .....6 Hours

(H,I)	AFRS	2713	Survey of African Civilizations
(H)	ART	1053	Art History Survey I
(H)	ART	1063	Art History Survey II
(H)	ART	1113	Art Appreciation
(H,I)	ASNS	2103	Survey of Asian Civilization
(H)	*ENGL	2393	Introduction to Drama
(H)	*ENGL	2413	Introduction to Literature
(H)	*ENGL	2543	Survey of British Literature to 1800
(H)	*ENGL	2653	Survey of British Literature from 1800
(H)	*ENGL	2673	Survey of World Literature to 1700
(H)	*ENGL	2683	Survey of World Literature from 1700
(H)	*ENGL	2773	Survey of American Literature to 1865
(H)	*ENGL	2883	Survey of American Literature from 1865
(H,I)	GEOG	1043	Introduction to Cultural Geography
(H,I)	GEOG	2033	World Regional Geography
(H)	HIST	1053	Ancient & Medieval Western Civilization
(H)	HIST	1063	Modern Western Civilization
(H,I)	HIST	1073	Twentieth Century World History
(H)	HIST	1083	Survey of English History to 1688
(H)	HIST	1093	Survey of English History from 1688
(H,I)	HIST	2023	Modern Eastern Civilization
(H,D)	HIST	2043	Contemporary Affairs
(H)	HIST	2333	African American History
(H)	HUMN	2113	Humanities I
(H)	HUMN	2223	Humanities II
(H)	HUMN	2323	20th Century Humanities
(H)	HUMN	2333	Humanities: Literature & Film
(H)	HUMN	2443	Art of Film
(H)	HUMN	2553	American Humanities
(H,I)	HUMN	2613	International Film
(H)	HUMN	2663	Hollywood's America
(H)	HUMN	2773	American Popular Culture
(H)	HUMN	2883	Art & Identity Cultural Encounters in America
(H)	MUSC	1113	Music Appreciation
(H)	MUSC	1153	American Popular Music
(H)	NAMS	2113	Introduction to Native American Civilization
(H)	PHIL	1113	Introduction to Philosophy
(H)	PHIL	1133	Philosophy in Literature
(H)	PHIL/BUSN	1143	Introduction to Ethics: Business Issues
(H,I)	PHIL/RELG	1213	Religions of the World: Eastern Tradition
(H)	PHIL/RELG	1223	Religions of the World: Western Tradition
(H)	PHIL	2133	Introduction to Ethical Thinking
(H)	PHIL	2143	Introduction to Social & Political Philosophy
(H)	PHIL	2153	Medical Ethics
(H)	PHIL/HIST	2163	Introduction to History & Philosophy of Science
(H)	RELG	1113	Introduction to Religious Studies
(H)	RELG	2113	Old Testament
(H)	RELG	2123	New Testament
(H)	RELG	2173	Religion and Society
(H)	RELG	2233	Religion in America
(H)	RELG	2243	Christian Ethics and Social Thought
(H)	RELG	2313	Religion in Film
(H,I)	SPCH/BUSN	2053	Intercultural Communication
(H)	THEA	1093	Introduction to Theatre

Mathematics.....3 Hours

(A)	*MATH	1473	Math For Critical Thinking
(A)	*MATH	1483	Mathematical Functions and Their Uses
((A)	*MATH	1513	College Algebra
(A)	*MATH	1613	Plane Trigonometry
(A)	*MATH	1715	College Algebra and Trigonometry
(A)	*MATH	2114	Analytic Geometry and Calculus I
(A)	*MATH	2124	Analytic Geometry and Calculus II

Required Electives .....3 Hours

At least one 3-hour course from the following disciplines: Psychology, Social Sciences, **Foreign Languages, Fine Arts (Art, Music, and Theatre).

Recommended Electives.....6 Hours

Total Hours.....37 Hours

CSCI 1203 Computer Concepts and Applications - To receive an Associate in Arts or Associate in Science degree from TCC , students must demonstrate computer proficiency, including basic knowledge of operating systems, word processing, and the ethical use of internet research capabilities. Please see page 22 for complete requirements.

SPCH 1113 Speech Communications I, one course designated "I" for international or non-western dimensions, and additional hours of Humanities and/or Science courses as needed to meet minimum total of 37 credit hours.

*Course has prerequisite (see course description section of catalog). **9-15 hours required for International Business Degree.

PHILIPS CENTER

Tulsa Community College

Arts & Communications Areas of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

www.careerclusters.com

Communication Arts
Communications Sciences & Disorders, AA
English, AA
(Interpreter Education, AA/AAS/CER see Community Services, Education & Training)
Journalism & Mass Communication, AA
Speech, AA

Graphic Arts
Digital Media, AAS/CER
Graphics & Imaging Technology, AAS

International Language Arts
Chinese, CER
French, AA/CER
German, AA/CER
Italian, AA/CER
Japanese, AA/CER
Russian, AA/CER
Spanish, AA/CER
Spanish, NSU option, AA
Spanish Interpreting Skills, CER
Spanish Translating Skills, CER

Liberal Arts & Social Sciences
American Studies, AA
(Criminal Justice - see Community Service, Law, Public Safety & Corrections)
(Geography, AS - see Science, Technology, Engineering & Mathematics)
History, AA
Humanities, AA
Liberal Arts, General AA
Liberal Arts, International AA
Liberal Arts, Film AA
Liberal Arts, Native American Studies, AA
Philosophy, AA
Political Science, AA
Psychology, AA
Religious Studies, AA
Sociology, AA

Visual & Performing Arts
Art, AA
(Interior Design, AAS/CER see Business Areas of Study)
Music, AA
Theatre, AA
Stage Production Technology, AAS
Stage Production Technology, CER:
Costume, Entertainment Construction, Lighting, Rigging, Sound & Stage Management

ARTS & COMMUNICATIONS: COMMUNICATION ARTS

COMMUNICATION SCIENCES & DISORDERS
Oklahoma State University Transfer

Program Description:
This curriculum plan includes TCC degree requirements and prerequisite courses for the Communication Services Disorders major at Oklahoma State University-Tulsa. This program has been specifically designed to provide a seamless transition, and students may use their associate degree from TCC as the first two years of the baccalaureate degree at Oklahoma State University.

Degree Awarded: Associate in Arts

For More Information Contact:
Communication Services Division
Metro: (918) 595-7064
Liberal Arts/Community Service Division
Northeast: (918) 595-7494
Counseling Center
Metro: (918) 595-7151 • Northeast: (918) 595-7527

General Education Requirements Credit Hours: 38

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements for complete list.

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Science 8 hours
BIOL 1224 Introduction to Biology for Majors
*BIOL 2134 Human Anatomy

Social Science 6 hours
POLS 1113 American Federal Government
and select 3 credit hours from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Required Electives 6 hours

Social and Behavioral Sciences
PSYC 1113 Introduction to Psychology
and select 3 credit hours from the following:
SOCI 1113 Introduction to Sociology
HSVC 2023 Lifespan Development

Specialized Course Requirements Credit Hours: 22-34

Chemistry 5 hours
*CHE 1315 General Chemistry I

Interpreter Preparation 3 hours
INED 1363 American Sign Language I

Speech 6 hours
SPCH 1113 Speech Communications I
*SPCH 2203 Phonetics

Recommended Electives 5-8 hours
*BIOL 2154 General Physiology
SPCH 1151 Effective Communications
and 0-3 hours necessary to complete 60 credit hours
(Students must have minimum of 60 credit hours to receive a degree)

Language 0-12 hours
Two years of high school foreign language **or**
12 credit hours in the same language or equivalent proficiency, which may include the courses listed below:
*INED 1374 American Sign Language II
*INED 2414 American Sign Language III
*INED 2524 American Sign Language IV

Total Credit Hours: 60-69

*Course has prerequisite (See course description section of catalog)
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ENGLISH

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in English may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Arts

For More Information Contact:
Communication Services Division
Metro: (918) 595-7064 • Northeast: (918) 595-7494
Counseling Centers
Metro: (918) 595-7151 • Northeast: (918) 595-7527
Southeast: (918) 595-7651 • West: (918) 595-8176

General Education Requirements Credit Hours: 37
See the General Education Requirements for complete list.

Specialized Course Requirements Credit Hours: 15

English 15 hours
*ENGL 2413 Introduction to Literature
*ENGL 2543 Survey of British Literature to 1800
*ENGL 2653 Survey of British Literature from 1800
*ENGL 2773 Survey of American Literature to 1865
*ENGL 2883 Survey of American Literature from 1865

Recommended Electives Credit Hours: 9
ART 1053 Art History Survey I
ART 1063 Art History Survey II
ART 1113 Art Appreciation
ECON 2013 Principles of Macroeconomics
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications
FREN 1103 French I

ARTS & COMMUNICATIONS: COMMUNICATION ARTS

*FREN 1213 French II
*FREN 1313 French III
*FREN 1413 French IV
HIST 1033 History of Oklahoma
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
HIST 1083 Survey of English History to 1688
HIST 1093 Survey of English History 1688-Present
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present
HUMN 2113 Humanities I
JRMC 1013 Introduction to Mass Communications
*JRMC 1123 News Writing and Reporting
MUSC 1113 Music Appreciation
PHIL 1113 Introduction to Philosophy
PHIL 2113 Logic
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology
SPAN 1103 Spanish I
*SPAN 1213 Spanish II
SPCH 1113 Speech Communication I
THEA 1093 Introduction to Theatre

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog) To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERPRETER EDUCATION, AA/AAS/CER

See Community Services, Education & Training.

JOURNALISM & MASS COMMUNICATIONS

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

For More Information Contact:
Communications Services Division
Metro: (918) 595-7064
Counseling Center: Metro
(918) 595-7151

General Education Requirements Credit Hours: 34
See the General Education Requirements for complete list.
Remaining General Education Requirements are satisfied in the Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 24

English 3 hours
ENGL 1083 Grammar and Mechanics of Writing

Journalism 9 hours
JRMC 1013 Introduction to Mass Communications
*JRMC 1113 Writing for the Mass Media
*JRMC 1123 News Writing and Reporting

Speech 3 hours
SPCH 1113 Speech Communication I

Select one of the following specialized options: 9 hours

Television Broadcasting OPTION **100 D
JRMC 1103 Introduction to Broadcasting
*JRMC 2263 Digital Video I/Final Cut Pro
*JRMC 2173 Advanced Broadcasting
or
*JRMC 2273 Digital Video II/Final Cut Pro

Public Relations/Advertising OPTION **100 B
*JRMC 2013 Principles of Advertising
*JRMC 2183 Principles of Public Relations
MKTG 2423 Principles of Marketing

Controlled Electives 3 Hours:
*CSYS 2673 Adobe Illustrator
*CSYS 2683 Adobe InDesign
*ENGL 2343 Business Communications
HIST 2043 Contemporary Affairs
JRMC 1143 Reporting Across Cultures
*JRMC 2013 Principles of Advertising
*JRMC 2143 Studio Production
JRMC 2153 International Communication and Global Media
*JRMC 2173 Advanced Broadcasting
*JRMC 2183 Principles of Public Relations
*JRMC 2263 Digital Video I/Final Cut Pro
*JRMC 2273 Digital Video II/Final Cut Pro
*JRMC 2373 Broadcast Laboratory
*JRMC 2433 Field Production
JRMC 2853 Photography
*JRMC 2863 Photojournalism
*JRMC 2973 Journalism and Mass Communications Internship I
*JRMC 2983 Journalism and Mass Communications Internship II
MKTG 2423 Principles of Marketing
*SPCH 2093 Business and Professional Speech
SPCH 2313 Voice and Diction I
*THEA 2453 Script Writing

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog). To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: COMMUNICATION ARTS

SPEECH

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

For More Information Contact:
Liberal Arts Divisions
Northeast: (918) 595-7494 • West: (918) 595-8079
Communications Divisions
Metro: (918) 595-7064 • Southeast: (918) 595-7694
Counseling Centers
Metro: (918) 595-7151 • Northeast: (918) 595-7527
Southeast: (918) 595-7651 • West: (918) 595-8176

General Education Requirements Credit Hours: 37
See the General Education Requirements for complete list.

Specialized Course Requirements Credit Hours: 15

Speech 15 hours
SPCH 1013 Fundamentals of Listening
**SPCH 1113 Speech Communication I
SPCH 2053 Intercultural Communication
SPCH 2073 Oral Interpretation
*SPCH 2093 Business and Professional Speech
SPCH 2103 Interpersonal Communication
SPCH 2313 Voice and Diction I
*SPCH 2323 Voice and Diction II

Recommended Electives Credit Hours: 9
*ENGL 2773 Survey of American Literature to 1865
JRMC 1013 Introduction to Mass Communication
PHIL 2113 Logic
PHIL 2133 Introduction to Ethical Thinking
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
SPCH 2333 Forensics
SPCH 2343 Forensics Performance Competition
SPCH 2351 Forensics Competition Practicum

Total Credit Hours: 61
*Course has prerequisite (See course description of catalog).
**This course required as part of the 15 hour program requirements. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: GRAPHIC ARTS

DIGITAL MEDIA

1) Adobe Master Design Specialist 598A
2) Broadcast Production Specialist 598B
3) Digital Media Specialist 598C
4) Print and Online Reporting Specialist 598D
5) Web Design Specialist 598E

Program Description:
Digital Media is an interdisciplinary area of study combining computer science, art, video, music, journalism/mass communications, and design. Through the Center for Creativity, digital media specialists prepare for careers in graphic design, advertising, print media, digital photography, animation, digital character development, virtual cinematography, digital video, special effects, print and online reporting, television broadcast production, interactive media, web site development, online instructional technologies and business related to digital arts and entertainment. This degree will transfer to Southern Nazarene University. See Transfer Guide.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division
Metro (918) 595-7039
Communications Division
Metro: (918) 595-7064
Counseling Centers
Metro: (918) 595-7151

General Education Requirements Credit Hours: 18-19

English 6 hours
*ENGL 1113 Freshman Composition I
select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/ Professional Writing
*ENGL 2343 Business Communications

Mathematics 3-4 hours
*MATH 1454 Technical Mathematics
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 US History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communications

Specialized Course Requirements Credit Hours: 47-49

Art 9 hours
ART 1013 Fundamentals of Art I
*ART 2423 Graphic Design I
and select one of the following:
ART/JRMC 2853 Photography
CSYS 2763 Digital Photography

Computer Information Systems 16 hours
*CSYS 1033 Adobe Photoshop
*CSYS 1043 Adobe Acrobat
*CSYS 1073 Advanced Photoshop
CSYS 1211 Introduction to Mac OS
CSCI 1203 Computer Concepts and Applications
and select one course from the following:
*CSCI 2973 Digital Media Internship
*JRMC 2973 Journalism and Mass Communication Internship I

Specialized Course Requirements Credit Hours: 22-24
Select from one of the following five (5) options
1) Adobe Master Design Specialist 598A
2) Broadcast Production Specialist 598B
3) Digital Media Specialist 598C
4) Print and Online Reporting Specialist 598D
5) Web Design Specialist 598E

Adobe Master Design Specialist 598A
*ART 2413 Typography I
*CSYS 2573/JRMC 1303 Fundamentals of Videography
*CSYS 2673 Adobe Illustrator
*CSYS 2683 Adobe InDesign
*CSYS 2713 Adobe Premiere
*CSYS 2733 Adobe Soundbooth
*CSYS 2753 Adobe AfterEffects
*CSYS 1153 Adobe Dreamweaver

Broadcast Production Specialist 598B
*CSYS 2573/JRMC 1303 Fundamentals of Videography
*CSCI/JRMC 2263 Digital Video I Final Cut Pro
*CSCI/JRMC 2273 Digital Video II Final Cut Pro
*JRMC 1103 Introduction to Broadcasting
*JRMC 2173 Advanced Broadcasting
*JRMC 2433 Field Production
*JRMC 2143 Studio Production
*JRMC 2373 Broadcast Laboratory

Digital Media Specialist 598C
*CIS2573/JRMC 1303 Fundamentals of Videography
*CSYS 2733 Adobe Soundbooth
*CSCI 1123 3D Graphics Using Lightwave
*CSCI 1283 Adobe Flash
*CSCI 1293 3D Animation Using Lightwave
*CSCI/JRMC 2263 Digital Video I / Final Cut Pro
*CSCI/JRMC 2273 Digital Video II / Final Cut Pro
*CSYS 2753 Adobe AfterEffects

Print and Online Reporting Specialist 598D
*CSYS 1153 Adobe Dreamweaver
*CSYS 2683 Adobe InDesign
*JRMC 1113 Writing for Mass Media
*JRMC 1123 News Writing and Reporting
JRMC 1143 Reporting Across Cultures
JRMC 1151 Reporting in the Digital Age
JRMC 2163 Editing
*JRMC 2863 Photojournalism

ARTS & COMMUNICATIONS: GRAPHIC ARTS

Web Design Specialist 598E
*CSYS 1013 XHTML
*CSYS 1153 Adobe Dreamweaver
*CSYS 2033 Scripting
*CSYS 2463 PHP Programming
*CSYS 2733 Adobe Soundbooth
*CSCI 1123 3D Graphics Using Lightwave
*CSCI 1283 Adobe Flash
*CSCI 1293 3D Animation Using Lightwave

Total Credit Hours: 65-68
*Course has prerequisite (see course description section of catalog).

DIGITAL MEDIA CERTIFICATE

1) Adobe Master Design Specialist 598A
2) Broadcast Production Specialist 598B
3) Digital Media Specialist 598C
4) Print and Online Reporting Specialist 598D
5) Web Design Specialist 598E

Program Description:
Digital Media is an interdisciplinary area of study combining computer science, art, video, music, journalism/mass communications, and design. Through the Center for Creativity, digital media specialists prepare for careers in graphic design, advertising, print media, digital photography, animation, digital character development, virtual cinematography, digital video, special effects, print and online reporting, television broadcast production, interactive media, web site development, online instructional technologies and business related to digital arts and entertainment.

Degree Awarded: Certificate of Achievement

For More information Contact:
Business and Information Technology Division
Metro: (918) 595-7039
Communications Division
Metro (918) 595-7064
Counseling Centers
Metro: (918) 595-7151

Certificate Requirements Credit Hours: 35-37

Computer Information Systems 13 hours
*CSYS 1033 Adobe Photoshop
*CSYS 1043 Adobe Acrobat
*CSYS 1073 Advanced Photoshop
CSYS 1211 Introduction to Mac OS
CSCI 1203 Computer Concepts and Applications

Specialized Course Requirements Credit Hours 22-24
select from on of the following five (5) options
1) Adobe Master Design Specialist 598A
2) Broadcast Production Specialist 598B
3) Digital Media Specialist 598C
4) Print and Online Reporting Specialist 598D
5) Web Design Specialist 598E

Adobe Master Design Specialist 598A
ART 2143 Typography
*CSYS 1041 Adobe Acrobat
*CSYS 2573/JRMC 1303 Fundamentals of Videography
*CSYS 1153 Adobe Dreamweaver
*CSYS 2673 Adobe Illustrator
*CSYS 2683 Adobe InDesign
*CSYS 2713 Adobe Premiere
*CSYS 2733 Adobe Soundbooth
*CSYS 2753 Adobe AfterEffects

Broadcast Production Specialist 598B
*CSYS 2573/JRMC 1303 Fundamentals of Videography
*CSCI/JRMC 2263 Digital Video I / Final Cut Pro
*CSCI/JRMC 2273 Digital Video II / Final Cut Pro
*JRMC 1103 Introduction to Broadcasting
*JRMC 2143 Studio Production
*JRMC 2173 Advanced Broadcasting
*JRMC 2373 Broadcast Laboratory
*JRMC 2433 Field Production

Digital Media Specialist 598C
*CSYS 2573/JRMC 1303 Fundamentals of Videography
*CSYS 2733 Adobe Soundboth
*CSYS 2753 Adobe AfterEffects
*CSCI 1123 3D Graphics using Lightwave
*CSCI 1283 Adobe Flash
*CSCI 1293 3D Animation using Lightwave
*CSCI/JRMC 2263 Digital Video I / Final Cut Pro
*CSCI/JRMC 2273 Digital Video II / Final Cut Pro

Print and Online Reporting Specialist 598D
*CSYS 1153 Adobe Dreamweaver
*CSYS 2683 Adobe InDesign
*JRMC 1113 Writing for Mass Media
*JRMC 1123 News Writing and Reporting
JRMC 1143 Reporting Across Cultures
JRMC 1151 Reporting in the Digital Age
*JRMC 2163 Editing
*JRMC 2863 Photojournalism

Web Design Specialists 598E
*CSYS 1013 XHTML
*CSYS 1153 Adobe Dreamweaver
*CSYS 2033 Scripting
*CSYS 2463 PHP Programming
*CSYS 2733 Adobe Soundbooth
*CSCI 1123 3D Graphics using Lightwave
*CSCI 1283 Adobe Flash
*CSCI 1293 3D Animation Using Lightwave

Total Credit Hours: 35-37
*Course has prerequisite (See course description section of catalog).

ARTS & COMMUNICATIONS: GRAPHIC ARTS

GRAPHICS AND IMAGING TECHNOLOGY

Program Description:
This program is developed jointly by Tulsa Community College and Tulsa Technology Center. Printing is the process of manufacturing visual products intended for communicating a message through permanent graphic images. Production of printed materials involves work in a wide variety of graphic arts occupations and skill levels. This program offers training in the process of printing from plates produced by photographic negatives for both offset and flexographic printing. During the first year, the student will experience basic training in total production procedures including electronic imaging (desktop publishing) use Apple Macintosh computers and QuarkXpress page layout software, camera and darkroom, negative stripping, platemaking process, offset press operation, flexographic press operations, and binding/finishing. Emphasis during the second year is on mechanical and quality control. Advanced training is given in bindery procedures, press operations, prepress operation, and electronic imaging using Photoshop and Illustrator software. Successful completion will qualify TCC's Graphics and Imaging Technology students for national certification by the Graphics Art Education Council and the Printing Industries of America. Students who attain a state competency certificate(s) will be placed on the Printing Industries of Americas National Employment Registry, 100 Daingerfield Rd., Alexandria, VA. 22314-2888, Phone: 703-519-8100. Course Location: Graphics and Imaging Technology courses will be taken at Tulsa Technology Center-Lemley Campus. General education courses will be offered by Tulsa Community College.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Tulsa Community College Business and Information Technology Division at West Campus:
(918) 595-8033
Tulsa Technology Center Career Resources Center Department:
(918) 828-5151

Procedures for Application:
1. Obtain an admission packet from Tulsa Technology Center. Packets are located at all Tulsa Tech campuses in the Adult Education Office.
2. An admission test is required for full-time programs at Tulsa Technology Center (see admission packet for details).
3. Submit completed program application form and required documents to the Career Services Center, Tulsa Technology Center, 3420 S. Memorial Dr., Tulsa OK 74145. Please call (918) 828-5200 for application deadlines.
4. All prospective Graphics and Imaging Technology students must complete an application for enrollment to Tulsa Community College and submit their high school transcripts, GED scores, ACT/SAT scores, college transcripts and any previous training and/or education to any TCC campus registrar.
5. Acceptance to TCC does not guarantee admission to Graphics and Imaging Technology Associate of Applied Science degree.

General Education Requirements Credit Hours: 22-23

Chemistry 4-5 hours
CHE 1034 Practical Chemistry
*CHE 1114 Principles of Chemistry
*CHE 1315 General Chemistry I
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Psychology/Philosophy 3 hours
select one 3 credit hour course from the following:
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
PHIL/BUSN 1143 Introduction to Ethics: Business Issues

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
select one 3 credit hour course from the following:
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication
SPCH/BUSN 2053 Intercultural Communication

Specialized Course Requirements Credit Hours: 32

Graphics and Imaging Technology 32 hours
GT 1011 Graphics Imaging Technologies Introduction
GT 1143 Reproduction Photography
GT 1223 Image Assembly/Platemaking
GT 1333 Basic Press Operation
GT 1413 Basic Electronic Imaging
GT 1443 Finishing/Bindery
#GT 2014 Advanced Electronic Imaging I
GT 2064 Advanced Electronic Imaging II
##GT 2124 Advanced Press Operations I
GT 2224 Advanced Press Operations II

Recommended Electives Credit Hours: 6
BUSN 1053 Introduction to Business
BUSN/PHIL 1143 Introduction to Ethics: Business Issues
BUSN/SPCH 2053 Intercultural Communication
HIST 1033 History of Oklahoma
MGMT 1353 Management Essentials
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management
*MATH 1454 Technical Mathematics
QCT 1313 Introduction to Quality Control

Total Credit Hours: 60-61
*Course has prerequisite (See course description section of catalog).
Upon completion of Advanced Electronic Imaging I, the student may continue to Advanced Electronics Imaging II or move to Advanced Press Operations I.
Upon completion of Advanced Press Operations 1, the student may continue to Advanced Press Operations II or move to Advanced Electronics Imaging I.

International Language Arts

AA: Associate in Arts, university transfer degree
AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree
CER: Certificate of Achievement

Foreign Language

Transfer degrees with pre-majors in:

- French
- German
- Italian
- Japanese
- Russian
- Spanish
- Spanish NSU option

Associate in Arts Program Description:

The growing need for multi language skills has reached a crisis point. More and more degrees and career paths require applicants with sufficient competency to communicate with a native speaker of the designated language. This program is designed for students who wish to acquire oral and written language proficiency, an awareness of the chosen language's-speaking culture, and who have plans to transfer to a four-year university. TCC instructional methods infuse technology into the learning process. Students should consult the catalog of the selected university and choose the TCC language courses that will meet the requirements for both the TCC associate degree and the baccalaureate degree at the university.

International Language Studies

Certificate options in:

- Chinese
- French
- German
- Italian
- Japanese
- Russian
- Spanish
- Spanish Interpreting Skills
- Spanish Translating Skills

Certificate Program Description:

This program provides an in-depth study of the spoken and written language and prepares students to use the chosen language as a career skill. The courses are designed to emphasize acquisition of competency sufficient to communicate orally and in writing with a native speaker of the target language on a professional or work-related basis. TCC instructional methods infuse technology into the learning process, which increases access to resources for the language. Graduates find a variety of positions with government or social organizations and firms involved with speakers of the target language (translating, interpreting, investments, accounting, banking, education, publishing, manufacturing, sales, service, and travel).

For More Information Contact:

Counseling Centers:
Metro: 918-595-7151 Northeast: 918-595-7527 Southeast: 918-595-7651 West: 918-595-8176

ARTS & COMMUNICATIONS: INTERNATIONAL LANGUAGE ARTS

INTERNATIONAL LANGUAGE STUDIES
Chinese Certificate Option

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 20

Chinese 12 hours
CHNS 1103 Chinese I
*CHNS 1213 Chinese II
*CHNS 1313 Chinese III
*CHNS 1413 Chinese IV

Controlled Electives Credit Hours: 8
CHNS 1001 Chinese for Communication I
CHNS 1031 Chinese Pronunciation
*CHNS 1201 Chinese for Communication II
CHNS 2033 Chinese Literature in Translation
CHNS 2041 Chinese-Introduction to the Arts
CHNS 2071 Chinese History and Geography Introduction
*CHNS 2113 Intermediate Chinese I
*CHNS 2121 Intermediate Chinese Communication
CHNS 2143 Asian Civilization and Culture
*CHNS 2213 Intermediate Chinese II
*CHNS 2331-3 Chinese International Seminar and/or Field Studies
CHNS 2421 Chinese Culture Comparisons
ASNS 1103 Asian Philosophy and Culture
ASNS 2693 Asian Literature in Translation
One additional Asian language, 1-5 Credit Hours

Total Credit Hours: 20
*Course has prerequisite (See course description section of catalog)

FRENCH

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
Foreign Language (3 hours Required Elective) and International (6 hours Recommended Elective) may be satisfied with 9 hours of additional French Language courses. See the General Education Requirements for the complete list.

Foreign Language requirement is satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 23

French 18 hours
FREN 1103 French I
*FREN 1213 French II
*FREN 1313 French III
*FREN 1413 French IV
*FREN 2113 Intermediate French I
*FREN 2213 Intermediate French II

French 5 hours
*FREN 1001 French for Communication I
*FREN 1031 French Pronunciation
*FREN 1201 French for Communication II
*FREN 1301 French for Communication III
*FREN 1401 French for Communication IV
FREN 2033 French Literature in Translation
FREN 2041 French - Introduction to the Arts
FREN 2071 French History and Geography Introduction
*FREN 2121 Intermediate French Communication
*FREN 2143 French Civilization and Culture
*FREN 2263 Intermediate French Literature
*FREN 2320 International Work and/or Study Seminar
*FREN 2330 French International Seminar and/or Field Studies
*FREN 2413 French Translating
FREN 2421 French Culture Comparisons
*FREN 2433 French Cinema and Conversation
*FREN 2523 Intermediate French Grammar and Composition
*FREN 2533 Advanced French Conversation

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).

A native speaker of French (high school courses conducted principally in French) cannot earn Associate of Arts degree credit toward graduation for French courses below the 2000 level.

To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERNATIONAL LANGUAGE STUDIES
French Certificate Option

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 25

French 18 hours
FREN 1103 French I
*FREN 1213 French II
*FREN 1313 French III
*FREN 1413 French IV
*FREN 2113 Intermediate French I
*FREN 2213 Intermediate French II

Controlled Electives Credit Hours: 7
*FREN 1001 French for Communication I
*FREN 1031 French Pronunciation
*FREN 1201 French for Communication II
*FREN 1301 French for Communication III
*FREN 1401 French for Communication IV
FREN 2033 French Literature in Translation
FREN 2041 French - Introduction to the Arts
FREN 2071 French History and Geography Introduction
*FREN 2121 Intermediate French Communication
*FREN 2143 French Civilization and Culture
*FREN 2263 Intermediate French Literature
*FREN 2320 International Work and/or Study Seminar
*FREN 2330 International Seminar and/or Field Studies
*FREN 2413 French Translating
FREN 2421 French Culture Comparisons
*FREN 2433 French Cinema and Conversations
*FREN 2523 Intermediate French Grammar and Composition
*FREN 2533 Advanced French Conversation

ARTS & COMMUNICATIONS: INTERNATIONAL LANGUAGE ARTS

One additional language, 1-3 Credit Hours
(May be Arabic, Chinese, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish, or Language Instructional Technology.)

Total Credit Hours: 25
*Course has prerequisite (See course description section of catalog).

GERMAN

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
Foreign Language (3 hours Required Elective) and International (6 hours Recommended Elective) may be satisfied with 9 hours of additional German Language courses. See the General Education Requirements for the complete list. Foreign Language requirement is satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 23

German 18 hours
GRMN 1103 German I
*GRMN 1213 German II
*GRMN 1313 German III
*GRMN 1413 German IV
*GRMN 2113 Intermediate German I
*GRMN 2213 Intermediate German II

German 5 hours
*GRMN 1001 German for Communication I
*GRMN 1031 German Pronunciation
*GRMN 1201 German for Communication II
*GRMN 1301 German for Communication III
*GRMN 1401 German for Communication IV
GRMN 2033 German Literature in Translation
GRMN 2041 German - Introduction to the Arts
GRMN 2071 German History and Geography Introduction
*GRMN 2121 Intermediate German Communication
*GRMN 2143 German Civilization and Culture
*GRMN 2263 Intermediate German Literature
*GRMN 2320 International Work and/or Study Seminar
*GRMN 2330 German International Seminar and/or Field Studies
*GRMN 2413 German Translating
GRMN 2421 German Culture Comparisons
*GRMN 2523 Intermediate German Grammar and Composition
*GRMN 2533 Advanced German Conversation

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).

A native speaker of German (high school courses conducted principally in German) cannot earn Associate of Arts degree credit toward graduation for German courses below the 2000 level.

To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERNATIONAL LANGUAGE STUDIES
German Certificate Option

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 25

German 18 hours
GRMN 1103 German I
*GRMN 1213 German II
*GRMN 1313 German III
*GRMN 1413 German IV
*GRMN 2113 Intermediate German I
*GRMN 2213 Intermediate German II

Controlled Electives Credit Hours: 7
*GRMN 1001 German for Communication I
*GRMN 1031 German Pronunciation
*GRMN 1201 German for Communication II
*GRMN 1301 German for Communication III
*GRMN 1401 German for Communication IV
GRMN 2033 German Literature in Translation
GRMN 2041 German - Introduction to the Arts
GRMN 2071 German History and Geography Introduction
*GRMN 2121 Intermediate German Communication
*GRMN 2143 German Civilization and Culture
*GRMN 2263 Intermediate German Literature
*GRMN 2320 International Work and/or Study Seminar
*GRMN 2330 German International Seminar and/or Field Studies
*GRMN 2413 German Translating
GRMN 2421 German Culture Comparisons
*GRMN 2523 Intermediate German Grammar and Composition
*GRMN 2533 Advanced German Conversation

One additional language, 1-3 Credit Hours
(May be Arabic, Chinese, French, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish, or Language Instructional Technology.)

Total Credit Hours: 25
*Course has prerequisite (See course description section of catalog).

ITALIAN

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 23

Italian 18 hours
ITAL 1103 Italian I
*ITAL 1213 Italian II
*ITAL 1313 Italian III
*ITAL 1413 Italian IV
*ITAL 2113 Intermediate Italian I
*ITAL 2213 Intermediate Italian II

ARTS & COMMUNICATIONS: INTERNATIONAL LANGUAGE ARTS

Italian 5 hours
*ITAL 1001 Italian for Communication I
*ITAL 1201 Italian for Communication II
*ITAL 1301 Italian for Communication III
*ITAL 1401 Italian for Communication IV
ITAL 2033 Italian Literature in Translation
ITAL 2041 Italian - Introduction to the Arts
ITAL 2071 Italian History and Geography Introduction
*ITAL 2121 Intermediate Italian Communication
*ITAL 2143 Italian Civilization and Culture
*ITAL 2263 Intermediate Italian Literature
*ITAL 2320 International Work and/or Study Seminar
*ITAL 2330 Italian International Seminar and/or Field Studies
*ITAL 2413 Italian Translating
ITAL 2421 Italian Culture Comparisons
ITAL 2433 Italian Film/Literature
*ITAL 2523 Intermediate Italian Grammar and Composition
*ITAL 2533 Advanced Italian Conversation

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
A native speaker of Italian (high school courses conducted principally in Italian) cannot earn Associate of Arts degree credit toward graduation for Italian courses below the 2000 level.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERNATIONAL LANGUAGE STUDIES
Italian Certificate Option

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 20

Italian 15 hours
ITAL 1103 Italian I
*ITAL 1213 Italian II
*ITAL 1313 Italian III
*ITAL 1413 Italian IV
*ITAL 2113 Intermediate Italian I

Controlled Electives Credit Hours: 5

*ITAL 1001 Italian for Communication I
*ITAL 1201 Italian for Communication II
*ITAL 1301 Italian for Communication III
*ITAL 1401 Italian for Communication IV
ITAL 2033 Italian Literature in Translation
ITAL 2041 Italian - Introduction to the Arts
ITAL 2071 Italian History and Geography Introduction
*ITAL 2121 Intermediate Italian Communication
*ITAL 2143 Italian Civilization and Culture
*ITAL 2213 Intermediate Italian II
*ITAL 2263 Intermediate Italian Literature
*ITAL 2320 International Work and/or Study Seminar
*ITAL 2330 Italian International Seminar and/or Field Studies
*ITAL 2413 Italian Translating
ITAL 2421 Italian Culture Comparisons
*ITAL 2433 Italian Film/Literature
*ITAL 2523 Intermediate Italian Grammar and Composition
*ITAL 2533 Advanced Italian Conversation

One additional language, 1-3 Credit Hours
(May be Arabic, Chinese, French, German, Greek, Hebrew, Japanese, Latin, Portuguese, Russian, Spanish, or Language Instructional Technology.)

Total Credit Hours: 20

*Course has prerequisite (See course description section of catalog).

JAPANESE

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37

See the General Education Requirements for the complete list.
**Foreign Language (3 hours Required Elective) and International (6 hours Recommended Elective) may be satisfied with 9 hours of additional Japanese Language.

Specialized Course Requirements Credit Hours: 23

Japanese 15 hours
JAPN 1103 Japanese I
*JAPN 1213 Japanese II
*JAPN 1313 Japanese III
*JAPN 1413 Japanese IV
*JAPN 2113 Intermediate Japanese

Japanese 8 hours
*JAPN 1001 Japanese for Communication I
*JAPN 1201 Japanese for Communication II
*JAPN 1301 Japanese for Communication III
*JAPN 1401 Japanese for Communication IV
JAPN 2033 Japanese Literature in Translation
JAPN 2041 Japanese - Introduction to the Arts
JAPN 2071 Japanese History and Geography Introduction
*JAPN 2121 Intermediate Japanese Communications
*JAPN 2143 Japanese Civilization and Culture
*JAPN 2213 Intermediate Japanese II
*JAPN 2320 International Work and/or Study Seminar
*JAPN 2413 Japanese Translating I
JAPN 2421 Japanese Culture Comparisons

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
A native speaker of Japanese (high school courses conducted principally in Japanese) cannot earn Associate of Arts degree credit toward graduation for Japanese courses below the 2000 level.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: INTERNATIONAL LANGUAGE ARTS

INTERNATIONAL LANGUAGE STUDIES
Japanese Certificate Option

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 20

Japanese 15 hours
JAPN 1103 Japanese I
*JAPN 1213 Japanese II
*JAPN 1313 Japanese III
*JAPN 1413 Japanese IV
*JAPN 2113 Intermediate Japanese I

Controlled Electives Credit Hours: 5
*JAPN 1001 Japanese for Communication I
*JAPN 1201 Japanese for Communication II
*JAPN 1301 Japanese for Communication III
*JAPN 1401 Japanese for Communication IV
JAPN 2033 Japanese Literature in Translation
JAPN 2041 Japanese - Introduction to the Arts
JAPN 2071 Japanese History and Geography
*JAPN 2121 Intermediate Japanese
*JAPN 2143 Japanese Civilization and Culture
*JAPN 2213 Intermediate Japanese II
*JAPN 2320 International Work and/or Study Seminar
*JAPN 2413 Japanese Translating
JAPN 2421 Japanese Culture Comparisons

One additional language, 1-3 Credit Hours
(May be Arabic, Chinese, French, German, Greek, Hebrew, Italian, Latin, Portuguese, Russian, Spanish, or Language Instructional Technology.)

Total Credit Hours: 20
*Course has prerequisite (See course description section of catalog).

RUSSIAN

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list. Foreign Language (3 hours required elective) and International (6 hours recommended elective) may be satisfied with 9 hours of additional Russian Language courses.

Specialized Course Requirements Credit Hours: 23

Russian 15 hours
RUSS 1103 Russian I
*RUSS 1213 Russian II
*RUSS 1313 Russian III
*RUSS 1413 Russian IV
*RUSS 2113 Intermediate Russian I

Russian 8 hours
*RUSS 1001 Russian for Communication I
RUSS 1031 Russian Pronunciation
RUSS 1061 Russian for Biblical Study
*RUSS 1201 Russian for Communication II
*RUSS 1301 Russian for Communication III
*RUSS 1401 Russian for Communication IV
RUSS 2033 Russian Literature in Translation
RUSS 2041 Russian - Introduction to the Arts
RUSS 2071 Russian History and Geography Introduction
*RUSS 2143 Russian Civilization and Culture
*RUSS 2213 Intermediate Russian II
*RUSS 2320 International Work and/or Study Seminar
*RUSS 2413 Russian Translating
RUSS 2421 Russian Culture Comparisons
*RUSS 2523 Intermediate Russian Grammar and Composition

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
A native speaker of Russian (high school courses conducted principally in Russian) cannot earn Associate of Arts degree credit toward graduation for Russian courses below the 2000 level.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERNATIONAL LANGUAGE STUDIES
Russian Certificate Option

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 20

Russian 15 hours
RUSS 1103 Russian I
*RUSS 1213 Russian II
*RUSS 1313 Russian III
*RUSS 1413 Russian IV
*RUSS 2113 Intermediate Russian I

Controlled Electives Credit Hours: 5
*RUSS 1001 Russian for Communication I
RUSS 1031 Russian Pronunciation
RUSS 1061 Russian for Biblical Study
*RUSS 1201 Russian for Communication II
*RUSS 1301 Russian for Communication III
*RUSS 1401 Russian for Communication IV
RUSS 2033 Russian Literature in Translation
RUSS 2041 Russian - Introduction to the Arts
RUSS 2071 Russian History and Geography Introduction
*RUSS 2143 Russian Civilization and Culture
*RUSS 2213 Intermediate Russian II
*RUSS 2320 International Work and/or Study Seminar
*RUSS 2413 Russian Translating
RUSS 2421 Russian Culture Comparisons
*RUSS 2523 Intermediate Russian Grammar and Composition

One additional language, 1-3 Credit Hours
(May be Arabic, Chinese, French, German, Greek, Hebrew, Japanese, Latin, Portuguese, Spanish, or Language Instructional Technology.)

Total Credit Hours: 20
*Course has prerequisite (See course description section of catalog).

ARTS & COMMUNICATIONS: INTERNATIONAL LANGUAGE ARTS

SPANISH

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37

See the General Education Requirements for the complete list. Foreign Language (3 hours required elective) and International (6 hours Recommended Elective) may be satisfied with 9 hours of additional Spanish Language courses.

Specialized Course Requirements Credit Hours: 23

Spanish 18 hours

SPAN 1103 Spanish I
*SPAN 1213 Spanish II
*SPAN 1313 Spanish III
*SPAN 1413 Spanish IV
*SPAN 2113 Intermediate Spanish
*SPAN 2213 Intermediate Spanish II
or
*SPAN 2523 International Spanish Grammar and Composition

Spanish 5 hours

*SPAN 1001 Spanish for Communication I
SPAN 1061 Spanish for Biblical Study
*SPAN 1201 Spanish for Communication II
*SPAN 1301 Spanish for Communication III
*SPAN 1401 Spanish for Communication IV
SPAN 2033 Spanish Literature in Translation
SPAN 2041 Spanish-Introduction to the Arts
SPAN 2071 Spanish-Mexican History and Geography Introduction
*SPAN 2121 Intermediate Spanish Communication
*SPAN 2143 Latin American Civilization and Culture
*SPAN 2263 Intermediate Spanish Literature
*SPAN 2320 International Work and/or Study Seminar
*SPAN 2330 Spanish International Seminar and/or Field Studies
*SPAN 2413 Translating Spanish to English
SPAN 2421 Spanish Culture Comparisons
*SPAN 2443 Interpreting Spanish to English
*SPAN 2453 Interpreting English to Spanish
*SPAN 2463 Courtroom Interpreting Skills Introduction
*SPAN 2473 Medical Interpreting Skills Introduction
*SPAN 2523 Intermediate Spanish Grammar and Composition
*SPAN 2533 Advanced Spanish Conversation
*SPAN 2543 Translating English to Spanish
*SPAN 2663 Spanish Service Learning

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
A native speaker of Spanish (high school courses conducted principally in Spanish) cannot earn Associate Arts degree credit toward graduation for Spanish courses below the 2000 level.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 27 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

SPANISH

Northeastern State University - Tahlequah Transfer Option

Program Description:

This program is designed for students who wish to acquire oral and written language proficiency, an awareness of the Spanish-speaking culture, and who have plans to transfer to a Northeastern State University- Tahlequah to complete a baccalaureate degree in Spanish or in Spanish Education.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 34

See the General Education Requirements for the complete list. General Education required electives are met in specialized course requirements.

Specialized Course Requirements Credit Hours: 21

Spanish 15 hours

^SPAN 1103 Spanish I
*^SPAN 1213 Spanish II
*SPAN 1313 Spanish III
*SPAN 1413 Spanish IV
and select one from the following
*SPAN 2113 Intermediate Spanish
*SPAN 2213 Intermediate Spanish II
*SPAN 2523 International Spanish Grammar and Composition

International Languages 3 hours

ARBC 1103 Arabic I
CHNS 1103 Chinese I
FREN 1103 French I
GRMN 1103 German I
GREE 1103 Greek I
ITAL 1103 Italian I
JAPN 1103 Japanese I
LATN 1103 Latin I
NAMS 1013 Cherokee Language I
PORT 1103 Portuguese I
RUSS 1103 Russian I

Psychology 3 hours

**PSYC 1113 Introduction to Psychology

Controlled Electives Credit Hours: 6

*SPAN 2113 Intermediate Spanish
*SPAN 2143 Latin American Civilization and Culture
*SPAN 2213 Intermediate Spanish II
*SPAN 2263 Intermediate Spanish Literature
*SPAN 2413 Translating Spanish to English
*SPAN 2443 Interpreting Spanish to English
*SPAN 2453 Interpreting English to Spanish
*SPAN 2463 Courtroom Interpreting Skills Introduction
*SPAN 2473 Medical Interpreting Skills Introduction
*SPAN 2523 Intermediate Spanish Grammar and Composition
*SPAN 2533 Advanced Spanish Conversation
*SPAN 2543 Translating English to Spanish
*SPAN 2660 Spanish Service Learning
*SPAN 2773 Spanish for Native Speakers

ARTS & COMMUNICATIONS: INTERNATIONAL LANGUAGE ARTS

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
** Students transferring to the B.A.Ed. in Spanish Education must take PSYC 1113, students who will be majoring in Spanish at NSU are advised to see a counselor regarding optional substitutions for this course that meet the criteria of "required electives" for general education.
^ A maximum of 18 credit hours in Spanish will transfer toward the major requirements at NSU. SPAN 1103 and 1213 will transfer as lower level electives under this agreement.
A native speaker of Spanish (high school courses conducted principally in Spanish) cannot earn Associate Arts degree credit toward graduation for Spanish courses below the 2000 level.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

INTERNATIONAL LANGUAGE STUDIES
Spanish Certificate Option

Program Description:
This program provides an in-depth study of the spoken and written language and prepares students to use the Spanish language as a career skill. The courses are designed to emphasize acquisition of competency sufficient to communicate orally and in writing with a native speaker of the target language on a professional or work-related basis. TCC instructional methods infuse technology into the learning process, which increases access to resources for the language. Graduates find a variety of positions with government or social organizations and firms involved with speakers of the target language (translating, interpreting, investments, accounting, banking, education, publishing, manufacturing, sales, service, and travel). Courses may also be transferred to an Associate of Arts or Associate of Applied Science Degree.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 25

Spanish 18 hours
SPAN 1103 Spanish I
*SPAN 1213 Spanish II
*SPAN 1313 Spanish III
*SPAN 1413 Spanish IV
*SPAN 2113 Intermediate Spanish I
*SPAN 2213 Intermediate Spanish II
or
*SPAN 2523 Intermediate Spanish Grammar and Composition

Controlled Electives Credit Hours: 7
*SPAN 1001 Spanish for Communication I
SPAN 1031 Spanish Pronunciation
SPAN 1061 Spanish for Biblical Study
*SPAN 1201 Spanish for Communication II
*SPAN 1301 Spanish for Communication III
*SPAN 1401 Spanish for Communication IV
SPAN 2033 Spanish Literature in Translation
SPAN 2041 Spanish - Introduction to the Arts
SPAN 2071 Spanish-Mexican History and Geography Introduction
*SPAN 2121 Intermediate Spanish Communication
*SPAN 2143 Latin American Civilization and Culture
*SPAN 2263 Intermediate Spanish Literature
*SPAN 2320 International Work and/or Study Seminar
*SPAN 2330 Spanish International Seminar and/or Field Studies
*SPAN 2413 Translating Spanish to English
SPAN 2421 Spanish Culture Comparisons
*SPAN 2443 Interpreting Spanish to English
*SPAN 2453 Interpreting English to Spanish
*SPAN 2523 Intermediate Spanish Grammar and Composition
*SPAN 2533 Advanced Spanish Conversation
*SPAN 2543 Translating English to Spanish

One additional language, 1-3 Credit Hours
(May be Arabic, Chinese, French, German, Greek, Hebrew, Japanese, Latin, Portuguese, or Language Instructional Technology.)

Total Credit Hours: 25
*Course has prerequisite (See course description section of catalog).

INTERNATIONAL LANGUAGE STUDIES
Spanish Interpreting Skills-Certificate Option

Program Description:
This program provides an introduction to interpreting skills for the courtroom or medical areas. Courses are designed to emphasize acquisition of speaking competency sufficient to communicate fluently (Spanish to English and English to Spanish) and to provide communication assistance between non-Spanish speaking medical personnel and non-English speaking patients with legal or medical groups.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 21

Spanish Credit Hours: 18
*SPAN 1313 Spanish III
*SPAN 1413 Spanish IV
*SPAN 2443 Interpreting Spanish to English
*SPAN 2453 Interpreting English to Spanish
and select one of the following:
*SPAN 2113 Intermediate Spanish I
*SPAN 2213 Intermediate Spanish II
*SPAN 2523 Spanish Grammar and Composition
and select one of the following:
*SPAN 2463 Courtroom Interpreting Skills Introduction
*SPAN 2473 Medical Interpreting Skills Introduction

Controlled Electives Credit Hours: 3
*SPAN 2121 Intermediate Spanish Communication
*SPAN 2143 Latin America Civilization and Culture
*SPAN 2421 Spanish Culture Comparisons
*SPAN 2533 Advanced Spanish Conversation
•SPAN 2661-3 Spanish Service Learning

Total Credit Hours: 21
*Course has prerequisite (See course description section of catalog)

INTERNATIONAL LANGUAGE STUDIES
Spanish Translating Skills-Certificate Option

Program Description:
This program provides an introduction to translating skills. Courses are designed to emphasize usage of language competency for written translation purposes (Spanish to English and English to Spanish). Holders of the certificate find a variety of opportunities in business and industry and social service areas.

Degree Awarded: Certificate of Achievement

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

Certificate Requirements Credit Hours: 21

Spanish Credit Hours: 18

*SPAN 1313 Spanish III
*SPAN 1413 Spanish IV
*SPAN 2113 Intermediate Spanish I
*SPAN 2413 Translating Spanish to English
*SPAN 2543 Translating English to Spanish
and select one of the following:
*SPAN 2213 Intermediate Spanish II
*SPAN 2523 Spanish Grammar and Composition

Controlled Electives Credit Hours: 3

*SPAN 2321-3 International Work and/or Study Seminar
*SPAN 2331-3 Spanish International Seminar and/or Field Studies
*SPAN 2143 Latin American Civilization and Culture

Total Credit Hours: 21

*Course has prerequisite (See course description section of catalog)

For More Information Contact:

Counseling Centers
Metro: 918-595-7151 • Northeast: 918-595-7527

AMERICAN STUDIES

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in American Studies may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 25

Additional general education requirements met in specialized course requirements.

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 3 hours
HUMN 2553 American Humanities

Mathematics 3 hours
*MATH 1513 College Algebra

Social Sciences 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. 1492 to Civil War Era
HIST 1493 U.S. Civil War Era to Present

Science 7 hours
Seven credit hours of science (one course must be a laboratory science) from the General Education Requirements list.

Specialized Course Requirements Credit Hours: 21

*ENGL 2773 Survey of American Literature to 1865
*ENGL 2883 Survey of American Literature from 1865
RELG 2233 Religion in America
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War
HIST 1493 U.S. History Civil War to Present

Select one of the following courses on minorities in America:
*ENGL 2893 Minority Literature
HIST 2333 African-American History
HIST 2343 Native American History
(Same course as NAMS 2343 Native American Histories)
SOCI 2143 Minorities in America

Select one of the following courses on American society:
HIST 2043 Contemporary Affairs
SOCI 2113 Social Problems in America
PHIL 2143 Introduction to Social and Political Philosophy
POLS 2023 Introduction to American Politics
*SOCI 2013 Marriage and Family
NAMS 2513 Introduction to Native American Law
Note: Courses in Native American Studies have not yet been approved for transfer as part of the 2+2 program with Oklahoma State University.

Select one of the following courses on American culture:
HUMN 2443 Art of Film
HUMN 2663 Hollywood's America
HUMN 2773 American Popular Culture
HUMN 2883 Art and Identity: Cultural Encounters In Am.
NAMS 2113 Introduction to Native American Cultures
NAMS 2213 Introduction to Native American Spiritualities
NAMS 2313 Introduction to Native American Literature/Drama/Film
Note: Courses in Native American Studies have not yet been approved for transfer as part of the 2+2 program with Oklahoma State University.

Required Electives Credit Hours: 9

Any course not taken from the list of specialized course requirements may be taken as a required elective) Foreign Language through Level IV. Spanish is recommended. (Students planning to transfer to OSU should meet the language requirement in the associate degree program.)
HIST 1033 Oklahoma History
HIST 1073 Twentieth Century World History
HIST 2533 American Frontier
NAMS 2990 Selected Topics in Native American Studies
Note: Courses in Native American Studies have not yet been approved for transfer as part of the 2+2 program with Oklahoma State University.

Recommended Electives Credit Hours: 6

(Any course not taken from the list of required electives may be taken as a recommended elective.)
HIST 1063 Modem Western Civilization
HUMN 2223 Humanities II
RELG 1223 Religions of the World: The Western Tradition

Total Hours: 61

*Course has prerequisite (See course description section of catalog).
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
To receive an A. A. or A. S. degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

HISTORY

Program Description:
To function in a particular society or in an international setting, it is crucial to gain an accurate historical understanding of a present situation or past event through the study of history. The study of history involves verifying events and ideas, exploring the causes and effects of events and ideas, reconciling various interpretations of them, and making informed judgments about how to utilize differing views to assert a conclusion. In addition, it is essential that the historical reasoning process be expressed in a clear and effective style of written communication.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 12

History 12 hours
HIST 1033 History of Oklahoma
HIST 1044 Oklahoma History plus Research
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
HIST 1073 Twentieth Century World History
HIST 1083 Survey of English History to 1688
HIST 1093 Survey of English History 1688 to Present
HIST 1483 U.S. History 1492 to Civil War Era or
HIST 1493 U.S. History Civil War Era to Present
HIST 2023 Modern Eastern Civilization
HIST 2043 Contemporary Affairs
HIST 2163 Introduction to the History and Philosophy of Science
HIST 2223 Modern Latin American History
HIST 2333 African-American History
HIST 2343 Native American History
HIST 2533 Survey of the American Frontier

Recommended Electives Credit Hours: 12

Choose from at least three disciplines:
ECON 2013 Principles of Macroeconomics
*ENGL 2413 Introduction to Literature
*ENGL 2543 Survey of British Literature to 1800
*ENGL 2653 Survey of British Literature from 1800
*ENGL 2773 Survey of American Literature to 1865
*ENGL 2883 Survey of American Literature from 1865
GEOG 1014 Geography (Physical)
PHIL 1113 Introduction to Philosophy
PHIL 2163 Introduction to the History and Philosophy of Science
POLS 1023 Introduction to State and Local Government
*POLS 2013 Introduction to Comparative Governments
*POLS 2023 Introduction to American Politics
*POLS 2033 Introduction to Political Thought
*POLS 2133 Introduction to Public Administration
*POLS 2153 Introduction to the Constitution and Judicial Process
*POLS 2203 Introduction to International Relations
PSYC 1113 Introduction to Psychology
*PSYC 2053 Social Psychology
RELG 2233 Religion in America
SOCI 1113 Introduction to Sociology
SOCI 2123 Introduction to Cultural Anthropology

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
Proficiency in a foreign language is recommended.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

HUMANITIES

Program Description:
According to Socrates, "the unexamined life is not worth living." By studying the humanities, students will have the opportunity to examine the diverse expressions of human experience. The humanities can be understood as the systematic study of the human artistic/creative response to the circumstances of existence. Human creativity in all cultures has manifested itself in a variety of forms including, but not limited to the academic disciplines of: painting, sculpture, architecture, literature, poetry, drama, philosophy, music, dance, and film. Humanities courses approach this subject matter in a manner that encourages the cultivation of diverse cultural and analytical perspectives in an attempt to carefully reflect upon the wider implications of being human.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 31
See the General Education Requirements for complete list. Humanities requirements are met in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 21

Humanities 9 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II
HUMN 2553 American Humanities

Select 9 credit hours from the following:
HUMN 2333 Humanities: Literature and Film
HUMN 2443 Art of Film
HUMN 2663 Hollywood's America
HUMN 2773 Popular Culture
HUMN 2883 Culture and Identity

Select 3 credit hours from the following:
HUMN 2613 International Film
GEOG 1043 Introduction to Cultural Geography
ASNS 2103 Survey of Asian Civilizations
AFRS 2713 Survey of African Civilizations
HIST 2223 Modern Latin American History
NAMS 2113 Native American Culture
NAMS 2213 Spiritualities of Native America
NAMS 2313 Introduction to Native American Literature, Drama, and Film
RELG/PHIL 1213 Religions of the World: Eastern Tradition
RELG/PHIL 1223 Religions of the World: Western Tradition

Controlled Electives Credit Hours: 6
Select any 6 credit hours from the following courses
ART 1053 Art History Survey I
ART 1063 Art History Survey II
ART 2053 Art History Survey IV
*ENGL 2543 Survey of British Literature to 1800
*ENGL 2653 Survey of British Literature from 1800
*ENGL 2673 World Literature to 1700
*ENGL 2683 World Literature from 1700
*ENGL 2773 Survey of American Literature to 1865
*ENGL 2883 Survey of American Literature from 1865
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
MUSC 1113 Music Appreciation
PHIL 1113 Introduction to Philosophy
PHIL 2163 Introduction to the History and Philosophy of Science
RELG 1113 Introduction to Religious Studies
RELG 2243 Christian Ethics and Social Thought
RELG 2313 Religion in Film
SOCI 2123 Introduction to Cultural Anthropology
THEA 1093 Introduction to Theatre

Recommended Electives Credit Hours: 3
Select any additional 3 credit hours
Foreign Languages strongly suggested

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog). Proficiency in foreign language is recommended.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

LIBERAL ARTS
General Emphasis

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 31
See the General Education Requirements for the complete list. Recommended electives are satisfied in specialized course requirements.

Specialized Course Requirements Credit Hours: 29
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Choose from at least four different disciplines for the remaining 23 credit hours

Total Credit Hours: 60
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

LIBERAL ARTS
Film Emphasis

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

General Education Requirements Credit Hours: 31
See the General Education Requirements for the complete list. Recommended electives are satisfied in specialized course requirements.

Specialized Course Requirements Credit Hours: 33

Art 3 hours
ART 1113 Art Appreciation
or
ART 1063 Art History Survey II

Computer Sciences 3 hours
CSCI 1203 Computer Concepts and Applications

Filmmaking 9 hours
ART 2813 Filmmaking I
*ART 2823 Film Internship, Filmmaking II
ART 2913 Film/Video History Analysis I

Humanities 9 hours
HUMN 2333 Film and Literature
HUMN 2443 Art of Film
HUMN 2663 Hollywood's America

Theatre 6 hours
THEA 1053 Acting I
THEA 2453 Scriptwriting

Recommended Electives Credit Hours: 0-3
*ART 1123 Drawing I
ART 2853 Photography
HUMN 2613 International Film
RELG 2313 Religion in Film
Any Foreign Language

Total Credit Hours: 61-64
*Course has prerequisite (See course description section of catalog). To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

LIBERAL ARTS
International Emphasis

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

For More Information Contact:
Liberal Arts Divisions: Metro: (918) 595-7118 Northeast: (918) 595-7494 Southeast: (918) 595-7780 West: (918) 595-8079
Counseling Centers: Metro: (918) 595-7151 Northeast: (918) 595-7527 Southeast: (918) 595-7651 West: (918) 595-8176
General Education Requirements Credit Hours: 31
Recommended electives are satisfied in specialized course requirements.

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Mathematics 3 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 1715 College Algebra and Trigonometry
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II

Science 7 hours
One course must be a laboratory science
BIOL 1114 General Biology for Non-Majors
BIOL 1383 Nutrition
*BIOL 1404 General Botany
*BIOL 1604 Zoology
*BIOL 2154 Human Physiology
*BIOL 2164 Microbiology
*CHEM 1114 Principles of Chemistry
GEOL 1014 General Geology (Physical)
GEOL 1024 General Geology (Historical)
GEOG 1014 Geography (Physical)
GEOG 2013 Meteorology
*PHYS 1114 General Physics I
*PHSC 1114 General Physical Science

Social Science 6 hours
HIST 1493 U.S. History Civil War Era to Present
POLS 1113 American Federal Government

Required Electives Credit Hours: 3
Art 1113 Art Appreciation
MUSC 1113 Music Appreciation
SOCI 2123 Introduction to Cultural Anthropology

Specialized Course Requirements Credit Hours: 30

Economics 3 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics
ECON 2123 International Economic Issues

Foreign Language 6 hours
**(Same language)

Geography 3 hours
GEOG 1023 World Geography (Economic)
GEOG 1043 Introduction to Cultural Geography
GEOG 2033 World Regional Geography

History 3 hours
HIST 1063 Modern Western Civilization
HIST 1073 Twentieth Century World History
HIST 2023 Modern Eastern Civilization
HIST 2043 Contemporary Affairs
HIST 2223 Modern Latin American History
HIST 2333 African American History

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

Philosophy/Religion 3 hours
PHIL/RELG 1213 Religions of the World: The Eastern Tradition
PHIL/RELG 1223 Religions of the World: The Western Tradition

Political Science 3 hours
*POLS 2013 Introduction to Comparative Governments
*POLS 2203 Introduction to International Relations

Controlled Electives 9 hours
select one from the following:
CSCI 1203 Computer Concepts and Applications
*ENGL 2673 Survey of World Literature to 1700
*ENGL 2683 Survey of World Literature from 1700
SPCH 2053 Intercultural Communication
and select two from the following:
AFRS 2713 Survey of African Civilization
ASNS 1103 Asian Philosophy and Culture
BIOL 2123 Human Ecology
HUMN 2163 International Film
NAMS 2113 Native American Cultures

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
**Check catalog for advanced credit. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

LIBERAL ARTS
Native American Emphasis

Program Description:
This emphasis is designed to meet the educational needs of both Native American and non-Native American students. Native American Studies (NAMS) courses focus upon the diverse world-views expressed in Native American cultures, spiritualities, histories, oral traditions, and literatures. The suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

For More Information Contact:
Humanities/Native American Studies Program (918) 595-8210
Liberal Arts Division: West (918) 595-8079
Counseling Center: West (918) 595-8176

General Education Requirements Credit Hours: 28

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
GEOG 1043 Introduction to Cultural Geography
and select one of the following:
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Mathematics 3 hours
*MATH 1513 College Algebra
*MATH 1473 Mathematics for Critical Thinking

Science 7 hours
See the General Education Requirements page for complete list (one course must be a laboratory science).

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present
Additional 9 credit hours required and recommended electives are satisfied in specialized course requirements.

Specialized Course Requirements Credit Hours: 24
Select four courses in Native American Studies:
NAMS 1013 Cherokee Language I
NAMS 1023 Cherokee Language II
NAMS 2013 Images of Indians in American Culture
NAMS 2113 Native American Cultures
NAMS 2213 Native American Spiritualities
NAMS 2313 Native American Literature/Drama/Film
NAMS/HIST 2343 Native American History
NAMS 2513 Native American Law
NAMS 2613 Native American Art
Select four courses on American society:
(Any course not taken from the list of Native American Studies courses may be substituted for a course on American society.)
HIST 1033 Oklahoma History
HIST 1483 U.S. History 1492 to Civil War Era
or
HIST 1493 U.S. History Civil War Era to Present
HIST 2533 American Frontier
HUMN 2553 American Humanities
HUMN 2663 Hollywood's America
HUMN 2773 American Popular Culture
HUMN 2883 Art and Identity: Cultural Encounters in America
RELG 2233 Religion in America
SOCI 2113 Social Problems In America
SOCI 2143 Minorities in America

Recommended Electives Credit Hours: 9
(Any course not taken from the list of General Education Requirements or the lists of Specialized Course Requirements may be taken as an elective.)
ART 1113 Art Appreciation
CSCI 1203 Computer Concepts and Applications
GEOG 2153 Human Ecology
HORT 1303 Principles of Horticulture
HORT 1343 Plant Identification
HUMN 2113 Humanities I or
HUMN 2223 Humanities II
RELG 1113 Introduction to Religious Studies
RELG/SOCI 2173 Religion and Society
SOCI 2123 Introduction to Cultural Anthropology
SPCH 2053 Intercultural Communication

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

PARALEGAL, AA and AAS
See Community Services, Law, Public Safety & Corrections

PHILOSOPHY

Program Description:
Philosophy seeks answers to fundamental questions such as: How do I know this to be true? What kind of life should a human being live? Is there such a thing as religious or scientific truth? What is the world ultimately like? Philosophy attempts to develop and use critical methods; that is, to develop standards of logical thinking as opposed to emotional reaction. Philosophy, then, seeks to develop analytical skills that will be useful in every aspect of life as well as enriching and fulfilling to the individual.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 31
See the General Education Requirements for the complete list. Humanities requirement is satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 15

Philosophy 15 hours
PHIL 1113 Introduction to Philosophy
PHIL 1133 Philosophy in Literature
PHIL 1143 Introduction to Ethics: Business Issues
PHIL 1213 Religions of the World: The Eastern Tradition
PHIL 1223 Religions of the World: The Western Tradition
PHIL 2113 Logic
PHIL 2133 Introduction to Ethical Thinking
PHIL 2143 Introduction to Social and Political Philosophy
PHIL 2153 Medical Ethics
PHIL 2163 Introduction to the History and Philosophy of Science
PHIL 2173 Introduction to the Philosophy of Religion
PHIL 2203 Symbolic Logic

Recommended Electives Credit Hours: 15
*ENGL 2413 Introduction to Literature
HIST 1053 Ancient and Medieval Western Civilization
*POLS 2033 Introduction to American Politics
PSYC 1023 Psychology of Personal Adjustment
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America
SOCI 2123 Introduction to Cultural Anthropology

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
Proficiency in a foreign language is recommended.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

POLITICAL SCIENCE

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Political Science may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 12
*POLS 2013 Introduction to Comparative Governments
*POLS 2023 Introduction to American Politics
*POLS 2033 Introduction to Political Thought
*POLS 2103 Introduction to State and Local Government
*POLS 2133 Introduction to Public Administration
*POLS 2153 Introduction to the Constitution and Judicial Process
*POLS 2203 Introduction to International Relations

Recommended Electives Credit Hours: 12
Choose from at least three different disciplines.
CSCI 1203 Computer Concepts and Applications
ECON 2013 Principles of Macroeconomics
GEOG 1023 World Geography (Economic)
HIST 1033 History of Oklahoma
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present
HIST 2043 Contemporary Affairs
PHIL 1113 Introduction to Philosophy
PHIL 2163 Introduction to the History and Philosophy of Science
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America
*SOCI 2223 Behavioral Statistics

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
Proficiency in a foreign language is recommended.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

PSYCHOLOGY

Program Description:
Psychology is the science of behavior and mental processes. Students investigate such topics as personality theories, social psychology, psychological disorders, motivation, learning, physiology, memory and cognition. Through this program, students will explore the complexity of the human experience through all stages of human development.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37

See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 15

Psychology 15 hours
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
*PSYC 2023 Developmental Psychology
*PSYC 2053 Social Psychology
PSYC 2123 Leadership Development
PSYC 2143 Guided Activities in Service Learning
*PSYC 2193 Personality Theories
*PSYC 2203 Mind and Behavior
*PSYC 2213 Brain and Behavior
*PSYC 2223 Behavioral Statistics
PSYC 2313 Psychology and Law
*PSYC 2323 Conflict Resolution
PSYC 2523 Child Psychology
*PSYC 2533 Adolescent Psychology
*PSYC 2613 Adult Psychology
*PSYC 2633 Industrial and Organizational Psychology
*PSYC 2713 Aging and Behavior
*PSYC 2813 Human Sexuality

Recommended Electives Credit Hours: 9

CSCI 1203 Computer Concepts and Applications
*MATH 1513 College Algebra
PHIL 1113 Introduction to Philosophy
PHIL 2163 Introduction to the History and Philosophy of Science
*PSYC 2130 Crisis Intervention and Experience
SOCI 1113 Introduction to Sociology
*SOCI 2013 Marriage and Family

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
Proficiency in a foreign language is recommended.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

RELIGIOUS STUDIES

Program Description:
Religion is one of the primary social activities of humankind. Its study involves a comparative understanding of the various ways different peoples, across time and space, have developed their religious ideas, values, systems, beliefs, rituals, and traditions in response to fundamental questions of human existence. Religious Studies offers a rigorous, systematic, and objective intellectual inquiry into various aspects of religions, their adherents and world views, their goals and expressions. It employs a wide variety of approaches and methods in order to understand the role of religion in human experience and thought. Courses in Religious Studies are for majors and for those meeting Humanities credit requirements. They are designed to be non-technical and to appeal to a broad range of interests.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 31

See the General Education Requirements for the complete list. Humanities requirement is satisfied in Specialized Course Requirements.

Course Requirements Credit Hours: 24

Religious Studies 12 hours
RELG 1113 Introduction to Religious Studies
and any three of the following:
RELG 1213 Religions of the World: The Eastern Tradition
RELG 1223 Religions of the World: The Western Tradition
RELG 2113 Old Testament
RELG 2123 New Testament

Required Electives 12 hours
Any course not selected from above
PHIL 2173 Introduction to the Philosophy of Religion
RELG/SOCI 2173 Religion and Society
RELG 2233 Religion in America
RELG 2243 Christian Ethics and Social Thought
RELG 2313 Religion in Film

Recommended Electives Credit Hours: 6

General Emphasis
*ENGL 2543 Survey of British Literature to 1800
*ENGL 2773 Survey of American Literature to 1865
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
HUMN 2113 Humanities I
HUMN 2223 Humanities II
PHIL 1113 Introduction to Philosophy
PHIL 1133 Philosophy in Literature
PHIL 2133 Introduction to Ethical Thinking
PSYC 1113 Introduction to Psychology
RELG 2330 Field Studies in Religion
SOCI 1113 Introduction to Sociology
SOCI 2123 Introduction to Cultural Anthropology

or

International Studies Emphasis
GREE 1023 Biblical Greek I
*GREE 1223 Biblical Greek II
HEBR 1023 Biblical Hebrew I
*HEBR 1223 Biblical Hebrew II
LATN 1103 Latin I
*LATN 1213 Latin II

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: LIBERAL ARTS & SOCIAL SCIENCES

SOCIOLOGY

Program Description:
Sociology is the study of social life, social change, and the social causes and consequences of human behavior. Sociologists investigate the structure of groups, organizations, and societies, and how people interact within these contexts. Since all human behavior is social, the subject matter of sociology ranges from the intimate family to the hostile mob, from organized crime to religious cults, from the divisions of race, gender and social class to the shared beliefs of a common culture, and from the sociology of work to the sociology of sports. Because sociology addresses the most challenging issues of our time, it is a rapidly expanding field whose potential is increasingly tapped by those who craft policies and create programs.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 15

Required 6 hours
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Choose at least three courses 9 hours
*SOCI 2013 Marriage and Family
*SOCI 2043 Juvenile Delinquency
*SOCI 2053 Social Psychology
*SOCI 2123 Introduction to Cultural Anthropology
*SOCI 2133 Introduction to Deviant Behavior
*SOCI 2143 Minorities in America
SOCI/RELG 2173 Religion and Society
*SOCI 2223 Behavioral Statistics
*SOCI 2713 Aging and Behavior
*SOCI 2813 Human Sexuality

Recommended Electives Credit Hours: 9
*CSCI 1203 Computer Concepts and Applications
ECON 2013 Principles of Macroeconomics
*ENGL 2883 Survey of American Literature from 1865
HIST 2043 Contemporary Affairs
HUMN 2223 Humanities II
PHIL 1113 Introduction to Philosophy
PHIL 2113 Logic
PHIL 2133 Introduction to Ethical Thinking
PHIL 2163 Introduction to the History and Philosophy of Science
*POLS 2033 Introduction to Political Thought
PSYC 1023 Psychology of Personal Adjustment
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
*SOCI 1073 Human Service Techniques
*SOCI 1130 Crisis Intervention and Experience
*SOCI 2243 Introduction to Social Work
SPCH 1013 Fundamentals of Listening

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
Proficiency in a foreign language is recommended.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ARTS & COMMUNICATIONS: VISUAL & PERFORMING ARTS

ART

Program Description:
Throughout history, no culture has ever persisted without some form of art. The fine arts - painting, sculpture and architecture - express our culture. The applied arts touch an infinite list of things in our environment from packaging, magazines, web design, and television to interior design. A liberal education that does not include familiarity with the history and language of art is lacking. The primary purpose of TCC's art program is to develop a basic historical, conceptual, and technical education in art. Believing that the artist's success is dependent on both creative vision and technical expertise, the program encourages excellence, critical inquiry, and experimentation.

Degree Awarded: Associate in Arts

For More Information Contact:
Liberal Arts Division: Metro: (918) 595-7118
West: (918) 595-8079
Counseling Centers: Metro: (918) 595-7151
West: (918) 595-8176

General Education Requirements Credit Hours: 37
See the General Education Requirements list for complete list.

Specialized Course Requirements Credit Hours: 21

Art

Lecture 9 hours
ART 1053 Art History Survey I
*ART 2503 Professional Practice
and select one course from the following
ART 1063 Art History Survey II
ART 2053 Art History Survey IV

Studio 12 hours
ART 1013 Fundamentals of Art I
*ART 1023 Painting I
*ART 1033 Painting II
ART 1083 Fundamentals of Art II
*ART 1123 Drawing I
*ART 1133 Drawing II
*ART 2063 Watercolor I
*ART 2073 Watercolor II
*ART 2083 Sculpture I
*ART 2093 Sculpture II
*ART 2143 Figure Drawing I
*ART 2153 Figure Drawing II
*ART 2223 Printmaking I
*ART 2233 Printmaking II
*ART 2243 Serigraphy I
*ART 2253 Serigraphy II
*ART 2263 Introduction to Ceramics
*ART 2313 Jewelry I
*ART 2323 Jewelry II
*ART 2403 Illustration I
*ART 2413 Typography I
*ART 2423 Graphic Design I
ART 2853 Photography

Recommended Electives Credit Hours: 3
*ART 2530 Field Studies in Art
HIST 1053 Ancient and Medieval Western Civilization
HUMN 2113 Humanities I
HUMN 2223 Humanities II
MUSC 1113 Music Appreciation
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology
SOCI 2123 Introduction to Cultural Anthropology
THEA 1093 Introduction to Theatre

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERIOR DESIGN, AAS & CER
See Business Area of Study

ARTS & COMMUNICATIONS: VISUAL & PERFORMING ARTS

MUSIC

Program Description:
This program is designed to create a solid musical foundation in our students enabling them to transfer into four-year colleges and universities to pursue a baccalaureate degree in music. The program is also an appropriate course of study for individuals preparing for one of the many careers in music which do not require a baccalaureate degree or for personal enrichment. Skill enhancement and depth are provided by course work in applied music performance ensembles, music theory, music literature, keyboard, computer music composition, and private lessons. Students have the opportunity to broaden the scope of their classroom education by participation in performance groups including the Concert Choir, Show Choir, Concert Band, Jazz Band, Orchestra, and chamber ensembles. The music degree program is supported by a substantial performing arts facility which includes a music recording studio, practice rooms, a MIDI keyboard laboratory, and choral and instrumental rehearsal halls. Most music programs are presented at the state-of-the-art VanTrease Performing Arts Center for Education.

Degree Awarded: Associate in Arts

For More Information Contact:
Performing Arts Division: Southeast: (918) 595-7752
TCC Theatre Office: Southeast: (918) 595-7733
Counseling Center: Southeast: (918) 595-7651

General Education Requirements Credit Hours: 28
See the General Education Requirements for the complete list. Recommended electives and required electives are satisfied in the Specialized course Requirements.

Specialized Course Requirements Credit Hours: 35-43

Performance Ensemble 4 hours
A music major must enroll in at least one of these each semester. Substitutions may be made only with Dean's approval.
*MUSC 1541 Orchestra
MUSC 1551 Concert Choir
*MUSC 1651 Concert Band

Applied Music Lessons 8 hours
*** MUSC 1200-1490 Private Lessons
*** MUSC 2200-2240 Private Lessons

Piano 0-8 hours
A music major must be proficient in or enrolled in:
MUSC 1612 Class Piano I
*MUSC 1622 Class Piano II
*MUSC 1632 Class Piano III
*MUSC 1642 Class Piano IV

Theory & History 23 hours
*MUSC 1013 Music Theory I
*MUSC 1023 Music Theory II
*MUSC 1062 Aural Theory I
*MUSC 1072 Aural Theory II
*MUSC 2013 Music Theory III
*MUSC 2023 Music Theory IV
*MUSC 2062 Aural Theory III
*MUSC 2072 Aural Theory IV
*MUSC 2133 Introduction to History and Literature of Music

Recommended Electives 0 hours
MUSC 1002 Fundamentals of Music
MUSC 1053 Recording Studio Techniques I
*MUSC 1142 Computer Music Techniques I
MUSC 1153 American Popular Music
MUSC 1171 Beginning Guitar
MUSC 1181 Percussion Class
MUSC 1512 Voice Class
*MUSC 1562 Musical Theatre
*MUSC 1661 Jazz Band
*MUSC 1711 Brass Ensemble
*MUSC 1721 Woodwind Ensemble
*MUSC 1731 Guitar Ensemble
*MUSC 1761 String Ensemble
*MUSC 1771 Percussion Ensemble
*MUSC 1781 Chamber Ensemble
*MUSC 1791 Jazz Combo
*MUSC 1801 Jazz Lab
MUSC 2161 Cello Choir
*MUSC 2181 Show Choir
*MUSC 2223 Recording Studio Techniques II
*MUSC 2333 Music Internship

Total Credit Hours: 63-71
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
*** Music majors at four-year colleges/universities are required to take 2 credit hours of private instruction per semester.
Scholarships may be available. Please contact the music office at 595-8698.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

STAGE PRODUCTION TECHNOLOGY

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It also is designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Performing Arts Division: Southeast: (918) 595-7752
TCC Theatre Office: Southeast: (918) 595-7733
Counseling Center: Southeast: (918) 595-7651

General Education Requirements Credit Hours: 19

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Psychology 3 hours
*PSYC 1313 Human Relations
PSYC 1113 Introduction to Psychology

ARTS & COMMUNICATIONS: VISUAL & PERFORMING ARTS

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 42

Computer Information Systems 3 hours
Select 3 credit hours from any Computer Information Systems (CSYS/CSCI) courses.

Theatre 39 hours
THEA 1033 Stagecraft I
*THEA 1043 Stagecraft II
THEA 1073 Entertainment Electrical Fundamentals
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 1123 Introduction to Sound Reinforcement
THEA 1133 Costume Techniques I
THEA 1143 Introduction to Rigging & Fly Systems
THEA 2063 Fundamentals of Stage Lighting
THEA 2073 Introduction to Production Design
THEA 2233 Entertainment – Computer Aided Design
THEA 2253 Stage Management
*THEA 2273 Stage Production Technology Internship

Recommended Electives Credit Hours: 3
ART 1013 Fundamentals of Art I
ART 1083 Fundamentals of Art II
THEA 2013 Makeup I
*THEA 2133 Advanced Lighting for the Stage
*THEA 2153 Advanced Sound Reinforcement
THEA 2343 Introduction to Costume Design

Total Credit Hours: 64
*Course has prerequisite (See course description section of catalog).

STAGE PRODUCTION TECHNOLOGY
Costume Certificate

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It is also designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 33

Art 3 hours
ART 1013 Fundamentals of Art

Theatre 30 hours
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 1133 Costume Techniques I
THEA 2013 Makeup I
*THEA 2043 Costume History
*THEA 2093 Makeup II
*THEA 2143 Costume Techniques II
*THEA 2233 Entertainment Computer Aided Design
*THEA 2273 Stage Production Technology Internship
THEA 2343 Introduction to Costume Design

Total Credit Hours: 33
*Course has prerequisite (See course description section of catalog).

STAGE PRODUCTION TECHNOLOGY
Entertainment Construction Certificate

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It is also designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 22

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Theatre 18 hours
THEA 1033 Stagecraft I
THEA 1043 Stagecraft II
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 1143 Introduction to Rigging Fly Systems
*THEA 2273 Stage Production Technology Internship

Total Credit Hours: 22
*Course has prerequisite (See course description section of catalog).

ARTS & COMMUNICATIONS: VISUAL & PERFORMING ARTS

STAGE PRODUCTION TECHNOLOGY
Lighting Certificate

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It is also designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 28

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Theatre 24 hours
THEA 1073 Entertainment Electrical Fundamentals
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 1143 Introduction to Rigging Fly Systems
THEA 2063 Fundamentals of Stage Lighting
*THEA 2133 Advanced Lighting for the Stage
*THEA 2233 Entertainment Computer Aided Design
*THEA 2273 Stage Production Technology Internship

Total Credit Hours: 28
*Course has prerequisite (See course description section of catalog).

STAGE PRODUCTION TECHNOLOGY
Rigging Certificate

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It is also designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Performing Arts Division: Southeast: (918) 595-7752
TCC Theatre Office: Southeast: (918) 595-7733
Counseling Center: Southeast: (918) 595-7651

Certificate Requirements Credit Hours: 27

Theatre 27 hours
THEA 1033 Stagecraft I
THEA 1073 Entertainment Electrical Fundamentals
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 1143 Introduction to Rigging Fly Systems
THEA 2063 Fundamentals of Stage Lighting
*THEA 2173 Arena Rigging
THEA 2233 Entertainment Computer Aided Design
*THEA 2273 Stage Production Technology Internship

Total Credit Hours: 27
*Course has prerequisite (See course description section of catalog).

STAGE PRODUCTION TECHNOLOGY
Sound Certificate

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It is also designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Certificate of Achievement

Requirements Credit Hours: 28

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Theatre 24 hours
MUSC 1053 Recording Studio Techniques I
THEA 1073 Entertainment Electrical Fundamentals
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 1123 Introduction to Sound Reinforcement
THEA 1143 Introduction to Rigging Fly Systems
*THEA 2153 Advanced Sound Reinforcement
*THEA 2273 Stage Production Technology Internship

Total Credit Hours: 28
*Course has prerequisite (See course description section of catalog).

STAGE PRODUCTION TECHNOLOGY
Stage Management Certificate

Program Description:
This program is designed to prepare students for a career in Stage Production Technology. It is also designed for those students presently employed in the Stage Production field who desire advancement.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 27

Business 3 hours
BUSN 2363 Supervisory Management

Psychology 3 hours
PSYC 1313 Human Relations

Speech 3 hours
SPCH 1113 Speech Communication I

Theatre 18 hours
THEA 1033 Stagecraft I
THEA 1053 Acting I
THEA 1093 Introduction to Theatre
THEA 1113 Theatre Graphics
THEA 2253 Stage Management
*THEA 2273 Stage Production Technology Internship

Total Credit Hours: 27
*Course has prerequisite (See course description section of catalog).

ARTS & COMMUNICATIONS: VISUAL & PERFORMING ARTS

THEATRE

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Arts

For More Information Contact:
Performing Arts Division: Southeast: (918) 595-7752
TCC Theatre Office: (918) 595-7733
Counseling Center: Southeast: (918) 595-7651

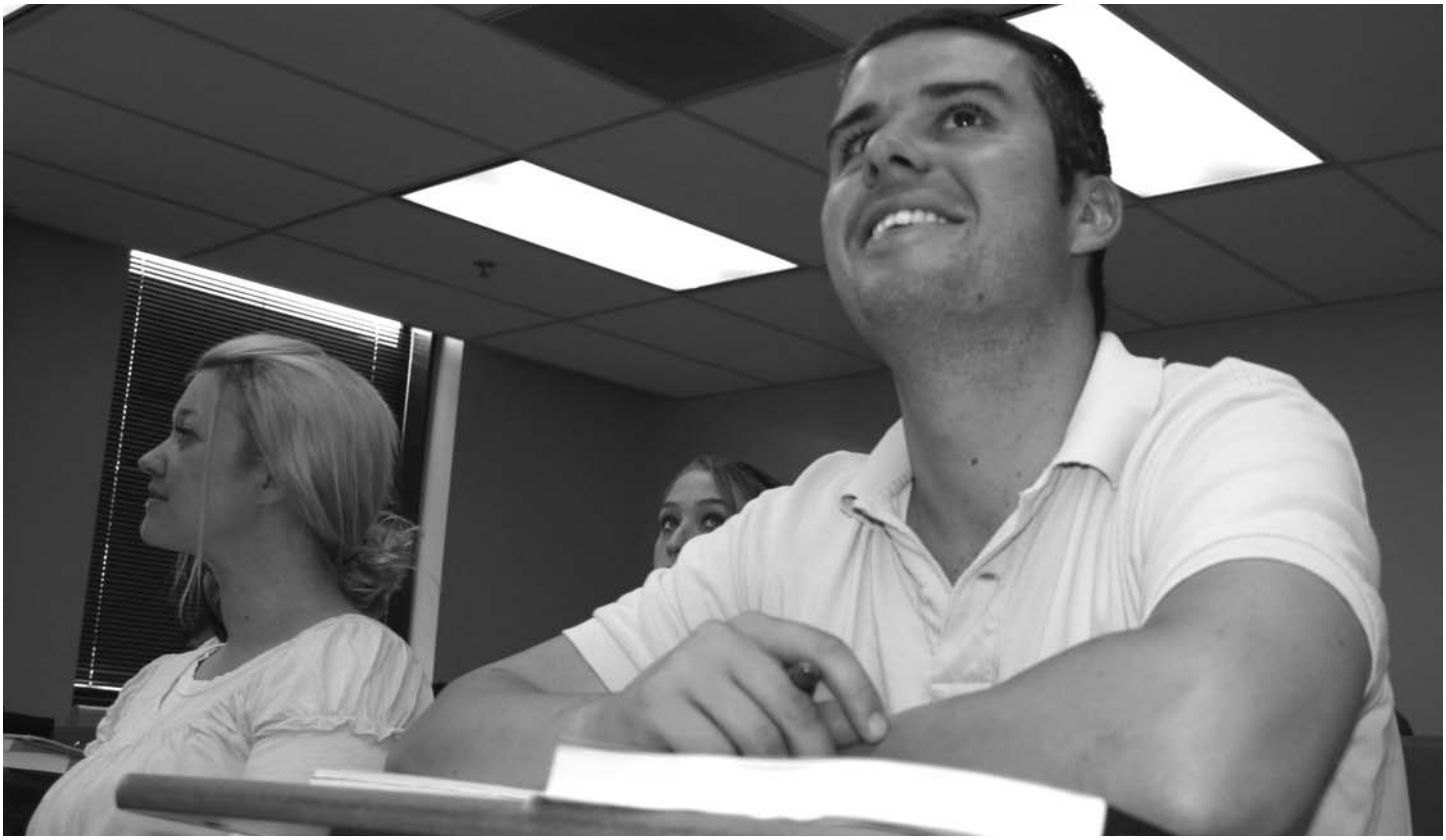
General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 15
Theatre 15 hours
THEA 1033 Stagecraft I
THEA 1053 Acting I
THEA 1093 Introduction to Theatre
THEA 1133 Costume Techniques I
THEA 2063 Fundamentals of Stage Lighting

Required Electives: 9
*THEA 1043 Stagecraft II
THEA 1081 Theatre Practice I
THEA 1343 Stage Movement I
THEA 2013 Make-Up I
THEA 2043 Costume History
*THEA 2053 Acting II
THEA 2073 Introduction to Production Design
THEA 2081 Theatre Practice II
THEA 2213 Summer Theatre
*THEA 2253 Stage Management
THEA 2313 Voice and Diction I
THEA 2333 Improvisation for the Theatre
THEA 2453 Creative Writing: Scriptwriting I

Recommended Electives: 0-3 Hours
*ENGL 2543 Survey of British Literature to 1800
*ENGL 2653 Survey of British Literature from 1800
*ENGL 2773 Survey of American Literature to 1865
*ENGL 2883 Survey of American Literature from 1865
HIST 1053 Ancient and Medieval Western Civilization
HUMN 2113 Humanities I
HUMN 2223 Humanities II
MUSC 1113 Music Appreciation
MUSC 1153 American Popular Music
* MUSC 1731 Guitar Ensemble
* MUSC 1791 Jazz Combo
*THEA 1562 Musical Theatre

Total Credit Hours: 61-64
*Course has prerequisite (See course description of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.



Business Areas of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

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Accounting

Also see Business related fields AS degree

- Accounting, NSU option, AS
- Accounting Assistant, CER
- Accounting Associate, AAS/CER
- Payroll Administrative option, CER

Business Fields

Business Related Fields of Concentration:

- Accounting, AS
- Business Administration, AS
- Business Education, AS
- Economics, AS
- Management, AS
- Business Related Fields of Concentration Langston option:
  - Accounting, AS
  - Business Administration, AS
  - Economics, AS
  - Management, AS
- Business, OSU option, AS
- Business, AAS
- Business, Administrative Careers, AAS/CER
- General Administrative Careers, CER
- Legal Administrative Careers, CER
- Medical Administrative Careers, CER
- Customer Account Representative (City of Tulsa option), AAS/CER
- Business, Healthcare Business Operations, AAS/CER
- Business, Healthcare Business Operations/Accounting, CER
- Human Resources, AAS/CER
- International Business, AS/CER
- Interior Design
- Management Information Systems, LU, AS
- Management Information Systems, OSU, AS
- (Paralegal, AA/AAS see: Community Services: Law, Public Safety and Corrections)
- Technology, AAS

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Hospitality & Tourism

- Business, Hospitality & Gaming Operations, AS/AAS
- Hospitality & Gaming Operations Certificates:
  - Hospitality
  - Gaming Operations/Protection
  - Restaurant Management

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Information Technology

Computer Information Systems (CSYS)
- CSYS, Langston University option, AS
- CSYS, Northeastern State University option, AS
- CSYS, Oklahoma State University option, AS
- CSYS, Information Assurance & Foresnics, OSU-Okmulgee option, AAS
- CSYS, Business Application Professional, AAS/CER
- CSYS, Networking, AAS/CER
- CSYS, Programming, AAS/CER
- CSYS, System Support Technician, AAS/CER
- CSYS, Unix, AAS/CER
- CSYS, Web Development, AAS/CER
- CSYS, Computer User, CER
- CSYS, MCSE Windows 2000, CER
- Computer Programming
- TPF, AAS
- TPF, CER

(Digital Media options, AAS/CER see Arts & Communications, Graphic Arts)

Information Technologies Convergence (ITCV)
- ITCV, Basics, CER
- ITCV, Essentials, CER
- ITCV, General, CER
- ITCV, Cisco Routing, AAS/CER
- ITCV, Information Security Essentials, CER
- ITCV, Information Security, AAS/CER
- ITCV, System Support, AAS/CER
- ITCV, Management, AAS/CER

(Management Information Systems see Business)

www.careerclusters.com

Management

Also see Business related fields AS degree

Management with options in:
- General Management, AAS/CER
- International Management, AAS/CER
- Management Internship, AAS/CER

Management Leadership Certificate

Marketing

- Marketing, NSU, AS
- Marketing, OSU, AS
- Marketing, Apparel Design & Merchandising, OSU, AS
- Marketing, AAS
- Marketing, Disney Internship, AAS
- Marketing, E-Business, AAS
- Marketing, Customer Service, CER
- Marketing, E-Business, CER

BUSINESS: ACCOUNTING

ACCOUNTING
For additional Transfer Programs also see
Business Related Fields of Concentration, Transfer Programs

ACCOUNTING
Northeastern State University Transfer Option

Program Description
This program is designed to provide the student with fundamental skills, attitudes, and experience in Accounting: Financial, Managerial, Accounting Information System, and Payroll. Graduates of the program will be prepared to continue coursework toward a baccalaureate degree in any of the options within the Accounting program at Northeastern State University.

Degree Awarded: Associate in Science

For More Information Contact:
Business and Information Technology Divisions:
Metro (918) 595-7039, Northeast (918) 595-7439,
Southeast (918) 595-7639, West (918) 595-8033
Counseling Centers:
Metro: (918) 595-7151, Northeast: (918) 595-7527,
Southeast: (918) 595-7651, West: (918) 595-8176

General Education Requirements Credit Hours: 37-38

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Social Science 9 hours
GEOG 1043 Introduction to Cultural Geography
POLS 1113 American Federal Government
And select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Science 7-8 hours
Select one course from each of the following groups. At least one course must be a laboratory science.
*PHSC 1114 General Physical Science
*CHEM 1114 Principles of Chemistry
GEOL 1014 General Geology (Physical)
and
BIOL 1114 General Biology for Non-Majors
*BIOL 1604 Zoology
HORT 1303 Principles of Horticulture Technology

Humanities 6 hours
Select one course from each of the following groups.
HUMN 2113 Humanities I
HUMN 2223 Humanities II
PHIL 1113 Introduction to Philosophy
HIST 1053 Ancient Medieval Western History
and
ART 1113 Art Appreciation
MUSC 1113 Music Appreciation

Mathematics 3 hours
*MATH 1513 College Algebra

Required Electives 6 hours
Select one course from at least two of the following disciplines: Psychology, Social Science, Foreign Language, Fine Arts. .

Specialized Course Requirements Credit hours: 27

Accounting 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*ACCT 2393 Accounting Information Systems
*ACCT 2243 Payroll Administration

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Speech 3 hours
SPCH 1113 Speech Communication I

Marketing 3 hours
MKTG 2423 Principles of Marketing

Total Credit Hours: 64-65
*Course has prerequisite (see course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

ACCOUNTING ASSISTANT CERTIFICATE

Program Description:
This program provides the student with a basic knowledge of Generally Accepted Accounting Principles (GAAP) and their application. The student will gain knowledge and skills for entry-level positions in various business related fields. The certificate provides training in accounting software and Excel to enhance skills necessary in the business world. This certificate requires a total of 30 credit hours of which 12 are in accounting.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Accounting 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*ACCT 2233 Financial Accounting Applications
*ACCT 2523 Microcomputer Accounting Applications

Business/Computer Information Systems 9 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 2033 Excel
and select from the following:
BUSN 1123 Keyboarding I
Choose any one-hour Computer Information Systems (CSCI/CSYS) courses.

Business or Psychology 3 hours
BUSN 1313 Employee/Employer Relations
*BUSN 2213 Small Business Management
PSYC 1313 Human Relations

BUSINESS:ACCOUNTING

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).
**Recommended to be taken during the first semester.

ACCOUNTING ASSOCIATE

Program Description:
This program is designed to provide the student with an effective working knowledge of the various accounting principles and accounting practices. The student will develop the skills necessary to communicate in a business environment utilizing Generally Accepted Accounting Principles (GAAP), double entry accounting, accounts receivable and accounts payable management, reconciling, budgeting, cost accounting, and compiling and analyzing reports. This program also provides training for those people who need accounting for effective and efficient business operations such as owners, managers, or employees. The degree requires a total of 63 credit hours of which 21 are in accounting.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 21

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 3 hours
* **MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 36

Accounting 21 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*ACCT 2233 Financial Accounting Applications
*ACCT 2313 Intermediate Accounting I
*ACCT 2323 Intermediate Accounting II
*ACCT 2333 Cost Accounting
*ACCT 2523 Microcomputer Accounting Applications

Business 6 hours
BUSN 2313 Business Law I
*BUSN 2213 Small Business Management

Computer Information Systems 9 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 2033 Excel
*CSCI 1641 Windows
and *select 2 one credit hour Computer Information Systems (CSCI/CSYS) courses.
or
*CSCI 2163 Windows Operating Systems

Controlled Electives Credit Hours: 6
*ACCT 2243 Payroll Administration
*ACCT 2303 Analyzing Financial Statements
*ACCT 2363 Income Tax I
*ACCT 2383 Governmental Accounting
*ACCT 2393 Accounting Information Systems
*ACCT 2403 Income Tax II
*ACCT 2443 Auditing
*ACCT 2463 - Fraud Examination
PHIL/BUSN 1143 Introduction to Ethics: Business Issues
*BUSN 2323 Business Law II
*BUSN 2333 Principles of Finance
BUSN 2363 Supervisory Management
*ECON 2123 International Economic Issues
*MGMT 2103 Workforce Development Internship
MGMT 2363 Principles of Management
or select one of the following:
BUSN 1313 Employee/Employer Relations
PSYC 1313 Human Relations

Total Credit Hours: 63
*Course has prerequisite (See course description section of catalog).
**Recommended to be taken during first semester.

BUSINESS: ACCOUNTING

ACCOUNTING ASSOCIATE
Certificate

Program Description:
This program is designed to develop the marketable skills necessary to function in a variety of positions in the field of accounting. The program provides upgrade training for those people already employed in the area of accounting who desire advancement. This certificate requires a total of 30 credit hours of which 21 are in accounting.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Accounting 21 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*ACCT 2233 Financial Accounting Applications
*ACCT 2313 Intermediate Accounting I
*ACCT 2323 Intermediate Accounting II
*ACCT 2333 Cost Accounting
*ACCT 2523 Microcomputer Accounting Applications

Computer Science 9 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 2033 Excel
*CSCI 1641 Windows
and *select 2 one credit hour Computer Information Systems (CSCI/CSYS) courses.
or
*CSCI 2163 Windows Operating Systems

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).

ACCOUNTING ASSOCIATE
Microcomputer Accounting Certificate

Program Description:
This program is designed to provide the individual with an accounting overview and a working knowledge in accounting-related software currently used by a wide range of businesses. The program will provide the skills necessary for any owner, manager, or employee to become efficient in the application of Generally Accepted Accounting Principles (GAAP) and fundamental tax issues using general ledger software, Excel, and tax software. This certificate is designed to be a guide in the computer related accounting field for individuals working with small businesses. This certificate requires a total of 30 credit hours of which 19 are in accounting.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Accounting 19 hours
ACCT 1211 Taxes for the Individual
ACCT 1221 Taxes for the Small Business
ACCT 1231 Pro Series Turbo Tax
ACCT 1241 Tax Research on the Internet
ACCT 1251 Payroll and Human Resources Applications
*ACCT 1411 Quickbooks Pro
*ACCT 1621 Introduction to Using Access Accounting
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*ACCT 2393 Accounting Information Systems
*ACCT 2523 Microcomputer Accounting Applications

Computer Information Systems 11 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 2033 Excel
*CSCI 2163 Windows Operating Systems
and select 1 credit hour each from the following groups:
*CSCI 1551 Introduction to Word
or
*CSCI 1561 Advanced Word
*CSCI 1571 Introduction to Access
or
*CSCI 1581 Advanced Database

Total Credit Hours: 30
*Course has prerequisite (See course description section of the catalog).

ACCOUNTING ASSOCIATE
Payroll Administration Certificate

Program Description:
This program is designed to provide the student with the business skills required for employment as a payroll specialist and to introduce the student to the requirements for becoming a Certified Payroll Professional (CPP). The program is directed toward students who are preparing for employment in a small business as a full charge bookkeeper or accounting clerk and for those who are preparing for employment in the payroll department of a medium to large organization. This program is also directed toward students who have already received on-the-job training in the area of accounting for payroll, but would like to receive more formal instruction. This certificate requires a total of 18 credit hours of which 12 hours are in accounting.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 18

Accounting 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*ACCT 2243 Payroll Administration
*ACCT 2523 Microcomputer Accounting Applications

Computer Information Systems 6 hours
*CSCI 2033 Excel
and select three credit hours from the following:
CSCI 1203 Computer Concepts and Applications
or any CSYS/CSCI courses.

Total Credit Hours: 18
*Course has prerequisite (See course description section of the catalog).

BUSINESS: BUSINESS FIELDS

BUSINESS RELATED FIELDS OF CONCENTRATION

Accounting, Business Administration, Business, Education, Economics, and Management

Program Description:
This program is designed for students planning to transfer to senior colleges and universities with a business related field of concentration. The suggested curriculum for this program includes TCC degree requirements and courses generally completed in the first two years of a four-year business related curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Degree Awarded: Associate in Science

For More Information Contact:
Business and Information Technology Divisions:
Metro: (918) 595-7039, Northeast: (918) 595-7439,
Southeast: (918) 595-7639, West: (918)595-8033
Counseling Centers:
Metro (918) 595-7151, Northeast: (918) 595-7527,
Southeast: (918) 595-7651, West: (918)595-8176

General Education Requirements Credit Hours: 37

See the General Education Requirements list for complete list.

Specialized Course Requirements Credit Hours: 24-27

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Business 3 hours
**BUSN 2313 Business Law I

Computer Information Systems 3 hours
select one course from the following:
*CSYS 2073 MS Office
CSCI 1203 Computer Concepts and Applications

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Management 3 hours
**MGMT 2363 Principles of Management

Mathematics 3-6 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 2193 Elementary Statistics
*MATH 2513 Finite Mathematics
*MATH 2523 Calculus for Business, Life, and Social Sciences

Total Credit Hours: 61-64

*Course has prerequisite (See course description section of catalog).
**Business Law I and Principles of Management may not transfer to some universities. Check with the Counseling Center before enrolling.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

BUSINESS RELATED FIELDS OF CONCENTRATION

Langston University Transfer Option
Accounting, Business Administration, Economics, and Management

Program Description:
This program is designed for students planning to transfer to Langston University-Tulsa with a business related field of concentration. The suggested curriculum for this program includes TCC degree requirements and courses generally completed in the first two years of a four-year business related curriculum. Students should consult the catalog of Langston University-Tulsa and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 34

See the General Education Requirements list for complete list.
Mathematics general education requirements met in specialized course requirements.

Specialized Course Requirements Credit Hours: 27**

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Business 3 hours
BUSN 2313 Business Law I

Computer Information Systems 3 hours
select one course from the following:
*CSYS 2073 MS Office
CSCI 1203 Computer Concepts and Applications

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Management 3 hours
MGMT 2363 Principles of Management

Mathematics 6 hours
*MATH 1513 College Algebra
and select one course from the following
*MATH 2513 Finite Mathematics
*MATH 2523 Calculus for Business, Life, and Social Sciences

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
** All specialized courses require a letter grade of "C" or better.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

BUSINESS: BUSINESS FIELDS

BUSINESS
Oklahoma State University-Tulsa Transfer Option

Program Description:
This degree plan is for students planning to attend Oklahoma State University-Tulsa to complete a baccalaureate degree in business. Articulation agreements between Tulsa Community College and OSU-Tulsa provide for seamless transition toward a baccalaureate degree in the College of Business. The suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the OSU catalog for Undergraduate Programs & Requirements and carefully select courses that will meet the requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Business and information technology Division:
Metro: (918) 595-7039 Northeast: (918) 595-7439
Southeast: (918) 595-7639 West: (918) 595-8033
Counseling Centers:
Metro: (918) 595-7151 Northeast: (918) 595-7527
Southeast: (918) 595-7651 West: (918) 595-8176

General Education Requirements Credit Hours: 37
See the General Education Requirements for the complete list. Recommend one course designated (I) as part of humanities requirement.

Specialized Course Requirements Credit Hours: 24

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Math 6 hours
*MATH 2193 Elementary Statistics
*MATH 2523 Calculus for Business, Life and Social Sciences

Speech 3 hours
SPCH 1113 Speech Communication I

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Total Credit Hours: 61

*Course has prerequisite (see course description section of catalog).
International Business majors must satisfy language proficiency equivalent to at least two full years of college level study as evidenced by:
a. 15 hours of study of a single modern foreign language with a minimum grade of "C," or
b. 5 hours of intermediate or advanced modern foreign language courses with a minimum grade of "C," or
c. Passing an approved Oklahoma State University examination.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

BUSINESS

Program Description
This program provides exposure to a wide variety of business-related fields. It is designed for students who desire an overview of the field of business rather than an in-depth specialization in any one particular field. In addition, students should develop an appreciation for the social, political an economic environment in which business operates.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 21

Economics 6 hours
ECON 1353 Personal Finance
ECON 2013 Principles of Macroeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following courses:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Philosophy/Psychology 3 hours
**PHIL/BUSN 1143 Introduction to Ethics: Business Issues
PSYC 1313 Human Relations

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 30

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Business 12 hours
BUSN 1053 Introduction to Business
*BUSN 2213 Small Business Management
BUSN 2313 Business Law I
and select 3 credit hours from the following:
BUSN 1353 Business Mathematics
*MATH 1513 College Algebra

Computer Information Systems 6 hours
Select 6 hours from any of the Computer Information Systems (CSCI/CSYS) courses.

Management/Business 3 hours
BUSN 2363 Supervisory Management
MGMT 2363 Principles of Management
MGMT 2123 Leadership Development

Marketing 3 hours
MKTG 2423 Principles of Marketing

BUSINESS: BUSINESS FIELDS

Controlled Electives Credit Hours: 9

BUSN 1153 Intro to Hospitality Operations –Hotels, Restaurants, and Tourism
BUSN/SPCH 2053 Intercultural Communication
*BUSN 2333 Principles of Finance
BUSN 2343 Investments in Stocks and Bonds
CSYS 2563 Enterprise Security
*ECON 2023 Principles of Microeconomics
*ECON 2123 International Economic Issues
MKTG 2343 Customer Service
*MGMT 2353 Business Policy

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
**Students can enroll in either PHIL or BUSN if this option is chosen.

BUSINESS
Administrative Careers option

Program Description:
The Administrative Career degree course of study develops a wide variety of knowledge and skills necessary for today's general, legal, and medical careers. Developing skills sets in accounting, business computers and digital media as well as general education classes will prepare the student for today's workforce. Students may elect to earn the Administrative Career Associate in Applied Science degree entirely via electronic delivery. Courses available via electronic delivery, (telecourse, interactive television, and online) are designated as such in the TCC schedule and on the Distance Learning page at TCC's website.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 21

Economics 6 hours
ECON 1353 Personal Finance
**ECON 2013 Principles of Macroeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 2343 Business Communication

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Psychology 3 hours
PSYC 1313 Human Relations

Specialized Course Requirements Credit Hours: 27

Accounting 6 hours
ACCT 1003 Introduction to Accounting
ACCT 2213 Financial Accounting

Business 15 hours
**BUSN 1053 Introduction to Business
**BUSN 1353 Business Mathematics
*BUSN 2173 Skillbuilding and Document Processing
*BUSN 2183 Word Processing for Administrative Careers
*BUSN 2643 Procedures for Administrative Careers

Computer Information Systems 6 hours
**CSCI 1203 Computer Concepts and Applications
*CSCI 2033 Excel

Choose one (1) area of Focus

General Administrative Career Focus 12 Hours
BUSN 2313 Business Law I
*BUSN 2683 Administrative Careers internship
*CSYS 1153 Adobe Dreamweaver
*CSYS 2683 Adobe InDesign

Legal Administrative Career Focus 12 Hours
*CSYS 1153 Adobe Dreamweaver
*PLGL 1213 Introduction to the Legal System
*PLGL 2373 Computers in the Law
*PLGL 2813 Internship

Medical Administrative Career Focus 12 Hours
ALDH 1323 Medical Terminology
*BUSN 2683 Administrative Career Internship
*CSYS 1153 Adobe Dreamweaver
*MDAS 2243 Medical Office Finance and Management

Total Credit Hours: 60

*Course has prerequisite (See course description section of the catalog).
** Students who have earned the CPS rating may apply for Advanced Standing Credit in these approved courses. Application must be made in the Metro Campus Admissions Office with payment of advance standing credit hourly fees.

BUSINESS, ADMINISTRATIVE CAREER OPTION
General Administrative Career Certificate

Program Description:
This certificate is designed to prepare students for an entry-level position in a business or professional establishment.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
Metro: (918)595-7039
Counseling Center: Metro: (918)595-7151

Certificate Requirements Credit Hours: 12

Business 9 hours
**BUSN 1353 Business Mathematics
*BUSN 2173 Skillbuilding and Document Processing
*BUSN 2183 Word for the Administrative Professional

Computer Information Systems Hours: 3
*CSYS 2073 MS Office

Total Credit Hours: 12

*Course has prerequisite (See course description section of the catalog).
**Students who have earned the CPS rating may apply for advanced standing credit in these approved courses. Application must be made in the Metro Campus Admissions Office with payment of advance standing credit hourly fees.

BUSINESS: BUSINESS FIELDS

BUSINESS, ADMINISTRATIVE CAREERS OPTION
Legal Administrative Career Certificate

Program Description:
This certificate is designed to prepare students for position in a legal office.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 18

Business 3 hours
BUSN 1353 Business Mathematics

Paralegal 9 hours
*PLGL 1213 Introduction to the Legal System
*PLGL 2373 Computers in the Law
*PLGL 2813 Internship

Computer Information Systems 6 hours
*CSYS 2073 MS Office
*CSYS 1153 Adobe Dreamweaver

Total Credit Hours: 18
*Course has prerequisite (see course section of the catalog)

BUSINESS, ADMINISTRATIVE CAREERS OPTION
Medical Administrative Career Certificate

Program Description:
This certificate is designed to prepare students for a position in a medical office.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 17

Allied Health 3 hours
ALDH 1323 Medical Terminology

Business 6 Hours
**BUSN 1353 Business Mathematics
*BUSN 2683 Administrative Careers Internship

Computer Information Systems 5 hours
CSYS 1022 MS Word for the Medical Documents
*CSYS 2073 MS Office

Medical Assistant 3 hours
*MDAS 2243 Medical Office Finance and Management

Total Credit Hours: 17
*Course has prerequisite (See course description section of the catalog).
**Students who have earned the CPS rating may apply for advanced standing credit in these approved courses. Application must be made in the Metro Campus Admissions Office with payment of advanced standing credit hourly fees.

BUSINESS
Customer Service Representative (City of Tulsa Option)

Program Description:
This program has been designed to give City of Tulsa employees an opportunity to increase their knowledge and skills, become more productive, have opportunities for advancement within the organization and work toward completion of a college degree.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business Services Division: Metro: (918) 595-7039
Counseling Center: Metro: (918) 595-7151

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2343 Business Communication

Social Sciences 9 hours
POLS 1113 American Federal Government
*POLS 2043 Introduction to City Government
and select 3 credit hours from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 40

Accounting 3 hours
ACCT 2213 Financial Accounting

Business 31 hours
BUSN 1021 Working in Teams/Workplace Diversity
BUSN 1353 Business Mathematics
BUSN 2003 Credit Internship
BUSN 2023 Customer Support Internship
BUSN 2033 Customer Service/Personal Internship
BUSN 2043 Customer Service/Phone Center Internship
BUSN 2063 New Accounts-Taps Internship
BUSN 2103 Apportionment Billing
BUSN 2123 Billing
BUSN 2133 Stormwater
BUSN 2153 Systems Support

Computer Information Systems 3 hours
*CSYS 2073 MS Office

Marketing 3 hours
MKTG 2343 Customer Service

Recommended Electives 6 hours
HUM 2113 Humanities I
HUM 2223 Humanities II

Total Credit Hours: 64
*Course has prerequisite (See course description section of the catalog).

BUSINESS: BUSINESS FIELDS

BUSINESS
Customer Service Representative (City of Tulsa Option)

Customer Account Representative Certificate

Program Description:
This certificate has been designed to give City of Tulsa employees an opportunity to increase their knowledge and skills, become more productive and have opportunities for advancement within the organization.

Degree Awarded: Certificate of Achievement

Business 10 hours
BUSN 1021 Working in Teams/Workplace Diversity
and any three of the following:
BUSN 2003 Credit Internship
BUSN 2013 Commercial Billing Internship
BUSN 2023 Customer Service Internship
BUSN 2033 Customer Service/Personal Internship
BUSN 2043 Customer Service/Phone Center Internship
BUSN 2063 New Accounts-Taps Internship
BUSN 2073 General Internship
BUSN 2083 Computer Orientation Internship
BUSN 2093 Non-Commercial Billing Internship

Computer Information Systems 2 hours
*CSCI 1551 Introduction to Word
*CSCI 1641 Windows

English 3 hours
*ENGL 1113 Freshman Composition I

Marketing 3 hours
MKTG 2343 Customer Service

Speech 3 hours
SPCH 2103 Interpersonal Communications

Total Credit Hours: 21
*Course has prerequisite (See course description section of the catalog).

BUSINESS
Customer Service Representative Certificate II

Program Description:
This certificate has been designed to give City of Tulsa employees an opportunity to increase their knowledge and skills, become more productive and have opportunities for advancement within the organization.

Degree Awarded: Certificate of Achievement

Business 12 hours
Any four of the following (Not completed in Certificate I):
BUSN 1353 Business Mathematics
BUSN 2003 Credit Internship
BUSN 2013 Commercial Billing Internship
BUSN 2023 Customer Service Internship
BUSN 2033 Customer Service/Personal Internship
BUSN 2043 Customer Service/Phone Center Internship
BUSN 2063 New Accounts-Taps Internship
BUSN 2073 General Internship
BUSN 2083 Computer Orientation Internship
BUSN 2093 Noncommercial Billing Internship

Computer Information Systems 2 hours
*CSCI 1531 Introduction to Excel
*CSCI 1561 Advanced Word

English 3 hours
*ENGL 2363 Advanced Business Communication

Social Sciences 3 hours
*POLS 2043 Introduction to City Government

Total Credit Hours: 20
*Course has prerequisite (See course description section of the catalog).

BUSINESS
Health Care Business Operations Option

Program Description:
This program is designed to prepare students for careers in heath care business operations found in physician's offices, managed practices, health insurance companies, hospitals, geriatric care facilities, public health entities, clinics, as well as many other heath care-related organizations. Students will acquire the knowledge and skills necessary for employment and career building within the health care industry. Emphasis will be on health care business skills and accounting.

Degree Awarded: Associate in Applied Science

For more Information contact:
Business and Information Technology Division:
Metro: (918) 595-7039
Counseling Center: Metro: (918) 595-7151

General Education Requirements Credit Hours: 21

Economics 6 hours
ECON 1353 Personal Finance
ECON 2013 Principles of Macroeconomics

English 6 hours
ENGL 1113 Freshman Composition I
*ENGL 2343 Business Communications

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
*SPCH 2093 Business and Professional Speech

Specialized Course Requirements Credit Hours: 39

Accounting 9 Hours
ACCT 2213 Financial Accounting
and select 6 credit hours from the following:
ACCT 2533 Fundamentals of Health Care Accounting
*ACCT 2543 Management Accounting for Health Care Organizations
*ACCT 2553 Essentials of Cost Accounting in Heath Care Organizations

BUSINESS: BUSINESS FIELDS

Allied Health 3 Hours
ALDH 1323 Medical Terminology

Business 15 Hours
BUSN 1053 Introduction to Business
BUSN 1143 Introduction to Ethics-Business Issues
BUSN 1173 Introduction to Heath Care Business Operations
BUSN 1353 Business Mathematics
*BUSN 2483 Health Care Law
BUSN 2313 Business Law I

Computer Information Systems 9 Hours
CSYS 1022 MS Word for Medical Documents
CSCI 1171 Introduction to Web Page Design
*CSCI 2033 Excel
and select one course from the following
^*CSYS 2073 MS Office
CSCI 1203 Computer Concepts and Applications

Controlled Electives 3 hours
BUSN 2492 Health Care Business Operations Internship
*MDAS 2243 Medical Office Finance and Management
MKTG 2343 Customer Service
MKTG 2423 Principles of Marketing
PSYC 1313 Human Relations

Total Credit Hours: 60
*Course has prerequisite (See course description section of the catalog).
^ CSYS 2073 recommended if student had Advanced Standings or has met Computer Proficiency Requirements.

BUSINESS
Health Care Business Operations Certificate

Degree Awarded: Certificate of Achievement

For more Information Contact:
Business and Information Technology Division:
Metro: (918) 595-7039
Counseling Center: Metro: (918) 595-7151

Allied Health 3 hours
ALDH 1323 Medical Terminology

Business 9 hours
BUSN 1173 Introduction to Health Care Business Operations
BUSN 1353 Business Mathematics
*BUSN 2483 Health Care Law

Computer Information Systems 5 hours
CSCI 1203 Computer Concepts and Applications
CSYS 1022 MS Word for Medical Documents

Economics 3 hours
ECON 1353 Personal Finance

Total Credit Hours: 20
*Course has prerequisite. (See course description section of catalog)

BUSINESS
Health Care Business Operations / Accounting Certificate

Program Description:
This certificate is designed to provide the graduate with basic accounting skills necessary to begin a career in health care organization accounting departments.

Accounting 9 hours
ACCT 2213 Financial Accounting
and select 6 credit hours from the following:
ACCT 2533 Fundamentals of Health Care Accounting
*ACCT 2543 Management Accounting for Health Care Organizations
*ACC 2553 Cost Accounting for Health Care Organizations

Business 9 hours
BUSN 1353 Business Mathematics
BUSN 1173 introduction to Health Care Business Operations
*BUSN 2483 Health Care Law

Economics 6 hours
ECON 1353 Personal Finance
ECON 2013 Principles of Macroeconomics

Total Credit Hours: 24
*Course has prerequisite. (See course description section of the catalog)

HUMAN RESOURCES

Program Description:
This program is designed to prepare students for a career in the human resources profession. Due to the fact that nearly all corporations have a human resources department, solid growth in this profession is predicted over the next ten years. This program is designed for both individuals starting out in human resources and those currently employed in human resources. Students gain a comprehensive knowledge in human resources along with the people skills greatly desired in today's business world.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918)595-7651

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2343 Business Communication

Psychology 6 hours
PSYC 1113 Introduction to Psychology
*PSYC 1313 Human Relations

BUSINESS: BUSINESS FIELDS

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 42

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACC 2223 Managerial Accounting

Business 6 hours
BUSN 1053 Introduction to Business
and select 3 credit hours from the following:
BUSN 2363 Supervisory Management
MGMT 2363 Principles of Management

Computer Information Systems 3 hours
****Select 3 hours from any of the Computer Information Systems (CSYS/CSCI).**

Human Resources 24 hours
HRES 1313 Principles of Human Resources
*HRES 1333 Benefits Management
*HRES 1343 Compensation Management
*HRES 2313 Human Resource Law I
*HRES 2323 Employment and Evaluation Techniques
*HRES 2333 Employee and Labor Relations
*HRES 2343 Training and Development
*HRES 2353 Human Resource Law II

Controlled Electives 3 hours
*BUSN/PSYC 2633 Industrial and Organizational Psychology
*CSCI 2033 Excel
*ECON 2123 International Economic Issues
HSVC 1213 Basic Counseling Skills
*MGMT 2103 Workforce Development Internship
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2053 Intercultural Communication
SPCH 2103 Interpersonal Communication

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
**Spreadsheet experience is highly recommended.
NOTE: A student may substitute PHR (Professional in Human Resources) or SPHR (Senior Professional in Human Resources) certification for the course HRES 1313 Principles of Human Resources, if the student is current in the PHR or SPHR period of certification. (PHR or SPHR exams will not substitute for any other HRES courses).
NOTE: MGMT 2013 Workforce Development Internship is highly recommended for those with no experience in a Human Resources Department.

HUMAN RESOURCES
Certificate Option

Program Description:
This program is designed to prepare students for a career in the human resources profession. Due to the solid growth in the human resources profession, this program is designed for both individuals wanting to enter the human resources profession, and those currently employed in human resources who desire advancement.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Computer Information Systems 3 hours
** Select 3 credit hours from any of the Computer Information Systems courses.

Human Resources 24 hours
HRES 1313 Principles of Human Resources
*HRES 1333 Benefits Management
*HRES 1343 Compensation Management
*HRES 2313 Human Resource Law I
*HRES 2323 Employment and Evaluation Techniques
*HRES 2333 Employee and Labor Relations
*HRES 2343 Training and Development
*HRES 2353 Human Resource Law II

Controlled Electives Credit Hours: 3
*BUSN/PSYC 2633 Industrial and Organizational Psychology
*ECON 2123 International Economic Issues
*ENGL 2343 Business Communication
*HSVC 1213 Basic Counseling Skills
*CSCI 2033 Excel
*MGMT 2103 Workforce Development Internship
PHED 2212 First Aid
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2053 Intercultural Communication
SPCH 2103 Interpersonal Communication

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).
**Spreadsheet experience is highly recommended.
NOTE: A student may substitute PHR (Professional in Human Resources) or SPHR (Senior Professional in Human Resources) certification for the course HRES 1313 Principles of Human Resources, if the student is current in the PHR or SPHR period of certification. (PHR or SPHR exams will not substitute for any other HRES courses).
NOTE: MGMT 2013 Workforce Development Internship is highly recommended for those with no employment in a Human Resources Department.

BUSINESS: BUSINESS FIELDS

INTERIOR DESIGN

Program Description:
Upon completion of the program the student will have skills in the following areas: cost estimating, purchase orders, display, drafting for interiors including floor plans, space planning, elevations, isometrics, one and two point perspective sketching, delineation techniques, historic periods of design, knowledge of fire, life safety and handicap codes, knowledge of lighting, textiles computer-aided design, and sales representation. These skills combined with field internships, market field trips, and customer service prepare student to enter the interior design field and combine their education with work experience.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

Semester plan available through faculty advisement.

General Education Requirements Credit Hours: 18

Art 3 hours
ART 1063 Survey of Art History II

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Psychology 3 hours
PSYC 1313 Human Relations

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 42

Interior Design 36 hours
INTD 1313 Interior Design Orientation
*INTD 1333 Design I : Color
*INTD 1343 Drawing and Mechanical Drafting
*INTD 1353 Design II : Presentation
*INTD 1373 Color Graphics for Interior Designers
*INTD 1383 Lighting Concepts
INTD 1413 History of Interiors
*INTD 2313 Professional Practice
*INTD 2323 Design III
*INTD 2333 Design IV
*INTD 2383 Introduction to CAD for Interior Design
*INTD 2413 Advanced CAD for Interior Design

Marketing 6 hours
MKTG 1313 Sales and Negotiations
MKTG 2423 Principles of Marketing

Controlled Electives Credit Hours: 3
*BUSN 2213 Small Business Management
*** *INTD 2343 Field Application
**INTD 2403 Market Field Trip
MKTG 2343 Customer Service
*MKTG 2363 Consumer Behavior
SPCH 1113 Speech Communication I

Total Credit Hours: 63

*Course has prerequisite (See course description section of catalog).
**Course may be taken twice.
***These courses are highly recommended for students not employed in the field. .

INTERIOR DESIGN
Certificate

Program Description:
Upon completion of the Certificate of Achievement program the student will have skills in the following areas: cost estimating, purchase orders, floor plans, space planning, one and two point perspective sketching, delineation techniques, life safety and handicap codes, historic periods of design, lighting techniques, and sales presentation. These skills combined with work related experience will prepare the student for a career in interior design.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 36

Interior Design 27 hours
INTD 1313 Interior Design Orientation
*INTD 1333 Design I : Color
*INTD 1343 Drawing and Mechanical Drafting
*INTD 1383 Lighting Concepts
INTD 1413 History of Interiors
*INTD 2313 Professional Practice
*INTD 2323 Design III
*INTD 2333 Design IV
*INTD 2383 Introduction to CAD for Interior Design

Marketing 3 hours
MKTG 1313 Sales and Negotiations

Controlled Electives Credit Hours: 6
*INTD 1353 Design II Presentation
*INTD 1373 Color Graphics for Interior Designers
*** *INTD 2343 Field Application
**INTD 2403 Market Field Trip
MKTG 2423 Principles of Marketing

Total Credit Hours: 36

*Course has prerequisite (See course description section of catalog).
**Course may be taken twice.
***These courses are highly recommended for students not employed in the field.

BUSINESS: BUSINESS FIELDS

INTERNATIONAL BUSINESS

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog for the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Business and Information Technology Divisions:
Metro: (918) 595-7039, Northeast: (918) 595-7439,
Southeast: (918) 595-7639, West: (918) 595-8033
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651,
West: (918) 595-8176

General Education Requirements Credit Hours: 28

See the General Education Requirements for the complete list. Required Electives and Recommended Electives are included in the Foreign Language requirement.

Foreign Language** Credit Hours: 9-15

Note: Nine of the foreign language hours may be counted in the General Education Requirements under Required Electives (3 hours) and Recommended Electives (6 hours)

Specialized Course Requirements Credit Hours: 21

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Economics 9 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics
*ECON 2123 International Economic Issues

Speech 3 hours
***SPCH/BUSN 2053 Intercultural Communication

Recommended Electives Credit Hours: 0-6

BUSN 1053 Introduction to Business
*BUSN 2253 International Business Seminar/Field Study
CSYS 2563 Enterprise Security
GEOG 1023 World Geography (Economics)
GEOG 1043 Introduction to Cultural Geography
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management
MKTG 2423 Principles of Marketing
*MKTG 2813 International Marketing
*MATH 2193 Elementary Statistics
MATH 2523 Calculus for Business, Life, and Social Studies
*POLS 2013 Introduction to Comparative Governments
*POLS 2203 Introduction to International Relations

Total Credit Hours: 64-67

*Course has prerequisites (See course description section of catalog).
**All foreign languages must be from one language. Check catalog pages 25-26 for Proficiency Certification and Foreign Language advanced standing credit options.
***Students can enroll in either SPCH or BUSN.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERNATIONAL BUSINESS
Certificate

Program Description:
This program is designed to provide the student with the business skills required for employment by a company with international operations. Competency in a modern international language is a program option. The program is directed toward students who are preparing for employment by a multinational organization, those who are presently employed in a company with international relations, and students who need assistance in preparing for travel abroad to conduct business. This program allows students the option of developing a competency in a foreign language of choice or of selecting elective business support courses that are related to the student's occupational goal. Either option will provide the student with an increased knowledge and awareness of international business concepts and cultural practices.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications
Select three hours from any CSYS/CSCI courses.

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2123 International Economic Issues

English 6 hours
ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1023 World Geography (Economics)
GEOG 1043 Introduction to Cultural Geography

Speech 3 hours
**SPCH/BUSN 2053 Intercultural Communication
Select 9 hours from either:
(1) Foreign Language 9 hours
Select 9 credit hours from one foreign language discipline
or
(2) Business 9 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
BUSN 1053 Introduction to Business
BUSN/PHIL 1143 Introduction to Ethics: Business Issues

BUSINESS: BUSINESS FIELDS

*BUSN 2213 Small Business Management
*BUSN 2253 International Business Seminar/Field Study
BUSN 2313 Business Law I
CSYS 2563 Enterprise Security
*ECON 2023 Principles of Microeconomics
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management
MKTG 2423 Principles of Marketing

Total Credit Hours: 30

*Course has prerequisites (See course description section of catalog).
**Course can serve as either a SPCH or BUSN credit.
Students should choose either the SPCH or BUSN discipline when enrolling.
(1) Recommended for students with no foreign language proficiency.
(2) Recommended for students with foreign language proficiency.

MANAGEMENT INFORMATION SYSTEMS
Langston University - Tulsa Transfer Option

Program Description:

Students who are interested in pursuing a course of study leading to a baccalaureate degree in Management Information Systems at Langston University-Tulsa may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalog and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at Langston University-Tulsa.

Degree Awarded: Associate in Science

For More Information Contact:
Business and Information Technology Divisions:
Metro (918) 595-7039, Northeast (918) 595-7439,
Southeast, (918) 595-7639, West (918)595-8033
Counseling Centers: Metro (918) 595-7151,
Northeast (918) 595-7527, Southeast (918) 595-7651,
West (918)595-8176

General Education Requirements Credit Hours: 36

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements page for complete list.

Mathematics 6 hours
*MATH 1513 College Algebra
and select one course from the following
*MATH 2513 Finite Mathematics
*MATH 2523 Calculus for Business, Life and Social Science

Science 8 hours
BIOLL 1114 General Biology for Non-Majors
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Required Electives 3 hours
Select one 3-credit hour course from one of the following disciplines: Psychology, Social Sciences, Foreign Language, Fine Arts (art, music, theatre)

Recommended Electives 1 hour
Select any course except P.E. activities

Specialized Course Requirements Credit Hours: 24

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Computer Information Systems 12 hours
*CSYS 1203 Introduction to Computer Programming
CSCI 1203 Computer Concepts and Applications
CSCI 2333 Systems Analysis and Design
*CSCI 2473 C Language

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
To receive an A. A. or A. S. Degree, students must demonstrate computer proficiency. See page 22 for complete requirements. Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

MANAGEMENT INFORMATION SYSTEMS
Oklahoma State University Transfer Option

Program Description:

Students who are interested in pursuing a course of study leading to a baccalaureate degree in Management Information Systems may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 25

General and required electives and mathematics are satisfied under Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 36

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Computer Information Systems 12 hours
CSYS 1203 Introduction to Programming
CSCI 1203 Computer Concepts and Applications
** *CSCI 2133 Introduction to Java
*CSCI 2473 C Language

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Mathematics 9 hours
*MATH 1513 College Algebra

BUSINESS: BUSINESS FIELDS

*MATH 2193 Elementary Statistics
*MATH 2523 Calculus for Business, Life, and Social Sciences

Speech 3 hours
SPCH 1113 Speech Communications I

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
**When selecting a course prerequisite consult with a TCC advisor regarding courses for transfer.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

PARALEGAL, AA and AAS

See: Community Services area of study: Law, Public Safety and Corrections

TECHNOLOGY

Program Description:
This degree is designed for students entering TCC with a technical specialty acquired through completion of Oklahoma Department of Career Technical Education programs, through areas of study that have been evaluated by the American Council on Education, or through industry certification.

Students with prior training or career experience in an area offered as a degree program by TCC must meet with a TCC advisor to determine if credit can be awarded and to create their degree plan.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division,
Northeast (918) 595-7439;
Science, Mathematics, and Engineering and Division,
Northeast (918) 595-7542
Alliance Coordinator/Counselor: (918) 595-7970
Counseling Center Metro: (918) 595-7151
Northeast: (918) 595-7527 Southeast: (918) 595-7651
West: (918) 595-8176

General Education Requirements Credit Hours: 18

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical /Professional Writing
*ENGL 2343 Business Communications

Humanities 3 hours
Choose any humanities course from the general education requirements page.

The following courses are recommended:
BUSN / PHIL 1143 Introduction to Ethics: Business Issues
BUSN / SPCH 2053 Intercultural Communication

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 42-43

Management 9 hours
MGMT 1353 Management Essentials
*MGMT 1373 Human Resources Management
MGMT 2123 Leadership Development

Mathematics 3-4 hours
select one course from the following:
*MATH 1454 Technical Mathematics
*MATH 1473 Mathematics for Critical Thinking
*MATH 1513 College Algebra

Speech 3 hours
select one course from the following:
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Technical Support Course Work 6-18 hours
Advance Standing
Up to 18 (APPR) Credit hours in the technical specialty may be awarded for advanced standing credit.
APPR 1306 Apprenticeship I -6 hours
*APPR 1346 Apprenticeship II - 6 hours
*APPR 2306 Apprenticeship III - 6 hours

Controlled Electives 15-18 hours
select one course from the following:
ENGR 1313 Manufacturing Processes
ENGR/SURV 2262 Professional ENGR/SURV Ethics
MGMT 1393 Industrial Management
and select remaining coursework for a minimum of 60 total credit hours from one of the following options:
1) Business and Information Technologies
See advisor to select from the following academic disciplines to compliment area of specialty: Accounting Business, Computer Information Systems, Economics, Marketing, Finance, Management
2) Science, Engineering and Mathematics Technologies
See advisor to select from the following academic disciplines to compliment area of specialty: Civil Engineering / Surveying Technology, Drafting and Engineering, Horticulture Technology, Numerical Control /Machinist Technology, Manufacturing Engineering Technology, Quality Control Technology.

Total Credit Hours: 60-61
*Course has prerequisite (See course description section of catalog).

Veterans Resource Center
For information about TCC Veterans Services:
TCC Metro Campus, Student Union, Rm. 209 918/595-7279

BUSINESS: HOSPITALITY & TOURISM

BUSINESS
Hospitality and Gaming Operations Option

This program has been articulated to transfer to Northeastern State University Hospitality & Tourism degree.

Program Description:
This program is designed for students planning to transfer to senior colleges and universities in business with a hospitality emphasis. The suggested curriculum for this program includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Degree Awarded: Associate in Science

For More Information Contact:
Business and Information Technology Division:
West (918) 595-8033
Counseling Centers: West (918) 595-8176

General Education Requirements Credit Hours: 25
See the General Education Requirements page for the complete list. General Education Math, Required, and Recommended Elective fulfilled in Specialized Course Requirements of this degree. NSU requires that ENGL 1113, ENGL 1213 and MATH 1513 must be completed with a letter grade of "C" or better.

Humanities
See General Education Requirement page for complete list.
The following courses are recommended:
NAMS 2113 Native American Cultures
**BUSN/PHIL 1143 Introduction to Ethics, Business Issues

Specialized Course Requirements Credit Hours: 36-39

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Business 6 hours
***BUSN 1153 Intro to Hospitality Operations - Hotels, Restaurants and Tourism
***BUSN 2813 Legal Issues in Hospitality Management

Computer Information Systems 3 hours
Select 3 credit hours from the following courses:
CSCI 1203 Computer Concepts and Applications
*CSYS 2553 Information Technology SVS, Hospitality and Gaming Emphasis

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Management 3 hours
***MGMT 1383 Human Resources Management for the Hospitality Industry

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Select one option from the clusters below:

Hospitality 6 hours
BUSN 2203 Supervision and Leadership-Hospitality Industry
BUSN 2403 Guest Relations and Customer Service

Gaming Operations 9 hours
BUSN 2203 Supervision and Leadership-Hospitality Industry
GMOP 1113 Basic Room and Basic Game Operations
GMOP 1213 Gaming Management and Protection

Total Credit Hours: 61-64
*Course has prerequisite (See course description section of catalog).
** Students can enroll in either PHIL or BUSN if this option is chosen
***Course transfer to some universities. For transfer to other than Northeastern State University, check with the Counseling Center before enrolling.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

BUSINESS
HOSPITALITY & GAMING OPERATIONS OPTION

Program Description:
This program provides exposure to a wide variety of business-related fields. It is designed for students desiring an entry - level supervisory or management position in the field of hospitality, restaurant, and gaming operations. In addition, students develop an appreciation for the social, political and economic environment in which business operates. Many of the courses in the workforce development degree program may transfer into a bachelor's degree program. Please consult with an advisor at TCC and / or the university you plan to attend.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 21

Economics 6 hours
ECON 1353 Personal Finance
ECON 2013 Principles of Macroeconomics

English 6 hours
ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical / Professional Writing
*ENGL 2343 Business Communications

Philosophy / Psychology 3 hours
and select one course from the following:
NAMS 2213 Native American Spiritualities
PSYC 1313 Human Relations

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 42

BUSINESS: HOSPITALITY & TOURISM

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Business 15 hours
BUSN 1053 Introduction to Business
**BUSN/PHIL 1143 Introduction to Ethics, Business Issues
BUSN 1153 Introduction to Hospitality Operations - Hotels, Restaurants and Tourism
BUSN 2313 Business Law I
and select 3 credit hours from the following courses:
BUSN 1353 Business Mathematics
*MATH 1513 College Algebra

Computer Information Systems 3 hours
Select 3 credit hours from the following courses:
*CSYS 2553 Information Technology Services, Hospitality and Gaming Emphasis
CSCI 1203 Computer Concepts and Applications

Management 3 hours
MGMT 1383 Human Resources Management for the Hospitality Industry

Marketing 3 hours
MKTG 2423 Principles of Marketing

Controlled Electives Credit Hours: 12
Select courses from one of the following four clusters:

Business Cluster 12 Hours
***BUSN/SPCH 2053 Intercultural Communication
*BUSN 2333 Principles of Finance
BUSN 2403 Guest Relations and Customer Service
BUSN 2813 Legal Issues in Hospitality Management
*CSYS 2553 Information Technology Services, Hospitality and Gaming Emphasis
*ECON 2023 Principles of Microeconomics
NAMS 2013 Images of Indians in American Cultures
NAMS 2113 Native American Cultures
NAMS 2213 Native American Spiritualities
NAMS 2343 Native American Histories
NAMS 2513 Native American Law
or

Hospitality Cluster 12 hours
BUSN 2203 Supervision and Leadership - Hospitality Industry
BUSN 2403 Guest Relations and Customer Service
BUSN 2813 Legal Issues in Hospitality Management
*CSYS 2553 Information Technology Services, Hospitality and Gaming Emphasis
or

Gaming Operations / Protection Cluster 12 Hours
BUSN 2203 Supervision & Leadership Hospitality Industry
BUSN 2403 Guest Relations and Customer Service
GMOP 1113 Basic Room & Basic Game Operations
*GMOP 1213 Gaming Management & Protection
or

Restaurant Management Cluster 12 Hours
BUSN 2203 Supervision & Leadership - Hospitality Industry Operation
BUSN 2403 Guest Relations and Customer Service
HFSV 1413 Labor and Food Cost Management
HFSV 2021 Quality Control Procedures for Hospitality
HFSV 2312 Off-Premise Service Management

Total Credit Hours: 63
*Course has a prerequisite (See course description section of catalog)
**Students can enroll in either PHIL or BUSN if this option is chosen.
***Students can enroll in either SPCH or BUSN if this option is chosen.

HOSPITALITY AND GAMING OPERATIONS
CERTIFICATES

These certificates are designed for individuals whose objective is to become qualified for employment in the hospitality industry.

HOSPITALITY AND GAMING OPERATIONS
Hospitality Certificate

Program description:
This certificate is designed for individuals whose objective is to become qualified for employment in the hospitality industry. The certificate will also provide a means for mid level managers lacking experience in the hospitality industry to become more familiar with and employable in Hospitality.

Degree Awarded: Certificate of Achievement

Certificate Requirement Credit Hours: 18
BUSN 1153 Introduction to Hospitality Operations - Hotels, Restaurants and Tourism
BUSN 2203 Supervision & Leadership - Hospitality Industry
BUSN 2403 Guest Relations and Customer Service
BUSN 2813 Legal Issues in Hospitality Management
*CSYS 2553 Information Technology Services, Hospitality and Gaming Emphasis
CSCI 1203 Computer Concepts and Applications

Total Credit Hours: 18
*Course has a prerequisite (see course description section of catalog).

FASTTRACK NORTHEAST CAMPUS
GO TO SCHOOL ON YOUR SCHEDULE
The Fast Track Program provides courses for day and evening students in four-week blocks, allowing students flexiblity in managing work, home and educational commitments.

See page 56

BUSINESS: HOSPITALITY & TOURISM

HOSPITALITY AND GAMING OPERATIONS
Gaming Operations/Protection Certificate

Program Description:
This certificate is designed for individuals whose objective is to become qualified for employment in the gaming operations / protection industry.

Degree Awarded: Certificate of Achievement

Gaming Operations / Protection: 18
BUSN 1153 Introduction to Hospitality Operations - Hotels, Restaurant and Tourism
BUSN 2203 Supervision & Leadership - Hospitality Industry
BUSN 2403 Guest Relations and Customer Service
CSCI 1203 Computer Concepts and Applications
GMOP 1113 Basic Room & Basic Game Operations
*GMOP 1213 Gaming Management and Protection

Total Credit Hours: 18
*Course has a prerequisite (See course description section of catalog).

HOSPITALITY AND GAMING OPERATIONS
Restaurant Management Certificate

Program Description:
This certificate is designed for individuals whose objective is to become qualified for employment in the restaurant management field.

Degree Awarded: Certificate of Achievement

Restaurant Management Hours: 18
BUSN 1153 Introduction to Hospitality Operations - Hotels, Restaurant and Tourism
BUSN 2203 Supervision & Leadership – Hospitality Industry
BUSN 2403 Guest Relations and Customer Service
CSCI 1203 Computer Concepts and Applications
HFSV 1413 Labor and Food Cost Management
HFSV 2021 Quality Control Procedures
HFSV 2312 Off-Premise Service Management

Total Credit Hours: 18

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER INFORMATION SYSTEMS
Langston University - Tulsa Transfer Option

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Computer Information Sciences at Langston University-Tulsa may complete the freshman and sophomore general education and prerequisite courses at TCC.

Degree Awarded: Associate in Science

For More Information Contact:
Business and Information Technology Divisions:
Metro (918) 595-7039, Northeast (918) 595-7439,
Southeast, (918) 595-7639, West (918)595-8033
Counseling Centers: Metro (918)595-7151, Northeast (918) 595-7527,
Southeast (918) 5957651, West (918)595-8176

General Education Requirements Credit Hours: 38

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See general education requirements to select 6 hours of Humanities.

Mathematics 6 hours
^*MATH 1513 College Algebra
^*MATH 1613 Plane Trigonometry

Science 8 hours
BIOL 1114 General Biology for Non-Majors
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Required Electives 3 hours
Select one 3-credit hour course from one of the following disciplines: Psychology, Social Sciences, Foreign Language, Fine Arts (art, music, theatre)

Recommended Electives 3 hours
See General Education Requirement page for complete list.

Specialized Course Requirements Credit Hours: 23

Computer Information Systems 12 hours
^*CSYS 1203 Introduction to Computer Programming
^CSCI 1203 Computer Concepts and Applications
^*CSCI 2473 C Language
^*CSCI 2683 Data Structures

Mathematics 11 hours
^*MATH 2114 Analytic Geometry and Calculus I
^*MATH 2124 Analytic Geometry and Calculus II
^*MATH 2193 Elementary Statistics

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
^ Course requires a letter grade of "C" or better.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

COMPUTER INFORMATION SYSTEMS
Northeastern State University Transfer Option

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Computer Science at NSU may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalog and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 37
See the General Education Requirements list for complete list.

Specialized Course Requirements Credit Hours: 27

Computer Information Systems 24 hours
*CSYS 1203 Introduction to Computer Programming
CSCI 1203 Computer Concepts and Applications
*CSCI 2133 Introduction to Java
*CSCI 2473 C Language
*CSCI 2843 C++Programming Language
*CSCI 2683 Data Structures
and select 6 credit hours from the following
*CSYS 1013 XHTML
*CSYS 2413 Advanced Java
*CSCI 1483 Introduction to UNIX (Linux)
* CSCI 2283 Visual Basic

English 3 hours
*ENGL 2333 Technical/Professional Writing

Total Credit Hours: 64

*Course has prerequisite (see course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

COMPUTER INFORMATION SYSTEMS
Oklahoma State University Transfer Option

Program Description:
This degree plan is for students planning to attend Oklahoma State University-Tulsa to complete a baccalaureate degree in Computer Science in the College of Arts and Sciences. The suggested degree curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should visit with a TCC counseling office to consult the OSU catalog for Undergraduate Programs Requirements and carefully select courses that will meet the requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 36-37
Remaining General Education Requirements met in Specialized Course Requirements

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

BUSINESS: INFORMATION TECHNOLOGY

History 3 hours
HIST 1483 U.S. History 1492- Civil War Era
or
HIST 1493 U.S. History Civil War Era to Present

U.S. Government 3 hours
POLS 1113 American Federal Government

Humanities 6 hours
Any courses designated H. Recommend one course designated I. See the General Education Requirements list for complete list.

Mathematics 5-6 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 1715 College Algebra and Trigonometry

Science 7 hours
See the General Education Requirements page for the complete list (must have one lab).

Speech 3 hours
SPCH 1113 Speech Communication I

Required Elective: 3 hours
At least one 3 hour course from the following disciplines:
Psychology, Social Science, Foreign Language or Fine Arts (Art, Music and Theatre). An additional hour of General Education Requirement is satisfied in Specialized Course requirements.

Specialized Course Requirements Credit Hours: 21

Mathematics: 12 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III

Computer Science: 9 hours
** *CSCI 2473 C Language
*CSCI 2683 Data Structures
*CSCI 2843 C++ Programming Language

Recommended Electives: 2-3 hours
Any courses designated H. Recommend one course designated I. See the General Education Requirements page for complete list.
**CSCI 1203 Computer Concepts and Applications
*CSCI 1403 BASIC Language or
*CSCI 2303 PASCAL or
*CSCI 1901 Beginning (Linux) Unix
*CSCI 2283 Visual Basic
*CSCI 2843 C++ Programming Language

Foreign Language Requirement: OSU requires that students complete 1413 course level in a language or test at that level or 2 years of the same language in high school.

Total Credit Hours: 60
*Course has prerequisite (see course description section of catalog).
**CSCI 1203 may be needed to provide the prerequisite skills for CSCI 2473, students are advised to see a counselor before enrolling.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

COMPUTER INFORMATION SYSTEMS
Business Application Specialist

Program Description:
The Business Application Specialist program is designed to provide graduates with the diversity of business and applications software skills needed to: Effectively use application software in a business setting and prepare for the Microsoft Certified Application Specialist (MCAS) exams in Word, Excel, Access, Outlook, Windows and PowerPoint (MCAS) and the Application Professional certification.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Divisions:
Metro: (918) 595-7039, Northeast: (918) 595-7439,
Southeast: (918) 595-7639, West: (918) 595-8033
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651,
West: (918) 595-8176

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communication

Mathematics 3 hours
*MATH 1513 College Algebra
BUSN 1353 Business Mathematics

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 42

Accounting/Business/Mathematics 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
BUSN 1053 Introduction to Business
MGMT 2363 Principles of Management
*MATH 2193 Elementary Statistics

Computer Information Systems 18 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 2013 Word
*CSCI 2033 Excel
*CSCI 2043 Access
*CSCI 2163 Windows Operating Systems
*CSCI 2483 PowerPoint/Multimedia

BUSINESS: INFORMATION TECHNOLOGY

Controlled Electives Credit hours: 12
Any 2000 level CSYS/CSCI course may be used as a controlled elective.
*CSYS 2323 Outlook is recommended

Total Credit Hours: 60
*Courses has prerequisite (See our course description section of catalog).

COMPUTER INFORMATION SYSTEMS
Business Application Specialist Certificate

Program Description:
The Business Application Specialist Certificate is designed to empower information workers with the in-demand skills to 1) effectively use application software in a business setting, and 2) prepare for the Microsoft Application Specialist (MCAS) exams in Word, Excel, Access, Outlook and PowerPoint.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 15

Computer Information Systems 15 hours
*CSCI 2013 Word
*CSCI 2033 Excel
*CSCI 2043 Access
*CSCI 2483 PowerPoint/Multimedia
and select one course from the following:
*CSYS 2323 Outlook
*CSCI 2163 Windows Operating Systems

Total Credit Hours: 15
*Course has prerequisite (See course description section of catalog).

COMPUTER INFORMATION SYSTEMS
Computer User Certificate

Program Description:
This program has been designed to produce a knowledgeable and proficient computer user upon completion of all 5 classes.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
West Campus: (918) 595-8033
Counseling Center: West (918) 595-8176

Certificate Requirements Credit Hours: 7
CSCI 1203 Computer Concepts and Applications
* CSCI 1641 Windows
* CSCI 1161 Introduction to the Internet
*CSCI 1541 Advanced Excel
*CSCI 1561 Advanced Word

Total Credit Hours: 7
*Course has prerequisite (See course description section of catalog).

COMPUTER INFORMATION SYSTEMS
Information Assurance and Forensics
OSU - Okmulgee Transfer Option

Program Description:
This program marks a partnership between Tulsa Community College and Oklahoma State University-Okmulgee , and has been designed to facilitate seamless transition from TCC to OSU-Okmulgee. Under this partnership, TCC students may use this associate degree as the first four semesters of the OSU-Okmulgee Bachelor of Technology in Information Assurance and Forensic degree.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business/Information Technology Division:
Northeast Campus: (918)595-7439
Counseling Northeast Campus: (918) 595-7527

General Education Requirements Credit Hours: 30

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
PHIL 2113 Logic
PHIL 2133 Introduction to Ethical Thinking

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Controlled Electives Credit Hours: 6 hours

BUSN 1053 Intro to Business
CSCI 1203 Computer Concepts and Applications

Specialized Course Requirements: 30 hours

Technical Core 15 hours
*CSYS 1013 XHTML
*CSYS 2413 Advanced JAVA
*CSCI 1263 Network Fundamentals
*CSCI 2133 Introduction to JAVA
*CSCI 2143 A+ IT Technician

Information Assurance & Forensics 12 hours
*ITCV 2033 Broadband/CCENT
*ITCV 2203 CCNA Routing & Switching
*CSYS 2493 Principles of Information Assurance
*CSYS 2563 Enterprise Security

Required Elective Credit Hours: 3 hours
*ITCV 2023 Wireless Networking

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER INFORMATION SYSTEMS
Networking

Program Description:
The CSYS Networking program is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and information Technology Divisions:
Metro: (918) 595-7039 Northeast (918) 595-7439
Southeast: (918) 595-7639
Counseling Centers:
Metro: (918) 595-7151 Northeast: (918) 595-7527
Southeast: (918) 595-7639

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
and select one 3 credit hour course from following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 30

Accounting/Business/Mathematics 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
BUSN 1053 Introduction to Business
MGMT 2363 Principles of Management
*MATH 2193 Elementary Statistics
*MATH 2513 Finite Mathematics

Computer Information Systems 18 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Network Fundamentals
and select one 3 credit hour course from following:
*CSCI 2053 Novell Network Administration
*CSYS 2053 Windows Network Administration
*CSYS 2063 Microsoft Windows 2000 Series Server
*CSCI 2803 UNIX Networking (Linux)
and select one 3 credit hour course from following:
*CSCI 2203 Data Communication
*CSCI 2143 A+ IT Technician
*ITCV 2203 CCNA Routing and Switching
and select one 3 credit hour course from following:
*CSYS 2083 Windows 2000 Series Network Infrastructure
*CSCI 2103 Networking Technologies
and select one 3 credit hour course from following:
*CSYS 2493 Principles of Information Assurance
*CSCI 2243 Network Design and Troubleshooting

Controlled Elective Credit Hours: 12
Select 12 hours from the Computer Information Systems Electives.

Total Credit Hours: 60
*Course has prerequisite (See course description section of the catalog. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

COMPUTER INFORMATION SYSTEMS
Certificate, Networking

Program Description:
The CSYS Networking certificate program is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Divisions:
Metro: (918) 595-7039 Northeast: (918) 595-7439
Southeast: (918) 595-7639
Counseling Centers: Metro: (918) 595-7151
Northeast: (918) 595-7527 Southeast: (918) 595-7651

Specialized Course Requirements Credit Hours: 18
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Network Fundamentals
and select one 3 credit hour course from following:
*CSCI 2053 Novell Network Administration
*CSYS 2053 Windows Network Administration
*CSYS 2063 Microsoft Windows 2000 Series Server
*CSCI 2803 UNIX Networking (Linux)
and select one 3 credit hour course from following:
*CSCI 2203 Data Communication
*CSCI 2143 A+ IT Technician
*ITCV 2203 CCNA Routing and Switching
and select one 3 credit hour course from following:
*CSYS 2083 Windows 2000 Series Network Infrastructure
*CSCI 2103 Networking Technologies
and select one 3 credit hour course from following:
*CSYS 2493 Principles of Information Assurance
*CSCI 2243 Network Design and Troubleshooting

Total Credit Hours: 18
*Course has prerequisite (See course description section of the catalog).

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER INFORMATION SYSTEMS
Programming

Program Description:
The CSYS Programming program is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Divisions: Metro: (918) 595-7039, Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Metro: (918) 595-7151, Northeast: (918) 595-7527, Southeast: (918) 595-7651

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
Select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 30

Accounting/Business/Mathematics 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
BUSN 1053 Introduction to Business
MGMT 2363 Principles of Management
*MATH 2193 Elementary Statistics
*MATH 2513 Finite Mathematics

Computer Information Systems 18
*CSYS 1203 Introduction to Computer Programming
CSCI 1203 Computer Concepts and Applications
*CSCI 2473 C Language
and select one 3 credit hour course from each of the 3 following groups:

Group 1
*CSCI 1483 Introduction to UNIX (Linux)
*CSCI 2163 Windows Operating Systems

Group 2
*CSCI 2133 Introduction to JAVA
*CSCI 2283 Visual Basic
*CSCI 2683 Data Structures
*CSCI 2843 C++ Programming Language

Group 3
*CSYS 2413 Advanced JAVA
*CSCI 2873 Advanced C++
*CSCI 2893 Advanced Visual Basic

Controlled Elective Credit Hours: 12
Select 12 hours from the Computer Information Systems Elective.

Total Credit Hours: 60
*Course has prerequisite (See course description section of the catalog. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

COMPUTER INFORMATION SYSTEMS
Certificate, Programming

Program Description:
The CSYS Programming Certificate is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Divisions:
Metro: (918) 595-7039, Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Metro: (918) 595-7151, Northeast: (918) 595-7527, Southeast: (918) 595-7651

Specialized Course Requirements Credit Hours: 18

Computer Information Systems 18 hours
*CSYS 1203 Introduction to Computer Programming
CSCI 1203 Computer Concepts and Applications
*CSCI 2473 C Language
and select one 3 credit hour course from each of the 3 following groups:

Group 1
*CSCI 1483 Introduction to UNIX (Linux)
*CSCI 2163 Windows Operating Systems

Group 2
*CSCI 2133 Introduction to JAVA
*CSCI 2283 Visual Basic
*CSCI 2683 Data Structures
*CSCI 2843 C++ Programming Language

Group 3
*CSYS 2413 Advanced JAVA
*CSCI 2873 Advanced C++
*CSCI 2893 Advanced Visual Basic

Total Credit Hours: 18
*Course has prerequisite (See course description section of the catalog.

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER INFORMATION SYSTEMS
Systems Support Technician

Program Description:
This program is designed to provide graduates with the diversity of skills needed to troubleshoot and implement a course of action necessary to solve customer hardware, software, and networking problems.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Divisions:
Northeast: (918) 595-7439
Counseling Centers: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 21

English 6 hours
*ENGL 1113 Freshman Composition I and
select one 3 credit hour course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communication

Mathematics 3 hours
*MATH 1513 College Algebra

Speech 3 hours
SPCH 2103 Introduction to Interpersonal Communication

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Psychology/Sociology 3 hours
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Specialized Course Requirements Credit Hours: 39

Business 3 hours
BUSN 1053 Introduction to Business

Computer Information Systems 21 hours
CSYS 2023 A+ Essentials
*CSYS 2493 Principles of Information Assurance
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Network Fundamentals
*CSCI 1273 Customer Support
*CSCI 1483 Introduction to UNIX (Linux)
*CSCI 2143 A+ IT Technician

Controlled Electives Credit hours: 15
**** Select 15 Credit hours from any 2000 levels CSYS/CSCI or ITCV Courses**

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).

COMPUTER INFORMATION SYSTEMS
Systems Support Technician Certificate

Program Description:
This program is designed for students who wish to acquire knowledge and skills needed to trouble shoot and implement a course of action necessary to solve customer hardware, software, and networking problems. Entry competencies include: basic knowledge of PCs and familiarity with the Windows operating system. On completion of coursework, students may sit for certification exams from CompTIA and Microsoft.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 15
*CSYS 2023 A+ Essentials
*CSYS 2493 Principles of Information Assurance
*CSCI 1263 Network Fundamentals
*CSCI 1273 Customer Support
*CSCI 2143 A+ IT Technician

Total Credit Hours: 15
*Course has prerequisites (See course description section of catalog).

COMPUTER INFORMATION SYSTEMS
UNIX

Program Description:
The CSYS UNIX program is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Divisions:
Metro: (918) 595-7039, Northeast: (918) 595-7439,
Southeast: (918) 595-7639
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
Select 3 credit hours from the following courses:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

BUSINESS: INFORMATION TECHNOLOGY

Specialized Course Requirements Credit Hours: 30

Accounting/Business/Mathematics 12 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
BUSN 1053 Introduction to Business
MGMT 2363 Principles of Management
*MATH 2193 Elementary Statistics
*MATH 2513 Finite Mathematics

Computer Information Systems 18 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 1483 Introduction to UNIX (Linux)
*CSCI 2473 C Language
*CSCI 2783 Advanced UNIX (Linux)
*CSCI 2793 UNIX Programming (Linux)
*CSCI 2803 UNIX Networking (Linux)

Controlled Elective Hours: 12
Select 12 hours from the Computer Information Electives.

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).

COMPUTER INFORMATION SYSTEMS
Certificate, UNIX

Program Description:
The CSYS UNIX Certificate is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Certificate of Achievement

Specialized Course Requirements Credit Hours: 18
CSCI 1203 Computer Concepts and Applications
*CSCI 1483 Introduction to UNIX (Linux)
*CSCI 2473 C Language
*CSCI 2783 Advanced UNIX (Linux)
*CSCI 2793 UNIX Programming (Linux)
*CSCI 2803 UNIX Networking (Linux)

Total Credit Hours: 18
*Course has prerequisite (See course description section of the catalog).

COMPUTER INFORMATION SYSTEM
Web Development

Program Description:
This program is designed to provide graduates with the knowledge required to assume the role of a web developer. Completion of this program will allow a student to operate in a Microsoft, Java, or Macromedia environment, creating the back end programming required by today's dynamic database driven websites and web distributed applications.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division:
Metro Campus: (918) 595-7039, Southeast (918) 595-7639
Counseling Centers: Metro Campus (918) 595-7151,
Southeast (918) 595-7651

General Education Requirements Credit hours 18

English 6 hours
*ENGL 1113 Freshman Composition I
select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communication

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Mathematics 3 hours
*MATH 1513 College Algebra

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements 45 hours

Business/Mathematics 6 hours
BUSN 1053 Introduction to Business
*MATH 2513 Finite Mathematics

Computer Information Systems 33 hours
*CSYS 1203 Introduction to Computer Programming
*CSYS 1013 XHTML
*CSYS 2413 Advanced Java
*CSYS 2473 ColdFusion
*CSYS 2503 ASP .NET
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Network Fundamentals
*CSCI 2133 Introduction to Java
*CSCI 2473 C Programming
and select one 3 credit hour course from the following:
*CSYS 1153 Adobe Dreamweaver
*CSYS/MKTG 1393 Web Design and Marketing
and select one 3 credit hour course from the following:
*CSYS 2033 Scripting
*CSYS 2153 Advanced XHTML Technologies

Controlled Electives 6 hours
*CSYS 1233 XML
*CSYS 1283 Macromedia Flash Animation
*CSYS 2153 Advanced XHTML Technologies
*CSYS 2463 PHP Programming
*CSYS 2533 Java Server Pages (JSP)
*CSYS 2643 Database Design on MS SQL Server or
CSYS 1133 Oracle: Introduction to SQL & PL/SQL

Total Credit Hours 63
*Course has prerequisites (See course description section of catalog).

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER INFORMATION SYSTEM
Certificate, Web Development

Program Description:
This program is designed to provide graduates with the knowledge required to assume the role of a web developer. Completion of this program will allow a student to operate in a Microsoft, Java, or Macromedia environment, creating the server-side programming required by today's dynamic database driven websites and web distributed applications.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division
Metro Campus: (918) 595-7039 Southeast (918) 595-7639
Counseling Centers: Metro Campus (918) 595-7151
Southeast (918) 595-7651

Specialized Course Requirements 33 hours
*CSYS 1013 XHTML
*CSYS 1203 Introduction to Computer Programming
*CSYS 2033 Scripting
*CSYS 2413 Advanced Java
*CSYS 2473 ColdFusion
*CSYS 2503 ASP.NET
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Network Fundamentals
*CSCI 2133Introduction to Java Programming
*CSCI 2473 C Programming
and select one from the following:
*CSYS 1153 Adobe Dreamweaver
*CSYS/MKTG 1393 Web Design and Marketing

It is strongly recommended that students take the following additional courses.
*CSYS 1233 XML
*CSYS 1283 Macromedia Flash Animation
*CSYS 2153 Advance XHTML Technologies
*CSYS 2463 PHP Programming
*CSYS 2533 Java Server Pages (JSP)
Select one from the following:
*CSYS 2643 Database Design on MS SQL Server
*CSYS 1133 Oracle: Introduction to SQL & PL/SQL

Total Credit Hours: 33
*Course has prerequisite (See course description section of catalog).

COMPUTER INFORMATION SYSTEMS
Web-Site Management

Program Description:
The Web-Site Management program is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division: Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

General Education Requirements Credit Hours: 18
English 6 hours
*ENGL 1113 Freshman Composition I
Select 3 credit hours from the following courses:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
HIST 1483 U.S. History 1492 to Civil War Era
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
POLS 1113 American Federal Government

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 42
Accounting/Business/Mathematics 12 hours
Select 3 credit hours from the following courses:
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
BUSN 1053 Introduction to Business
MGMT 2363 Principles of Management
MKTG 2423 Principles of Marketing
*MATH 2193 Elementary Statistics
*MATH 2513 Finite Mathematics

Computer Information Systems 30
*CSYS 1013 XHTML
*CSYS 1393/MKTG 1393 Web Design and Marketing
*CSCI 1263 Network Fundamentals
and select one 3 credit hour course from the following:
*CSYS 1063 Digital Image Editing
*CSYS 1033 Adobe Photoshop
and select one 3 credit hour course from the following:
CSCI 1203 Computer Concepts and Applications
CSYS 1203 Introduction to Programming
and select one 3 credit hour course from the following:
*CSYS 2013 Webserver Administration
*CSCI 2783 Advanced UNIX (Linux)
* CSCI UNIX (Linux) Networking

Required Electives 12 hours
Select four 3-credit hour courses from the following:
CSYS 1443 Electronic Commerce
CSCI 1483 Introduction to UNIX (Linux)
CSYS 2023 A+ Microcomputer Operating Systems
CSYS 2153 Advanced XHTML Technologies
CSYS 2033 Scripting
CSCI 2163 Windows Operating Systems
CSCI 2243 Networking Design and Troubleshooting
*CSYS 2013 Webserver Administration
*CSCI 2783 Advanced UNIX (Linux)
*CSCI 2803 UNIX (Linux) Networking
Any 3-6 hours of 2000 level CSYS electives may be substituted for the above required electives.

Total Credit Hours: 60
*Course has prerequisite (See course description section of the catalog.

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER INFORMATION SYSTEMS
Certificate, Web-Site Management

Program Description:
The Web-Site Management Certificate is designed to provide graduates with the depth and diversity of skills needed to apply computer technology to business needs.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

Specialized Course Requirements Credit Hours: 18
*CSYS 1013 XHTML
*CSYS/MKTG 1393 Web Design and Marketing
*CSCI 1263 Network Fundamentals

and select one 3 credit hour course from the following:
*CSCI 1063 Digital Image Editing
*CSCI 1033 Adobe Photoshop

and select one 3 credit hour course from the following:
CSCI 1203 Computer Concepts and Applications
CSYS 1203 Introduction to Programming

and select one 3 credit hour course from the following:
*CSYS 2013 Webserver Administration
*CSCI 2783 Advanced UNIX (Linux)
* CSCI 2803 UNIX (Linux) Networking

Total Credit Hours: 18
*Course has prerequisite (See course description section of the catalog).

COMPUTER INFORMATION SYSTEMS
Certificate, Windows 2000 (MCSE Preparation)

Program Description:
This advanced certificate program is designed for students who have earned college credit in computer science/networking and other Information Systems' disciplines, have at least one year of computer network related experience, and wish to prepare themselves for MCSE certification exams.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
Northeast: (918) 595-7439
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651

Certificate Requirements Credit Hours: 21
Computer Information Systems 15 hours
*CSYS 2043 Microsoft Windows 2000 Professional
*CSYS 2063 MS Windows 2000 Series Server
*CSYS 2083 MS Windows 2000 Series Network Infrastructure
*CSYS 2093 Implementing Microsoft Windows 2000 Series Directory Services Infrastructure

and choose one of the following:
*~CSYS 2103 Designing MS Windows 2000 Series Network Infrastructure
*~CSYS 2113 Designing Security in a MS Windows 2000 Network
*~CSYS 2133 Designing MS Windows 2000 Series Directory Services Infrastructure

Computer Information Systems 6 hours
*~CSYS 2103 Designing MS Windows 2000 Network Infrastructure
*~CSYS 2113 Designing Security in a MS Windows 2000 Series Network
*~CSYS 2133 Designing MS Windows 2000 Series Directory Services Infrastructure
*CSYS 2433 Microsoft Exchange Server
*CSYS 2443 Systems Network Architecture (SNA) Server
*CSYS 2633 Systems Management Server
*CSYS 2643 Database Design on MS SQL Server
*CSYS 2653 System Administrator for MS SQL Server

Total Credit Hours: 21
*Course has prerequisite (See course description section of catalog).
*~Can be used as elective but not the one chosen for 3 hours of requirements.

COMPUTER INFORMATION SYSTEMS
Electives

A Partial List of Controlled Electives for Computer Information Systems follows.
Other courses, numbered 2003 or above may be substituted. Select courses from this list to fulfill elective requirements as stated in the Computer Information Systems degree and certificate patterns listed on the preceding pages.
NOTE: A Business Services Associate Dean must approve substitution of courses at the 1000 level not included in this section.

1000 level courses:
*CSYS 1013 XHTML
*CSCI 1033 Adobe Photoshop
*CSCI 1063 Digital Image Editing
*CSYS 1133 Oracle: Introduction to SQL
*CSYS 1203 Introduction to Computer Programming
*CSYS 1233 XML
*CSYS 1153 Adobe Dreamweaver
*CSYS 1393 Web Design and Marketing
*CSYS 1443 Electronic Commerce
*CSCI 1123 3D Graphics Using Lightwave
*CSCI 1263 Network Fundamentals
*CSCI 1283 Adobe Flash
*CSCI 1293 3D Animation Using Lightwave
*CSCI 1403 BASIC Language
*CSCI 1483 Introduction to UNIX (Linux)

2000 level courses:
Any 2000 level CSYS/CSCI/ITCV courses may be used as a controlled elective.
*Course has prerequisite (See course description section of catalog).

DIGITAL MEDIA OPTIONS, AAS/CER
See Arts & Communications area of study: Graphic Arts

DRAFTING & DESIGN ENGINEERING, AAS
DRAFTING & COMPUTER AIDED DESIGN, CER
See Science Technology Engineering and Mathematics area of study: Technology

BUSINESS: INFORMATION TECHNOLOGY

COMPUTER PROGRAMMING
Transcaction Processing Facility (TPF)

Program Description:
This program is designed to develop programming and related skills necessary to function effectively as a Transaction Processing Facility Programmer. This highly regarded program provides hands-on training on the latest hardware and software. Students must be admitted to the program prior to enrollment.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business Services Division, Northeast: (918) 595-7439
Counseling Office, Northeast: (918) 595-7527

General Education Requirements Credit Hours: 21

English 6 hours
*ENGL 1113 Freshman Composition I
and one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical /Professional Writing
*ENGL 2343 Business Communication

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communications

Specialized Course Requirements Credit Hours: 30

Computer Information Systems 30 hours
*CSCI 1043 TPF Operating System Concepts
*CSCI 1083 Using the TOOLKIT
*CSCI 1093 Basic Assembler Language
*CSCI 1133 Advanced Assembler Language
*CSCI 1153 Using TPF Standard I/O majors
*CSCI 1193 TPF ISOC Programming
*CSCI 1663 TPF/DF Database Facility
*CSCI 1692 TPF ISOC with TPF/DF Functions
*CSCI 1702 TPF with Standard I/O Functions
*CSCI 1762 TPF Utilities
*CSCI 2903 C Language for TPF majors

Controlled Electives Credit Horus: 9
ACC 2213 Financial Accounting
ACC 2223 Managerial Accounting
and select one course from the following:
BUSN 1053 Introduction to Business
ECON 2013 Principles of Macroeconomics

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).

COMPUTER PROGRAMMING
Transcaction Processing Facility (TPF) Certificate

Program Description:
This program is designed to develop programming and related skills necessary to function effectively as a Transaction Processing Facility Programmer. This highly regarded program provides hands-on training on the latest hardware and software. Students must be admitted to the program prior to enrollment.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business Services Division, Northeast: (918) 595-7439
Counseling Office, Northeast: (918) 595-7527

Computer Information Systems Credit Hours: 30

Computer Information Systems 30 hours
*CSCI 1043 TPF Operating System Concepts
*CSCI 1083 Using the TOOLKIT
*CSCI 1093 Basic Assembler Language
*CSCI 1133 Advanced Assembler Language
*CSCI 1153 Using TPF Standard I/O majors
*CSCI 1193 TPF ISOC Programming
*CSCI 1663 TPF/DF Database Facility
*CSCI 1692 TPF ISOC with TPF/DF Functions
*CSCI 1702 TPF with Standard I/O Functions
*CSCI 1762 TPF Utilities
*CSCI 2903 C Language for TPF majors

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).

BUSINESS: INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGIES CONVERGENCE

Program Description:
This program is designed to help students develop or upgrade skills needed to function in today's changing information technologies environment. Voice data, and video networks are rapidly converging into a single, flexible communications network consisting of both wired and wireless components. Students will acquire skills in designing, installation, configuring, and maintaining voice, data, and video products and services in converged networks. To complete an AAS degree, students must also select from one of three options – Information Security, System Support, or Cisco Routing. Many of the courses in this program are designed to help students prepare to take industry certification exams from Microsoft, CompTIA, Cisco, and TIA.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business Services Division, Northeast: (918) 595-7439
Counseling Office, Northeast: (918) 595-7527

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
and one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical /Professional Writing
*ENGL 2343 Business Communication

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communications

Specialized Course Requirements Credit Hours: 42

Computer Information Systems 15 hours
***CSYS 2063 MS Windows 2000 Series Server
* **CSYS 2493 Principles of Information Assurance
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Networking Fundamentals
*CSCI 1483 Introduction to UNIX (Linux)

Information Technologies Convergence 15 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2033 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies
* **ITCV 2203 CCNA Routing and Switching

Plus one of the three following options of specialization:

Cisco Routing Specialization 12 hours 946B
*ITCV 2233 CCNP Routing
*ITCV 2253 CCNP Switching
*ITCV 2263 CCNP Secure Converged WANs
*ITCV 2283 CCNP Optimizing Converged Cisco Networks

Information Security Specialization 12 hours 946C
*CSYS 2523 Secure Electronic Commerce
*CSYS 2543 Network Security
CSYS 2563 Enterprise Security
*CSYS 2583 Cyber Forensics

System Support Specialization 12 hours 946D
*CSYS 2023 A+Essentials**
*CSCI 1273 Customer Support
*CSCI 2143 A+ IT Technician**
and select any 3 credit hour 2000 level CSYS, CSCI, or ITCV course

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
**Credit may be obtained through coursework at any Certified Cisco Academy or presentation of Cisco, Microsoft, or COMPTIA Certification.

INFORMATION TECHNOLOGIES CONVERGENCE Basics Certificate

Program Description:
This program is designed to help students develop or upgrade skills needed to function in today's rapidly changing information technology environment. Voice, data, and video networks are rapidly converging into a single, flexible communications network consisting of both wired and wireless components. Students will acquire skill in designing, installation, configuring, and maintaining voice, data, and video products and services in converged networks. After achieving this Certificate, students can acquire an ITCV Essentials Certificate by taking 2 additional classes.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
Northeast (918) 595-7439
Counseling Office: Northeast: (918) 595-7527

Certificate Requirements Credit Hours: 15

Computer Information Systems 6 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 9 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2063 VoIP & Convergence Technologies

Total Credit Hours: 15

*Course has prerequisite (See course description section of catalog).

BUSINESS: INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGIES CONVERGENCE Essentials Certificate

Program Description:
This program is designed to help students develop or upgrade skills needed to function in today's rapidly changing information technologies environment. Voice, data, and video networks are rapidly converging into a single, flexible communications network consisting of both wired and wireless components. Students will acquire skills in designing, installation, configuring, and maintaining voice, data, and video products and services in converged networks. After achieving this certificate, students can acquire the ITCV certificate by taking 3 additional classes.

Certificate Requirements Credit Hours: 21

Computer Information Systems 6 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 15 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2033 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies
** *ITCV 2203 CCNA Routing and Switching

Total Credit Hours: 21
*Course has prerequisite (see course description section of catalog).
**Credit may be obtained through coursework at any Certified Cisco Academy or presentation or Cisco, Microsoft, or COMPTIA Certification

INFORMATION TECHNOLOGIES CONVERGENCE Certificate

Program Description:
This program is designed to help students develop or upgrade skills needed to function in today's rapidly changing information technologies environment. Voice, data, and video networks are rapidly converging into a single, flexible communications network consisting of both wired and wireless components. Students will acquire skills in designing, installation, configuring, and maintaining voice, data, and video products and services in converged networks.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Computer Information Systems 15 hours
** *CSYS 2063 MS Windows 2000 Series Server
** * CSYS 2493 Principles of Information Assurance
*CSCI 1483 Introduction to UNIX (Linux)
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 15 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2033 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies
** *ITCV 2203 CCNA Routing and Switching

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).
** Credit may be obtained through coursework at any Certified Cisco Academy or presentation of Cisco, Microsoft, or COMPTIA Certification.

INFORMATION TECHNOLOGIES CONVERGENCE Cisco Routing Basics Certificate

Program Description:
This certificate program is designed to help systems and network administrators or engineers who have previous or current experience with Cisco routers and switches to upgrade skills necessary for wide area network configuration and maintenance in today's rapidly changing voice, data, and video IT environment. These classes are also designed to help prepare students to take Cisco certification exams. Students should have solid skills using TCP/IP protocols, IP addressing and subnetting, and should have experience in the WAN environment, or check with an ITCV faculty member regarding preparedness.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 15

Information Technologies Convergence 15 hours
** *ITCV 2203 CCNA Routing and Switching
** *ITCV 2233 CCNP Routing
** *ITCV 2253 CCNP Switching
** *ITCV 2263 CCNP Secure Converged WANS
** *ITCV 2283 CCNP Optimizing Converged Network

Total Credit Hours: 15
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
** Credit may be obtained through coursework at a Certified Cisco Academy or Presentation of a Cisco Certification.

INFORMATION TECHNOLOGIES CONVERGENCE Cisco Routing Certificate

Program Description:
This program is designed for students who wish to acquire skills necessary for employment as Convergence/ WAN Systems Analysts or Network Administrators.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30

Computer Information Systems 3 hours
*CSCI 1263 Networking Fundamentals
Information Technologies Convergence 27 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2203 CCNA Routing and Switching
*ITCV 2233 CCNP Routing
*ITCV 2253 CCNP Switching
*ITCV 2263 CCNP Secure Converged WANS
*ITCV 2283 CCNP Optimized Converged Cisco Networks
*ITCV 2023 Wireless Networking
*ITCV 2023 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).
See program advisor to determine if credit may be obtained through coursework at a Certified Cisco Academy or presentation of Cisco Certification.
** Credit may be obtained through coursework at any Certified Cisco Academy or presentation of Cisco, Microsoft, or COMPTIA Certification.

BUSINESS: INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGIES CONVERGENCE
Information Security Essentials Certificate

Program Description:
This program is designed for students who wish to acquire skills necessary for specializing in convergence/Information Security. Students will be admitted to the program based upon meeting the program's admission criteria, but may enroll in CSYS 2493 and CSYS 2563 before acceptance into the program. After achieving this certificate, students can acquire the Information Security certificate by taking 2 additional classes.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business Services division: Northeast (918) 595-7439
Counseling Office: Northeast (918) 595-7527

Certificate Requirements Credit Hours: 24

Computer information System 18 hours
*CSYS 2493 Principles of Information Assurance
*CSYS 2523 Secure Electronic Commerce
*CSYS 2543 Network Security
*CSYS 2563 Enterprise Security
*CSYS 2583 Cyber Forensics
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 6 hours
*ITCV 2023 Wireless Networking
*ITCV 2063 VoIP & Convergence Technologies

Total Credit Hours: 24

*Courses has prerequisite (see course description section of catalog).

INFORMATION TECHNOLOGIES CONVERGENCE
Information Security Certificate C

Program Description:
This program is designed for students who wish to acquire skills necessary for specializing in converged network security. Students will be admitted to the program based upon meeting the program's admission criteria, but may take CSYS 2493 and CSYS 2563 before acceptance into the program.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 30
Computer information Systems 18 hours
*CSYS 2493 Principles of Information Assurance
*CSYS 2523 Secure Electronic Commerce
*CSYS 2543 Network Security
*CSYS 2563 Enterprise Security
*CSYS 2583 Cyber Forensics
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 12 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2033 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies

Total Credit Hours: 30

*Course has prerequisite (See course description section of catalog).

INFORMATION TECHNOLOGIES CONVERGENCE
Systems Support Certificate

Program Description:
This program is designed for students who wish to acquire skills necessary for employment as Network Administrators or Computer Support Technicians.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business Services Division, Northeast Campus: (918) 595-7439
Northeast Counseling Center: (918) 595-7527

Certificate Requirements Credit Hours: 30

Computer Information Systems 18 hours
*CSYS 2023 A+ Essentials
*CSYS 2063 MS Windows 2000 Series Server
*CSCI 1263 Networking Fundamentals
*CSCI 2053 Novell Administrator
*CSCI 2143 A+ IT Technician
*CSCI 2243 Network Design and Troubleshooting

Information Technologies Convergence 12 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2033 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies

Total Credit Hours: 30

*Course has prerequisite (See course description section of catalog).

INFORMATION TECHNOLOGIES CONVERGENCE Management

Program Description:
This program is designed to help students develop skills needed to function in areas of management in today's rapidly changing information technologies environment. Voice, data, and video networks are rapidly converging into a single, flexible communications network consisting of both wired and wireless components. Students will acquire training in management, economics, and finance, as well as technical training in convergence technologies. Additionally, this degree may help students purse an undergraduate degree in technology related fields.

Degree Awarded: Associate of Applied Science

General Education Requirements: Credit Hours: 24

English 6 Hours
*ENGL 1113 Freshmen Composition I
*ENGL 1213 Freshmen Composition II

Social Sciences 9 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present
and select one course from the following:
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

BUSINESS: MANAGEMENT

Mathematics 3 hours
*MATH 1513 College Algebra

Communications 3 hours
select one course from the following:
SPCH 1113 Speech Communication I or
SPCH 2103 Interpersonal Communication

Humanities 3 hours
HUM 2113 Humanities I

Specialized Course Requirements Credit Hours: 36

Business 9 hours
ACCT 2213 Financial Accounting
BUSN 1053 Introduction to Business
ECON 2013 Principles of Macroeconomics

Computer Information Systems 9 hours
CSCI 1203 Computer Concepts and Applications
*CSYS 2563 Enterprise Security
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 12 hours
*ITCV 1033 Introduction to Voice Communications and Convergence
*ITCV 2023 Wireless Networking
*ITCV 2033 Broadband Networking/CCENT
*ITCV 2063 VoIP & Convergence Technologies

Management 6 Hours
*MGMT 1373 Human Resources management
and select one course from the following
MGMT 1353 Management Essentials
MGMT 2363 Principles of Management

Total Credit Hours: 60

INFORMATION TECHNOLOGIES CONVERGENCE
Management Certificate

Program Description:
This program is designed to help students develop skills needed to function in areas of management in today's rapidly changing information technologies environment. Voice, data, and video networks are rapidly converging into a single, flexible communications network consisting of both wired and wireless components. Students will acquire training in management, economics, and finance, as well as technical training in convergence technologies. Students who have achieved this certificate can take additional courses to earn an Associate of Convergence Management.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 24

Business 3 hours
BUSN 1053 Introduction to Business

Computer Information Systems 9 hours
*CSYS 2563 Enterprise Security
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Networking Fundamentals

Information Technologies Convergence 9 hours
*ITCV 1033 Introduction to Voice Communications and Convergence Fundamentals
*ITCV 2023 Wireless Networking
*ITCV 2063 VoIP & Convergence Technologies

Management 3 hours
MGMT 1353 Management Essentials **or**
MGMT 2363 Principles of Management

Total Credit Hours: 24
*Course has prerequisite (See course description section of catalog).

BUSINESS: MANAGEMENT

MANAGEMENT, AS
See Business Related Fields of study
for University Transfer Management

MANAGEMENT
General Management

Program Description:
The General Management option will prepare students for a wide range of management positions. For managers already in the business world, this option will equip them with the additional management skills they need, and hone the skills they already possess. This option will help managers succeed in their current positions and prepare them for further career advancement. Major focus of this option is on improving decision-making processes, learning how to motivate members of a team, and developing new techniques to resolve conflicts.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Divisions:
Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Northeast: (918) 595-7527,
Southeast: (918) 595-7651

This program is offered at the Northeast Campus, the Southeast Campus, and on-site at corporations and organizations in the greater Tulsa area.

General Education Requirements Credit Hours: 18

Economics 3 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 27

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications
or
CSCI 1011 Introduction to Microcomputers
and select two one credit hour software courses.

Management 18 hours
MGMT 2323 Organizational Behavior
*MGMT 2353 Business Policy
and select one course from the following:
MGMT 1353 Management Essentials
MGMT 2363 Principles of Management
and select one course from the following:
*MGMT 1373 Human Resources Management
*MGMT 2413 Global Management
*MGMT 2423 Entrepreneurship Management
and select an additional 6 credit hours of Management courses.
MGMT 1233 Health Care Management
*MGMT 2103 Workforce Development Internship
MGMT 2123 Leadership Development
*MGMT 2403 Critical Thinking for Results

Controlled Electives Credit Hours: 15
Electives must be chosen in relation to the student's occupational/educational goal and approved by the program instructor.

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).

MANAGEMENT
General Management Certificate

Program Description:
The General Management option will prepare students for a wide range of management positions. For managers already in the business world, this option will equip them with the additional management skills they need, and hone the skills they already possess. This option will help managers succeed in their current positions and prepare them for further career advancement. Major focus of this option is on improving decision-making processes, learning how to motivate members of a team, and developing new techniques to resolve conflicts.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Divisions:
Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Northeast: (918) 595-7527,
Southeast: (918) 595-7651

This program is offered at the Northeast Campus, Southeast Campus, corporations, and organizations in the greater Tulsa area.

Certificate Requirements Credit Hours: 30

Accounting 3 hours
ACCT 2213 Financial Accounting
Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications
or
CSCI 1011 Introduction to Microcomputers
and select two one credit hour software courses.

English 6 hours
*ENGL 1113 Freshman Composition I

BUSINESS: MANAGEMENT

and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Management 18 hours
*MGMT 2323 Organizational Behavior
*MGMT 2353 Business Policy
and select one course from the following:
MGMT 1353 Management Essentials
MGMT 2363 Principles of Management
and select one course from the following:
*MGMT 1373 Human Resources Management
*MGMT 2413 Global Management
*MGMT 2423 Entrepreneurship Management
and select an additional 6 credit hours of Management courses.
MGMT 1233 Health Care Management
*MGMT 2103 Workforce Development Internship
MGMT 2123 Leadership Development
*MGMT 2403 Critical Thinking for Results

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).

MANAGEMENT
International Management

Program Description:
If you are employed by a Tulsa company with global operations, the International Management option is just what you need for a successful career. This option concentrates on general business and management practices that are critical for companies competing in the international marketplace. Areas of emphasis include critical thinking, communications, decision-making, motivational techniques and conflict resolution. Special emphasis is also placed on expanding cultural knowledge and helping to develop the language skills needed to communicate with those of other cultures.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and information Technology Divisions:
Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Northeast: (918) 595-7527,
Southeast: (918) 595-7651

This program is offered at the Northeast Campus, the Southeast Campus, and on-site at corporations and organizations in the greater Tulsa area.

General Education Requirements Credit Hours: 15

Economics 3 hours
ECON 2013 Principles of Macroeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 33

Accounting 3 hours
ACCT 2213 Financial Accounting

Business 6 hours
**BUSN/SPCH 2053 Intercultural Communication
*ECON 2123 International Economic Issues

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications
or
CSCI 1011 Introduction to Microcomputers
and select two one credit hour software courses.

Foreign Language 6 hours
Select a total of 6 credit hours from one foreign language discipline.

Management 12 hours
*MGMT 2323 Organizational Behavior
*MGMT 2353 Business Policy
*MGMT 2413 Global Management
and select one 3 credit hour course from the following:
MGMT 2363 Principles of Management
MGMT 2403 Critical Thinking for Results

Marketing 3 hours
*MKTG 2813 International Marketing

Controlled Electives Credit Hours: 12
Electives must be chosen in relation to the student's occupational/educational goal and approved by the instructor. It is advised that elective courses be related to an international topic.

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
** Course can serve as either a BUSN or SPCH Credit. Students should choose either the BUSN or SPCH Discipline when enrolling.

MANAGEMENT
International Management Certificate

Program Description:
If you are employed by a Tulsa company with global operations, the International Management option is just what you need for a successful career. This option concentrates on general business and management practices that are critical for companies competing in the international marketplace. Areas of emphasis include critical thinking, communications, decision-making, motivational techniques and conflict resolution. Special emphasis is also placed on expanding cultural knowledge and helping to develop the language skills needed to communicate with those of other cultures.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and information Technology Divisions:
Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Northeast: (918) 595-7527,
Southeast: (918) 595-7651

BUSINESS: MANAGEMENT

This program is offered at the Northeast Campus, the Southeast Campus, and on-site at corporations and organizations in the greater Tulsa area.

Certificate Requirements Credit Hours: 33

Business 6 hours
**BUSN/SPCH 2053 Intercultural Communication
ECON 2123 International Economic Issues

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Foreign Language 6 hours
Select a total of 6 credit hours from one foreign language discipline.

Management 12 hours
*MGMT 2323 Organizational Behavior
*MGMT 2353 Business Policy
*MGMT 2413 Global Management
and select one 3 credit hour course from the following:
MGMT 2363 Principles of Management
MGMT 2403 Critical Thinking for Results

Marketing 3 hours
*MKTG 2813 International Marketing

Total Credit Hours: 33
*Course has prerequisite (See course description section of catalog).
** Course can serve as either a BUSN or SPCH Credit. Students should choose either the BUSN or SPCH Discipline when enrolling.

MANAGEMENT
Internship

Program Description:
Learning to do, doing to learn. That's the essence of the Management Internship option, designed not only to help students develop the managerial skills they must have to prosper in today's business world, but also to practice those skills in their own business setting. This option combines formal classroom study with a student-internship project at the student's place of employment. This option is recommended for current managers who wish to advance and need additional management training, those recently promoted to managerial positions, or those who have been identified by their employer as having managerial potential.

Degree Awarded: Associate in Applied Science

This program is offered at the Northeast Campus, the Southeast Campus, and on-site at corporations and organizations in the greater Tulsa area.

Admission to the Program:
Fulfill all admission requirements to Tulsa Community College. Arrange an advisement meeting with a program instructor and discuss the requirements for the internship classes.

General Education Requirements Credit Hours: 18

Economics 3 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 30

Accounting 3 hours
ACCT 2213 Financial Accounting

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications
or
CSCI 1011 Introduction to Microcomputers
and select two 1 credit hour software courses.

Management 24 hours
**MGMT 1343 Management Internship I
**MGMT 1363 Management Internship II
**MGMT 2303 Management Internship III
*MGMT 2323 Organizational Behavior
**MGMT 2343 Management Internship IV
*MGMT 2353 Business Policy
and select one course from the following:
MGMT 1353 Management Essentials
MGMT 2363 Principles of Management
and select one course from the following:
MGMT 1373 Human Resources Management
*MGMT 2413 Global Management
*MGMT 2423 Entrepreneurship Management

Controlled Electives Credit Hours: 12
*MGMT 2403 Critical Thinking for Results
Nine hours of additional electives must be chosen in relation to the student's occupation/educational goal and approved by the program instructor.

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
**All students in this program must contact a Management Program instructor prior to enrolling in one of the Management Internship courses.

BUSINESS: MARKETING

MANAGEMENT
Internship Certificate

Program Description:
Learning to do, doing to learn. That's the essence of the Management Internship option, designed not only to help students develop the managerial skills they must have to prosper in today's business world, but also to practice those skills in their own business setting. This option combines formal classroom study with a student-internship project at the student's place of employment. This option is recommended for current managers who wish to advance and need additional management training, those recently promoted to managerial positions, or those who have been identified by their employer as having managerial potential.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and information Technology Divisions:
Northeast: (918) 595-7439, Southeast: (918) 595-7639
Counseling Centers: Northeast: (918) 595-7527,
Southeast: (918) 595-7651

This program is offered at the Northeast Campus, the Southeast Campus, and on-site at corporations and organizations in the greater Tulsa area.

Certificate Requirements Credit Hours: 30

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Management 24 hours
**MGMT 1343 Management Internship I
**MGMT 1363 Management Internship II
**MGMT 2303 Management Internship III
*MGMT 2323 Organizational Behavior
**MGMT 2343 Management Internship IV
*MGMT 2353 Business Policy

and select one course from the following:
MGMT 1353 Management Essentials
MGMT 2363 Principles of Management
and select one course from the following:
*MGMT 1373 Human Resources Management
*MGMT 2413 Global Management
*MGMT 2423 Entrepreneurship Management

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).
**All students in this program must contact a Management Program instructor prior to enrolling in one of the Management Internship courses.

MANAGEMENT
Management Leadership Certificate

Program Description:
The Management Leadership option will prepare students for a wide range management and leadership positions. For students already in the workforce, this option will equip them with the necessary skills for success in the business world, and help perfect the skills they already possess. This option will help managers and leaders succeed in their current positions, and prepare them for further career advancement. This option is designed to provide the human, practical, and conceptual skills necessary to successfully manage and lead organizations in the 21st Century.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Divisions:
Northeast: (918) 595-7439, Southeast (918) 595-7639
Counseling Centers: Northeast: (918) 595-7527,
Southeast (918) 595-7651

This program is offered at the Northeast Campus, Southeast Campus, corporations, and organizations in the Greater Tulsa area.

Certificate Requirements Credit Hours: 15

Management 15 hours
*MGMT 1373 Human Resources Management
and select one course from the following:
MGMT 1233 Health Care Management
MGMT 1353 Management Essentials
MGMT 2363 Principles of Management
and select one course from the following:
MGMT 2123 Leadership Development
*MGMT 2323 Organizational Behavior
and select two additional courses from the following:
MGMT 1343 Management Internship
MGMT 2103 Workforce Development Internship
MGMT 2123 Leadership Development
*MGMT 2353 Business Policy
MGMT 2403 Critical Thinking for Results

Total Credit Hours: 15
*Course has prerequisite (See course description selection of catalog).

MARKETING
Northeastern State University Transfer Option

Program Description:
This program is designed to provide the student with fundamental skills, attitudes, and experience in Marketing, Communication, Customer Service, Consumer Behavior and Sales. The curriculum includes core courses that students are required to complete in the first two years of marketing study. Students will be provided with the necessary skills to obtain employment in a marketing position. Graduates of this program will be prepared to continue course work toward a baccalaureate degree in any of the options within the Marketing program at Northeastern State University.

Degree Awarded: Associate in Science

For More Information:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: (918) 595-7651

General Education Requirements Credit Hours: 37-38

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

BUSINESS: MARKETING

Humanities 6 hours
HUM 2113 Humanities I
or
HUM 2223 Humanities II
and select one of the following courses
PHIL 1113 Introduction to Philosophy
HIST 1053 Ancient Medieval Western History
Art 1113 Art Appreciation
MUSC 1113 Music Appreciation

Mathematics 3 hours
*MATH 1513 College Algebra

Science 7-8 hours
Select one course from each of the following groups. At least one course must be a laboratory science.
*BIOL 1604 Zoology
*CHEM 1114 Principles of Chemistry
GEOL 1014 General Geology (Physical)
and
BIOL 1114 General Biology for Non-Majors
HT 1303 Principles of Horticulture Technology
*PHSC 1114 General Physical Science

Social Sciences 9 hours
GEOG 1043 Introduction to Cultural Geography
POLS 1113 American Federal Government
and select one from the following:
HIST 1483 U.S. History 1492 to Civil War
HIST 1493 U.S. History Civil War to Present

Required Electives 6 hours
Select two courses from the following disciplines:
Psychology, Social Science, Foreign Language, Fine Arts

Specialized Course Requirements Credit Hours: 30

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Economics 6 hours
ECON 2013 Principles of Macroeconomics
*ECON 2023 Principles of Microeconomics

Marketing 12 hours
MKTG 1313 Sales and Negotiations
*MKTG 2363 Consumer Behavior
MKTG 2423 Principles of Marketing
and select one course from the following:
MKTG 2343 Customer Service
*MKTG 2393 Advertising and Promotion Management

Speech 3 hours
SPCH 1113 Speech Communication I

Total Credit Hours: 67-68
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

MARKETING
Oklahoma State University - Transfer Option

Program Description:
This program is designed to provide the student with fundamental skills, attitudes, and experience in Marketing, Communication, Customer Service, and Sales. Graduates of the program will be prepared to continue coursework toward a baccalaureate degree in any of the options within the Marketing program at Oklahoma State University.

Degree Awarded: Associate in Science

For More Information:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: (918) 595-7651

General Education Requirements Credit Hours: 37

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Science 7 hours
Select one 4-hour course from the following:
*PHSC 1114 General Physical Science
*CHEM 1114 Principles of Chemistry
GEOL 1014 General Geology
BIOL 1114 General Biology for Non-Majors
*BIOL 1604 Zoology
and any 3 hours of General Education courses designated as science

Social Sciences 9 hours
GEOG 1043 Introduction to Cultural Geography
POLS 1113 American Federal Government
and select one from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Humanities 6 hours
Select one of the following:
HUM 2113 Humanities I
HUM 2223 Humanities II
and select one of the following:
PHIL 1113 Introduction to Philosophy
HIST 1053 Ancient Medieval Western History
Art 1113 Art Appreciation
MUSC 1113 Music Appreciation

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Required Electives 3 hours
Select one course Social / Behavioral Science

Specialized Course Requirements Credit hours: 27

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting

BUSINESS: MARKETING

Economics 6 hours
ECON 2103 Introduction to Macroeconomics
*ECON 2023 Introduction to Microeconomics

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Speech 3 hours
SPCH 1113 Speech Communication I

Marketing 9 hours
MKTG 1313 Sales & Negotiations
MKTG 2343 Customer Service
*MKTG 2393 Advertising and Promotion

Total Credit Hours: 64

*Course has prerequisite (see course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

MARKETING
Apparel Design and Merchandising OSU - Stillwater Transfer

Program Description:
Apparel Design and Merchandising degrees include the study of Marketing Principles, Drawing, Fashion Innovation Design, and Product Development. Further study of Human Development, Psychology, Sociology and Leadership are included. The curriculum includes courses generally completed in the first two years in a four-year curriculum. This program curriculum is designed to prepare students to transfer to Oklahoma State University to complete a baccalaureate degree in Apparel Design or Merchandising.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 37-38

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Social Science 6 hours
HIST 1483 U.S. History 1492 to Civil War Era
and select one course from the following:
HIST 1493 U.S. History Civil War Era to Present
POLS 1113 American Federal Government

Science 7-8 hours
select one course from the following:
CHEM 1034 Practical Chemistry
*CHEM 1114 Principles of Chemistry
or
*CHEM 1315 General Chemistry I
and 3 hours of general education courses designated as science including DHM 2573, available at OSU-Tulsa.

Humanities 3 hours
3 hours designated as humanities in the General Education Requirements.

Mathematics 6 hours
*MATH 1513 College Algebra
and
****3 hours designated as math in the General Education Requirements.**

Speech 3 hours
SPCH 1113 Speech Communication I

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Economics 3 hours
ECON 2013 Principles of Macroeconomics

Specialized Course Requirements Credit Hours: 27

Art 3 hours
ART 1013 Fundamentals of Art I

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Sociology 3 hours
SOCI 1113 Introduction to Sociology

Management 3 hours
MGMT 2123 Leadership Development

Marketing 6 hours
MKTG 1313 Sales and Negotiations
MKTG 2423 Priciples of Marketing

Human Development 3 hours
and select one course from the following:
CHLD 2003 Child Development and Parenting
HSVC 2023 Lifespan Development Within A Family Perspective
PSYC 2023 Developmental Psychology

Select One Option from either Apparel Design or Apparel Merchandising 6 hours

Apparel Design***
*ART 1123 Drawing I
MKTG 2423 Principles of Marketing

Apparel Merchandising
ACCT 2213 Financial Accounting
and select one of the following:
MKTG 1313 Sales and Negotiations
MKTG 2343 Customer Service

Total Credit Hours: 64-65
*Course has a prerequisite (See course description section of the catalog).
**Students are encourage to take MATH 2193 Elementary Statistics.
To receive an A.A. or A.S. Degree, students must demonstrate computer
*** To be accepted into the junior level professional apparel design program at Oklahoma State University, all students must pass the OSU portfolio review process. Therefore, all are and design projects should be saved.

NEED A PLAN? LET CAREER SERVICES HELP.
Metro Campus: (918) 595-7109 • Northeast Campus: (918) 595-7527
Southeast Campus: (918) 595-2215 • West Campus: (918) 595-8176
www.tulsacc.edu/careerservices

BUSINESS: MARKETING

MARKETING

Program Description:
This program is designed to provide students the opportunity to engage in a hands-on approach to marketing. Participants of this program learn the essentials of marketing, how to create professional sales presentations, develop advertising campaigns, write press releases, develop marketing websites, conduct market research and much more. This program is designed to prepare the student for successful employment in a marketing position. The marketing job market remains strong with high salary potential. Graduates of the program qualify for many marketing career opportunities including assistant buyer, customer service consultant, data analyst, event coordinator, marketing assistant, project manager, sales representative, and telemarketing representative. The program also allows for marketing internship opportunities.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

General Education Requirements Credit Hours: 18

Economics 3 hours
select one course from the following:
ECON 1353 Personal Finance
ECON 2013 Principles of Macroeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2343 Business Communications

Mathematics 3 hours
Select one course from the following:
*MATH 1513 College Algebra
BUSN 1353 Business Mathematics

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 30

Accounting 3 hours
ACCT 2213 Financial Accounting

Business and Management 9 hours
BUSN 1053 Introduction to Business
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management

Computer Information Systems 3 hours
Select 3 credit hours from any Computer Information Systems (CSYS/CSCI) courses.

Marketing 15 hours
MKTG 1313 Sales and Negotiations
MKTG 2343 Customer Service
*MKTG 2363 Consumer Behavior
*MKTG 2393 Advertising and Promotion Management
MKTG 2423 Principles of Marketing

Controlled Electives Credit Hours: 12

APPR 1203 Apprenticeship
APPR 1306 Apprenticeship I
*ACCT 2223 Managerial Accounting
BUSN 1143 Introduction to Ethics: Business Issues
*CSYS 1033 Adobe Photoshop
*CSCI 1711 Introduction to PowerPoint
*MGMT 2103 Workforce Development Internship
MKTG 1333 Fashion Innovation and Marketing
MKTG 1371 Introduction to Customer Service
MKTG 1381 Marketing on the Internet
* **MKTG/CSYS 1393 Web Design & Marketing
MKTG 1403 Marketing Internship I
MKTG/CSYS 1443 Electronic Commerce
MKTG 2433 Product Development
*MKTG 2813 International Marketing

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
** Course can serve as either a MKTG or CSYS Credit. Students should choose either the MKTG or CSYS Discipline when enrolling.

MARKETING
Customer Service Certificate

Program Description:
This program provides students with an overall understanding of multiple marketing elements. Students will have the opportunity to expand their understanding of customer service, professional sales, consumer behavior, and advertising. This program gives students the necessary skills to gain employment in a marketing position and to excel in this dynamic aspect of business.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

Certificate Requirements Credit Hours: 30

Business 3 hours
BUSN 1053 Introduction to Business

Computer Information Systems 3 hours
Select 3 credit hours from any Computer Information Systems (CSCI/CSYS) courses.

English 3 hours
Select one course from the following:
*ENGL 1113 Freshman Composition I
*BUSN 2343 Business Communications

Management 6 hours
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management

BUSINESS: MARKETING

Marketing 15 hours
MKTG 1313 Sales and Negotiations
MKTG 2343 Customer Service
*MKTG 2363 Consumer Behavior
*MKTG 2393 Advertising and Promotional Management
MKTG 2423 Principles of Marketing

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog.

MARKETING
Disney Internship Option

Program Description:
This program is designed to develop fundamental skills, knowledge, attitudes, and experiences needed to function in industrial, retailing, hospitality, international, or customer service marketing positions. This option allows students the opportunity to participate for one semester in the Disney internship program in Orlando, Florida. Students must meet all the requirements to be accepted into the Disney program. Students must also meet with a full-time Marketing instructor to gain up to 9 hours credit for their internship experience.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

General Education Requirements Credit Hours: 18

Economics 3 hours
Select one course from the following
ECON 1353 Personal Finance
ECON 2013 Principles of Macroeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2343 Business Communications

Mathematics 3 hours
Select one course from the following:
*MATH 1513 College Algebra
BUSN 1353 Business Mathematics

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 42

Accounting 3 hours
ACCT 2213 Financial Accounting

Business 3 hours
BUSN 1053 Introduction to Business

Computer Information Systems 3 hours
Select 3 credit hours from any Computer Information Systems (CSYS/CSCI) courses.

Management 6 hours
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management

Marketing 24 hours
MKTG 1313 Sales and Negotiations
MKTG 2343 Customer Service
*MKTG 2363 Consumer Behavior
*MKTG 2393 Advertising and Promotion Management
MKTG 2423 Principles of Marketing
**MKTG 1403 Marketing Internship I
**MKTG 1423 Marketing Internship II
**MKTG 1433 Marketing Internship III

Controlled Electives 3 hours
MKTG 1333 Fashion Innovation and Marketing
*MKTG 1393 Web Design and Marketing
MKTG 1443 Electronic Commerce
MKTG 2433 Product Development
*MKTG 2813 International Marketing

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
** Students should work with a full-time Marketing instructor to plan their course of study.

MARKETING
E-Business

Program Description:
E-Business Marketing is a fast growing element of the business world. This program is designed to develop fundamental principles of marketing, sales, advertising, customer service, and Internet marketing. This curriculum includes the traditional elements of marketing as well as preparing the student to conduct marketing on the Internet. The course of study includes multiple elements of Computer Information Systems and E-Business Marketing. This program is designed for the student who wants to learn the marketing skills related to E-Business, develop marketing websites, or enhance an existing business with an Internet element. Students could qualify for employment in marketing or website design, or as a web master.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

General Education Requirements Credit Hours: 15

Economics 3 hours
ECON 2013 Principles of Macroeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2343 Business Communications

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:

HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 45

Business 3 hours
BUSN 1053 Introduction to Business

Computer Information Systems 6 hours
*CSYS 1033 Adobe Photoshop
CSCI 1203 Computer Concepts and Applications

Marketing & Computer Information Systems 6 hours
*MKTG/CSYS 1393 Web Design & Marketing
*MKTG/CSYS 1443 Electronic Commerce

Marketing 12 hours
MKTG 1313 Sales and Negotiations
MKTG 2343 Customer Service
*MKTG 2393 Advertising and Promotion Management
MKTG 2423 Principles of Marketing

Management 6 hours
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management

Controlled Electives 12 hours

Select 12 hours from the following:
ACCT 2213 Financial Accounting
*ACCT 2223 Managerial Accounting
*CSYS 1013 XHTML
*CSYS 2153 Advanced XHTML Technologies
*CSCI 2163 Windows Operating Systems
*CSCI 2483 PowerPoint/ Multimedia
MKTG 1403 Marketing Internship I
*MKTG 2363 Consumer Behavior
*MGMT 2423 Entrepreneurship Management
MKTG 2433 Product Development
*MKTG 2813 International Marketing

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).

MARKETING
E-Business Certificate

Program Description:
This certificate program includes all the fundamental elements of marketing as well as multiple elements of Computer Information Systems. Students will develop skills in customer service, professional sales, consumer behavior, advertising, and marketing principles. Students will develop skills in web-based application and website administration as well as learning some programming languages. This program provides students with fundamental marketing skills as well as the tools necessary to create marketing websites on the Internet. Students will gain the skills to be eligible for employment in a marketing or website development position.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Business and Information Technology Division:
Southeast: (918) 595-7639
Counseling Center: Southeast: (918) 595-7651

Certificate Requirements Credit Hours: 30

Marketing 12 hours
MKTG 1313 Sales and Negotiations
MKTG 2343 Customer Service
*MKTG 2393 Advertising and Promotion Management
MKTG 2423 Principles of Marketing

Computer Information Systems 6 hours
*CSYS 1033 Adobe Photoshop
CSCI 1203 Computer Concepts and Applications

Management 6 hours
MGMT 2123 Leadership Development
MGMT 2363 Principles of Management

Marketing/Computer Information Systems 6 hours
*MKTG 1393 Web Design & Marketing
*MKTG 1443 Electronic Commerce

Total Credit Hours: 30

*Course has prerequisite (See course description section of catalog).

BUSINESS

Community Services Area of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Child Development and Early Childhood Education

- Child Development, Child Care Administration OSU option, AS
- Early Childhood Education Langston option, AS
- Early Childhood Education OSU option, AS
- Early Childhood Education OU option, AS
- Child Development options in:
  - Center Director, AAS
  - Child & Family, OSU option, AS
  - Child Development Certificate of Mastery, CER
  - Child Development Credential Preparation (CDA), CER
  - Early Childhood, AAS
  - Head Start Credential, CER
  - Infant Toddler, AAS
  - Infant/Toddler Certificate of Mastery, CER
  - Middle Childhood, AAS
  - Residential Child and Youth Professional, CER
  - Youth Development Certificate, CER
  - Youth Development Certificate of Mastery, CER
  - Teacher Assistant, AAS

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Education

- Education, AA:
  - Elementary Education, AA / Secondary Education, AA / Elementary Education LU option, AA
- Health & Human Performance, AS
  - Health & Human Performance OSU option, AS
- Interpreter Education, UALR option, AS
- Interpreter Education, AAS/CER
- Physical Education, AS

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Human Services

- Human Services, AS/AAS/CER
- Additional options:
  - Child & Family Services OSU option, AS
  - Human Development St. Gregory option, AS
  - Human Relations OU option, AS
  - Pre-Social Work NSU/ORU/OU option, AS
  - Therapeutic Recreation OSU option, AS
  - Chemical & Alcohol Dependency Counseling, AAS
  - Community Services Management, AAS
  - Corrections, AAS
  - Developmental Disabilities, AAS
  - Direct Support Professional, CER
  - Family Studies SNU option, AAS
  - Gerontology, AAS

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Law, Public Administration and Safety and Corrections

- Criminal Justice, AA
- Emergency Medical Technology, AAS
- Fire & Emergency Services, AS/CER
- FESR Emergency & Community Preparedness, CER
- Law Enforcement, AAS
- Law Enforcement Collegiate Officer, AAS

Paralegal, AA/AAS (Political Science see Arts & Communications, Liberal Arts & Social Sciences)

COMMUNITY SERVICE: CHILD DEVELOPMENT & EARLY CHILDHOOD EDUCATION

CHILD DEVELOPMENT
Early Care, OSU Transfer Option

Program Description:
This curriculum includes degree requirements and courses generally completed in the first two years of a four-year degree plan. This degree is for students wanting a professional career in early care and ecducation. Career choices include Head Start, Early Head Start, child care, infant-toddler and preschool teacher as well as other early care and education professional positions. Students in this degree plan should plan to take the Oklahoma General Educataion Test during the last semester at TCC.

NOTE: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for the $15 fee and returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify student that he/she may enroll in Child Development laboratory courses.

(A) Students in this degree option who plan to transfer to OSU-Tulsa and who have a CDA certificate of achievement from TCC with a letter grade of "C" or better in each of the certificate courses, should check with the academic advisor at OSU-Tulsa for potential transfer credit of 8 hours toward the Child Care Administration Bachelor of Science degree at Oklahoma State University.

B) Students by have taken the Oklahoma General Education Test before transferring to OSU-Tulsa.

C) TCC students graduating with this transfer degree option must take the following OSU junior level courses at the OSU-Tulsa Campus: HDFS 3213, HDFS 3223, HDFS 3201 and HDFS 3103.

Degree Awarded: Associate in Science

For More Information Contact:,
Liberal Arts Division, Child Development Academic Program:
West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 31
Recommended electives satisfied in specialized course requirements.

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See General Education Requirement page for complete list.

Mathematics 3 hours
Select three credit hours from the following:
*MATH 1473 Mathematics for Critical Thinking
*MATH 1483 Mathematical Functions and their Uses
*MATH 1513 College Algebra

Science 7 hours
BIOL 1383 Nutrition
See the General Education Requirements to select a lab science course.

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 29

Accounting 3 hours
ACCT 1003 Introduction to Accounting
ACCT 2213 Financial Accounting

Child Development 21 hours
^CHLD 2003 Child Development in the Lifespan
^*CHLD 2103 Child Guidance
^*CHLD 2113 Child Care Center Management I
^*CHLD 2223 Early Childhood Foundations
^*CHLD 2233 Physical Development and Creative Expression:

Early Childhood
^*CHLD 2313 Child Care Center Management II
^*CHLD 2513 Programming for Infants and Toddlers

Mathematics 3 hours
*MATH 2193 Elementary Statistics

Recommended Electives 2-3 hours
CHLD 2023 Child Development & Parenting
CHLD 2203 Child and Family in the Community
CHLD 2213 Children with Special Needs
CHLD 2341 Brain Development
CHLD 2421 Children & Trauma
CHLD 2701 Child Abuse & Neglect

Total Credit Hours: 60
*Course has prerequisite (See course description section of TCC catalog).
**Students should consult the Family Relations and Child Development counselor at the OSU-Tulsa Campus to select electives that will meet requirements for the baccalaureate degree tracks in Child and Family Services at Oklahoma State University.
^Course must be completed with a "C" or better.
Students should be aware that any violation in this degree plan might result in hours that will not transfer to Oklahoma State University.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do no count toward the associate degree requirements in this curriculum at TCC.

CHILD DEVELOPMENT
Early Care, NSU Transfer Option

Program Description:
This curriculum includes degree requirements and courses generally completed in the first two years of a four-year curriculum plan in Family and Consumer Sciences at Northeastern State University. This degree is for students wanting a professional career working in community agencies and programs providing services to children, youth, and families. Career options include Head Start programs, childcare,

COMMUNITY SERVICE: CHILD DEVELOPMENT & EARLY CHILDHOOD EDUCATION

university extension agents, middle and high school teachers, parent educators, as well as other choices. Students should consult the Northeastern State University transfer catalog and carefully select courses that will meet the requirements for both the baccalaureate and associate degree programs. Suggested courses are listed in this curriculum plan.

NOTE: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office L-144 at TCC West Campus. Students are responsible for the $15 fee and for returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify the student that he/she may enroll in (CHLD 2223) Child Development laboratory courses. Those individuals seeking teacher certification should immediately consult with the NSU College of Education for additional requirements.

Degree Awarded: Associate in Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program:
West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 41-42

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Humanities 6 hours
See the General Education Requirements to select 6 hours of Humanities.

Mathematics 3 hours
See General Education Requirement page for complete list.

Science 11-12 hours
BIOL 1114 General Biology for Non-Majors
BIOL 1383 Nutrition
and select one course from the following:
*PHSC 1114 General Physical Science
*CHEM 1315 General Chemistry
ASTR 1104 General Astronomy
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Specialized Course Requirements Credit Hours: 21

Child Development
^CHLD 2003 Child Development in the Lifespan
^18 Additional hours (select any course with CHLD in the prefix)

Controlled Electives Credit Hours: 3
INTD 1313 Interior Design Orientation
or
*INTD 2313 Professional Practice

Total Credit Hours: 65-66
*Course has prerequisite (See course description section of TCC catalog).
^Course must be completed with a "C" or better.
Students should be aware that any variation in this degree plan might result in hours that will not transfer to NSU.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

CHILD DEVELOPMENT
Child and Family , OSU Transfer Option

Program Description:
This curriculum includes degree requirements and courses generally completed in the first two years of a four-year curriculum. This degree is for students wanting a professional career working in community agencies and programs providing services to children and families. Career paths include child life specialist, family life educator, pre medicine, pre-law, child policy and advocacy and other options. Students should consult the Oklahoma State University transfer catalog and carefully select courses that will meet the requirements for both the baccalaureate and associate degree programs. Suggested courses for Oklahoma State University are listed in the curriculum. Students should consult the Family Relations and Child Development counselor at the OSU-Tulsa Campus to select electives that will meet requirements for the baccalaureate degree tracks in the College of Human Environmental Sciences at Oklahoma State University.

NOTE: Students in this degree option who plan to transfer to OSU-Tulsa and who have a CDA certificate of achievement from TCC with a letter grade of "C" or better in each of the certificate courses, should check with the academic advisor at OSU-Tulsa for potential transfer credit of 8 hours toward the Child and Family Services Bachelor of Science degree.

NOTE: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for the $15 fee and for returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify the student that he/she may enroll in Child Development laboratory courses.

Degree Awarded: Associate in Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program,
West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

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General Education Requirements Credit Hours: 37

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See General Education Requirement page for complete list.

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Science 7 hours
BIOL 1383 Nutrition
See the General Education Requirements to select a lab science course.

Social and Behavioral Sciences 3 hours
SOCI 1113 Introduction to Sociology
PSYC 1113 Introduction to Psychology
Any course designated as a social science in the OSU Transfer Guide.

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 15

Child Development
^CHLD 2003 Child Development in the Lifespan
^CHLD 2023 Child Development and Parenting
^*CHLD 2103 Child Guidance
^CHLD 2203 Child and Family in the Community
^CHLD 2213 Children with Special Needs

**Recommended Electives Credit Hours: 8
CSCI 1203 Computer Concepts and Applications
PSYC Select any courses
SOCI Select any courses
See Note (A) under Program Description

Total Credit Hours: 60
*Course has prerequisite (See course description section of TCC catalog).
**Students should consult the Family Relations and Child Development counselor at the OSU-Tulsa Campus to select electives that will meet requirements for the baccalaureate degree tracks in Child and Family Services at Oklahoma State University.
^Course must be completed with a "C" or better.
Students should be aware that any variation in this degree plan might result in hours that will not transfer to Oklahoma State University.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

CHILD DEVELOPMENT
Early Childhood Education Programs

NOTE:
(A) All Teacher Education majors are required to take the OGET (Oklahoma General Education Test) prior to admission to professional education programs at the university. Please visit the Counseling Center at any campus for information about the OGET.
(B) Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for the $15 fee and for returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify that student that he/she may enroll in Child Development laboratory courses.
(C) National Council for Accreditation of Teacher Education (NCATE) is the national accrediting program for teacher education. The council requires that students in teacher education programs at 4-year colleges complete a portfolio. Students in Child Development or Education degree programs at Tulsa Community College should save all assignments from those courses for possible inclusion in the portfolio. Contact the college where you plan to transfer for specific portfolio requirements.
(D) Prior to graduation from a 4-year college or university, students must complete (with a grade of "C" or higher) a minimum of:
12 hours of Communication Arts
12 hours of Social Science
12 hours of Math
12 hours of Science
Demonstrate Proficiency in a language other than English.
(E) Students should be aware that any variation in this degree plan might result in hours that will not transfer to named university.
(F) To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

CHILD DEVELOPMENT
Early Childhood Education - LU Transfer Option

Program Description:
This curriculum includes degree requirements and courses generally completed in the first two years of a four-year curriculum. The degree is for students who want to receive Oklahoma Teacher Certification and teach at the early childhood level. Students should work with an academic counselor at Tulsa Community College West Campus to carefully select courses that will meet the Langston baccalaureate and the TCC associate degree programs. Students in this degree should plan to take the Oklahoma General Education Test during the last semester at TCC. Upon completion of the four-year curriculum at Langston, a student will be prepared to apply for an Oklahoma Teacher Certificate in

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Early Childhood Education. A grade of "C" or better is required in the coursework for this curriculum and students must maintain a 2.5 GPA to graduate from Langston University.

Degree Awarded: Associate in Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 35
Two (2) additional credit hours of General Education Requirements are satisfied in specialized course requirements.

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See General Education Requirement page for complete list.

Mathematics 3 hours
See General Education Requirement page for complete list.

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Science 8 hours
*PHSC 1114 General Physical Science
BIOL 1114 General Biology for Non-Majors
(**Courses in Physics, Chemistry, Zoology may be substituted. One of the courses must have a lab.)**

Social Science 6 hours
POLS 1113 American Federal Government
and select 1 of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 16
^CHLD 2003 Child Development in the Lifespan
^CHLD 2031 Early Field Experience
^*CHLD 2103 Child Guidance
^CHLD 2133 Middle Childhood Foundations
^*CHLD 2173 Historical & Philosophical Foundations of Schools
^*CHLD 2223 Early Childhood Foundations

Recommended Electives Credit Hours 9
Select 9 hours from the following:
CSCI 1203 Computer Concepts and Applications
ENGL 1003 Strategies for Academic Success
GEOG 1043 Introduction to Cultural Geography
MATH 2423 Mathematics Concepts for Educators
*MATH 2553 Geometry and Measurement
SPCH 2103 Interpersonal Communication

Foreign Language 0-6 hours
Students must meet the university requirement of two college-level courses in a single foreign language or successful completion of 2 years of foreign language in high school and pass a proficiency test.

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
^ Course must be completed with a "C" or better.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
To receive an A. A. or A. S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Note: Prior to graduation from a 4-year college or university, students majoring in Early Childhood, Elementary Education or Special Education must complete (With a grade of "C" or higher) a minimum of:
12 hours in Communication Arts
12 hours in Social Science
12 hours in Math
12 hours in Science
Demonstrate Proficiency in a language other than English

CHILD DEVELOPMENT
Early Childhood Education - OSU Transfer Option

Program Description:
This curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. This degree is for those students who want to teach preschool and primary grade children. Students should consult the Oklahoma State University transfer guide and carefully select courses that will meet the requirements for both the baccalaureate and associate degree programs. Suggested courses for Oklahoma State University are listed in the curriculum. Upon completion of the four-year degree at OSU, students will be prepared to apply for an Oklahoma Teacher's Certificate in Early Childhood Education.

Degree Awarded: Associate in Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 50

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Foreign Language 9 hours
Select 9 hours from one language:
CHI, FRE, GER, JPN, RUS, SPAN, INTD

Geography 3 hours
select 3 credit hours from the following:
GEOG 2033 World Regional Geography
GEOG 1043 Introduction to Cultural Geography

Humanities 6 hours
*ENGL 2413 Introduction to Literature
and one of the following
HUMN 2113 Humanities I
HUMN 2223 Humanities II
Art 1113 Art Appreciation

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MUSC 1113 Music Appreciation

Mathematics 6 hours
*MATH 1513 College Algebra
and one of the following
*MATH 2193 Elementary Statistics
*MATH 1473 Mathematics for Critical Thinking
*MATH 1483 Mathematics Functions and Their Uses
*MATH 1613 Plane Trigonometry
*MATH 2193 Elementary Statistics
*MATH 2523 Calculus for Business, Life, and Social Sciences

Science 11 hours
BIOL 1114 General Biology for Non-Majors
BIOL 1383 Nutrition
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 13

Child Development
^CHLD 2003 Child Development in the Lifespan
^CHLD 2031 Early Field Experience
^*CHLD 2223 Early Childhood Foundations
^*CHLD 2233 Physical Development and Creative Expression: Early Childhood
^*CHLD 2513 Programming for Infants and Toddlers

Total Credit Hours: 63

*Course has prerequisite (See course description section of TCC catalog).
^Course must be completed with a "C" or better.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

CHILD DEVELOPMENT
Early Childhood Education - OU Transfer Option

Program Description:
This curriculum includes degree requirements and courses generally completed in the first two years of a four-year curriculum. This degree is for students who want to teach infants through third grade children. Students should consult the University of Oklahoma transfer catalog and work with an academic counselor at TCC or OU to carefully select courses that will meet the baccalaureate and associate degree programs. Students in this degree plan should plan to take the Oklahoma General Education Test during the last semester at TCC. Upon completion of the four-year curriculum at OU, students will be prepared to apply for an Oklahoma Teacher's Certificate in Early Childcare. A grade of "C" or better is required in the coursework for this curriculum and students must maintain a 2.75 GPA to graduate from the University of Oklahoma.

Degree Awarded: Associate in Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program:
West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 48-49

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
*ENGL 2413 Introduction to Literature
and select one course from the following:
PHIL 1113 Introduction to Philosophy
PHIL 1223 Religions of the World: The Western Tradition
PHIL 2133 Introduction to Ethical Thinking

Mathematics 12 hours
*MATH 1473 Mathematics for Critical Thinking
*MATH 2423 Mathematics Concepts for Educators
*MATH 2553 Geometry and Measurement
and select one course from the following
*MATH 1483 Mathematics Functions and their uses
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Science 12-13 hours
BIOL 1114 General Biology for Non-Majors
*PHSC 1114 General Physical Science
Any 2000 level (4-5 hour) Science course from the General Education List, or:
BIOL 1383 Nutrition
and
PHSC 2151 The Nature of Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 3 hours
SOCI 1113 Introduction to Sociology

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 12

Child Development 10 hours
+^CHLD 2003 Child Development in the Lifespan
+++^CHLD 2031 Early Field Experience
^*++CHLD 2233 Physical Development and Creative Expression: Early Childhood
^*+CHLD 2513 Programming for Infants and Toddlers

Physical Education 2 hours
PHED 2212 First Aid

Recommended Electives Credit Hours: 0-6

Foreign Language 0-6 hours
Students must meet the university requirement of two college-level courses in a single foreign language or successful

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completion of 2 years of foreign language in high school and pass a proficiency exam at OU, Norman.

Total Credit Hours: 66-67

*Course has prerequisite (See course description section of TCC catalog).
^Course must be completed with a "C" or better.
+CHLD 2513 and CHLD 2003 for OU EDEC 3413
++CHLD 2233 for OU EDEC 2203
+++CHLD 2031 for 1 hour Elective Credit at OU
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

CHILD DEVELOPMENT
Center Director Option

Program Description:

This degree is for individuals who want to become a director of a child care center. It is also for those who are already employed as a director and who want to upgrade their knowledge and skills to perform their duties more effectively or to advance to a position of more responsibility. The course of study combines instruction in child development, business, management, and accounting to provide students the diverse training and preparation needed to be a center director. Students should check with the Oklahoma Department of Human Services Child Care Licensing Unit prior to enrollment in the program to see if they have the necessary work experience to qualify as a candidate for director of a small or large child care center.

NOTE: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for $15 fee and returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify that student that he/she may enroll in Child Development laboratory courses. NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 21

Biology 3 hours
BIOL 1383 Nutrition

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical Professional Writing

Physical Education 3 hours
PHED 1113 Personal, School, and Community Health

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 30

Accounting 3 hours
ACCT 1003 Introduction to Accounting
ACCT 2213 Financial Accounting

Child Development and Family Relations 21 hours
^CHLD 2003 Child Development in the Lifespan
^*CHLD 2103 Child Guidance
^CHLD 2113 Child Care Center Management I
^CHLD 2203 Child and Family in the Community
^*CHLD 2223 Early Childhood Foundations
^*CHLD 2253 Child Development Practicum
^*CHLD 2313 Child Care Center Management II

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Management 3 hours
MGMT 2363 Principles of Management

Controlled Electives Credit Hours: 9

CHLD Select Any Courses
CSCI Select Any Courses
SPAN Select Any Courses
BUSN 2313 Business Law I
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Services
HUMN 2113 Humanities I
HUMN 2223 Humanities II
INTD 1363 American Sign Language I
INTD 1413 Deaf Culture
MUSC 1002 Fundamentals of Music
MUSC 1113 Music Appreciation
PHED 2212 First Aid
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
*PSYC 2023 Developmental Psychology
*PSYC 2523 Child Psychology
SOCI 1113 Introduction to Sociology
*SOCI 2013 Marriage and Family
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^Course must be completed with a "C" or better.
Students who have completed CHLD 1102, CHLD 1202, CHLD 1302, and CHLD 1402 with a grade of "C" or better may apply these credits toward any TCC Child Development Associate in Applied Science degree as controlled electives. Students who have earned a CDA credential may apply 9 hours controlled elective credit toward any TCC Child Development Associate in Applied Science degree. Students may contact the West Campus Registrar's Office. Students wanting to transfer to a four-year college or university should contact a counselor in the West Campus Counseling Center.

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CHILD DEVELOPMENT
Certificate of Mastery

Program Description:
This curriculum is designed to meet the requirements for the R.E.W.A.R.D. Oklahoma Supplement Scale. Courses address the CDA competencies and functional areas designed to prepare students for positions in either early childhood or infant-toddler or family child care programs. As part of this curriculum plan, students complete the application and assessment process for the Child Development Associate (CDA) National Credential administered by the Council for Early Childhood Professional Recognition. Students must have completed 480 hours of experience working with children within the past 5 years to apply for the CDA Credential. Students who achieve a grade of "C" or better in the CDA preparation courses may apply the credits toward any TCC Child Development Associate of Applied Science degree as controlled electives. Students take an additional Child Development course and Freshman Composition I in this plan. Students requesting advanced standing for a previously earned CDA credential should refer to page 20, Credit by Advanced Standing in this catalog.

NOTE: Persons convicted of a crime should check with the Oklahoma State Department of Human Services Child Care Licensing Unit prior to enrollment in this program.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements Credit Hours: 18

Child Development (CDA Preparation Courses) 9 hours
CHLD 1102 CDA: Competencies 1 & 4
CHLD 1202 CDA: Competency 3
CHLD 1302 CDA: Competency 2
CHLD 1402 CDA: Competencies 5 & 6
CHLD 1501 CDA: Application and Assessment Preparation

English 3 hours
*ENGL 1113 Freshman Composition I

Child Development (select two courses) 6 hours
^CHLD 2003 Child Development in the Lifespan
^CHLD 2023 Child Development and Parenting
*^CHLD 2103 Child Guidance
^CHLD 2113 Child Care Center Management I
^CHLD 2203 Child and Family in the Community
^CHLD 2213 Children with Special Needs
^CHLD 2313 Child Care Center Management II

Total Credit Hours: 18
*Course has prerequisite (See course description section of catalog).
^Course must be completed with a "C" or better.

CHILD DEVELOPMENT
Credential Preparation (CDA)

Program Description:
As part of this curriculum plan, students complete the application and assessment process for the Child Development Associate (CDA) National Credential administered by the Council for Early Childhood Professional Recognition. The program provides an introduction to the physical, social, emotional, and intellectual development of infants and young children. Courses address the CDA competencies and functional areas designed to prepare students for positions in either early childhood or infant-toddler or family child care programs. The Council has approved this CDA instructional program. Students must have completed 480 hours of experience working with children within the past 5 years to apply for the CDA Credential. Students who achieve a grade of "C" or better in these courses may apply the credits toward any TCC Child Development
Associate of Applied Science degree as controlled electives. See the TCC Child Development Associate in Science degrees for credits that may be applied toward university transfer degrees.

NOTE: Persons convicted of a crime should check with the Oklahoma State Department of Human Services Child Care Licensing Unit prior to enrollment in this program.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements Credit Hours: 9

Child Development 9 hours
CHLD 1102 CDA: Competencies 1& 4
CHLD 1202 CDA: Competency 3
CHLD 1302 CDA: Competency 2
CHLD 1402 CDA: Competencies 5 & 6
CHLD 1501 CDA: Application and Assessment Preparation

Total Credit Hours: 9
*Course has prerequisite (See course description section of catalog).

CHILD DEVELOPMENT
Early Childhood

Program Description:
This degree plan is designed to prepare students to work in programs serving preschool children. The curriculum provides a framework for understanding the physical, social, emotional, and intellectual development of young children. Students will learn to design and implement developmentally appropriate programs and activities for preschool children. Students gain practical knowledge and skills necessary for effective communication, teaching, guidance, and motivation of young children as well as for interacting with parents.
NOTE: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for $15 fee and returning their Criminal Background reports to the appropriate TCC office at the Conference Center. Once the

COMMUNITY SERVICE: CHILD DEVELOPMENT & EARLY CHILDHOOD EDUCATION

TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify that student that he/she may enroll in Child Development laboratory courses.

NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Associate in Applied Science

For More Information Contact::
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 21

Biology 3 hours
BIOL 1383 Nutrition

English 6 hours
*ENGL 1113 Freshman Composition I
select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Physical Education 3 hours
PHED 1113 Personal, School, and Community Health

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 30

Child Development 27 hours
^CHLD 2003 Child Development in the Lifespan
*^CHLD 2103 Child Guidance
^CHLD 2203 Child and Family in the Community
^CHLD 2213 Children with Special Needs
*^CHLD 2223 Early Childhood Foundations
*^CHLD 2233 Physical Development and Creative Expression: Early Childhood
*^CHLD 2243 Language and Cognitive Development: Early Childhood
*^CHLD 2253 Child Development Practicum
*^CHLD 2263 Social and Emotional Development: Early Childhood

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Controlled Electives Credit Hours: 9
^CHLD Select Any Courses
CSCI Select Any Courses
SPAN Select Any Courses
ACCT 1003 Introduction to Accounting
*BUSN 2213 Small Business Management
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Services
HUMN 2113 Humanities I
HUMN 2223 Humanities II
INTD 1363 American Sign Language I
INTD 1413 Deaf Culture and History
MUSC 1002 Fundamentals of Music
MUSC 1113 Music Appreciation
PHED 2212 First Aid
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
*PSYC 2023 Developmental Psychology
*PSYC 2523 Child Psychology
SOCI 1113 Introduction to Sociology
*SOCI 2013 Marriage and Family
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
^Course must be completed with a "C" or better.
Students who have completed CHLD 1102, CHLD 1202, CHLD 1302, and CHLD 1402 with a grade of "C" or better may apply these credits toward any TCC Child Development Associate in Applied Science degree as controlled electives. Students who have earned a CDA credential may apply 9 hours controlled elective credit toward any TCC Child Development Associate in Applied Science degree. Students wanting to transfer to a four-year college or university should contact a counselor in the West Campus Counseling Center.

CHILD DEVELOPMENT
Head Start Credential

Program Description:
This certificate of achievement option is a competency based training program designed to build skills and knowledge needed to work with Head Start families. Course curriculum is based on the Head Start Program Performance Standards, Competency Goals and Indicators. A grade of "C" or better is required in each course and a student must successfully complete a portfolio assessment documenting skills and proveniences for each Competency Goal and Indicator to receive the Head Start Credential, Certificate of Achievement. Students who achieve a grade of "C" or better in these courses may apply the credits toward any TCC Child Development Associate in Applied Science degree as controlled electives. See the TCC Child Development Associate in Science degrees for credits that may be applied toward university transfer degrees.

NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements: Credit Hours 9

COMMUNITY SERVICE: CHILD DEVELOPMENT & EARLY CHILDHOOD EDUCATION

Child Development 9 hours
CHLD 1901 Head Start: Commitment and Professionalism
*CHLD 1912 Head Start: Building Relationships
*CHLD 1922 Head Start: Parent Involvement and Services
*CHLD 1932 Head Start: Resources and Assistance
*CHLD 1942 Head Start: Literacy, Culture, and Language

Total Credit Hours: 9
*Course has prerequisite (See course description section of catalog).

CHILD DEVELOPMENT
Infant/Toddler

Program Description:
This degree plan is designed to prepare students to work with infants and toddlers. Courses focus on the social, emotional, physical, intellectual, and language development of children birth to three years of age. Students learn developmentally appropriate program design and activities for infants and toddlers. Students gain practical knowledge and skills necessary for effective communication, nurturing, and facilitating optimal development for infants and toddlers.
Note: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for $15 fee and returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify that student that he/she may enroll in Child Development laboratory courses.
NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 21

Biology 3 hours
BIOL 1383 Nutrition

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Physical Education 3 hours
PHED 1113 Personal, School, and Community Health

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 30

Child Development 27 hours
^CHLD 2003 Child Development in the Lifespan
^*CHLD 2103 Child Guidance
^CHLD 2203 Child in the Family and the Community
^CHLD 2213 Children with Special Needs
^*CHLD 2253 Child Development Practicum
^*CHLD 2263 Social and Emotional Development: Early Childhood
^*CHLD 2513 Programming for Infants and Toddlers
^*CHLD 2523 Physical Development in Infants and Toddlers
^*CHLD 2543 Cognitive and Language Development in Infants and Toddlers

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Controlled Electives Credit Hours: 9
^CHLD Select Any Courses
CSCI Select Any Courses
SPAN Select Any Courses
ACCT 1003 Introduction to Accounting
*BUSN 2213 Small Business Management
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Services
HUMN 2113 Humanities I
HUMN 2223 Humanities II
INTD 1363 American Sign Language I
INTD 1413 Deaf Culture and History
MUSC 1002 Fundamentals of Music
MUSC 1113 Music Appreciation
PHED 2212 First Aid
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
*PSYC 2023 Developmental Psychology
*PSYC 2523 Child Psychology
SOCI 1113 Introduction to Sociology
*SOCI 2013 Marriage and Family
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
^Course must be completed with a "C" or better.
Students who have completed CHLD 1102, CHLD 1202, CHLD 1302, and CHLD 1402 with a grade of "C" or better may apply these credits toward any TCC Child Development Associate in Applied Science degree as controlled electives.
Students who have earned a CDA credential may apply 9 hours controlled elective credit toward any TCC Child Development Associate in Applied Science degree.
Students wanting to transfer to a four-year college or university should contact a counselor in the West Campus Counseling Center.

COMMUNITY SERVICE: CHILD DEVELOPMENT & EARLY CHILDHOOD EDUCATION

CHILD DEVELOPMENT
Infant /Toddler Certification of Mastery

Program Description:
This curriculum is designed to meet the requirements for the R.E.W.A.R.D. Oklahoma Supplement Scale. Courses address infant - toddler development and care and are designed to prepare students for positions in child care programs serving infants and toddlers. Students who achieve a grade of "C" or better in the Infant – Toddler courses may apply the credits toward any TCC Child Development Associate of Applied Science degree as controlled electives. To complete the Certificate of Mastery students must also take Freshman Composition I.

NOTE: Students who intend to follow this degree plan must complete a one - page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for $15.00 fee and returning their criminal background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division Office at West Campus that a student has received criminal background and sex offender clearance, the Liberal Arts Division will notify that student he/she may enroll in Child Development Laboratory courses.
NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements: Credit Hours: 18

Child Development 15 hours
^*CHLD 2513 Programming for Infants and Toddlers
^*CHLD 2523 Physical Development in Infants and Toddlers
^*CHLD 2543 Cognitive and Language Development in Infants and Toddlers
^*CHLD 2263 Social and Emotional Development: Early Childhood
and select 3 credit hours from the following
^CHLD 2003 Child Development in the Lifespan
^CHLD 2023 Child Development and Parenting
^*CHLD 2103 Child Guidance
^CHLD 2113 Child Care Center Management I
^CHLD 2203 Child and Family in the Community
^CHLD 2213 Children with Special Needs
^*CHLD 2313 Child Care Center Management II

English 3 hours
*ENGL 1113 Freshman Composition I

Total Credit Hours: 18
*Course has prerequisite (See course description section of catalog)
^Course must be completed with a "C" or better.

CHILD DEVELOPMENT
Middle Childhood

Program Description:
This degree plan is designed to prepare students to work with children in middle childhood. The curriculum is designed to provide a framework for understanding the social, emotional, physical, and intellectual development of children five to twelve years of age. Students learn how to plan and implement developmentally appropriate programs and activities for children in before and after school programs, child care and classrooms. Students gain practical knowledge and skills necessary for effective communication, teaching, guidance, and motivation of school age children as well as interacting with parents.

NOTE: Students who intend to follow this degree plan must complete a one-page information sheet and obtain a Criminal Background Investigation packet from the Liberal Arts Division Office at West Campus. Students are responsible for $15 fee and returning their Criminal Background reports to the appropriate TCC office. Once the TCC Administration notifies the Liberal Arts Division at West Campus
that a student has received criminal background and sex offender clearance, the Liberal Arts Division Office will notify that student that he/she may enroll in Child Development laboratory courses.
NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours: 21

Biology 3 hours
BIOL 1383 Nutrition

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Physical Education 3 hours
PHED 1113 Personal, School, and Community Health

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 27

Child Development 24 hours
^CHLD 2003 Child Development in the Lifespan
^*CHLD 2103 Child Guidance
^*CHLD 2133 Middle Childhood Foundations

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^CHLD 2203 Child and Family in the Community
^CHLD 2213 Children with Special Needs
^*CHLD 2323 Physical and Creative Activities: Middle Childhood
^*CHLD 2333 Science, Math, and Computer Activities: Middle Childhood
^*CHLD 2253 Child Development Practicum

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Controlled Electives Credit Hours: 12
^CHLD Select Any Courses
CSCI Select Any Courses
SPAN Select Any Courses
ACCT 1003 Introduction to Accounting
*BUSN 2213 Small Business Management
HSVC 1113 Principles of Human Services
^HSVC 1213 Basic Counseling Services
HUMN 2113 Humanities I
HUMN 2223 Humanities II
INTD 1363 American Sign Language I
INTD 1413 Deaf Culture and History
MUSC 1002 Fundamentals of Music
MUSC 1113 Music Appreciation
PHED 2212 First Aid
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
*PSYC 2023 Developmental Psychology
*PSYC 2523 Child Psychology
SOCI 1113 Introduction to Sociology
*SOCI 2013 Marriage and Family
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^Course must be completed with a "C" or better.
Students who have completed CHLD 1802, CHLD 1812, CHLD 1822, and CHLD 1842, and CHLD 1852 with a grade of "C" or better may apply these credits toward the Middle Childhood Development Associate in Applied Science degree as controlled electives. Students who have earned a CDA credential may apply 9 hours controlled elective credit toward any TCC Child Development Associate in Applied Science degree. Students wanting to transfer to a four-year college or university should contact a counselor in the West Campus Counseling Center.
Upon approval from the Oklahoma State Department of Career Technology Education and the Oklahoma State Regents for Higher Education, students who earn their School-Age certificate from Tulsa Technology Center, with a grade of "C" or better in each course, may apply 12-hours controlled elective credit toward the Middle Childhood Associate of Applied Science Degree at Tulsa Community College.

CHILD DEVELOPMENT
Residential Child and Youth Professional

Program Description:
This certificate program is designed to prepare students to work in residential programs serving children and youth. Students will learn to provide care and service to children and youth living apart from their families whether in emergency shelter, group homes, juvenile detention, substance abuse centers, or psychiatric treatment facilities. The curriculum provides background and knowledge in the dynamics of child abuse and neglect as a basis for understanding children and youth in residential care.

NOTE: Students who intend to follow this degree plan must request and complete the appropriate Criminal Background Investigation paperwork from their home state. Students who have been residents of Oklahoma for more than one calendar year may obtain a packet from the Liberal Arts Division Office at West Campus prior to enrolling in CHLD 1762 and CHLD 1772. Out-of-State residents must secure a background check from the state of residence. Students are responsible for background check fee ($15 in Oklahoma, may be a higher fee in other states) and returning an original Criminal Background report to any TCC Enrollment Services office. (Copies and/or fax copies are not acceptable.) Once the TCC Administration notifies the Liberal Arts Division at West Campus that a student has turned in a cleared criminal background and sex offender report from the state of residence, the Liberal Arts Division Office will notify that student that he/ she may enroll in CHLD 1762 and/or 1772.

NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements Credit Hours: 13-14
Child Development 13 hours
CHLD 1722 Developing a Culture of Care
CHLD 1733 Understanding Child Development
CHLD 1742 Building Relationships
^*CHLD 1752 Teaching Discipline
^*CHLD 1762 Interviewing and Documentation Skills
^*CHLD 1772 Residential Care Field Experience

Recommended Elective 0-1 hour
CHLD 1781 Youth Care Certification Preparation

Total Credit Hours: 13-14
*Course has prerequisite (See course description section of catalog).
^ Course must be completed with a "C" or better.
Students who achieve a grade of "C" or better in the residential child and you care courses may apply the credits toward the TCC Certificate of Achievement Degree. Students completing this curriculum may also apply to complete certification as Residential Child and youth Care Professional Worker with the university of Oklahoma National Resource Center for Youth Services Residential Child and Youth Care Professional Worker certification at www.nrcysou.edu

CHILD DEVELOPMENT
Youth Development Certificate

Program Description:
This curriculum is for students who want to acquire knowledge and skills for employment in child and youth development programs such as before and after school services, youth groups, and summer programs. The curriculum provides a framework for understanding child and youth behavior and development and practical knowledge and skills for working

in and managing youth development programs. Students who achieve a grade of "C" or better in the youth development courses may apply the credits toward the TCC Child Development Associate Degree in Middle School or any other TCC associate in applied science degree.

NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements Credit Hours: 16

Child Development 16 hours
CHLD 1802 Youth Development: Establishing the Environment
CHLD 1812 Youth Development: Mission and Procedures
CHLD 1822 Youth Development: Emotional Development and Guidance
CHLD 1833 Youth Development: Professional Management
CHLD 1841 Youth Development: Educational Support
CHLD 1842 Youth Development: Professional Development and Program Recognition
CHLD 1851 Youth Development: Developmenting Community
*CHLD 1863 Youth Development: Program Quality and Risk Management

Total Credit Hours: 16

*Course has prerequisite (See course description section of catalog).

CHILD DEVELOPMENT
Youth Development Certificate of Mastery

Program Description:
This curriculum is designed to meet the requirements for the REWARD Oklahoma Supplement Scale. Courses are designed to prepare students for positions in before and after school services, youth groups, and summer programs. Students who achieve a grade of "C" or better in the Youth Development courses may apply the credits toward any TCC Child Development Associate in Applied Science degree as controlled electives. To complete the Certificate of Mastery, students must also take Freshman Composition I.

NOTE: Employment in child care requires CPR Certification. Students may meet this requirement by taking PHED 2212 under controlled electives.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

Certificate Requirements Credit Hours: 22

Child Development 19 hours
CHLD 1802 Youth Development: Establishing the Environment
CHLD 1812 Youth Development: Mission and Procedures
CHLD 1822 Youth Development: Emotional Development and Guidance
CHLD 1833 Youth Development: Professional Management
CHLD 1841 Youth Development: Educational Support
CHLD 1842 Youth Development: Professional Development and Program Recognition
CHLD 1851 Youth Development: Developmenting Community
*CHLD 1863 Youth Development: Program Quality and Risk Management
and select 3 credit hours from the following:
CHLD 2003 Child Development in the Lifespan
CHLD 2023 Child Development and Parenting
*CHLD 2103 Child Guidance
CHLD 2113 Child Care Center Management I
CHLD 2133 Middle Childhood Foundations
CHLD 2213 Children with Special Needs
CHLD 2313 Child Care Center Management II

English 3 hours
*ENGL 1113 Freshman Composition I

Total Credit Hours: 22

*Course has prerequisite (See course description section of catalog).

CHILD DEVELOPMENT
Teacher Assistant

Program Description:
This plan of study is designed for students who are currently working or want to work in a public school assisting a certified teacher in the classroom. Students will acquire knowledge and develop skills needed to work directly with school age children as a teacher assistant in a public school setting. An emphasis on science, mathematics, and technology is presented in the course of study. Students in this curriculum plan will complete a practicum experience in a public school. Students planning to transfer to a teacher education bachelor's degree program at a university should consult with a TCC counselor and the transfer university when selecting courses for the degree. Students will be required to submit a Criminal History Report and tuberculin skin test for evaluation before enrollment in CHLD 2273 Teacher Assistant Practicum course.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts Division, Child Development Academic Program, West Campus: (918) 595-8079
Counseling Center, West Campus: (918) 595-8176

General Education Requirements Credit Hours :35

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
select 6 hours from courses designated Humanities from the list of General Education courses.

Mathematics 3 hours
select 3 hours from courses designated Mathematics from the list of General Education courses.

Science 8 hours
BIOL 1114 General Biology for Non-Majors
PHSC 1114 General Physical Science

COMMUNITY SERVICE: CHILD DEVELOPMENT & EARLY CHILDHOOD EDUCATION

Social Studies 6 hours
POLS 113 American Federal Government
and select one 3 credit hour course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

Specialized Course Requirements Credit Hours: 21

Child Development
^CHLD 2003 Child Development in the Lifespan
^*CHLD 2103 Child Guidance
^*CHLD 2133 Middle Childhood Foundations
^CHLD 2213 Children with Special Needs
^*CHLD 2323 Physical and Creative Activities: Middle Childhood
^*CHLD 2333 Science, Math, and Computer Activities: Middle Childhood
^*CHLD 2273 Teacher Assistant Practicum

Recommended Electives Credit Hours: 4
Students planning to transfer to a teacher education bachelor's degree program at a university should consult with a TCC counselor and the transfer university when selecting courses for this degree.

Total Credit Hours: 60
*Course has prerequisites
^Course must be completed with a "C" or better.

EDUCATION PROGRAMS

NOTE: All Teacher Education majors are required to take the OGET (Oklahoma General Education Test) prior to admission to professional education programs at the university. Please visit the Counseling Center at any campus for information about the OGET. National Council for Accreditation of Teacher Education (NCATE) is the national accrediting program for teacher education. The council requires that students in teacher education programs at 4-year colleges complete a portfolio. Students in Child Development or Education degree programs at Tulsa Community College should save all assignments from those courses for possible inclusion in the portfolio. Contact the college where you plan to transfer for specific portfolio requirements.

NOTE: Prior to graduation from a 4-year college or university, students majoring in Early Childhood, Elementary, or Special Education must complete with a "C" or better a minimum of:
12 hours of Communication Arts
12 hours of Social Science
12 hours of Math
12 hours of Science
Demonstrate Proficiency in a language other than English.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

EDUCATION

Elementary Education Secondary Education

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Education may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Arts

For More Information Contact:
Counseling Centers: Metro: (918) 595-7151, Northeast: (918) 595-7527, Southeast: (918) 595-7651, West: (918) 595-8176

General Education Requirements Credit Hours: 35

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements page for complete list

Mathematics 3 hours
See the General Education Requirements to select 3 hours of Mathematics.

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Science 8 hours
*PHSC 1114 General Physical Science
BIOL 1114 General Biology for Non-Majors
(Courses in Physics, Chemistry, Zoology may be substituted. One of the courses must have a lab.)

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I
Two (2) credit hours of General Education Requirements are satisfied in recommended electives section below.

Recommended Electives Credit Hours: 25
Students should very carefully select courses which will conform to requirements at the institution to which they will transfer.

Elementary Education 25 hours
BIOL 1383 Nutrition
BIOL 2123 Human Ecology
CHLD 2031 Early Field Experience
CSCI 1203 Computer Concepts and Applications

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ENGL 2373 Teach-A-Reader
*ENGL 2413 Introduction to Literature
*ENGL 2683 Survey of World Literature from 1700
GEOG 1023 World Geography (Economic)
GEOG 1043 Introduction to Cultural Geography
GEOG 2033 World Regional Geography
GEOG 2153 Human Ecology
HIST 1033 History of Oklahoma
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
HUMN 2113 Humanities I
HUMN 2223 Humanities II
*MATH 2193 Elementary Statistics
MATH 2423 Mathematics Concepts for Educators
*MATH 2553 Geometry and Measurement
MUSC 1612 Class Piano I
*MUSC 1622 Class Piano II
PHED 1113 Personal, School and Community Health
PHED 2212 First Aid
PHIL 1113 Introduction to Philosophy
PSYC 1023 Psychology of Personal Adjustment
*PSYC 2023 Developmental Psychology
*PSYC 2523 Child Psychology
RELG 1113 Introduction to Religious Studies
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America
SPCH 1013 Fundamentals of Listening
SPCH 2103 Interpersonal Communication
**Select from one Foreign Language.
Note: Foreign Language is necessary and the number of hours will vary depending on the transfer university requirements.

Secondary Education 25 hours

13 hours: From classes listed under Elementary Education above
and
12 hours: Choose classes that follow the suggested program in the anticipated academic teaching area.

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
**Check catalog for advanced standing credit. Language proficiency at the novice high level required. Call (918) 595-7851 for proficiency certification.
^Course must be completed with a "C" or better.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements..
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ELEMENTARY EDUCATION

LU Transfer Option for Elementary or Special Education

Program Description:

This curriculum includes degree requirements and courses generally completed in the first two years of a four-year curriculum. The degree is for students who want to receive Oklahoma Teacher Certification and teach at the elementary level or in special education. Students should work with an academic counselor at Tulsa Community College West Campus to carefully select courses that will meet the Langston baccalaureate and the TCC associate degree programs. Students in this degree should plan to take the Oklahoma General Education Test during the last semester at TCC. Upon completion of the four-year curriculum at Langston, a student will be prepared to apply for an Oklahoma Teacher Certificate in Elementary Education or Special Education. A grade of "C" or better is required in the coursework for this curriculum and students must maintain a 2.5 GPA to graduate from Langston University.

Degree Awarded: Associate in Arts

General Education Requirements Credit Hours: 38

English 9 hours

*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II
*ENGL 2383 Advanced Composition

Humanities 6 hours

See the General Education Requirements page for complete list

Mathematics 3 hours

See the General Education Requirements page for complete list

Psychology 3 hours

PSYC 1113 Introduction to Psychology

Science 8 hours

*PHSC 1114 General Physical Science
BIOL 1114 General Biology for Non-Majors
(Courses in Physics, Chemistry, Zoology may be substituted. One of the courses must have a lab.)

Social Science 6 hours

POLS 1113 American Federal Government
and select one of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours

SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 10

^CHLD 2003 Child Development in the Lifespan
^CHLD 2031 Early Field Experience
^*CHLD 2133 Middle Childhood Foundations
^*CHLD 2173 Historical and Philosophical Foundations of Schools

Recommended Electives Credit Hours: 12

CSCI 1203 Computer Concepts and Applications
ENGL 1003 Strategies for Academic Success
GEOG 1043 Introduction to Cultural Geography
MATH 2423 Mathematics Concepts for Educators
*MATH 2553 Geometry and Measurement
SPCH 2103 Interpersonal Communication

Foreign Language 0-6 hours

Students must meet the university requirement of two college-level courses in a single foreign language or successful completion of 2 years of foreign language in high school and pass a proficiency exam.

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^Course must be completed with a "C" or better.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

COMMUNITY SERVICE: EDUCATION

HEALTH and HUMAN PERFORMANCE

Program Description:
The Health and Human Performance program prepares students for careers in a variety of settings including corporate, hospital-based, community, government and private enterprises. This degree track prepares a student for the American Council on Exercise Certification Exam. This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the transfer university catalog and carefully select courses that will meet the requirements for both baccalaureate and associate degree programs.

Degree Awarded: Associate in Science Degree

For More Information Contact:
Science , Mathematics and Engineering:
Northeast: (918) 595-7542
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651,
West: (918) 595-8176

General Education Requirements Credit Hours: 40

English 6 Hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 Hours
See the General Education Requirements page for complete list

Mathematics 3 Hours
*MATH 1513 College Algebra

Social Science 6 Hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Science 8 Hours
BIOL 1224 Introduction to Biology for Majors
*BIOL 2154 Human Physiology

Required Electives 11 Hours

Mathematics 3 Hours
*MATH 2193 Elementary Statistics

Science 5 Hours
*CHEM 1315 General Chemistry I

Speech 3 Hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 20

Behavioral Science 6 Hours
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Exercise Science Core 14 Hours
BIOL 1383 Nutrition
**PHED 2212 First Aid
PHED 2263 Principles in Health Education and Human Promotion
PHED 2653 Applied Anatomy and Kinesiology
and choose one of the following:
+PHED 1113 Personal, School, and Community Health
or
+PHED 2603 Total Wellness

Total Credit Hours: 60
*Course has prerequisite (see course description section of catalog).
**Advanced Credit may be awarded for current certification.
+Requirements for PHED 1113 or 2603 vary by institution. Visit with transfer institution for program requirements.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

HEALTH and HUMAN PERFORMANCE
OSU Transfer Option

Program Description:
The Health and Human Performance program prepares students for careers in a variety of settings including corporate, hospital-based, community, government and private enterprises. This degree track prepares a student for the American Council on Exercise Certification Exam. This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum designed to transfer to Oklahoma State University's Bachelor of Science Degree in Health Promotion.

Degree Awarded: Associate in Science Degree

For More Information Contact:
Science , Mathematics and Engineering:
Northeast: (918) 595-7542
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651,
West: (918) 595-8176

General Education Requirements Credit Hours: 40

English 6 Hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 Hours
See the General Education Requirements page for complete list

Mathematics 3 Hours
*MATH 1513 College Algebra

Social Science 6 Hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Science 8 Hours
BIOL 1224 Introduction to Biology for Majors
*+BIOL 2154 Human Physiology

Speech 3 Hours
SPCH 1113 Speech Communication I

Required Elective 8 Hours

Mathematics 3 Hours
*MATH 2193 Elementary Statistics

COMMUNITY SERVICE: EDUCATION

Science 5 Hours
*CHEM 1315 General Chemistry I

Specialized Course Requirements Credit hours: 20

Behavioral Science 6 Hours
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Exercise Science Core 14 Hours
+BIOL 1383 Nutrition
**PHED 2212 First Aid
+PHED 2603 Total Wellness
+PHED 2263 Principles in Health Education and Human Promotion
+PHED 2653 Applied Anatomy and Kinesiology

Total Credit Hours: 60 Hours
*Course has prerequisite (see course description section of catalog).
**Advanced Credit may be awarded for current certification.
+OSU requires a grade of C or higher in these courses.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

INTERPRETER EDUCATION
University of Arkansas at Little Rock Transfer Option

Program Description:
This program is designed to prepare students for a career as a sign language interpreter for persons who are deaf, or hard of hearing. This program emphasizes the acquisition of American Sign Language, the appreciation of deaf culture and the process of interpreting and transliterating.

Degree Awarded: Associate in Arts

For More Information Contact:
Liberal Arts Division: Northeast (918) 595-7494
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 37

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Mathematics 3 hours
*MATH 1513 College Algebra

Science 7 hours
See General Education Requirements. One course must be a lab science.

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Required Electives 9 hours
*INTD 1373 American Sign Language II
INTD 1413 Deaf Culture and History
INTD 1423 Introduction to Interpreting

Specialized Course Requirements Credit Hours: 29
*INTD 2213 ASL to English Interpreting I
*INTD 2233 ASL to English Interpreting II
*INTD 2393 Interpreting I
*INTD 2403 Interpreting II
*INTD 2414 American Sign Language III
*INTD 2443 Interpreting in Specialized Settings
*INTD 2524 American Sign Language IV
*INTD 2613 Interpreting lll
*INTD 2643 Interpreting Internship

Total Credit Hours: 66
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

INTERPRETER EDUCATION

Program Description:
This program is designed to prepare students for a career as a sign language interpreter for persons who are deaf or hard of hearing. This program emphasizes the acquisition of American Sign Language, the appreciation of Deaf Culture and the process of interpreting and transliterating. The courses are designed to prepare the student to take the interpreter certification tests and to work in entry-level positions as an interpreter in the public schools, colleges and universities, social service agencies and/or private practice.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts Division: Northeast (918) 595-7494
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 15

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication
The remaining General Education Requirements may be satisfied in Specialized Course Requirements or Controlled Electives.

Specialized Course Requirements Credit Hours: 41

Interpreter Education 41 hours
INTD 1363 American Sign Language I

COMMUNITY SERVICE: EDUCATION

*INTD 1373 American Sign Language II
INTD 1413 Deaf Culture and History
*INTD 1423 Introduction to Interpreting
*INTD 2213 ASL to English Interpreting I
*INTD 2233 ASL to English Interpreting II
*INTD 2393 Interpreting I
*INTD 2403 Interpreting II
*INTD 2414 American Sign Language III
*INTD 2443 Interpreting in Specialized Settings
*INTD 2524 American Sign Language IV
*INTD 2613 Interpreting III
*INTD 2643 Interpreting Internship

Controlled Electives Credit Hours: 3
ENGL 1083 Grammar and Mechanics of Writing
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations
SOCI 2113 Social Problems in America

Recommended Electives Credit Hours: 1
Select one credit hour from any discipline

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog)

INTERPRETER EDUCATION
Certificate

Program Description:
This program is designed to prepare students who have already obtained an associate or bachelor's degree in another field for a career in interpreting for persons who are deaf or hard of hearing. The program emphasizes the acquisition of American Sign Language, the appreciation of Deaf Culture and the process of interpreting and transliterating. The courses are designed to prepare the student to take the interpreter certification tests and to work in entry-level positions as an interpreter in the public schools, colleges and universities, social service agencies and/or private practice.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Liberal Arts/Community Services Division: Northeast: (918) 595-7494
Counseling Center: Northeast: (918) 595-7527

Certificate Requirements Credit Hours: 41

Interpreter Education 41 hours
INTD 1363 American Sign Language I
*INTD 1373 American Sign Language II
INTD 1413 Deaf Culture and History
*INTD 1423 Introduction to Interpreting
*INTD 2213 ASL to English Interpreting I
*INTD 2233 ASL to English Interpreting II
*INTD 2393 Interpreting I
*INTD 2403 Interpreting II
*INTD 2414 American Sign Language III
*INTD 2443 Interpreting in Specialized Settings
*INTD 2524 American Sign Language IV
*INTD 2613 Interpreting III
*INTD 2643 Interpreting Internship

Total Credit Hours: 41
*Course has prerequisite (See course description section of catalog).

PHYSICAL EDUCATION

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. This degree is for the student who has interests in sports and fitness, exercise physiology, health and wellness, and the leisure services. Teaching is only one facet of this major. The choices are as broad as coaching to directing outdoor sports activities, trainer, or sports director in professional athletics. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Divisions: Metro: (918) 595-7334,
Northeast: (918) 595-7542, Southeast: (918) 595-7742, West: (918) 595-8193

General Education Requirements Credit Hours: 18
See the General Education Requirements for the complete list. Science, math and elective requirements satisfied in Specialized Course Requirements and Recommended Electives.

Specialized Course Requirements Credit Hours: 28-29

Behavioral Sciences 6 hours
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Mathematics 3 hours
*MATH 1513 College Algebra

Physical Education 11 hours
BIOL 1383 Nutrition
PHED 1113 Personal, School and Community Health
PHED 1143 Foundations of Physical Education
PHED 2212 First Aid

Science 8-9 hours
BIOL 1114 General Biology for Non-Majors
and select one course from the following:
GEOG 1014 Geography (Physical)
*CHEM 1315 General Chemistry I

Recommended Electives Credit Hours: 14
*CHEM 1415 General Chemistry II
CSCI 1203 Computer Concepts and Applications
GEOG 1043 Introduction to Cultural Geography
*MATH 1613 Plane Trigonometry
*PHYS 1114 General Physics I
*PHYS 1214 General Physics II
SPCH 1113 Speech Communication I

Total Credit Hours: 60-61
*Course has prerequisite (See course description section of catalog).
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

COMMUNITY SERVICE: HUMAN SERVICES

HUMAN SERVICES

Program Description:
Human service workers and assistants provide direct and indirect client services and serve to improve and enhance the lives of others in a variety of roles within social and human service delivery settings. Job titles vary: case management aide, social work assistant, alcohol or drug abuse counselor, mental health aide, community outreach worker, life skill counselor, crisis intervention counselor, intake worker, gerontology aide, family support worker, habilitation aide, residential counselor, and juvenile specialist. The U.S. Department of Labor states, "Human services worker and assistant occupations are projected to be among the fastest growing. Job opportunities should be excellent [for qualified applicants]"... The Human Services program at Tulsa Community College is designed to provide education and training for individuals seeking careers in a wide range of helping profession settings. Students gain basic knowledge, skills, and values necessary to communicate and interact with persons experiencing personal and social problems in order to assess needs and provide appropriate intervention. Students have many opportunities to gain hands-on experience with community agencies and populations. In addition to general education requirements, all Human Service students complete core coursework in:

- Principles of Human Services
- Basic Counseling Skills
- Lifespan Development
- Human Services Applications/Case Management
- Internship

University Transfer (2 + 2) Options
Degree options are available to provide seamless transfer to four-year degrees in Child and Family Services (Oklahoma State University), Therapeutic Recreation (Oklahoma State University), Pre-Social Work (Northeastern State University, Oral Roberts University, and University of Oklahoma), Human Development (St. Gregory's University), Family Studies (Southern Nazarene University) and Human Relations (University of Oklahoma). Articulation agreements between Tulsa Community College and the designated universities provide for a seamless transition toward a baccalaureate or advanced degree in a human services-related field. Students complete general education requirements for the bachelors degree and also complete core courses within the Human Services program, which complement upper division coursework within the major field at the four-year university.

General Information
The Human Services coursework is available in a variety of schedule alternatives, including traditional 16-week classes day and evening. Courses are also aligned with the FAST-TRACK program to allow degree completion to students desiring an accelerated schedule. The Human Services Institute offers special focus courses providing in-depth information on current issues in the human services field for students and community professionals in short-course formats. Students are strongly encouraged to enroll in core courses within the Human Services program early in their academic career along with general education requirements. Faculty advisement is available in this program. For more career and occupational information in the human services field, visit the following Web sites:
http://bls.gov and **http://stats.bls.gov/oco**

Human Services University Transfer Options Degrees Awarded: Associate in Science

HUMAN SERVICES
Child and Family Services - OSU Transfer Option 091 D

Program Description:
This option is designed for individuals seeking careers in the helping professions providing services to children, youth, elderly, and families in a variety of community based settings. Students gain 24 credit hours of specialization in Human Services while earning the associate degree.

Degree Awarded: Associate in Science
Semester plan available through faculty advisement.

General Education Requirements Credit Hours: 37

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Humanities 3 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Science 7 hours
BIOL 1114 General Biology for Non-Majors
BIOL 1383 Nutrition

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Credit Hours: 23-24 Hours
^Human Services 18 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2113 Internship
*HSVC 2203 Parent-Child Relations

Controlled Electives Credit Hours: 5-6
^HSVC 1313 Chemical Dependency and Treatment
^HSVC 2003 Dynamics of Family Relationship
^HSVC 2073 Issues in Human Services
or
^HSVC 2173 Service Learning in Human Services
PHED 2212 First Aid
PHED 2533 Introduction to Therapeutic Recreation
PSYC 2133 / SOCI 1133 Crisis Intervention and Experience
PSYC 2053 Social Psychology

Total Credit Hours: 60-61
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency.
^Students must earn a "C" or better in HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

COMMUNITY SERVICE: HUMAN SERVICES

HUMAN SERVICES
Human Development , St. Gregory's University Transfer Option

Program Description:
This option is designed for individuals seeking a career in the helping professions with an emphasis in applying the principles and philosophy of human services to each area of human growth and development in a variety of human service delivery settings. This curriculum includes TCC requirements and courses generally completed in the first two years of a four-year curriculum while providing 27 hours of specialized coursework relevant to the field of study. Completion of this Associate Degree affords the student the opportunity to transfer to St. Gregory's University Human Development degree with articulated courses already completed within that program. Up to 76 credit hours may be transferred from Tulsa Community College towards the St. Gregory's University degree.

Degree Awarded: Associate in Science

Semester plan available through faculty advisement.

General Education Requirements Credit Hours 37

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 9 hours
See the General Education Requirements page for complete list

Mathematics 3 hours
Select one course from the following:
*MATH 1473 Mathematics for Critical Thinking
*MATH 1513 College Algebra

Science 7 hours
BIOL 1114 General Biology for Non-Majors
BIOL 1383 Nutrition

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Psychology/Sociology 3 hours
Select one from the following:
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Speech 3 hours
Select one from the following:
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 27

^Human Services 18 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2113 Internship
and select one of the following:
*HSVC 2203 Parent-Child Relations
HSVC 2003 Dynamics of Family Relations

Recommended Electives 9 hours
^HSVC 1313 Chemical Dependency and Treatment
^HSVC 2073 Issues in Human Services
^HSVC 2613 Gerontology in Human Services
^HSVC Any Human Services Course
*PSYC 2133/SOCI 1133 Crisis Intervention and Experience
*SOCI 2013 Marriage and Family
*SOCI 2113 Social Problems in America
*SOCI 2143 Minorities in America

Total Credit Hours: 64

*Course has prerequisite (See course description section of catalog).
^Students must earn a "C" or better in HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

HUMAN SERVICES
Pre-Social Work - NSU or ORU (B.S.W.); OU (M.S.W.) Transfer Option

Program Description:
This option is designed for individuals seeking careers in helping professions providing services to children, youth, elderly, and families in a variety of community-based settings with an academic goal of earning a bachelors or masters degree in generalist social work practice. Articulation agreements between universities provide a seamless transition toward a baccalaureate degree (NSU or ORU) and a master's degree (OU), which can be earned in five years in the greater Tulsa area. Students gain 21 credit hours of specialization in Human Services while earning the associate degree.

Degree Awarded: Associate in Science
General Education Requirements Credit Hours 37

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
GEOG 1043 Introduction to Cultural Geography
and select one from the following:
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Mathematics 3 hours
select one from the following
*MATH 1513 College Algebra
*MATH 1473 Mathematics for Critical Thinking

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Science 7 hours
BIOL 1114 General Biology for Non-Majors
BIOL 1383 Nutrition

Social Science 6 hours
POLS 1113 American Federal Government
and select one from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 3 hours
SOCI 1113 Introduction to Sociology

COMMUNITY SERVICE: HUMAN SERVICES

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 27

Economics 3 hours
ECON 2013 Principles of Macroeconomics

^Human Services 15 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 2023 Lifespan Development

*HSVC 2053 Human Services Applications/Case Management
*HSVC 2113 Internship

Controlled Electives Credit Hours: 9
Select 2 of the following Courses:
^HSVC 1313 Chemical Dependency and Treatment
^*HSVC 2073 Issues in Human Services
*PSYC 2133/SOCI 1133 Crisis Intervention and Experience
and select one from the following:
*MATH 2193 Elementary Statistics
*PSYC 2223/SOCI 2223 Behavoirial Statistics
Other HSVC electives may be allowed. See HSVC faculty advisors.

Total Credit Hours: 64

*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
^Students must earn a "C" or better in HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.

HUMAN SERVICES
Therapeutic Recreation, OSU Transfer Option

Program Description:
This program is designed for individuals who want a professional career providing Therapeutic Recreation services within hospitals, rehabilitation centers, long-term care facilities and the community. This curriculum includes TCC requirements and courses generally completed in the first two years of a four-year curriculum in Therapeutic Recreation at Oklahoma State University. Students must complete the Associate Degree in order to transfer to Oklahoma State University under this agreement.

Degree Awarded: Associate in Science

Semester plan available through faculty advisement.

General Education Requirements Credit hours: 34

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 3 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Philosophy 3 hours
PHIL 2153 Medical Ethics

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Science 7 hours
BIOL 1114 General Biology
BIOL 1383 Nutrition

Social Science 6 hours
POLS 1113 American Federal Government
and select one from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 24

^Human Services 12 hours
HSVC 1213 Basic Counseling Skills
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
** *HSVC 2113 Internship

Physical Education 8 hours
PHED 2212 First Aid
PHED 2513/HSVC 2413 Introduction to Leisure Studies
PHED 2533/HSVC 2433 Introduction to Therapeutic Recreation

Biology 4 hours
BIOL 1314 Human Anatomy and Physiology

Controlled Electives Credit Hours: 3
SOCI 2143 Minorities in America
*HSVC 2073 Issues in Human Services

Recommended Electives Credit Hours 0-3
^HSVC 1113 Principles of Human Services
^HSVC 1313 Chemical Dependency and Treatment
^HSVC 1413 Introduction to Developmental Disabilities
^HSVC 1423 Models for Supporting Persons with Developmental Disabilities
^*HSVC 2203 Parent-Child Relations
^*HSVC 2073 Issues in Human Services
^*HSVC 2613 Gerontology in Human Services
^PHED/HSVC 2342 Recreation Therapy/ Rope Course Training
^PHED/HSVC 2363 Recreation Therapy/ Outdoor Adventure
ALDH 1323 Medical Terminology

Total Credit Hours: 61-64

*Course has prerequisite (See course description section of catalog)
**The internship should be completed in a hospital setting under the supervision of a CTRS. Hours completed as part of your TCC Internship will go toward documentation of 500 hours of paid or volunteer experience within the recreation field required prior to enrolling in your senior internship experience (12 credits) at Oklahoma State University.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
^Students must earn a "C" or better in HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

COMMUNITY SERVICE: HUMAN SERVICES

HUMAN SERVICES
Workforce Development Program options

Degrees awarded: Associate in Applied Science or Certificate of Achievement

Human Services workers and assistants provide direct and indirect client services and serve to improve and enhance the lives of others in a variety of roles within social and human service delivery settings. Job titles vary: case management aide, social work assistant, alcohol or drug abuse counselor, mental health aide, community outreach worker, life skill counselor, crisis intervention counselor, intake worker, gerontology aide, family support worker, habilitation aide, residential counselor, and juvenile specialist. The U.S. Department of Labor states: Human services worker and assistant occupations are projected to be among the fastest growing. Job opportunities should be excellent [for qualified applicants]... The Human Services program at Tulsa Community College is designed to provide education and training for individuals seeking careers in a wide range of helping profession settings. Students gain basic knowledge, skills, and values necessary to communicate and interact with persons experiencing personal and social problems in order to assess needs and provide appropriate intervention. Students have many opportunities to gain hands-on experience with community agencies and populations. In addition to general education requirements, all Human Service students complete core coursework in:

- Principles of Human Services
- Basic Counseling Skills
- Chemical Dependency and Treatment
- Lifespan Development
- Human Services Applications/Case Management
- Issues in Human Services
- Crisis Intervention
- Internship

Additional career and occupational information in the human services field can be found at:

http://bls. gov http://stats.bls.gov/oco

HUMAN SERVICES

Degree Awarded: Associate in Applied Science

Semester plan available through faculty advisement

General Education Requirements Credit Hours: 24

English 6 hours

*ENGL 1113 Freshman Composition I

and select 3 credit hours from the following:

*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Psychology 3 hours

PSYC 1113 Introduction to Psychology

Social Science 6 hours

POLS 1113 American Federal Government

and select one course from the following:

HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours

*SOCI 1133 Crisis Intervention and Experience

and select 3 credit hours from the following:

SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Speech 3 hours

SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 36

^Human Services 33 hours

HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2073 Issues in Human Services
*HSVC 2113 Internship
*HSVC 2613 Gerontology in Human Services

and select 3 credit hours from the following:

HSVC 1413 Introduction to Developmental Disabilities
HSVC 1423 Models for Supporting Persons with Developmental Disabilities

and select 3 credit hours from the following:

HSVC 2003 Dynamics of Family Relationships
*HSVC 2203 Parent-Child Relations

and select 3 credit hours from the following:

*HSVC 2513 Management of Community Programs
*HSVC 1523 Volunteer Management in Human Services

Computer Information Systems 3 hours

Select three credit hours from any of the Computer Information Systems courses.

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instruction or associate dean.

HUMAN SERVICES
Certificate Option

Program Description:

The certificate option involves the student strictly in courses specific to the human services field, providing students with technical skills necessary for employment prior to obtaining general education requirements for an academic degree or may provide the core courses needed to individuals with academic degrees in unrelated fields desiring to change careers.

Degree Awarded: Certificate of Achievement

Semester plan available through faculty advisement

Certificate Requirements Credit Hours: 30

^Human Services 27 hours

HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2113 Internship

and select one course from the following:

*HSVC 2003 Dynamics of Family Relationships
*HSVC 1443 Direct Support Professional I
HSVC 2513 Management of Community Programs

COMMUNITY SERVICE: HUMAN SERVICES

and select one course from the following:
HSVC 1413 Introduction to Developmental Disabilities
*HSVC 2073 Issues in Human Services
*HSVC 2203 Parent-Child Relations
HSVC 2433 Introduction to Therapeutic Recreation
and select one course from the following:
HSVC 1423 Models for Supporting Persons with Developmental Disabilities
*HSVC 2213 Introduction to Group Dynamics
HSVC 2413 Introduction to Leisure Services
*HSVC 2613 Gerontology in Human Services

Psychology/Sociology 3 hours
Select one course from the following:
*PSYC 2133 Crisis Intervention and Experience
*SOCI 1133 Crisis Intervention and Experience

Total Credit Hours: 30
*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.

HUMAN SERVICES
Chemical & Alcohol Dependency Counseling Option

Program Description:
Graduates from this program should meet the qualifications in preparation for certification for an Alcohol/Drug Counselor in Training with the Oklahoma Drug and Alcohol Professional Counselor Certification Board. Specialized course requirements (12 credit hours) include:
• Dynamics of Family Relationships
• Introduction to Group Dynamics
• CADC Practicum

Degree Awarded: Associate in Applied Science
Semester plan available through faculty advisement

General Education Requirements Credit Hours: 24

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
*SOCI 1133 Crisis Intervention and Experience
and select 3 credit hours from the following:
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Speech 3 hours
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 33
^Human Services 30 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 2003 Dynamics of Family Relationships
HSVC 2023 Lifespan Development
*HSVC 2213 Introduction to Group Dynamics
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2073 Issues in Human Services
*HSVC 2103 Practicum I
*HSVC 2113 Internship

Computer Information Systems 3 hours
Select three credit hours from any of the Computer Information Systems (CSYS/CSCI) courses.

Controlled Electives Credit Hours: 3
Foreign Languages – Any Course
^Human Services – Any Courses
INTD 1363 American Sign Language I
CRIM 2103 Criminal Evidence
CRIM 2123 Criminal Law I
*PSYC 2053 Social Psychology
*PSYC 2423 Introduction to Abnormal Psychology
*SOCI 2053 Social Psychology
*SOCI 2133 Introduction to Deviant Behavior
*SOCI 2143 Minorities in America
*SOCI 2243 Introduction to Social Work

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instruction or associate dean.

HUMAN SERVICES
Family Studies

Program Description
This option provides graduates with additional knowledge and skills to serve at-risk families and children in settings addressing prevention and intervention in child abuse, domestic violence, welfare assistance, youth supervision, adoption services, special needs and disabilities, child advocacy, shelters, and foster care. This option also meets requirements for transfer to Family Studies & Gerontology at Southern Nazarene University-Tulsa.

Degree Awarded: Associate in Applied Science
Semester plan available through faculty advisement.

General Education Requirements Credit Hours: 30-31

Communications 9 hours
*ENGL 1113 Freshman Composition I
and select 6 credit hours from the following:
each course must be from a different discipline
Literature (ENGL)
*ENGL 2413 or other ENGL literature course
Speech (SPCH)
Foreign Language

COMMUNITY SERVICE: HUMAN SERVICES

Humanities 9 hours
Select 9 credit hours from 3 different disciplines designated as humanities on the general education page

Science/Math 6-7 hours
Select one course from 2 of the following disciplines
MATH
PHYS or PHSC
BIOL
GEOL or GEOG

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 33
^Human Services 24 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 2003 Dynamics of Family Relationships
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2113 Internship
*HSVC 2203 Parent-Child Relations
*HSVC 2613 Gerontology in Human Services

Psychology/Sociology 3 hours
Select one course from the following:
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Computer Information Systems 3 hours
Select 3 credit hours from any of the Computer Information Systems (CSYS/CSCI) courses.

Controlled Electives Credit Hours: 3
Foreign Languages – Any Courses
^Human Services – Any Courses
PHED 1113 Personal, School, and Community Health
PHED 2212 First Aid
PSYC any courses
PSYC 2133/SOCI 1133 Crisis Intervention and Experience
SOCI any courses
*SOCI 2013 Marriage and Family

Total Credit Hours: 63-64**

*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.
**Up to 88 credit hours may be transferred from TCC towards the SNU Family Studies and Gerontology baccalaureate degree- 62 hours transfer at initial transcript evaluation. TCC earned hours over 62 may be petitioned for potential elective credit after successful admission to SNU and after academic advising. Students will need to have a total of 124 credit hours to obtain a Bachelor of Science in Family Studies and Gerontology; a total of 36 hours will be earned in SNU major consisting of 14 modules/courses.

HUMAN SERVICES
Community Services Management

Program Description:
Students in this option gain learning experiences that focus on the knowledge and skills necessary to manage, operate, and deliver services in community-based agencies. Graduates will be prepared for entry-level management positions in non-profit and other human service agencies as volunteer coordinator, program coordinator, site coordinator, residential manager, advocacy or social policy liaison, or board member, as well as gaining insights to enhance performance in any position within an agency. Specialized course requirements (12-15 credit hours) include:
• Management of Community Programs
• Volunteer Management in Human Services
• Supervisory Management or Management Essentials

Degree Awarded: Associate in Applied Science
Semester plan available through faculty advisement

General Education Requirements Credit Hours: 27

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
*SOCI 1133 Crisis Intervention and Experience
and select 3 credit hours from the following:
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Speech 3 hours
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Computer Information Systems 3 hours
Select 3 credit hours from any of the Computer Information Systems (CSYS/CSCI) courses.

Specialized Course Requirements Credit Hours: 33

Business/Management 3 hours
select one course from the following:
BUSN 2363 Supervisory Management
MGMT 1353 Management Essentials

^Human Services 27 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 2003 Dynamics of Family Relationships
HSVC 2023 Lifespan Development

COMMUNITY SERVICE: HUMAN SERVICES

*HSVC 2053 Human Services Applications/Case Management
*HSVC 2073 Issues in Human Services
*HSVC 2113 Internship
*HSVC 2513 Management of Community Programs

Controlled Electives Credit Hours: 3
^Human Services – Any Courses
INTD 1413 Deaf Culture and History
*MGMT 1373 Human Resources Management
MGMT 1233 Health Care Management
PHED 1113 Personal, School, and Community Health
*POLS 2103 Introduction to State and Local Government
*POLS 2133 Introduction to Public Administration
*PSYC/*SOCI 2053 Social Psychology
*PSYC/*SOCI 2813 Human Sexuality
*SOCI 2043 Juvenile Delinquency
*SOCI 2133 Introduction to Deviant Behavior
*SOCI 2143 Minorities in America

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^Students must earn a grade of "C" or better in HSVC courses in order to progress to advanced courses in the program, or gain permission of the instructor or associate dean

HUMAN SERVICES
Corrections

Program Description:
Students gain a diversity of skills necessary for job functions related to juvenile and adult corrections, including positions in parole, halfway houses, and residential settings for youth, correctional facilities, and community centers. Specialized coursework (12-15 credit hours) includes:
• Social Psychology
• Juvenile Delinquency or Adolescent or Adult Psychology
• Criminal Justice or relevant courses

Degree Awarded: Associate in Applied Science
Semester plan available through faculty advisement

General Education Requirements Credit Hours: 27

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Psychology 6 hours
PSYC 1113 Introduction to Psychology
*PSYC/SOCI 2053 Social Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
*SOCI 1133 Crisis Intervention and Experience
and select one course from the following:
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Speech 3 hours
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 24

Computer Information Systems 3 hours
Select 3 credit hours from any of the Computer Information Systems (CSYS/CSCI) courses.

^Human Services 21 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2073 Issues in Human Services
*HSVC 2113 Internship

Controlled Electives Credit Hours: 9
Criminal Justice – Any Courses
^Human Services – Any Courses
*MGMT 1373 Human Resources Management
PHED 1113 Personal, School, and Community Health
*POLS 2103 Introduction to State and Local Government
*POLS 2133 Introduction to Public Administration
PSYC 2323 Conflict Resolution
*PSYC 2533 Adolescent Psychology
*PSYC / SOCI 2813 Human Sexuality
*SOCI 2013 Marriage and Family
*SOCI 2043 Juvenile Delinquency
*SOCI 2133 Introduction to Deviant Behavior
*SOCI 2143 Minorities in America
*SOCI 2243 Introduction to Social Work

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instruction or associate dean.

COMMUNITY SERVICE: HUMAN SERVICES

HUMAN SERVICES
Direct Support Professional I Certificate

Program Description:
The DSP Certificate involves the student strictly in courses specific to the Direct Support Professional, building upon required training in the State of Oklahoma. DSPs support people with developmental disabilities, physical disabilities, and other related conditions in residential, vocational, educational, recreation, health, and other community settings.

Degree Awarded: Certificate of Achievement
Semester plan available through faculty advisement.

Certificate Requirements Credit Hours: 15

^Human Services 15 hours
*HSVC 1403 Direct Support Professional Foundations
HSVC 1413 Introduction to Developmental Disabilities
HSVC 1423 Models for Supporting Persons with Developmental Disabilities
*HSVC 1443 Direct Support Professional I
*HSVC 1453 Direct Support Professional Practicum

Total Credit Hours: 15

*Course has prerequisite (See course description section of catalog).
^Students must earn a grade of "C" or better in HSVC courses in order to progress to advanced course in the program, or gain permission of the instructor.
NOTE: This certificate option may be completed prior to obtaining general education requirements for an academic degree or may provide the core courses needed or may provide the core courses needed to individuals with academic degrees in unrelated fields desiring to change careers.

HUMAN SERVICES
Developmental Disabilities

Program Description:
This option is designed to provide graduates with the basic knowledge, attitudes, and skills regarding family, community living, education, employment, leisure and recreation, and support services necessary for job preparation in organizations serving people with developmental disabilities. Specialized coursework (15 credit hours) includes:
• Introduction to Developmental Disabilities
• Models for Supporting Persons with Disabilities
• Management of Community Programs

Degree Awarded: Associate in Applied Science
Semester plan available through faculty advisement

General Education Requirements Credit Hours: 24

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
*SOCI 1133 Crisis Intervention and Experience
and select 3 credit hours from the following:
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Speech 3 hours
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 30

^Human Services 30 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 1413 Introduction to Developmental Disabilities
HSVC 1423 Models for Supporting Persons with Developmental Disabilities
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2073 Issues in Human Services
*HSVC 2113 Internship
*HSVC 2513 Management of Community Programs

Controlled Electives Credit Hours: 6
CHLD 2213 Children with Special Needs
^*HSVC 1433 Leisure, Recreation, Visual, and Performing Arts in Disabilities
^*HSVC 1523 Volunteer Management in Human Services
^HSVC 2003 Dynamics of Family Relationships
^HSVC 2203 Parent-Child Relations
INTD 1363 American Sign Language I
OCTA 1313 Introduction to Occupational Therapy
PHED 1113 Personal, School, and Community Health
PHIL 2153 Medical Ethics
*POLS 2133 Introduction to Public Administration
*PSYC / SOCI 2053 Social Psychology
*PSYC 2213 Brain and Behavior
*PSYC / SOCI 2813 Human Sexuality
*SOCI 2133 Introduction to Deviant Behavior
*SOCI 2243 Introduction to Social Work

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.

COMMUNITY SERVICE: HUMAN SERVICES

HUMAN SERVICES
Gerontology

Human Services - Specialized Options
Students in the Gerontology Option obtain skills and knowledge that will provide flexibility to work in a number of settings relating to the aging population. Careers serving the elderly can be found in senior centers, adult day care, nursing homes and other residential settings for the elderly, home companion/home health care, hospice, and family support. Specialized coursework (15 - 16 credit ours) includes:
- Gerontology in Human Services
- Aging and Behavior
- Management of Community Programs

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 27

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Psychology 6 hours
PSYC 1113 Introduction to Psychology
PSYC/SOCI 2713 Aging and Behavior

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
*SOCI 1133 Crisis Intervention and Experience
and select one course from the following:
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America

Speech 3 hours
SPCH 1013 Fundamentals of Listening
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 33

Computer Information Systems 3 hours
Select 3 credit hours from any of the Computer Information Systems (CSYS/CSCI) courses.

^Human Services 27 hours
HSVC 1113 Principles of Human Services
HSVC 1213 Basic Counseling Skills
HSVC 1313 Chemical Dependency and Treatment
HSVC 2023 Lifespan Development
*HSVC 2053 Human Services Applications/Case Management
*HSVC 2073 Issues in Human Services
*HSVC 2113 Internship
*HSVC 2513 Management of Community Programs
*HSVC 2613 Gerontology in Human Services

Philosophy 3 hours
PHIL 2153 Medical Ethics

Controlled Electives Credit Hours: 3-4
^Human Services - Any Courses
ALDH 1323 Medical Terminology
BIOL 1383 Nutrition
HORT 1031 Therapeutic Horticulture
MGMT 1233 Health Care Management
PHED 1113 Personal, School, and Community Health
PHED 2212 First Aid
*POLS 2133 Introduction to Public Administration
*PSYC / SOCI 2053 Social Psychology
*PSYC 2213 Brain and Behavior
*PSYC 2613 Adult Psychology
*SOCI 2243 Introduction to Social Work

Total Credit Hours: 63-64
*Course has prerequisite (See course description section of catalog).
^ Students must earn a grade of "C" or better is HSVC courses in order to progress to advanced courses in the program, or gain permission of instructor or associate dean.

COMMUNITY SERVICE: HUMAN SERVICES

CRIMINAL JUSTICE

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Criminal Justice may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice. Criminal justice agencies have various strenuous entrance, background and physical requirements. This program will assist in preparing students for employment in criminal justice if other criteria established by employer/agency are met.

Degree Awarded: Associate in Arts

For More Information Contact:
Liberal Arts and Community Services Division:
Northeast: (918) 595-7494
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 37
See the General Education Requirements page for the complete list.

Specialized Course Requirements Credit Hours: 15

Criminal Justice 15 hours
CRIM 1013 Introduction to Criminal Justice
CRIM 2103 Criminal Evidence
CRIM 2123 Criminal Law I
*CRIM 2143 Criminal Law II
CRIM 2223 Criminal Procedures I

Recommended Electives Credit Hours: 9
*CSYS 2563 Enterprise Security
*CRIM 2113 Criminalistics
*CRIM 2333 Criminal Procedures II
CSCI 1203 Computer Concepts and Applications
GEOG 1023 World Geography (Economic)
GEOG 1043 Introduction to Cultural Geography
HIST 1033 History of Oklahoma
HIST 1053 Ancient and Medieval Western Civilization
HIST 1063 Modern Western Civilization
PHIL 1113 Introduction to Philosophy
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology
SOCI 2113 Social Problems in America
*SOCI 2223 Behavioral Statistics

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
Proficiency in a foreign language is recommended.

EMERGENCY MEDICAL TECHNOLOGY

Program Description:
This program is developed jointly by Tulsa Community College and Tulsa Technology Center. Basic: This option provides an opportunity for individuals to develop skills to function as an entry-level Emergency Medical Technician in a pre hospital setting. Course of study includes introductory anatomy and physiology, patient assessment, automatic operations. Paramedic: The paramedic phase of the program emphasizes the care of more extended and in-depth study of theories and clinical experiences. Basic Trauma Life Support, Advanced Cardiac Life Support and Pediatric Advanced Life Support units are taught. This phase also contains leadership instruction appropriate to prepare the student to function in the role of the Paramedic and as a member of the health care team. Successful completion of the National Registry of Emergency Medical Technicians examination at the Basic and Paramedic levels qualifies graduates for licenser by the Oklahoma State Department of Health.

Degree Awarded: Associate of Applied Science

Procedures for Application:
1. Obtain an admission packet from Tulsa Technology Center. Packets are located at all Tulsa Technology Center campuses in the Adult Education office.
2. An admission test is required for full-time programs at Tulsa Technology Center (see admission packet for details).
3. Submit completed program application form and required documents to the Career Services Center, Tulsa Technology Center, Please call (918) 828-2024 for application deadlines.
4. Contact Associate Dean, Liberal Arts and Community Service Programs (918) 595-7494, for program application form and any specific information.
5. All prospective EMDT program students must complete an application for enrollment to the College and submit their high school transcripts, GED scores, ACT/SAT scores, college transcripts and any previous training and/or education to the Northeast Campus Registrar at 3727 East Apache, Tulsa, OK 74115. Incomplete submissions will not be considered for Science Degree program.
6. Acceptance to Tulsa Community College does not guarantee admission to the Emergency Medical Technology Associate of Applied Science Degree program.

For More Information Contact:
Tulsa Technology Center - Admissions and Enrollment Office.
Students should consult with Tulsa Tech Admissions and Enrollment Staff in the Career Services Center at (918) 828-5200 before enrolling in this option.
Liberal Arts and Community Services Division:
Northeast Campus (918) 595-7494

General Education Requirements Credit Hours: 19

Biology 4 hours
*BIOL 1314 Human Anatomy and Physiology

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2343 Business Communications

Psychology 3 hours
PSYC 1113 Introduction to Psychology

COMMUNITY SERVICE: HUMAN SERVICES

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 35

EMDT Basic 8 hours
**EMDT 1013 EMDT Basic Introduction
**EMDT 1024 EMDT Basic Practicum
**EMDT 1041 EMDT Basic Clinical

EMDT Paramedic 24 hours
EMDT 1213 Introduction to Paramedicine
EMDT 1231 Paramedicine Clinical Introduction
EMDT 1342 Paramedic Patient Assessment
EMDT 1351 Patient Assessment Clinical
EMDT 2003 Paramedic Trauma and Trauma Clinical
EMDT 2014 Paramedic Medical
EMDT 2031 Paramedic Medical Clinical
EMDT 2061 PreHospital Trauma Life Support
EMDT 2111 EMS Clinical
*EMDT 2131 Paramedic Special Considerations and Assessment Based Mgmt.
EMDT 2151 Special Considerations Clinical
EMDT 2212 Physician Internship
EMDT 2231 Paramedic Operations
EMDT 2252 EMS Internship

Fire and Emergency Services 3 hours
FESR 1313 Fundamentals of Fire Protection
Recommended Electives Credit hours 6
ALDH 1323 Medical Terminology
BUSN 2363 Supervisory Management
CSCI 1203 Computer Concepts and Applications
HCAD 1103 Legal Practices in Health Care
HCAD 1113 Risk Management in Health Care
HSVC 1313 Chemical Dependency and Treatment
HSVC 2003 Dynamics of Family Relationships
INTD 1363 American Sign language I
MGMT 2123 Leadership Development
*MATH 1513 College Algebra
NURS 2403 Dosage Calculations for Nurses
PHIL 2153 Medical Ethics
*PSYC 2023 Developmental Psychology
*PSYC 2053 Social Psychology
*SOCI 2713 Aging and Behavior
SPAN 1103 Spanish I
SPCH 1113 Speech Communication I

Total Credit Hours: 61

*Course has prerequisite (See course description section of catalog).
**Course must be completed with a "B" grade or above.
NOTE: Students who have passed the State of Oklahoma and National Registry examinations at either the Basic EMDT or Paramedic level may apply for advanced standing credit in these courses. Application must be made in the Counseling and Testing Center at the Northeast Campus. Specialized Course Requirements should be taken at Tulsa Technology Center, Peoria Campus, or any other educational institution that offers approved programs.

FIRE and EMERGENCY SERVICES
NSU Transfer Option

Program Description:
This program offers a broad education in the principles and practical applications of fire prevention, fire hydraulics, incident command, fire and associated hazards, fire protection systems, building design, and fire service administration. It provides specialized training for in-service fire personnel and individuals who wish to enter the profession. Graduates are prepared to secure employment with municipal or other fire departments, industrial firms, governmental agencies, and fire protection companies. In addition to the Associate in Science degree, attainment of Emergency Medical Technician-Basic (EMDT-B) is strongly encouraged for individuals seeking employment in the fire service.
IT SHOULD BE NOTED THAT FIRE DEPARTMENTS HAVE RIGOROUS PHYSICAL REQUIREMENTS AND THE TYPICAL APPLICATION PROCESS IS EXTREMELY COMPETITIVE; WHILE FIRE DEPARTMENT ADMINISTRATIONS VIEW FORMAL EDUCATION IN FIRE AND EMERGENCY SERVICES WITH FAVOR, STUDENTS SHOULD NOT ASSUME THAT COMPLETION OF THIS PROGRAM WILL GUARANTEE EMPLOYMENT WITH A FIRE DEPARTMENT. (In most fire departments, applicants must be at least 21 years of age.)

Degree Awarded: Associate in Science

For More Information Contact:
Fire and Emergency Services Program: (918) 595-7443
Liberal Arts and Community Services Division:
Northeast: (918) 595-7494
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 38

Chemistry 4 hours
*CHEM 1114 Principles of Chemistry

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications
or
any higher level Computer Information Systems course

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

History 3 hours
HIST 1483 U.S. History 1492 to Civil War Era
or
HIST 1493 U.S. History Civil War Era to Present

Humanities 6 Hours
See the General Education Requirements page for complete list.

Mathematics 3 hours
*MATH 1513 College Algebra

Physics 4 hours
*PHYS 1114 General Physics

Political Science 3 hours
POLS 1113 American Federal Government

Psychology 3 hours
PSYC 1113 Introduction to Psychology

COMMUNITY SERVICE: HUMAN SERVICES

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 30

Fire and Emergency Services 30 hours
FESR 1313 Fundamentals of Fire Protection
*FESR 1333 Fire Protection Hydraulics and Water Supply
FESR 1343 Fundamental of Fire Prevention
FESR 1353 Introduction to Incident Management
FESR 2213 Introduction to Homeland Defense
FESR 2313 Building Construction for Fire Protection
FESR 2323 Fire and Emergency Services Administration
FESR 2343 Fire Behavior and Combustion
FESR 2403 Fire Protection Systems
FESR 2463 Emergency Services Internship

Recommended Elective Credit Hours: 0-8
FESR 2108 Basic Emergency Medical Technician Certification

Total Credit Hours: 68-76

*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

COMMUNITY SERVICE: LAW, PUBLIC ADMINISTRATION & SAFETY AND CORRECTIONS

FIRE AND EMERGENCY SERVICES

Program Description:
This certificate program is designed for both students who are preparing themselves for a career in the fire service and those who are currently employed as Firefighters. The curriculum is designed to provide education in the development of fire protection in the U.S., hydraulics and water supply, fire prevention, incident management, fire investigation, building construction, fire and emergency services administration, fire behavior, fire protection systems, and emergency medical services response. This curriculum provides students with the technical knowledge necessary to maximize effectiveness in the position of Firefighters.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Fire and Emergency Services Program: (918) 595-7443.
Liberal Arts and Community Services Division:
Northeast: (918) 595-7494.
Counseling Center: Northeast: (918) 595-7527

Certificate Requirements Credit Hours: 41
FESR 1313 Fundamentals of Fire Protection
*FESR 1333 Fire Protection Hydraulics and Water Supply
FESR 1343 Fundamentals of Fire Prevention
FESR 1353 Introduction to Incident Management
FESR 1363 Fire Investigation and Arson
FESR 2108 Basic Emergency Medical Technician Certification.
FESR 2213 Introduction to Homeland Defense
FESR 2313 Building Construction for Fire Protection
FESR 2323 Fire and Emergency Services Administration
FESR 2343 Fire Behavior and Combustion
FESR 2403 Fire Protection Systems
FESR 2463 Emergency Services Internship

Total Credit Hours: 41
*Course has prerequisite (See course description section of the catalog).

FIRE AND EMERGENCY SERVICES
Emergency and Community Preparedness Option

Program Description:
This certificate program is designed for individuals who want to increase their knowledge of homeland security issues and solutions. It is recommended for individuals who either are employed as or are seeking employment as Firefighters, Police Officers, emergency management officials, and in business and industry. The curriculum is designed to provide education in the development of emergency services in the U.S., emergency incident management, homeland defense, and cyber security. This curriculum provides students with the basic knowledge necessary to provide effectiveness in positions requiring knowledge of homeland security issues.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Fire and Emergency Services Program: (918) 595-7443
Liberal Arts and Community Services Division:
Northeast (918) 595-7494
Counseling Center: Northeast (918) 595-7527

Certificate Requirements Credit Hours: 12
*CSYS 2563 Enterprise Security
FESR 1313 Fundamentals of Fire Protection
FESR 1353 Introduction to Incident Management
FESR 2213 Introduction to Homeland Defense

Total Credit Hours: 12
*Course has prerequisite (see course description section of the catalog)

LAW ENFORCEMENT

Program Description:
This program is designed principally for persons interested in a career as a peace officer and as a program for current peace officers to improve their knowledge and skills in specialized fields. Law enforcement agencies have various strenuous entrance, background, and physical requirements. Students should not assume this program will lead to employment in law enforcement.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts/Community Services Division:
Northeast: (918) 595-7494
Counseling Center: Northeast: (918) 595-7527

General Education Requirements 24 hours

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Psychology 3 hours
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
SOCI 1113 Introduction to Sociology
*SOCI 2043 Juvenile Delinquency

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 24

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Criminal Justice 21 hours
CRIM 1013 Introduction to Criminal Justice
CRIM 2103 Criminal Evidence
*CRIM 2113 Criminalistics
CRIM 2123 Criminal Law I
*CRIM 2143 Criminal Law II
CRIM 2223 Criminal Procedures I
*CRIM 2333 Criminal Procedures II

COMMUNITY SERVICE: LAW, PUBLIC ADMINISTRATION & SAFETY AND CORRECTIONS

Recommended Electives Credit Hours: 12
*CRIM 1213 Police Fundamentals
*CRIM 1253 Police Methods and Equipment
*CRIM 2023 Traffic Investigation
CRIM 2063 Law Enforcement Supervision
CRIM 2183 Police Equipment and Weapons
CRIM 2213 Interrogation Techniques
FESR 1363 Fire Investigation and Arson
MGMT 2363 Principles of Management
POLS 2103 Introduction to State and Local Government

Total Credit Hours: 60
*Course has prerequisite (See course description section of the catalog).

LAW ENFORCEMENT
Collegiate Officer Option

Program Description:
This program is designed principally for persons interested in obtaining state certification as a peace officer and as a program for current peace officers to improve their knowledge and skills in specialized fields.
Law enforcement agencies have various strenuous entrance, background, and physical requirements. Students should not assume this program will lead to employment in law enforcement.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Liberal Arts/Community Services Division:
Northeast: (918) 595-7494
Counseling Center: Northeast: (918) 595-7527
Certificate Requirements Credit Hours: 25

General Education Requirements 24 hours

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Psychology 3 hours
PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Sociology 6 hours
SOCI 1113 Introduction to Sociology
SOCI 2043 Juvenile Delinquency

Speech 3 hours
SPCH 1113 Speech Communication I
SPCH 2103 Interpersonal Communication

Specialized Course Requirements Credit Hours: 26

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Criminal Justice 6 hours
*CRIM 2023 Traffic Investigation
*CRIM 2113 Criminalistics

Law Enforcement 17 hours
*LENF 1013 Introduction to Law Enforcement
LENF 1023 Law and Law Enforcement
*LENF 1033 Patrol Function
*+LENF 2013 Police and Community Relations
*+LENF 2021 Custody and Control
*+LENF 2033 Law Enforcement Drivers Training
*+LENF 2041 Police Basic Firearms

Recommended Electives Credit Hours: 12
*CRIM 1213 Police Fundamentals
*CRIM 1253 Police Methods and Equipment
CRIM 2063 Law Enforcement Supervision
CRIM 2183 Police Equipment and Weapons
CRIM 2213 Interrogation Techniques
MGMT 2363 Principles of Management
POLS 2103 Introduction to State and Local Government

Total Credit Hours: 62
*Course has prerequisite (See course description section of the catalog).
+ These courses require compliance with Oklahoma Statutes and qualifications for certification as a peace officer. Students desiring to enter this program should consult counseling for specific program requirements. Some courses may require medical waivers and/or insurance against personal injury. Successful completion of the Associate in Applied Science – Law Enforcement Degree or the Certificate of Achievement in Law Enforcement may qualify the graduate to test for basic peace officer certification under the rules of the Council On Law Enforcement Education and Training. Students desiring to enter the Collegiate Officers Program must declare their intent in advance of commencing class and should consult advisement before enrolling in any LENF course. Credits applying to the Collegiate Officer Program cannot be obtained from testing or advanced standing. For more information contact Director of TCC/COP at (918) 595-7463, or the Liberal Arts/Community Services Division at Northeast Campus at (918) 595-7494.

PARALEGAL

Program Description:
Graduates may continue their education and training at a four-year university. Students should consult the catalog of the university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Upon satisfactory completion of the course requirements, including a grade of "C" or better in all Paralegal courses, graduates are eligible to apply for the examination given by the National Association of Legal Assistants, Inc. to become Certified Legal Assistants (CLA). Tulsa Community College is a member of the American Association for Paralegal Education.

Degree Awarded: Associate in Arts

For More Information Contact:
Business and Information Technology Division:
Metro Campus: (918) 595-7439
Counseling Center: Metro Campus (918) 595-7151
Legal Assistant Program Coordinator: (918) 595-7317

ADMISSION TO THE PROGRAM
1. Complete all admission requirements to Tulsa Community College.

2. Complete all admission requirements to the Paralegal Program.
a. Complete Paralegal Application. (Available in the Business and Technology Division Office, Metro Campus, MC 416)
b. Furnish copies of all transcripts to the program director with application.
Tulsa Community College will refuse program completion credit for legal specialty courses taken more than six years prior to completion of the program, unless the student's proficiency in the area can be demonstrated.

General Education Requirements Credit Hours: 34

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements page for complete list (no performance classes).

Mathematics 3 hours
MATH 1513 College Algebra
or higher level MATH course

Science 7 hours
See the General Education Requirements page for complete list (one course must be laboratory).

Social Science 6 hours
POLS 1113 American Federal Government
and select one of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Required Electives 6 hours
Select at least one 3-hour course from the general education list in Foreign Language, Psychology, or Social Science and select 3 credit hours from Humanities, Fine Arts (Art, Music, Theatre – but not performance classes), Foreign Language, Social Science, Economics, Geography, Health Education, Nutrition, Business Law, Math, or English 2343 is recommended for students with no office experience.

Specialized Course Requirements Credit Hours 27

Accounting 3 hours
ACCT 2213 Financial Accounting

Paralegal 21 hours
Students are required to earn a "C" or better in all Paralegal Courses
*PLGL 1213 Introduction to the Legal System
*PLGL 1313 Civil Procedure I
*PLGL 2303 Civil Procedure II
*PLGL 2333 Introduction to Legal Research and Writing
*PLGL 2343 Advanced Legal Research and Writing
*PLGL 2353 Contracts
*PLGL 2363 Real Property Law

Speech 3 hours
SPCH 1113 Speech Communication I

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

PARALEGAL

Program Description:
This program is designed to prepare graduates to work as professional assistants under the supervision of attorneys, with training in civil procedure, legal research and writing, drafting of documents, interviewing techniques, litigation support, computer use in the law, and law office systems management. Students acquire additional knowledge of various substantive and procedural areas of law including, among others, contract law, real property transactions, business organizations, family law, bankruptcy or probate practice. Upon satisfactory completion of the course requirements, including a grade of "C" or better in all Paralegal courses, graduates are eligible to apply for the examination given by the National Association of Legal Assistants, Inc. to be Certified Legal Assistants (CLA). Tulsa Community College is a member of the American Association for Paralegal Education.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Paralegal Program Coordinator: (918) 595-7317
Business and Information Technology Division:
Metro Campus (918) 595-7039
Counseling Center: Metro Campus (918) 595-7151

ADMISSION TO THE PROGRAM
1. Complete all admission requirements to Tulsa Community College.
2. Complete all admission requirements to the Paralegal Program.
a. Complete Paralegal Application. (Available in the Business and Information Technology Division
Office, Metro Campus, MC 416
b. Furnish copies of all transcripts to the program direction with application.
Tulsa Community College will refuse program completion credit for legal specialty courses taken more than six years prior to completion of the program, unless student's proficiency in the area can be demonstrated.

General Education Requirements Credit hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Additional General Education 6 hours
Within the requirement for 18 semester hours or the equivalent of General Education coursework, students must take courses in at least three different disciplines such as social sciences, natural sciences, mathematics, humanities, foreign language and English. Acceptable courses include survey and theory courses, but exclude performance, activity, and special topics 2991-2996 courses. See the Paralegal Program Coordinator for questions about specific course acceptability.

Specialized Course requirements Credit Hours: 27-30

Accounting 3 hours
ACCT 2213 Financial Accounting

COMMUNITY SERVICE: LAW, PUBLIC ADMINISTRATION & SAFETY AND CORRECTIONS

Computer information Systems 0-3 hours
CSCI 1203 Computer Concepts and Applications

Paralegal 21 hours
Students are required to earn a "C" or better in all Paralegal Courses.
*PLGL 1213 Introduction to the Legal System
*PLGL 1313 Civil Procedure I
*PLGL 2303 Civil Procedure II
*PLGL 2333 Introduction to Legal Research and Writing
*PLGL 2343 Advanced Legal Research and Writing
*PLGL 2353 Contracts
*PLGL 2363 Real Property Law

Speech 3 hours
SPCH 1113 Speech Communication I

Controlled Electives Credit Hours: 15

****Paralegal 9 hours**
*PLGL 2373 Computers in the Law
*PLGL 2403 Principles of Family Law
*PLGL 2413 Law Office Systems and Procedures
*PLGL 2423 Corporations, Partnerships and LLC's
*PLGL 2433 Bankruptcy
*PLGL 2443 Probate, Administration of Estates and Trusts
*PLGL 2453 Administrative Law
*PLGL 2463 Labor and Employment
*PLGL 2473 Torts and Insurance
*PLGL 2483 Native American Law
*PLGL 2493 Criminal Law for Paralegals
*PLGL 2502 Medical Record Analysis for Paralegals
*PLGL 2601 Worker's Compensation for Paralegals
*PLGL 2613 Social Security Administration
*PLGL 2621 Elder Law
*PLGL 2802 Internship
*PLGL 2813 Internship

Select an additional 6 hours from other computer, accounting, business, management, administrative careers, or paralegal courses, Examples are:
MGMT 2363 Principles of Management
***ENGL 2343 Business Communications
*PLGL 2802 Internship
*PLGL 2813 Internship

Total Credit Hours: 60-63

*Course has prerequisite (See course description section of catalog).
**Graduation credit for 1 and 2 credit hour courses in this series is limited to a maximum of 3 credit hours.
***ENGL 2343 is recommended for students with no law office experience.
*PLGL 2802 or *PLGL 2813 is recommended for students with no law office experience or no experience as paralegals.

POLITICAL SCIENCE, A.A.
Associate in Arts (transfer degree).
See: Arts & Communications area of study: Liberal Arts & Social Sciences

Health Science Area of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

www.careerclusters.com

Allied Health

Dental Assisting, AAS Cooperative agreement TTC
Dental Hygiene, AAS
(Emergency Medical Technology AAS see: Community Services area of study: Law, Public Administration, Safety & Corrections)
Medical Laboratory Technician, AAS/CER
Medical Laboratory Technician- Phlebotomy, CER
Occupational Therapy Assistant, AAS
Pharmacy Technology, CER
Physical Therapist Assistant, AAS
Radiography, AAS
Respiratory Care, AAS

MEDICAL OFFICE SUPPORT

(Business, Healthcare Business Operations options, AAS/CER see Business)
Health Information Technology:
- Medical Records, AAS
- Coding & Reimbursement Specialist, CER

Medical Assistant:
- Clinical Administrative, CER

Transcription, CER

NURSING

Geriatric Technician, CER
Health Sciences, Pre-Nursing, AS
Nursing, AAS
Patient Care Technician, CER
Surgical Technology, AAS

Pre-Professional

Pre-Pharmacy OU option
Pre-Professional Science Related Fields of Concentration:
- Dentistry, AS
- Medicine, AS
- Optometry, AS

Pre-Veterinary Science OSU option, AS

Other Health Sciences

Veterinary Technology, AAS
(Biotechnology, AS/AAS/CER see Science, Technology, Engineering & Mathematics area of study: Science)

HEALTH SCIENCE

CARDIOVASCULAR TECHNOLOGY

Program Desicription:

The Tulsa Community College (TCC) two-year Associate in Applied Science Cardiovascular Technology Program is designed to prepare individuals with the knowledge, skills and behaviors that are required for the performance of a successful cardiovascular technologist. The profession of cardiovascular technology includes three areas of diagnostic evaluation: 1) non-invasive cardiovascular technology , 2) invasive cardiovascular technology, 3) non-invasive peripheral vascular technology (diagnosis of blood vessel disease using ultrasound testing). The TCC Cardiovascular Technology Program incorporates both the non-invasive and invasive aspects of the profession into the AAS degree.

Cardiovascular technologists are health care professionals, under the direction of a qualified physician, who are concerned with the diagnosis and treatment of patients with congenital and acquired heart and blood vessel disease. The non-invasive cardiovascular technologist performs cardiac ultrasound, exercise testing and electrocardiographic (ECG) testing. The invasive cardiovascular technologist is a member of the cardiac catheterization team and assists with coronary and cardiac angiography, percutaneous coronary intervention, right heart catheterization, electrophysiology and pacemaker implantations.

Program Information:

The Cardiovascular Technology Program at Tulsa Community College selects up to 10 new students during the spring semester to begin in the fall semester (August) of each year. Once admitted to the program the student must follow the remainder of the prescribed curriculum. The specialized courses are not offered out of sequence. They are offered in the day time only, on a full-time basis and will take a total of five (5) semesters and 73 credit hours to complete. All of the general education courses may be taken prior to being accepted into the program to lighten the semester course loads but BIO 1314 – Human Anatomy and Physiology, ALDH 1323 – Medical Terminology, MATH 1473 – Math for Critical Thinking, CHEM 1114 – Principles of Chemistry and certification in the **American Heart Association Basic Cardiac Life Support (BCLS) must be completed as prerequisites prior to acceptance into the Cardiovascular Technology Program. After successful completion of all academic and clinical requirements, the graduate of the TCC Cardiovascular Technology Program will be eligible to take the Registry Exams for the RCS and RCIS credentials offered through Cardiovascular Credentialing International (CCI), CCI, 1500 Sunday Drive, Suite 102, Raleigh, NC 27607, (919) 861-4539.

**Can be obtained through TCC Continuing Education

Accreditation:

The Cardiovascular Technology Program at Tulsa Community College is seeking accreditation by the Commission on Accreditation of Allied Health Programs (CAAHEP) 1361 Park Street, Clearwater, FL, 33756, (727) 210-2350 through the Joint Review Committee on Education Programs in Cardiovascular Technology (JRC-CVT), 1248 Harwood Drive, Bedford, TX 76021, (817) 283-2835.

Degree Awarded: Associate in Applied Science

For More Information Contact:

Allied Health Services Division at Metro Campus: (918) 595-7002

Application Instructions:

The following application process and all appropriate information must be completed by June 1:

1. Complete the Tulsa Community College application for admission and submit to the Metro Campus Enrollment Services office.

2. Acceptance to Tulsa Community College does not guarantee admission to the Cardiovascular Technology Program.

3. Send official high school transcript or GED scores to the Metro Campus Enrollment Services Office. High school seniors should send a (7th) semester transcript. Upon completion of high school, another official transcript must be sent with final grades and graduation date.

4. Send official college transcript(s) to Metro Campus Enrollment Services office from each college(s) attended.

5. Send official ACT/SAT scores to the Metro Campus Enrollment Services office. (Each candidate must have either an ACT or SAT score to be considered for the program, regardless of age or educational background).

6. First time college students must meet with a counselor in the Counseling and Testing Center regarding student orientation, CPT, (College Placement Test) and possible high school curricular deficiencies. Each applicant must show proficiency in English, Reading and Science.

7. Send completed application and all required documentation for the Cardiovascular Technology Program to the Allied Health Division office by June 1st. The Cardiovascular Technology Program has a limited enrollment and students are encouraged to apply as soon as possible. Applications received after the deadline will be considered only if the class has not been filled. Once an application is received, you will be notified by mail regarding your status in the selection process.

8. In order to enroll in the courses that include a clinical component and are part of the program degree plan, students must submit a completed immunization form and receive clearance on a criminal background check, including a sex offender registry or provide documentation of a security clearance from another state or country (international students).

Selection Criteria

A selection committee reviews all applications. Qualified applicants will be granted an interview with the Cardiovascular Technology faculty. Qualified applicants are then ranked from the highest to the lowest score according to an established point system. The Cardiovascular Technology Program top applicants are notified of their selection by the middle of July. The selection criteria are based upon the following:

1. College Cumulative GPA of 2.5.

2. ACT composite score of 19 or higher or CPT of 80 or higher in English, Reading, Math and Science.

HEALTH SCIENCE

3. Math and/or Science GPA

4. Math and Science ACT/SAT Score

5. Interview

Prerequisite Courses:
You must be enrolled in the LAST of the following prerequisites in the spring semester to be considered for selection. All prerequisites must be completed with a grade of 'C' or higher.

BIOL 1314 Human Anatomy and Physiology
MATH 1473 Math for Critical Thinking
AH 1323 Medical Terminology
CHEM 1114 Principles of Chemistry

General Education Requirements Credit Hours: 29

Biology 4 hours
+oBIOL 1314 Human Anatomy and Physiology

Chemistry 4 hours
+oCHEM 1114 Principles of Chemistry

Computer Information Systems 3 hours
+oCSCI 1203 Computer Concepts and Applications

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition I
*ENGL 2333 Technical/Professional Writing

Mathematics 3 hours
+oMATH 1473 Math for Critical Thinking

Psychology 3 hours
PSYC 1113 Introduction to Psychology or
PSYC 1313 Human Relations

Social Sciences 6 hours
HIST 1483 U.S. History 1492 to Civil War Era
Or
HIST 1493 U.S. History Civil War Era to present
POLS 1113 American Federal Government

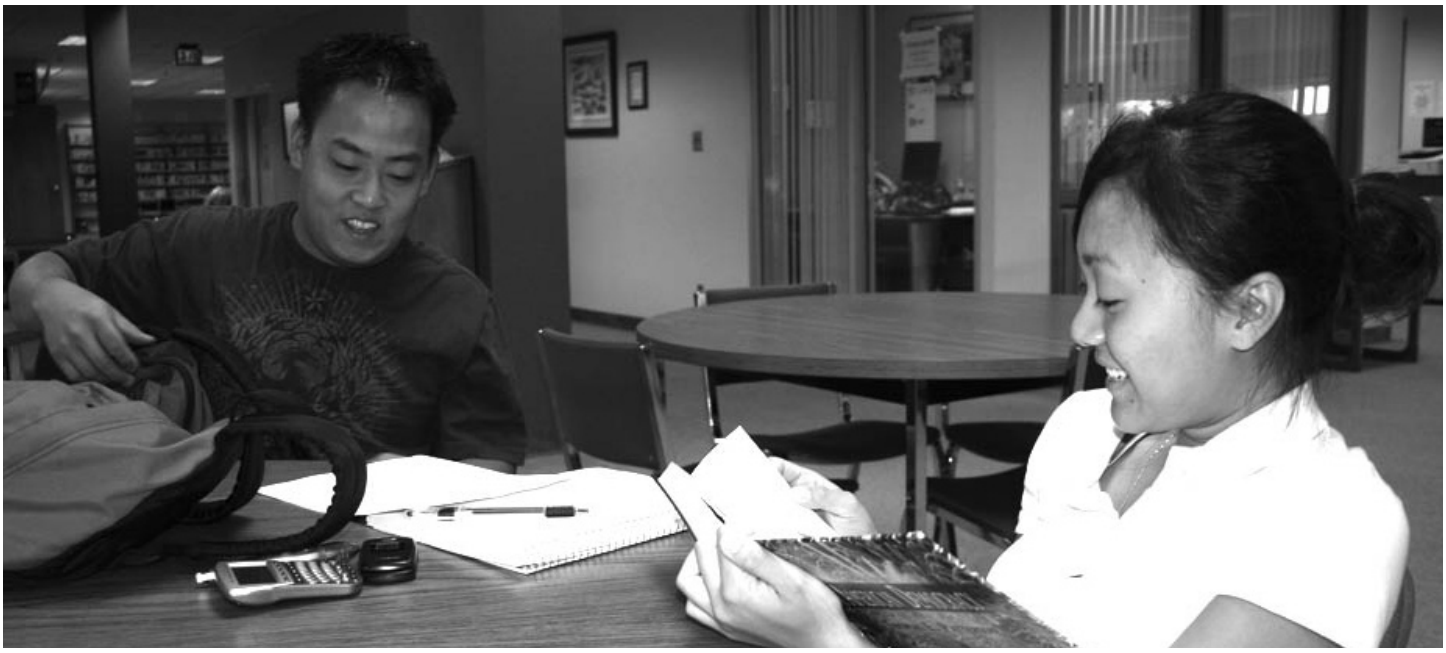
Specialized Course Requirements Credit Hours: 44

Allied Health 3 hours
+oALDH 1323 Medical Terminology

Cardiovascular Technology 41 hours

*oCVTC 1101 Introduction to Cardiovascular Technology
*oCVTC 1022 Cardiovascular Pharmacology
*oCVTC 1033 Cardiovascular Anatomy and Physiology
*oCVTC 1042 Cardiovascular Patient Assessment
*oCVTC 1053 Cardiovascular Physical Science
*oCVTC 1061 Clinical Practicum I
*oCVTC 1073 Cardiovascular Pathophysiology
*oCVTC 1083 Noninvasive Cardiovascular Theory and Techniques
*oCVTC 1093 Cardiovascular Diagnostics I
*oCVTC 1102 Cardiovascular Radiography
*oCVTC 1112 Clinical Practicum II
*oCVTC 1123 Clinical Practicum III
*oCVTC 1133 Invasive Cardiovascular Theory and Techniques
*oCVTC 1143 Cardiovascular Diagnostics II
*oCVTC 1153 Clinical Practicum IV
*oCVTC 1161 CCI Examination Review
*oCVTC 1173 Clinical Practicum V

Total Credit Hours: 73
*Course has prerequisite (See course description section of catalog).
**Can be obtained through TCC Continuing Education
o Course must be completed with a 'C' or above.
+ Prerequisite to admission to the Cardiovascular Technology Program



HEALTH SCIENCE: ALLIED HEALTH

DENTAL ASSISTING

Program Description:
This program was developed by a joint effort of Tulsa Community College and Tulsa Technology Center. The Dental Assisting program option provides an opportunity for graduates of an accredited Dental Assisting program to develop additional skills in mathematics, English, humanities, social and biological sciences and to earn an Associate in Applied Science Degree. Dental Assistants are integral members of dental offices and clinics in a chair side setting. They assist dentists by passing instruments, mixing materials, taking impressions of teeth, fabricating temporary crowns, making custom trays and other operative procedures. Students should consult with the Associate Dean of the Allied Health Services Division for information and enrollment. Course Location: Dental Assisting Courses will be taken at Tulsa Technology Center, Lemley Campus. General Education courses will be offered by Tulsa Community College.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division at Metro Campus (918) 595-7002
TTC Career Resources Center Department: (918) 828-5151

Procedures For Application To Tulsa Technology Center:
1. Obtain an admission packet from Tulsa Technology Center. Packets are located at all Tulsa Technology Center campuses in the Adult Education office.
2. An admission test is required for full-time programs at Tulsa Technology Center (see admission packet for details).
3. Submit completed program application form and required documents by August 1st for the Fall semester to the Career Services Center, Tulsa Technology Center, Lemley Campus, 3420 S. Memorial Dr. Tulsa, OK 74145. Please call (918) 828-5200 for application deadlines.
4. All prospective Dental Assisting program students must complete an application for enrollment to the College and submit their high school transcripts, GED scores, ACT/SAT scores, college transcripts and any previous training and/or education to the Metro Campus Registrar at 909 S. Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Dental Assisting Associate of Applied Science Degree program.
5. Acceptance to Tulsa Community College does not guarantee admission to the Dental Assisting Associate of Applied Science Degree program. Graduates of Tulsa Technology Centers Dental Assisting program may seek national certification by accomplishing each of the following: high school graduation or equivalent; two years of full-time work experience as dental assistant, along with recommendation from the dentist employer; current cardiopulmonary resuscitation (CPR) certification with the American Heart Association or the American Red Cross; and passing the Dental Assisting national board certification examination (CDA). National Certification is administered by the Dental Assisting National Board, Inc., 216 E. Ontario St., Chicago, IL 6061, (312) 642-3368.

General Education Requirements Credit Hours: 28

Biology 7 hours
°BIO 1314 Human Anatomy and Physiology
°BIO 1323 Basic Microbiology

English 6 hours
*ENGL 1113 Freshman Composition I and
select 3 credit hours from the following:
ENGL 1083 Grammar and Mechanics of Writing
*ENGL 1213 Freshman Composition II

Humanities 3 hours
PHIL 2153 Medical Ethics

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 20

Dental Assisting 20 hours
°DA 1124 Dental Assisting Introduction
°*DAST 1133 Dental Anatomy and Physiology
°DA 1231 Office Procedures Dental
°*DAST 1242 Operative Chairside Procedures I
°*DAST 2344 Operative Chairside Procedures II
°*DAST 2432 Radiology and Laboratory Procedures
°*DAST 2444 Clinical Dental Assisting

Recommended Electives Credit Hours: 14
ACCT 1003 Introduction to Accounting
ALDH 1323 Medical Terminology
BIOL 1383 Nutrition
*CHEM 1114 Principles of Chemistry
*CHEM 1124 Introduction to Organic Chemistry
CSCI 1011 Introduction to Microcomputers
MKTG 2343 Customer Service
PSYC 1313 Human Relations
SOCI 1113 Introduction to Sociology

Total Credit Hours: 62
*Course has prerequisite (See course description section of catalog).
°Course must be completed with a "C" or above.

DENTAL HYGIENE

Program Description:
Dental Hygiene is an allied health profession which is concerned with the prevention and control of oral disease. This program prepares the student to be a dental hygienist, whose primary duties are to care for patients with an individualized oral health regimen which includes gathering of information

HEALTH SCIENCE: ALLIED HEALTH

about health status, and providing appropriate periodic oral prophylaxis, dental x-rays, oral health instruction and other prevention services. The dental hygienist is also prepared to apply preventive measures in community health programs. The Dental Hygiene Program is accredited by The Commission on Dental Accreditation, Chicago, Illinois. The graduate will receive an Associate Degree in Applied Science and be eligible to take national and state licensing and certifying examinations. After passing these examinations, the graduate may practice dental hygiene under the supervision of a licensed dentist. Individuals who have:

1. been addicted to narcotics or alcohol;
2. received treatment for the habitual use of narcotics or alcohol;
3. been convicted for a narcotics-related offense;
4. been reprimanded, disciplined, disqualified or suspended from the practice of dentistry or another health-related field;
5. been a patient in a sanitarium or institution for the treatment of mental illness;
6. been arrested/convicted of any felony offense, including a deferred sentence; may not be eligible for dental hygiene licensure in the state of Oklahoma. If any of these circumstances exist, it is advised that the prospective student discuss this with the Oklahoma Board of Dentistry, (405) 524-3592, prior to makingapplication to the program.

Procedures For Application:

1. Applications are available through the Allied Health Services Division (918) 595-7002.
2. Submit ALL materials by the March 1st deadline to the Allied Health Services Division, room MP458, 909 South Boston, Tulsa, OK 74119.
3. All prospective Dental Hygiene students must complete an application for enrollment to the College, submit their high school transcripts, ACT scores and previous college transcripts to the Metro Campus Registrar at 909 South Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Dental Hygiene program.
4. Acceptance to Tulsa Community College does not guarantee admission to the Dental Hygiene program.
5. Prerequisite coursework for the Dental Hygiene program must be completed by the end of the Spring semester in which application is reviewed.

These prerequisites are:

BIOL 1314 Human Anatomy and Physiology
BIOL 1323 Basic Microbiology
CHEM 1114 Principles of Chemistry or High School Chemistry
CHEM 1124 Introductory Organic and Biochemistry
ENGL 1113 Freshman Composition I
ENGL 1213 Freshman Composition II
HIST 1483 U.S. History 1492 to Civil War Era or
HIST 1493 U.S. History Civil War Era to Present
MATH 0013 Beginning Algebra or High School Algebra
POLS 1113 American Federal Government

6. Eligible applicants to be interviewed will be notified by mail for consideration for admission into the Dental Hygiene program. All interviewed applicants will be notified by mail regarding their selection status.
7. In order to enroll in courses that include a clinical component and are part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division at Metro Campus:
(918) 595-7002

General Education Requirements Credit Hours: 38-45

Biology 10 hours
º+BIOL 1314 Human Anatomy and Physiology
º+BIOL 1323 Basic Microbiology
ºBIO 1383 Nutrition

Chemistry 4-8 hours
º+*CHEM 1114 Principles of Chemistry
or
High School Chemistry (with a "C" or better)
º+*CHEM 1124 Introductory Organic and Biochemistry

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

English 6 hours
+*ENGL 1113 Freshman Composition I
+*ENGL 1213 Freshman Composition II

Mathematics 0-3 hours
ºMATH 0013 Beginning Algebra
or
High School Algebra (with a "C" or better)

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
+POLS 1113 American Federal Government
and select one course from the following:
+HIST 1483 U.S. History 1492 to Civil War Era
+HIST 1493 U.S. History Civil War Era to Present

Sociology 3 hours
SOCI 1113 Introduction to Sociology

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 53

Dental Hygiene 53 hours
º*DHYG 1012 Dental and Oral Anatomy
º*DHYG 1022 Head and Neck Anatomy
º*DHYG 1303 Oral Embryology and Histology
º*DHYG 1333 Pathology
º*DHYG 1353 Periodontology
º*DHYG 1363 Dental Hygiene Theory I
º*DHYG 1373 Dental Hygiene Theory II
º*DHYG 1382 Clinical Dental Hygiene I
º*DHYG 1394 Clinical Dental Hygiene II
º*DHYG 1412 Dental Radiography Foundation
º*DHYG 1421 Dental Radiography Techniques
º*DHYG 1512 Dental Pain Management
º*DHYG 1532 Dental Hygiene Pharmacology
º*DHYG 2022 Special Needs / Geriatrics

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°*DHYG 2312 Community Dental Health I
°*DHYG 2321 Community Dental Health II
°*DHYG 2343 Dental Materials Techniques and Supportive Services
°*DHYG 2363 Dental Hygiene Theory III
°*DHYG 2372 Dental Hygiene Theory IV
°*DHYG 2384 Clinical Dental Hygiene III
°*DHYG 2394 Clinical Dental Hygiene IV

Total Credit Hours: 91-98

*Course has prerequisite (See course description section of catalog).
+Prerequisite to Dental Hygiene Curriculum schedule. (19-27 hours).
°Course must be completed with a "C" or above.

MEDICAL LABORATORY TECHNOLOGY

Program Description:
This program prepares the student to perform tests and related duties in a medical laboratory with the supervision of a medical technologist. The Medical Laboratory Technician Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences. Upon successful completion of the program, students may sit for the National Registry sponsored by the American Society of Clinical Pathology.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division at Metro Campus:
(918) 595-7002 for program application form and any specific program information.

Procedures For Application:
1. Submit completed program application form and required materials by July 15th to the Allied Health Services Division located in the Alfred M. Philips Building, room MP 458, 909 South Boston, Tulsa, OK 74119.
2. All prospective Medical Laboratory technology program students must complete an application for enrollment to the College, submit their high school transcript, ACT scores and previous college transcripts to the Metro Campus Registrar at 909 South Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Medical Laboratory Technology program.
3. Acceptance to Tulsa Community College does not guarantee admission into the Medical Laboratory Technology program.
4. Eligible applicants to be interviewed will be notified by mail for consideration for admission into the Medical Laboratory Technology program. All interviewed applicants will be notified by mail regarding their selection status.
5. In order to enroll in courses that include a clinical component and are part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

General Education Requirements Credit Hours: 28

Biology 8 hours
°BIOL 1314 Human Anatomy and Physiology
°*BIOL 2164 Microbiology

Chemistry 5 hours
°*CHEM 1315 General Chemistry I

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Psychology or Sociology 3 hours
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 41

Medical Laboratory Technology 41 hours
+MDLT 1203 Phlebotomy
+MDLT 1212 Introduction to Medical Laboratory Technology
+°*MDLT 1222 Phlebotomy Clinical
°*MDLT 2305 Basic Hematology
°*MDLT 2344 Clinical Chemistry I
°*MDLT 2365 Clinical Chemistry II
°*MDLT 2395 Clinical Microbiology
°*MDLT 2426 Urinalysis, Immunology and Blood Banking
°*MDLT 2434 Clinical Practicum I
°*MDLT 2465 Clinical Practicum II

Total Credit Hours: 69

* Course has prerequisite (See course description section of catalog).
° Course must be completed with a "C" or above.
+Course must be taken concurrently.

MEDICAL LABORATORY TECHNOLOGY
Phlebotomy

Program Description:
This option is for phlebotomy trainees and professionals new to the medical laboratory technology field who need to rapidly acquire phlebotomy (the drawing of blood) skills, as well as acquire a comprehensive overview of the key areas of the clinical laboratory to include specimen processing.
The Phlebotomy Program is approved through the National Accrediting Agency for Clinical Laboratory Sciences. Graduates with a phlebotomy certificate may apply for the National Phlebotomy Registry examination through the American Society of Clinical Pathology.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Allied Health Services Division at Metro Campus:
(918) 595-7002 for program application form and any specific program information.

Procedures For Application:
1. Submit completed program application form and required materials by July 15th and November 15th to the Allied Health Services Division located in the Alfred M. Philips Building, room MP 458, 909 South Boston, Tulsa, OK 74119.

HEALTH SCIENCE: ALLIED HEALTH

2. All prospective Medical Laboratory Technology program, Phlebotomy Option, students must complete an application for enrollment to the College, submit their high school transcript, ACT scores and previous college transcripts to the Metro Campus Registrar at 909 South Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Medical Laboratory Technology program, Phlebotomy Option.
3. Acceptance to Tulsa Community College does not guarantee admission into the Medical Laboratory Technology program, Phlebotomy Option.
4. Eligible applicants to be interviewed will be notified by mail for consideration for admission into the Medical Laboratory Technology program, Phlebotomy Option. All interviewed applicants will be notified by mail regarding their selection status.
5. In order to enroll in courses that include a clinical component and are part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

Certificate Requirements Credit Hours: 7

Medical Laboratory Technology 7 hours
°+MDLT 1203 Phlebotomy
**+MDLT 1212 Introduction to Medical Laboratory Technology
°*+MDLT 1222 Phlebotomy Clinical

Total Credit Hours: 7
*Course has prerequisite (See course description section of catalog).
° Course must be completed with a "C" or above.
** Course required for Medical Laboratory Technology majors.
+ Course must be taken concurrently.

OCCUPATIONAL THERAPY ASSISTANT

Program Description:
This program is designed to prepare a student to perform occupational therapy procedures and related tasks under the direction and supervision of a Registered Occupational Therapist. The Occupational Therapy Assistant performs various treatment procedures delegated by the Registered Occupational Therapist to patients with physical, psychological, or cognitive disabilities. The Assistant also will work independently in programs to prevent disability and maintain health, such as Activity Director.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division at Metro Campus:
(918) 595-7002 for program application form and any specific program information.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P O. Box 31220, Bethesda, MD 20824-1220. AOTAs phone number is (301) 652-2682 (Website: www.aota.org).
Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Admission To The Program:
The program admits one class each year in the summer semester. Prospective students are required to complete the application process by January 15 of each year.

Procedures for Application:
1. Submit completed program application form and required materials by January 15 to the Allied Health Services Division located in the Alfred M. Philips Building, room MP458, 909 South Boston Avenue, Tulsa, OK 74119.
2. All prospective Occupational Therapy Assistant program students must complete an application for enrollment to the College, submit their high school transcripts, ACT scores and previous college transcripts to the Metro Campus Registrars Office at 909 South Boston Avenue, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Occupational Therapy Assistant program.
3. Acceptance to Tulsa Community College does not guarantee admission to the Occupational Therapy Assistant program.
4. Interviews will be granted to applicants who meet the programs minimum requirements. All interviewed applicants will be notified by mail regarding their selection status.
5. In order to enroll in courses that include a clinical component and are part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

General Education Requirements Credit Hours: 22

Biology 4 hours
°BIOL 1314 Human Anatomy and Physiology

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Psychology 6 hours
PSYC 1113 Introduction to Psychology
and select one course from the following:
*PSYC 2023 Developmental Psychology
PSYC 2193 Personality Theories

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

HEALTH SCIENCE: ALLIED HEALTH

Specialized Course Requirements Credit Hours: 46

Occupational Therapy Assistant 46 hours

ºOTA 1203 Introduction to Occupational Therapy
º*OCTA 1293 Introduction to Occupational Therapy II
º*OCTA 1303 Clinical Conditions, Terminology, and Skills
º*OCTA 1352 Neuro Anatomy and Physiology for OTAs
º*OCTA 1363 Applied Anatomy for OTAs
º*OCTA 1403 Therapeutic Media
º*OCTA 1483 Physical Disabilities
º*OCTA 1443 Psychosocial Theory and Practice
º*OCTA 1502 Fieldwork I
º*OCTA 2203 Therapeutic Adaptations
º*OCTA 2233 Developmental Disabilities Theory and Practice
º*OCTA 2263 Current Trends in Occupational Therapy
º*OCTA 2356 Fieldwork II A
º*OCTA 2376 Fieldwork II B

Total Credit Hours: 68

*Course has prerequisite (See course description section of catalog).
**It is recommended that students intending to pursue a Bachelor's degree in Occupational Therapy counsel with an OCTA faculty member to select appropriate electives.
º Course must be completed with a "C" or above.
NOTE: When you apply to write the certification examination with the National Board for Certification in Occupational Therapy (NBCOT), you will be asked to answer questions related to the topic of felonies. For further information on these limitations, you may contact the NBCOT at: National Board for Certification in Occupational Therapy 4720 Montgomery Lane P. O. Box 31220 Bethesda, MD 20824-1220

PHARMACY TECHNOLOGY
Pharmacy Technician Certificate

Program Description:

The Pharmacy Technician Program at Tulsa Community College prepares individuals to work under the supervision of registered pharmacists in providing a high level of modern pharmaceutical care in hospitals, clinics, extended care facilities, nursing homes and other organized health care settings. Their duties may include prescription order processing, inventory activities, quality assurance and control, over-the-counter sales, customer service and relations, product prepackaging, bulk compounding, parenteral IV admixture operations, third party processing and computer operations. A faster than average growth in the profession is expected. The demand for qualified technicians is increasing due to cost containment, advanced technology and changes in legislation.
Program Information:

The Pharmacy Technician Program admits a new class each full semester beginning in August and January. Admission to the class is limited to 25 students. The Pharmacy Technician classes are offered in the evenings on the Metro Campus and will take 16 weeks to complete. The graduates of this one semester program will receive a Certificate of Achievement and will be eligible to take the National Pharmacy Technician Certification Examination through the Pharmacy Technician Certification Board (PTCB). Individuals who have been convicted of a felony or a crime involving moral turpitude, or who have a substance abuse problem, may not be eligible for licensure in the State of Oklahoma or as a candidate for national certification. If any of these circumstances exist, you may wish to contact the Oklahoma State Board of Medical Licensure and Supervision, P.O. Box 18256, Oklahoma City, OK 73154 and the Pharmacy Technician Certification Board, 2215 Constitution Avenue, NW, Washington, D.C. 20037-2985.

ACCREDITATION

The Pharmacy Technology Program at Tulsa Community College is accredited by the Oklahoma State Board of Regents for Higher Education.

Degree Awarded: Certificate of Achievement

For More Information Contact:

Allied Health Services Division: Metro: (918) 595-7002

Application Instructions:

1. Complete the Tulsa Community College Application for Admission and submit it to the Registrar's Office if you have not been enrolled at TCC within the past year.
2. Send official high school transcript or GED scores to the Registrar's Office. High school seniors should send a seven (7th) semester transcript. Upon completion of high school, another official transcript must be sent with final grades and graduation date.
3. Send official college transcript(s) to the Registrar's Office from each college attended.
4. Send official ACT/SAT scores to the Registrar's Office. (Each candidate must have either an ACT or SAT score to be considered for the program, regardless of age or educational background.)
5. First-time college students must meet with a counselor in the Counseling and Testing Center regarding new student orientation, CPT (College Placement Test) and possible high school curricular deficiencies.
6. College students new at TCC must meet with a counselor regarding the CPT (College Placement Test). Each applicant must show a proficiency in English, Reading and Science.
7. Send the completed Pharmacy Technology Program application for admission to the Allied Health Services Division by June 15 for the Fall semester and by November 15 for the Spring semester.
8. In order to enroll in courses that include a clinical component, which are a part of the program plan, all Allied Health Services students are required to complete and receive clearance on a criminal background check, including sex offender registry.

Selection Criteria:

A selection committee reviews all applications. Qualified applicants will be granted an interview with the Pharmacy Technology Program faculty. Qualified applicants are then ranked from the highest to the lowest score according to an established point system. The top 20-25 applicants are selected for the next semester class and are notified of their selection within two weeks of their interview. The selection criteria is based upon the following:

- Cumulative GPA of 2.0
- ACT/SAT Composite Score minimum of 14
- High School GPA of 2.5 (if less than 12 college credit hours)
- Submission of high school transcript or GED
- Submission of college transcript(s)
- Interview

HEALTH SCIENCE: ALLIED HEALTH

Certificate Requirements Credit Hours: 16

Pharmacy Technology 16 hours
O*PHMT 1318 Introduction to Pharmacy Technician I
O*PHMT 1414 Pharmacy Technician Practicum I
O *PHMT 1524 Preceptorship I

Total Credit Hours: 16
*Course has prerequisite (see course description section of catalog)
O Course must be completed with a "C" of above.

PHYSICAL THERAPIST ASSISTANT

Program Description:
Tulsa Community College offers a 5-semester Physical Therapist Assistant Program accredited by The Commission on Accreditation in Physical Therapy Education Department of

Accreditation
American Physical Therapy Association
1111 North Fairfax Street
Alexandria, VA 22314
Telephone: 703-706-3245
Website: www.apta.org/CAPTE

The graduate of this program is eligible to apply for the National Physical Therapy Examination for the physical therapist assistant. Individuals who have been convicted of a felony or of a crime involving moral turpitude, or who have had a drug problem, may not be permitted to take the licensure examination. If any of these circumstances exist, you may wish to contact the Oklahoma State Board of Medical Licensure and Supervision, 405-848-6841 for clarification. The physical therapist assistant is a technically educated health care provider who assists the physical therapist in the provision of physical therapy. The physical therapist assistant may perform procedures and related tasks that have been selected and delegated by the supervising physical therapist. To further investigate the role of the physical therapist assistant, contact the American Physical Therapy Association at www.apta.org. Successful completion of this program requires that the student perform at a "C" level or better in all of their physical therapist assistant courses.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division at Metro Campus:
(918) 595-7002 for program application form and any specific program information.

Admission To The Program:
Program admits one class each year during the spring semester. Prospective students MUST request an application to the program by December I5th of each year.

Procedure For Application:
1. Submit completed program application form and required materials by January 20 to the Allied Health Services Division located in the Alfred M. Philips Building, room MP458, 909 South Boston, Tulsa, OK 74119.
2. All prospective Physical Therapist Assistant Program students must complete an application for enrollment to the College, submit their high school transcripts, ACT scores and previous college transcripts to the Metro Campus Registrar at 909 South Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Physical Therapist Assistant program.
3. Acceptance to Tulsa Community College does not guarantee admission to the Physical Therapist Assistant Program.
4. Eligible applicants to be interviewed will be notified by mail for consideration for admission into the Physical Therapist Assistant Program. All interviewed applicants will be notified by mail regarding their selection status.
5. In order to enroll in courses that include a clinical component and are part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

General Education Requirements Credit Hours: 19

Biology 4 hours
o**BIOL 1314 Human Anatomy and Physiology

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 - Technical / Professional Writing

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 50

Allied Health 3 hours
oALDH 1323 Medical Terminology

Physical Therapist Assistant 47 hours
o*PHTA 1203 Anatomy and Physiology for PTAs
o*PHTA 1231 Clinical Practice I
o*PHTA 1242 Human Growth and Development
o*PHTA 1303 Introduction to Physical Therapy
o*PHTA 1363 Kinesiology for PHTA's
o*PHTA 1383 Pathophysiology for PTAs
o*PHTA 1392 Clinical Procedures I
o*PHTA 2113 Rehabilitation
o*PHTA 2332 Clinical Practice II
o*PHTA 2343 Clinical Procedures II
o*PHTA 2373 Therapeutic Exercise I
o*PHTA 2383 Therapeutic Exercise II
o*PHTA 2432 Clinical Practice III
o*PHTA 2442 Psychosocial Aspects of Physical Therapy
o*PHTA 2486 Clinical Practice IV
o*PHTA 2543 Neuroscience
o*PHTA 2522 Special Studies in Clinical Practice
o*PHTA 2551 Pharmacology for PTAs

Total Credit Hours: 69
*Course has prerequisite (See course description section of catalog).
**Student may substitute BIOL 2154 and BIOL 2134 for BIOL 1314.
oCourse must be completed with a "C" or above.

HEALTH SCIENCE: ALLIED HEALTH

RADIOGRAPHY
(X-ray)

Introduction:
The Radiography (X-ray) Program at Tulsa Community College is designed to prepare students with the knowledge and skills to function as medical radiographers. The program is nationally accredited by the Joint Review Committee on Education in Radiologic Technology. The graduates of this program receive an Associate Degree in Applied Science and are eligible to apply for the American Registry of Radiologic Technologists Examination.

Position Description:
Medical Radiographers/Radiologic Technologists are the medical personnel who perform diagnostic imaging examinations. Radiographers use x-rays to produce black and white images of anatomy. These images are captured on film, computer or videotape. Radiographers are educated in anatomy, patient positioning, examination techniques, equipment protocols, radiation safety, radiation protection and basic patient care. Radiographers often specialize in areas of CT, MRI, Mammography, Cardiovascular Technology, Quality Control, Management and Education. Radiographers work closely with radiologists, physicians who interpret medical images to either diagnose or rule out disease or injury.

Program Information:
The Radiography (X-ray) Program admits a new class each year beginning in June (summer term). The number of students admitted to the class is limited to 35 students. The Radiography courses are offered during the day only and will take a total of six (6) semesters to complete. The program consists of 50 credit hours of radiography lecture and clinical courses and 22 credit hours of related general education courses.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Service Division located in the Alfred M. Philips Building, Metro Campus, Room MP 458, 909 South Boston, Tulsa, OK 74119, (918) 595- 7002 for program application and specific information.

Application Instructions:
1. Complete the Tulsa Community College Application for Admission and submit it to the Registrars Office, if you have not been enrolled at TCC within the past year.
2. Send Official High School Transcript or GED scores to the Registrars Office. High school seniors should send seventh (7th) semester transcript. Upon completion of high school, another official transcript must be sent with final grades and graduation date.
3. Send Official College transcript(s) to the Registrars Office from each college attended.
4. Send official ACT/SAT scores to the Registrars Office. (Each applicant must have either ACT/SAT scores to be considered for the program.)
5. First-time college students must meet with counselors regarding new student orientation, CPT (College Placement Test) and possible high school curricular deficiencies.
6. College students new at TCC must meet with counselors regarding CPT (College Placement Test). Each applicant must show proficiency in English, Reading and Science.
7. Send the completed Allied Health Radiography Program Application for admission to the Allied Health Services Division by February 1. (All information required for the Radiography Program must be on file by February l, including TCC Application, Program Application, Transcripts, and ACT/SAT Scores).
8. Acceptance to TCC does not guarantee admission to the Radiography Program.
9. All prospective applicants are encouraged to enroll in: BIOL 1314 Human Anatomy and Physiology, RADT 1212 Introduction to Radiography, RADT 1201 Introduction to Radiographic Clinical Education.
10. All applicants will be contacted by the program director for an informational visit and will be ranked for acceptance according to their academic background.
11. In order to enroll in courses that include a clinical component and are part of the degree plan, students must receive clearance on a criminal background check, including sex offender registry.

General Education Requirements Credit Hours: 22

Biology 4 hours

o**BIOL 1314 Human Anatomy and Physiology

English 6 hours

*ENGL 1113 Freshman Composition I

and select one course from the following:

*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 3 hours

Select one course from the following:

*MATH 1473 Mathematics for Critical Thinking
*MATH 1513 College Algebra

Psychology 3 hours

PSYC 1113 Introduction to Psychology
PSYC 1313 Human Relations

Social Science 6 hours

POLS 1113 American Federal Government

and select one course from the following:

HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 50

Radiography 50 hours

o*RADT 1212 Introduction to Radiography
o*RADT 1224 Radiographic Clinical Education I
o*RADT 1313 Radiographic Anatomy and Positioning I
o*RADT 1324 Radiographic Clinical Education II
o*RADT 1333 Radiographic Anatomy and Positioning II
o*RADT 1344 Radiographic Clinical Education III
o*RADT 1372 Radiographic Technique
o*RADT 1382 Advanced Radiographic Technique
o*RADT 2301 Radiographic Seminar
o*RADT 2314 Radiographic Clinical Education IV
o*RADT 2323 Radiographic Special Procedures
o*RADT 2336 Radiographic Clinical Education V
o*RADT 2343 Radiographic Biology and Pathology
o*RADT 2356 Radiographic Clinical Education VI
o*RADT 2383 Radiographic Physics

Total Credit Hours: 72

*Course has prerequisite (See course description section of catalog).
**Student may substitute BIOL 2154 and BIOL 2134.
oCourse must be completed with a "C" or above.

HEALTH SCIENCE: ALLIED HEALTH

RESPIRATORY CARE

Program Description:
The Respiratory Care Program at Tulsa Community College (TCC) is designed to prepare individuals with the knowledge, skills and behaviors that are required for successful advanced respiratory therapists. If you enjoy working in a fast-paced environment where your technical and scientific responsibilities will be matched by a real need for human relations skills, then the TCC Respiratory Care Program may be for you. Respiratory Care is a health care specialty that offers a set of unique challenges in the areas of prevention, diagnosis, treatment, management and rehabilitation of people with lung disorders. As an advanced respiratory therapist, you will be involved in a wide variety of lifesaving and life-supporting situations, working side by side with physicians, nurses and others on the health care team. You will treat patients ranging from newborns to senior citizens. Your expertise will be in demand and opportunities to expand your knowledge and skills will be great.

Program Information:
The Respiratory Care Program at TCC generally accepts 20-25 students each year beginning in the fall semester. The general education courses may be taken prior to being accepted into the program to lighten semester course loads. Human Anatomy and Physiology (BIOL 1314) is a prerequisite course that must be taken prior to acceptance into the program. The Respiratory Care Program is a 2-year, 5-semester, full-time day program consisting of specialized courses offered in a specific sequence. Graduates of the program are awarded an Associate Degree in Applied Science and are eligible to apply for the National Board for Respiratory Care (NBRC) Certification and Registry Examinations.

Accreditation:
The Respiratory Care Program at Tulsa Community College is nationally accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation for Respiratory Care (CoARC).

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division: Metro: (918)-595-7002

Application Instructions:
1. Complete the Tulsa Community College Application for Admission and submit it to the Registrars Office if you have not been enrolled at TCC within the past year.
2. Send official high school transcript or GED scores to the Registrars Office. High school seniors should send a seven (7th) semester transcript. Upon completion of high school, another official transcript must be sent with final grades and graduation date.
3. Send official college transcript(s) to the Registrars Office from each college attended.
4. Send official ACT/SAT scores to the Registrars Office. (Each candidate must have either an ACT or SAT score to be considered for the program, regardless of age or educational background.)
5. First-time college students must meet with a counselor in the Counseling and Testing Center regarding new student orientation, CPT (College Placement Test) and possible high school curricular deficiencies.
6. College students new at TCC must meet with a counselor regarding the CPT (College Placement Test). Each applicant must show a proficiency in English, Reading and Science.
7. Send the completed Respiratory Care Program application for admission to the Allied Health Services Division by July 1.
8. In order to enroll in courses that include a clinical component and are part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

Selection Criteria
A selection committee reviews all applications. Qualified applicants will be granted an interview with the Respiratory Care Program faculty. Qualified applicants are then ranked from the highest to the lowest score according to an established point system. The top 20-25 applicants are selected for the next fall semester class and are notified of their selection by the middle of July. The selection criteria are based upon the following:
- Cumulative GPA
- ACT/SAT Composite Score
- High School GPA (if less than 12 college credit hours)
- Math and/or Science GPA
- Math and Science ACT/SAT Score
- Interview

General Education Requirements Credit Hours: 19

Biology 4 hours
o+BIOL 1314 Human Anatomy and Physiology

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 50
o *RESP 1213 Neonatal and Pediatric Respiratory Care
o *RESP 1233 Applied Sciences for Respiratory Care
o *RESP 1242 Respiratory Care Patient Assessment
o *RESP 1251 Physician/Therapist Interaction
o *RESP 1313 Respiratory Care Theory and Techniques I
o *RESP 1353 Cardiopulmonary Anatomy and Physiology
o *RESP 1403 Respiratory Care Theory and Techniques II
o *RESP 1413 Clinical I
o *RESP 1443 Respiratory Care Pathophysiology
o *RESP 1511 Clinical Procedure Laboratory
o *RESP 1522 - Introduction to Mechanical Ventilation
o *RESP 2103 Clinical II
o *RESP 2203 Clinical III

HEALTH SCIENCE: ALLIED HEALTH/MEDICAL OFFICE SUPPORT

o *RESP 2323 - Advanced Topics in Mechanical Ventilation
o *RESP 2352 Respiratory Care Pharmacology
o *RESP 2391 Respiratory Care Case Management
o *RESP 2413 Clinical IV
o *RESP 2452 NBRC Review
o *RESP 2563 Cardiopulmonary Diagnostics
o *RESP 2493 Respiratory Critical Care

Total Credit Hours: 69
*Course has prerequisite (See course description section of catalog).
+Prerequisite to admission into the Respiratory Care Program.
oCourse must be completed with a "C" or above.

HEALTH INFORMATION TECHNOLOGY
Medical Records

Program Description:
This program of study prepares the student for employment in the field of health information management in a variety of health care settings including hospitals, physician's office or clinic, home health agencies, hospice, long term care facilities, rehabilitation facilities, psychiatric care settings, insurance companies, and pharmaceutical companies. Career options for the Health Information Technician include coding and reimbursement specialist; clinical data specialist (statistics, database research, and specialty registries); patient information coordinator (release of information, confidentiality, medical-legal aspects of documentation, health history management and information resources); data quality manager (quality improvement for data integrity, and quality care/service monitoring and audits); document and repository manager (retention and accessibility of health care data, and preparation and conversion to electronic health records); and health information manager (enterprise- or facility-wide line or staff manager for health information management services). This program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). After graduation, students are eligible to apply to write the national qualifying examination for certification as a Registered Health Information Technician (RHIT).

Degree Awarded: Associate in Applied Science

For More Information Contact:
Allied Health Services Division: Metro: (918) 595-7002
for program application form and any specific program information.

Procedures For Application:
1. Submit completed program application form and required materials by May 1 to the Allied Health Services Division located in the Alfred M. Philips Building, Room MP458, 909 South Boston, Tulsa, OK 74119.

2. All prospective Health Information Technology students must also complete an application for enrollment to the College, submit their high school transcripts or GED scores, ACT or SAT scores and previous college transcripts to the Metro Campus Registrar at 909 South Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Health Information Technology program.

3. Acceptance to Tulsa Community College does not guarantee admission to the Health Information Technology program.

4. Eligible applicants to be interviewed will be notified by mail for consideration for admission into the Health Information Technology program. All interviewed applicants will be notified by mail regarding their selection status.
5. In order to enroll in courses that include a clinical component and are a part of the program degree plan, students must receive clearance on a criminal background check, including the sex offender registry.

General Education Requirements Credit Hours: 16

Biology 4 hours
**BIOL 1314 Human Anatomy and Physiology

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Remaining general education requirements are satisfied by selection of an applicable course from the controlled electives section.

Specialized Course Requirements Credit Hours: 50

Allied Health 3 hours
*ALDH 1323 Medical Terminology

Computer Information Systems 3 hours
** *CSYS 2073 MS Office

Health Information Technology 44 hours
** *HITC 1113 Introduction to Health Information Management
** *HITC 1131 Health Care Delivery, Systems and Trends
** *HITC 1213 Statistics and Data Management
** *HITC 1231 Management of Medical Document Processing
** *HITC 1242 Health Information Management in Alternate Care Settings
** *HITC 1333 CPT and HCPCS Coding
** *HITC 1353 Legal Aspects of Health Records
** *HITC 1363 ICD-9-CM Coding I
** *HITC 1412 Practicum I
** *HITC 2053 Pathophysiology and Pharmacology I
** *HITC 2113 Management Techniques for Health Information Services
** *HITC 2121 Physician Billing and Reimbursement
** *HITC 2133 Reimbursement Systems and Classification
** *HITC 2153 Pathophysiology and Pharmacology II
** *HITC 2213 Quality, Utilization and Risk Assessment
** *HITC 2342 Coding and Reimbursement Internship
** *HITC 2403 ICD-9-CM Coding II
** *HITC 2412 Practicum II

Controlled Electives Credit Hours: 3

HEALTH SCIENCE: MEDICAL OFFICE SUPPORT

Choose 3 credit hours from the courses listed below.
**BUSN 1313 Employee/Employer Relations
**BUSN 2363 Supervisory Management
** *CSCI 1161 Introduction to the Internet
** *CSCI 1253 Internet Research
** *CSCI 1263 Network Fundamentals
** *CSCI 1463 Disk Operating Systems
** *CSCI 1711 Introduction to PowerPoint
** *CSCI 2013 Word
** *CSCI 2043 Access
** *CSCI 2163 Windows Operating Systems
^**ENGL 1141 Effective Business Writing
^** *ENGL 2343 Business Communications
** *HRES 2323 Employment and Evaluation Techniques
** *PLGL 2502 Medical Record Analysis for Paralegals
** *MDTR 2303 Medical Transcription I
** *MGMT 1003 Team Basics
**MGMT 1233 Health Care Management
**MGMT 2363 Principles of Management
**MGMT 2041 Effective Problem Solving
**MGMT 2123 Leadership Development
** MGMT 2363 Principles of Management
**MGMT 2403 Critical Thinking for Results
^**PHIL 2153 Medical Ethics
^**PSYC 1313 Human Relations
^**SPCH 1113 Speech Communication I

Total Credit Hours: 69
*Course has prerequisite (See course description of catalog).
**Course must be completed with a "C" or above.
^Satisfies General Education Requirement.

HEALTH INFORMATION TECHNOLOGY
Coding and Reimbursement Specialist

Program Description:
This option is designed to prepare the student with the necessary skills to be employed as a coding and reimbursement specialist in a variety of health care settings including hospitals, physicians office or clinic, home health agencies, hospice, long-term care facilities, rehabilitation facilities, insurance companies, and pharmaceutical companies. ICD-9-CM and CPT coding guidelines will be examined in detail, as will insurance and reimbursement issues such as claims processing, case mix index, and reimbursement systems, (i.e., diagnosis related groups (DRGs), ambulatory patient classification (APCs), resource based relative value system (RBRVS), resource utilization groups (RUGs), case mix groups (CMG) and home health resource groups (HHRG). Students successfully completing the certificate option may apply to sit for a national examination to become a certified coding associate (CCA). After 2-3 years of recommended coding experience, the graduate may sit for the national certified coding specialist (hospital based, CCS, physician based, CCS-P) examination. The Coding and Reimbursement Specialist Certificate program has been approved by the American Health Information Management Association (AHIMA).

Degree Awarded: Certificate of Achievement

For More Information Contact:
Allied Health Services Division: Metro: (918) 595-7002, for program application form and any specific program information.

Procedures For Application:
1. Submit completed program application form and required materials by May 1 to the Allied Health Services Division located in the Alfred M. Philips Building, Room MP458, 909 South Boston, Tulsa, OK 74119.
2. All prospective Coding and Reimbursement Specialist Certificate students must also complete an application for enrollment to the College, submit their high school transcripts, or GED scores; ACT or SAT scores and previous college transcripts to the Metro Campus Registrar at 909 South Boston, Tulsa, OK 74119. Incomplete submissions will not be considered for admission into the Coding and Reimbursement Specialist Certificate program.
3. Acceptance to Tulsa Community College does not guarantee admission to the Health Information Technology Coding and Reimbursement Specialist Certificate program.
4. Eligible applicants to be interviewed will be notified by mail for consideration for admission into the Health Information Technology - Coding and Reimbursement Specialist Certificate program. All interviewed applicants will be notified by mail regarding their selection status.
5. In order to enroll in courses that include a clinical component and are a part of the program degree plan, students must receive clearance on a criminal background check, including the sex offender registry.

General Education Requirements Credit Hours: 4

Biology 4 hours
**BIOL 1314 Human Anatomy and Physiology

Specialized Course Requirements Credit Hours: 33

Allied Health 3 hours
**ALDH 1323 Medical Terminology

Computer Information Systems 3 hours
* **CSYS 2073 MS Office

Health Information Technology 27 hours
* **HITC 1113 Introduction to Health Information Management
* **HITC 1131 Health Care Delivery, Systems and Trends
* **HITC 1242 Health Information Management in Alternate Care Settings
* **HITC 1333 CPT and HCPCS Coding
* **HITC 1363 ICD-9-CM Coding I
* **HITC 2053 Pathophysiology and Pharmacology I
* **HITC 2133 Reimbursement Systems and Third Party Payer Issues
* **HITC 2121 Physician Billing and Reimbursements
* **HITC 2153 Pathophysiology and Pharmacology II
* **HITC 2342 Coding and Reimbursement Internship
* **HITC 2403 ICD-9-CM Coding II

Total Credit Hours: 37
*Course has a prerequisite (See course description section of catalog).
**Course must be completed with a "C" or above.

HEALTH SCIENCE: MEDICAL OFFICE SUPPORT

MEDICAL ASSISTANT PROGRAM
Clinical / Administrative Certificate

Program Description:
The Medical Assistant is a Certificate of Achievement that takes 3 semesters to complete and prepares individuals with the skills needed for both the clinical (back office) and administrative (front office) areas in a physician office or clinic setting. Clinical duties include but are not limited to: patient triage, medial record documentation, taking of vital signs, performing EKGs and X-rays, drawing blood, giving injections, basic pharmacology, wound dressing, suture removal, performing lab tests infection control, medical asepsis and sterilization procedures, disposal of biohazard waste, or assisting the physician with patient exams, diagnostic procedures and minor office surgery. Administrative duties include but are not limited to: confidentiality of patient information, computer applications in the medial office, telephone triage, scheduling of office, outpatient, and hospital visits, medical record preparation, filing, coding, compliance, insurance billing, patient billing, collections, accounts payable and receivable, payroll, inventory, medical office management and medical office supervision.

Accreditation:
The Medical Assistant Program at Tulsa Community College is nationally accredited by the commission on Accreditation of Allied Health Education Program (CAAHEP) upon the recommendation of the Curriculum Review Board (CRB) of the American Association of Medical Assistants' Endowment (AAMAE).

Program Information:
Prerequisites should be taken prior to admission to the program. Prospective students should submit an application for admission to Tulsa Community College and the Medical Assistant program application by May 1 each year.

Degree Awarded: Certificate of Achievement

For More Information Contact:
the Allied Health Services Division located in the Alfred M. Phillips Building, Metro Campus, Room MP 458, 909 South Boston Avenue, Tulsa, Oklahoma 74119, (918) 595-7002 for program application and any other specific information.

Procedures For Application:
1. Submit completed Tulsa Community College application for admission, high school or GED transcripts, ACT scores, and any previous technical school or college transcripts to Metro Campus Registrar at 909 South Boston Avenue, Tulsa, Oklahoma 74119.

2. All applicants must have a 2.5 GPA or better and / or an ACT of 19 or better or passing scores in all areas of the CPT. Submit completed Medical Assistant program application before May 1 to TCC Allied Health Services Division, Alfred M. Phillips Center, Room MP458, 909 South Boston Avenue, Tulsa, Oklahoma 74119.

3. All applicants must possess keyboarding by touch skills with ability to type 40 wpm on a typing test. If keyboarding skills are lacking, take BUSN 1123 and / or BUSN 1243.

4. All applicants must possess proficient computer skills with ability to pass a computer concepts and applications test or take CSCI 1203.

5. All applicants must possess current First Aid and CPR certification prior to enrollment in the medical assistant internship course.

6. Applicants selected for the program will receive a letter of acceptance through the mail.

7. All applicants must complete the prerequisite courses ALDH 1323, BIOL 1314. and CSCI 2013 with a 'C' or better prior to acceptance into the program.

8. All specialized courses in the MDAS Program must be passed with a grade of "C" or above.

9. In order to enroll in courses that include a clinical component, students must receive clearance on a criminal background check, including sex offender registry.

General Education Requirements Credit Hours: 10

Allied Health 3 hours
ALDH 1323 Medical Terminology

Biology 4 hours
BIOL 1314 Human Anatomy & Physiology

Computer Science 3 hours
CSCI 2013 Microsoft Word

Specialized Courses Requirements Credit Hours: 27

Medical Assistant 27 hours
*MDAS 1315 Clinical Procedures
*MDAS 1343 Medical Office Concepts and Applications
*MDAS 2234 Common Disease and Treatments
*MDAS 2243 Medical Office Financial Management and Applications
*MDAS 2333 Medical Assistant Internship
*MDAS 2346 Clinical Laboratory Procedures
*MDAS 2393 Medical Coding & Insurance Billing for the Physician Office

Total Credit Hours: 37
*Course has perquisite (See course description section of catalog)

MEDICAL ASSISTANT PROGRAM
Medical Transcription Certificate

Program Description:
The Medical Transcription program is a Certificate of Achievement that takes 3 semesters to complete and provides the training for an individual to work as a medical transcriptionist in a hospital, medical transcription service, physician's office, clinic, laboratories, medical libraries, government medical facilities, other related health care setting or at home. Responsibilities include but are not limited to: Knowledge of professional ethics, confidentiality, record retention, commonly used medical report formats, basic grammar and mechanics of writing, proofreading and editing skills, computer concepts and word processing, medical terminology, human anatomy and physiology, laboratory testing, diagnostic procedures, common surgical procedures, basic pharmacology, and human disease processes.

Program Information:
Prospective students should submit an application for admission to Tulsa Community College and the Medical Transcription program by May 1 each year.

HEALTH SCIENCE: MEDICAL OFFICE SUPPORT

Degree Awarded: Certificate of Achievement

For more Information Contact:
Allied Health Services Division located in the Alfred M. Phillips Building, Metro Campus, Room MP 458, 909 South Boston Avenue, Tulsa, Oklahoma 74119, (918) 595-7002 for program application and any other specific information.

Procedures For Application:
1. Submit completed Tulsa Community College application for admission, high school or GED transcripts, ACT scores, and any previous technical school or college transcripts to Metro Campus Registrar at 909 South Boston Avenue, Tulsa, Oklahoma 74119.
2. All applicants must have a 2.5 GPA or better and / or an ACT of 19 or better or passing scores in all areas of the CPT.
3. Submit completed Medical Transcription Program application before May 1st to TCC Allied Health Services Division, Alfred M. Phillips Center, Room MP458, 909 South Boston Avenue, Tulsa, Oklahoma 74119.
4. All applicants, must possess keyboarding by touch skills with ability to type 40 wpm on a typing test. If keyboarding skills are lacking, take BUSN 1123 and / or BUSN 2173.
5. All applicants must possess proficient computer skills with ability to pass a computer concepts and applications test or take CSCI 1203.
6. Applicants selected for the program will receive a letter of acceptance through the mail.
7. All general education and specialized courses in the Medical Transcription Program must be passed with a grade of "C" or above.
8. In order to enroll in courses that include a clinical component, students must receive clearance on a criminal background check, including sex offender registry.

General Education Requirements Credit Hours: 13

Allied Health 3 hours
ALDH 1323 Medical Terminology

Biology 4 hours
BIOL 1314 Human Anatomy & Physiology

Computer Science 3 hours
CSCI 2013 Microsoft Word

English 3 hours
ENGL 1083 Grammar and Mechanics of Writing

Specialized Course Requirements Credit Hours: 16

Medical Transcription 16 hours
*MDAS 2234 Common Disease and Treatments
*MDTR 2303 Medical Transcription I
*MDTR 2313 Medical Transcription II
*MDTR 2373 Medical Transcription III
*MDTR 2433 Medical Transcription Externship

Total Credit Hours: 29
*Course has prerequisite (See course description section of catalog.

HEALTH SCIENCE: NURSING

NURSING PROGRAMS

Setting the standard of nursing excellence for our community, TCC's Nursing Programs have provided Tulsa and northeastern Oklahoma with thousands of excellent nursing professionals. With programs ranging from one to five semesters, students may earn an associate degree in nursing or prepare for nursing support positions through the certificate programs.

• The five-semester Nursing Program (RN) on page 189 is approved by both the Oklahoma Board of Nursing and the National League for Nursing Accrediting Commission. Students are eligible to take the National Council Licensure Exam for Registered Nurses (NCLEX-RN) upon successful completion of the program.
• An Advanced Placement Track, for Licensed Practical Nurses entering the Nursing program allows them to complete the Associate Degree in three semesters.
• In addition to the general education courses required for entry and progression in the TCC Associate Degree Nursing Program information is provided concerning additional general education courses (at TCC) that will provide the foundation for admission into many RN Bachelor of Science in Nursing (BSN) programs upon completion of TCC's Nursing Program.
• The University of Oklahoma and TCC offer a Collaborative Bachelor of Science in Nursing (CBSN) degree. Students must meet all OU College of Nursing (OUCN) Criteria and be admitted to the OU college of Nursing. Students in this program take their Level 3 OUCN nursing courses at TCC then transfer to OUCN-Tulsa for their final year of nursing. Students completing this program receive a Bachelor of Science in Nursing (BSN) from the University of Oklahoma. Program and course information follow the Health Sciences, Pre-Nursing degree plan.
•The Patient Care Technician Certificate Program completed in a 16-week regular semester (8-week summer), provides graduates with eligibility to take the State Certification Exam to obtain the Advanced Unlicensed Assistant Certification from the Oklahoma Board of Nursing.
•The Geriatric Technician Certificate Program consists of two options 1) the Geriatric Technician Certificate that offers six (6) hours of college credit in eight (8) weeks or 2) The Certified Nursing Assistant (CNA) Career Ladder with three distinctive levels, similar to the proposed Oklahoma Certified Nurse Aid Career Ladder model

NURSING
TCC Associate Degree Nursing Program

Program Description:
Tulsa Community College offers a five-semester Nursing Program that is accredited by the National League for Nursing Accrediting Commission (NLNAC) and approved by the Oklahoma Board of Nursing. The graduate receives an Associate Degree in Applied Science and is eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). All potential nursing students must have two (2) applications on file. The application to the College must be on file in the Office of the Registrar. The application for the Nursing Program must be submitted to the Nursing Division office, Metro Campus. These applications are available in the Nursing Division office, Metro Campus Or online at www.tulsacc.edu/nursing.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Nursing Division: Metro: (918) 595-7188
Counseling Center: Metro (918) 595-7151

The Nursing Program admits a new class each fall and each spring semester. Applicants become qualified for admission based on achievement of Nursing Program admission criteria by the application deadline date. Admission criteria is listed in the Program application. Deadlines for submitting the nursing applications are the second Friday in February for the fall semester class and the second Friday in September for the spring semester class. All applicants are notified of their admission status, in writing, within ten (10) to twelve (12) weeks of the application deadline dates. The admission decision is based on a ranking process (See the Nursing Application Packet). Students who are accepted to the Nursing Program must meet the following program and curriculum prerequisites prior to beginning nursing courses:
1. Attend Program Enrollment and Orientation sessions.

2. Earn required minimum scores on the entry tests (See the Nursing Application Packet for specific information related to nursing entry testing.)

3. Complete the following prerequisite semester courses of general education classes with a grade of "C" or higher.
ENGL 1113 Freshman Comp I
*CHEM 1114 Principles of Chemistry
PSYC 1113 Introduction to Psychology
*BIOL 2134 Human Anatomy
BIOL 1224 Introduction to Biology for Majors

4. Provide documentation of Certification as a Nurse Assistant (CNA) or acceptable substitute. Demonstrate competency in CNA skills. (See nursing application packet.)

5. Students must make a minimum of "C" in all courses required at each level of the curriculum pattern for continued enrollment and graduation in the Nursing Program. See course descriptions for pre- and corequisite course requirements. A Nursing Program Curriculum Plan is available in the Nursing Division Office.

6. If admitted to the TCC Nursing program, students must receive clearance on a criminal background check, including sex offender registery, prior to the start of any required nursing courses.

7. Admission to Tulsa Community College does not guarantee admission to the Nursing Program. To be admitted to the Nursing Program and to remain in the program, the student must be in "good standing" at TCC.

8. See Nursing Administration Application packet for specific requirements related to criminal background check, health record requirements, and CPR certification. Potential students need to be aware that they may not be approved by the Oklahoma Board of Nursing to take the NCLEX-RN licensure examination if they have:

1) Been arrested/convicted of any offense including a deferred sentence.
2) Been declared judicially incompetent.
3) Ever been convicted of a felony.

HEALTH SCIENCE: NURSING

4) Ever had disciplinary action taken against another health related license. Those needing other information regarding this topic can obtain a copy of Guidelines for NCLEX Candidates with History of Arrests, Convictions, or prior Disciplinary Action in the Metro Campus Nursing Division office.

LPN Advanced Placement Track

The TCC Nursing Program offers an Advanced Placement Track for Licensed Practical Nurses (LPN) which allows for completion of nursing courses in as few as two or three semesters. To facilitate the progression of the working LPN, the courses of the Advanced placement Track are offered using on-line resources and some on-campus classroom and laboratory activities. Clinical rotations are typically during evening and weekend hours. The courses will consist of classroom, lab/clinical and blended/hybrid (internet-based). Students in the Advanced placement Track, must have access to a personal computer with broadband or DSL ISP (internet service provider). The first course, NURS 1393 LPN Bridge, may be offered each semester based on demand. After successful completion of NURS 1393, the student will be eligible to enter Level 3 Nursing courses or may be eligible to receive advanced standing based on review of standardized testing results (contact the Nursing Division Office for advanced placement testing information) and enter Level 4 classes. Upon successful completion of Level 4 and TCC graduation requirements, graduates receive an Associate in Applied Science and are eligible to take the National council Licensure Examination for Registered Nurses (NCLEX-RN). LPNs interested in pursuing a degree through advanced placement should contact the Nursing Division office for an application and curriculum plan or access the Nursing Division web page (www.tulsacc.edu/nursing) for more information.

General Education Requirements Credit Hours: 38

English 6 hours
+*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Social Science 6 hours
POLS 1113 American Federal Government
and select 1 course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Psychology 6 hours
+PSYC 1113 Introduction to Psychology
*PSYC 2023 Developmental Psychology

Science 20 hours
+BIOL 1224 Introduction to Biology for Majors
+*BIOL 2134 Human Anatomy
*BIOL 2154 Human Physiology
*BIOL 2164 Microbiology
+*CHEM 1114 Principles of Chemistry

Specialized Course Requirements Credit Hours: 34

Nursing 34 hours (enrollment requires admission to Nursing Program)
NURS 1401 Nursing Issues & Perspectives I
NURS 1421 Nursing Issues & Perspectives II
NURS 1431 Introduction to Pharmacology and Dosage Calculations
NURS 1446 Foundations of Nursing Practice
NURS 1457 Nursing of Adults w/Major Health Disruptions
NURS 2423 Nursing of Childbearing Families
NURS 2433 Nursing of Children and Their Families
NURS 2453 Nursing Promotion of Quality of Life
NURS 2512 Psychiatric / Mental Health Nursing
NURS 2564 Advanced Medical Surgical Nursing
NURS 2543 Transition to Novice Nurse

Total Credit Hours 72
*Has prerequisite (See above)
+Prerequisite course

Additional Nursing Courses/Electives

NURS 2303 Pharmacology
NURS 2403 Dosage Calculations For Nurses

BSN Articulation Option

In addition to the general education courses required for entry and progression in the TCC Nursing Program, these courses provide the foundation for admission into many RN-BSN programs upon completion of TCC's Nursing Program.

Humanities 6 hours
Humanities requirements vary by BSN program. Please contact Academic Counselor for recommendations for specific programs

Mathematics 3 hours
*MATH 2193 Elementary Statistics

Social Science 6 hours
SOCI 1113 Introduction to Sociology
SOCI 2123 Introduction to Cultural Anthropology

Sciences 8 hours
BIOL 1383 Nutrition
*CHEM 1315 General Chemistry I (may be substituted for Nursing prerequisite

Most BSN programs require additional electives representing non-nursing courses for a total of up to 64-67 general education credits.
TCC-OU Collaborative Bachelor of Nursing Information follows Health Sciences, Pre-Nursing In the programs that transfer sections of this catalog.

HEALTH SCIENCES
Pre-Nursing - University Transfer

Program Description:
This curriculum includes courses designed to meet lower division prerequisites for a baccalaureate program in Nursing. Students considering this major should consult a counselor and the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

HEALTH SCIENCE: NURSING

For More Information Contact:
Nursing Division: Metro (918) 595-7188
Science and Mathematics Division: Metro: (918) 595-7334
Northeast: (918) 595-7542, Southeast: (918) 595-7742
West: (918) 595-8193
Counseling Centers: Metro: (918) 595-7151
Northeast: (918) 595-7451, Southeast: (918) 595-7651 West: (918) 595-8176

General Education Requirements Credit Hours: 24

See the General Education Requirements for the complete list. Science and Mathematics and 3 hours general education elective requirements satisfied in Specialized Course Requirements section.

English 6 Hours
ENGL 1113 Freshman Composition I
ENGL 1213 Freshman Composition II

Social Science 6 Hours
POLS 1113 American Federal Government
And select one course from the following
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Humanities 6 hours
See the General Education Requirements for complete list.

Psychology 6 hours
PSYC 1113 Introduction to Psychology
*PSYC 2023 Developmental Psychology

Specialized Course Requirements Credit hours: 36

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Science 24 hours
BIOL 1224 Introduction to Biology for Majors
BIOL 1383 Nutrition
*BIOL 2134 Human Anatomy
*BIOL 2154 Human Physiology
*BIOL 2164 Microbiology
*CHEM 1315 General Chemistry I

Controlled Electives 6 hours

Select classes that will apply to the University of your choice:
BUSN 1053 Introduction to Business
CSCI 1203 Computer Concepts and Applications
*CSCI 2033 Excel
*ENGL 2383 Advanced Composition
*MATH 2513 Finite Mathematics
SOCI 1113 Introduction to Sociology

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog). To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements. Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.
NOTE: Consult an advisor at the 4-year institution for prerequisite and application information. This curriculum prepares a student for transfer to the University of Langston's Bachelor of Nursing Program. University of Oklahoma College of Nursing requires 3 additional hours of general education to be earned at the upper-division level.

OU/TCC Collaborative Bachelor of Science in Nursing

Program Description:
The University of Oklahoma and TCC offer a Collaborative Bachelor of Science in Nursing (CBSN) degree. Students must meet all OU College of Nursing (OUCN) criteria and be admitted to the OU College of Nursing. Students in this program take their Level 3 OUCN nursing courses at TCC then transfer to OUCN-Tulsa for their final year of nursing. Students completing this program receive a Bachelor of Science in Nursing (BSN) from the University of Oklahoma.

Prerequisites:
Completion of Health Science-Pre Nursing A.S. Degree and admission to the University of Oklahoma College of Nursing. Contact OUCN-Tulsa for specific admission requirements.

Specialized Course Requirements Credit Hours: 30

Level 3 Nursing

Fall Semester
NURS 2765/OU N3025 Clinical Nursing I
NURS 2774/OU N3034 Human Experience in Health
NURS 2783/OU N3043 Health Assessment
NURS 2792/OU N3062 Introduction to Philosophy and Logic of Nursing

Spring Semester
NURS 2865/OU N3125 Clinical Nursing 2
NURS 2874/OU N3134 Human Experience in Acute & Chronic Illness I
NURS 2883/OU N3143 Human Focused Nursing
NURS 2892/OU N3162 Human Experience of Disability
NURS 2902/OU N3182 Pharmacology in Nursing

Level 4 Nursing
Available at OUCN-Tulsa

Total Credits: 60 (30 completed at OUCN-

GERIATRIC TECHNICIAN

Program Description:
The Tulsa Community College Geriatric Technician Program is based on the proposed Oklahoma Certified Nurse Aide Career Ladder that provides an industry recognized professional development career path for certified nurse aides. The program provides collaborative learning experiences that develop advanced skills which will be utilized in the care of elderly clients in community-based long-term care facilities/agencies. The TCC Geriatric Technician Program consists of two options 1) the Geriatric Technician Certificate that offers six (6) hours of college credit in eight (8) weeks or 2) The Certified Nursing Assistant (CNA) Career Ladder with three distinctive levels, similar to the proposed Oklahoma Certified Nurse Aid Career Ladder model.

Option 1:

Geriatric Technician Certificate
Geriatric Technicians are employed in community-based long-term care settings. Their job responsibilities are performed

HEALTH SCIENCE: NURSING

under the delegation and supervision of licensed nurses. Their responsibilities fall between those of a Certified Nurse Assistant and a Licensed Practical Nurse.

Option 2:

CNA Career Ladder Certificate Option

The CNA Career Ladder Certificate Option offers a three (3) step progression in becoming a Geriatric Technician. Level 1 is based upon current Oklahoma nurse aide certification training and testing requirements regulated by the Oklahoma State Department of Health, Nurse Aide Registry. For those students who are already certified nursing assistants, the CNA Level 2 courses provides 2 hours of college credit with an additional 32 hours of skill development in core competencies applicable to certified nursing assistant working in a variety of community-based long term care settings. The Level 3 CNA program provides 4 hours of college credit with an additional 128 hours of advanced education with a specialization in geriatric and dementia care. Upon completion of the CNA Level 3 course, the graduate receives certification as a Geriatric Technician. NOTE: Students enrolling in the CNA Level 1 course must also be enrolled in the CNA Level 2 program. Students must complete all coursework within the Geriatric Technician and CNA Career Ladder programs with a grade of "C" or higher, which includes satisfactory demonstration of required skills.

Degree Awarded: Certificate of Achievement

For More Information Contact:

Geriatric Technician Office: Metro (918) 595-7369
Counseling Center: Metro (918) 595-7151

Procedure For Application:

1. Contact the Geriatric Technician Program Office, (918) 595-7369 for Geriatric Technician program application form and specific program information.
2. All prospective Geriatric Technician students must complete an application for enrollment to the College.
3. Submit completed program application form and required materials by the deadlines as identified in application materials. Submit materials to the Geriatric Technician Office located on the Metro Campus, Room MC501G, 909 South Boston Ave., Tulsa, OK 74119.
4. Acceptance to Tulsa Community College does not guarantee admission into the Geriatric Technician Program.
5. Eligible applicants will be notified by mail regarding their selection status.
6. An orientation to the program, immunizations, current CPR certification and TB screening are required of students after their admission letter has been received and prior to the start of class.
7. In order to enroll in courses that include a clinical component and are a part of the program degree plan, students must receive clearance on a criminal background check, including sex offender registry.

Certificate Requirements Credit Hours: 6

Nursing 6 hours

Option 1:

NURS 1216 Geriatric Technician
or

Option 2:

*NURS 1142 Certified Nursing Assistant Level 2 (CNA II)**
*NURS 1154 Certified Nursing Assistant Level 3 (CNA III)

Total Credit Hours: 6

*Course has prerequisite (see course description section of the catalog).
**Requires NURS 1133 Long-Term Care Nursing Assistant (LTCNA) Level 1 or CNA Certification or equivalent

NURSING
See Health Services. Pre-Nursing for transfer program; or Nursing in the workforce development section of this catalog.

PATIENT CARE TECHNICIAN

Program Description:
The Patient Care Technician (PCT) Program is approved by the Oklahoma Board of Nursing. Students who successfully complete the Patient Care Technician Program will be eligible to take the State Certification Exam offered by the Oklahoma Board of Nursing to practice as an Advanced Unlicensed Assistant (Patient Care Technician). Students must complete the PCT course with a grade of "C" or higher which includes satisfactory demonstration of required skills.

Degree Awarded: Certificate of Achievement

For More Information Contact:

Patient Care Technician Office: Metro: (918) 595-7324
Counseling Center: Metro: (918) 595-7151

Patient Care Technician Certificate

Patient Care Technicians are employed in a variety of healthcare settings. Their job responsibilities are performed under the delegation and supervision of licensed nurses. Their job responsibilities fall between those of a Certified Nurse Assistant and a Licensed Practical Nurse.

Procedure For Application:

1. Contact the Patient Care Technician Program (918) 595-7324, for program application form and any specific program information.
2. All prospective Patient Care Technician students must complete an application for enrollment to the College.
3. Submit completed program application form and required materials by the deadlines as identified in application materials. Submit materials to the Patient Care Technician office located on the Metro Campus, Room MC501, 909 South Boston, Tulsa, OK 74119.
4. Acceptance to Tulsa Community College does not guarantee admission into the Patient Care Technician Program.
5. Eligible applicants will be notified by mail regarding their selection status.
6. An orientation to the program, immunizations, current CPR certification and TB screening are required of students after their admission letter has been received and prior to the start of class.
7. In order to enroll in courses that include a clinical component and are a part of the program plan, students must receive clearance on a criminal background check, including sex offender registry.

Certificate Requirements Credit Hours: 6

Nursing 6 hours

NURS 1206 Patient Care Technician

Total Credit Hours: 6

HEALTH SCIENCE: NURSING

SURGICAL TECHNOLOGY

Program Description:
The Surgical Technology program option provides an opportunity for Certified Surgical Technologists who are graduates of an accredited educational program, to develop additional skills in mathematics, English, humanities, social and biological sciences and to earn an Associate in Applied Science degree. Surgical technologists are integral members of the surgical team who work closely with surgeons, anesthesiologists, registered nurses and other surgical personnel delivering patient care and assuming appropriate responsibilities before, during and after surgery. Students should consult with the Associate Dean of the Nursing Services Division for information and enrollment. Graduates of the Surgical Technology Program are qualified to take the national certifying exam given by: Liaison Council on Certification for the Surgical Technologist (LCCST), 7790 E. Arapahoe Rd., Suite 240, Englewood, CO 80112-1274, (303) 694-9264, (800) 707-0057.

Course Location: Surgical Technology courses will be taken either at Tulsa Technology Center Lemley Campus or Central Technology Center, Drumright Campus.

General Education courses will be offered by Tulsa Community College.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Nursing Services Division at Metro Campus:
(918) 595-7188
Tulsa Technology Center Career Services Center Department:
(918) 828-5200
Central Technology Center Student Services Office:
(918) 352-2551 Ext. 206
Students should consult with Tulsa Tech and Central Tech Admissions and Enrollment Staff before enrolling in this program.

Procedures For Application:
Tulsa Technology Center
1. Obtain an admission packet from Tulsa Technology Center. Packets are located at all Tulsa Tech campuses in the Adult Education office, counseling offices.
2. An admission test is required for full- time programs at Tulsa Tech (see admission packet for details)
3. Submit a completed program application form and required documents to the Career Services Center, Tulsa Technology Center, 3420 S. Memorial Dr., Tulsa OK, 74145. Please call (918) 828-5200 for application deadlines.
4. All prospective Surgical Technology program students must complete an application for enrollment to the college and submit their high school transcripts, GED scores, ACT/SAT scores, college transcripts and any previous training and / or education to the Metro Campus Registration at 909 S. Boston, Tulsa OK, 74119. Incomplete submissions will not be considered for the associate in the applied science degree program.
5. Acceptance to TCC does not guarantee admission to the Surgical Technology Associate in Applied Science program.

Procedures For Application:
Central Technology Center
1. Obtain an admission packet from Central Technology Center (CT). Packets are available in the CT Student Services Office, Drumright Campus, 3CT Circle, Drumright, OK 74030, (918) 352-2551, Ext. 206.
2. An admission test is required for entrance into this Central Technology Center class. (See admission packet for details) Applications are taken year round for programs beginning in mid-August (full-time day classes). Class size limited.
3. For start dates and further information, contact the Student Services Office, located on the CT Drumright Campus , 3CT Circle, Drumright, OK 74030. (918) 352- 2551 Ext. 206

General Education Requirements Credit Hours: 31-32

Biology 7-8 hours
select 1 anatomy course and 1 microbiology course from the following:
ºBIO 1314 Human Anatomy and Physiology
or
º*BIOL 2134 Human Anatomy
and
º*BIOL 1323 Basic Microbiology
or
º*BIOL 2164 Microbiology

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
ENGL 1083 Grammar and Mechanics of Writing
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 3 hours
NURS 2403 Dosage Calculations for Nurses

Philosophy 3 hours
PHIL 2153 Medical Ethics

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 33

Surgical Technology 33 hours
ºSRT 1102 Surgical Technology Orientation
º*SRGT 1112 Surgical Technology Introduction
º*SRGT 1124 Surgical Case Management
º*SRGT 1211 Medical Terminology
º*SRGT 1222 Microbiology and Wound Healing
º*SRGT 1324 Anatomy and Physiology
º*SRGT 1333 Aseptic Technique and Skills
º*SRGT 1341 Surgical Technology Clinical Practicum I
º*SRGT 2221 Surgical Pharmacology

HEALTH SCIENCE: PRE-PROFESSIONAL

o*SRGT 2312 Surgical Patient Care and Skills
o*SRGT 2323 Surgical Procedures I
o*SRGT 2332 Surgical Technology Clinical Practicum II
o*SRGT 2434 Surgical Procedures II
o*SRGT 2442 Surgical Technology Clinical Practicum III

Total Credit Hours: 64-65

*Course has prerequisite (See course description section of catalog).
oCourse must be completed with a "C" or above.

PRE-PROFESSIONAL HEALTH SCIENCES

PRE-PHARMACY

OU College of Pharmacy Transfer Option

Program Description:
This suggested curriculum includes TCC degree requirements and OU College of Pharmacy prerequisite courses generally completed in the first two years of a doctoral curriculum. This curriculum has been specifically designed to provide a seamless transition to the doctoral program at the University of Oklahoma College of Pharmacy.
Students considering this major should consult the divisions listed below and/or Student Services at the OU College of Pharmacy, (Tulsa-Schusterman) and carefully select courses that will meet the prerequisite requirements of the doctoral program and course requirements for the Pre- Pharmacy associate degree program.

Degree Awarded: Associate in Science

For More Information Contact:

Science and Mathematics Divisions: Metro (918) 595-7334, Northeast (918) 595-7542, Southeast • (918) 595-7742, West (918) 595-8193
Counseling Centers: Metro (918) 595-7151
Northeast (918) 595-7527, Southeast (918) 595-7651, West (918) 595-8176
The University of Oklahoma College of Pharmacy Student Services: Tulsa-Schusterman, (918) 660-3570

General Education Requirements Credit Hours: 27

General Education requirements in mathematics (3-5 and Science (8) are met in specialized course requirements.

English 6 hours

*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 9 hours

Select one course from the following:
GEOG 2033 World Regional Geography
PHIL 1213/RELG 1213 Religions of the World: The Eastern Tradition
and select one course from of the following:
HUMN 2113 Humanities I
HUMN 2223 Humanities II
and select one course from the following:
Art 1113 Art Appreciation
MUSC 1113 Music Appreciation

Social Science 6 hours

POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Social/ Behavioral Sciences 3 hours (Required Elective)

select one course from the following:
PSYC 1113 Introduction to Psychology
SOCI 1113 Introduction to Sociology

Speech 3 hours

SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 62-66

Mathematics 9-10 hours

Select one of the following 2 groups
1) *MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 2114 Analytic Geometry and Calculus I
or
2) *MATH 1715 College Algebra and Trigonometry
*MATH 2114 Analytic Geometry and Calculus I

Science 47-48 hours

BIOL 1224 Introduction to Biology for Majors
*BIOL 1604 Zoology
*BIOL 2134 Human Anatomy
*BIOL 2154 Human Physiology
*BIOL 2164 Microbiology
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
*CHEM 2145 Organic Chemistry I
*CHEM 2245 Organic Chemistry II
and select one course from the following:
*BIOL/CHEM 2364 Biochemistry
*CHEM 2353 Introduction to Biochemistry
and select one course from the following:
*PHYS 1114 General Physics I
*PHYS 1214 General Physics II

Advanced Biology/Life Sciences

Additional prerequisite courses are required for students entering the University of Oklahoma's Pharmacy program for Fall 2008. Contact the Science and Mathematics Division or an academic advisor for details.

Controlled Electives 3 hours

Business 3 hours

select one course from the following:
ACCT 2213 Financial Accounting
ECON 2013 Principles of Macroeconomics
ECON 2023 Principles of Microeconomics

Recommended Electives Credit Hours: 0-6

Foreign Language 0-6 hours

Note: OU requires two semesters of college credit in a foreign language or completion of two years of the same foreign language in high school.

A foreign language is usually required for all doctoral programs.

Total Credit Hours: 92-102

*Course has prerequisites (See course description section of TCC catalog).
Students should be aware that any variation in this degree plan might result in credit hours that will not transfer to OU.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

HEALTH SCIENCE: PRE-PROFESSIONAL

PRE-PROFESSIONAL SCIENCE RELATED FIELDS OF CONCENTRATION
Dentistry, Medicine and Optometry

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Divisions: Metro: (918) 595- 7334
Northeast: (918) 595-7542, Southeast: (918) 595- 7742,
West: (918) 595-8193
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651,
West: (918) 595-8176

General Education Requirements Credit Hours: 21
See the General Education Requirements page for complete list. Science, Mathematics, and recommended elective requirements satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 42

Biology 16 hours
BIOL 1224 Introduction to Biology for Majors
and 12 hours from the following:
*BIOL 1404 General Botany
*BIOL 1604 Zoology
*BIOL 2134 Human Anatomy
*BIOL 2154 Human Physiology
*BIOL 2164 Microbiology

Chemistry 15 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
*CHEM 2145 Organic Chemistry I
*CHEM 2245 Organic Chemistry II

Mathematics 3 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 1715 College Algebra and Trigonometry
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III

Physics 8 hours
*PHYS 1114 General Physics I
and
*PHYS 1214 General Physics II
or
*PHYS 2034 Engineering Physics I
and
*PHYS 2124 Engineering Physics II

Total Credit Hours: 63
*Course has prerequisite (See course description section of catalog).
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

PRE-VETERINARY SCIENCE
OSU Transfer Option

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. This curriculum is designed for students desiring to transfer to OSU for completion of a baccalaureate degree in Pre-veterinary science followed by application for admission to the OSU College of Veterinary Medicine.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Divisions:
West Campus: (918) 595-8193
Counseling Centers: Metro: West Campus: (918) 595- 8176

General Education Requirements Credit Hours: 21
See general education requirements for complete list. Science, Mathematics and Recommended Electives requirements satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 39

Biology 12 hours
+BIOL 1224 Introduction to Biology for Majors
*BIOL 1604 Zoology
*BIOL 2164 Microbiology

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

Mathematics 6 hours
*MATH 1513 College Algebra
and select one course from the following:
*MATH 2193 Elementary Statistics
*MATH 2523 Calculus for Business, Life and Social Sciences

Physics 8 hours
*PHYS 1114 General Physics I
*PHYS 1214 General Physics II

Speech 3 hours
*SPCH 1113 Speech Communication I

Total Credit Hours: 60
+BIOL 1224 is a prerequisite for BIOL 1604 and BIOL 2164.
*Course has prerequisites (See course description section of TCC catalog).
Student should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A. A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical education activity classes do no count toward the associate degree requirements in this curriculum.

HEALTH SCIENCE: PRE-PROFESSIONAL

BIOTECHNOLGY, AS/AAS/CER
See Science, Technology, Engineering & Mathematics area of study: Science.

VETERINARY TECHNOLOGY

Program Description:
Veterinary Technicians are essential members of the veterinary health care team. A Registered Veterinary Technician will support and augment the technical capabilities of many fields that involve animal care, including private veterinary practice, biomedical research, herd health management, teaching, zoological parks, and government services. Under the supervision of a licensed veterinarian, a technician may perform a variety of duties including: intensive nursing care, clinical laboratory procedures, radiology, anesthesiology, dentistry, and surgical assistance. A graduate will also have an in-depth understanding of the fundamentals of animal husbandry, management, and nursing care for a variety of species. The Veterinary Technology Program is accredited by the American Veterinary Medical Association (AVMA) and the Oklahoma State Board of Veterinary Medical Examiners (OSBVME).

Degree Awarded: Associate In Applied Science

For More Information Contact:
Veterinary Technology Program West Campus: (918) 595-8212
Science and Math Division: West Campus: (918) 595-8193
Counseling Center: West Campus: (918) 595-8176

The graduate will receive an Associate Degree in Applied Science and will be eligible to take national and state licensing examinations. After passing these examinations, the graduate may work under the direct supervision of a licensed veterinarian.

Individuals may not be eligible for a veterinary technician licensure in the state of Oklahoma who have:
• been addicted to narcotics or alcohol,
• received treatment for the habitual use of narcotics or alcohol;
• been convicted of a narcotics-related offense;
• ever been reprimanded, disciplined, disqualified or suspended from the duties of a veterinary technician or animal care;
• ever been a patient in a sanitarium or institution for the treatment of mental illness;
• been arrested/convicted of any felony offense, including a deferred sentence;
If any of these circumstances exist, it is advised that the prospective student discuss this with the Oklahoma State Board of Veterinary Medical Examiners (405) 524-9006.
Note: All applicants for licensure in the State of Oklahoma must undergo an OSBI (Oklahoma State Bureau of Investigation) background check during application for Examination and Licensure.

Procedures For Application:
1. All program applicants must complete an application to Tulsa Community College and to the Veterinary Technology Program.
2. Contact the Veterinary Technology Program, West Campus (918) 595-8212, for program application and specific program information.
3. Submit completed applications and required materials, including official high school and college transcripts, and SAT/ACT scores, to the Veterinary Technology Program, West Campus, 7505 West 41st Street, Tulsa, OK 74107-8633, by April 30.
4. Incomplete submissions will not be considered for admission to the Program.
5. Admission to TCC does not guarantee acceptance into the Veterinary Technology Program.
6. Eligible applicants will be notified and an interview will be scheduled.
7. All interviewed applicants will be notified by mail regarding their selection status.
8. Prerequisite work for the Veterinary Technology Program must be completed prior to admission. **This prerequisite is:**

Biology 4 hours
+^BIOL 1224 General Biology for Majors
*+^BIOL 1604 Zoology

General Education Requirements Credit Hours: 23-25

Biology 4 hours
+^BIOL 1224 Introduction to Biology for Majors
*+^BIOL 1604 Zoology

Chemistry 4-5 hours
*^CHEM 1114 Principles of Chemistry
*^CHEM 1315 General Chemistry I

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 3-4 hours
*^MATH 1473 Mathematics for Critical Thinking
*^MATH 1513 College Algebra
*^MATH 1454 Technical Mathematics

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 53

Veterinary Technology 53 hours
-^VETT 1125 Anatomy and Physiology
-^VETT 1132 Introduction to Veterinary Technology
-^VETT 1183 Principles of Small Animal Care
-^VETT 1193 Principles of Large Animal Care
-^VETT 1223 Veterinary Hospital Technology I
*^VETT 1234 Clinical Pathology I
*^VETT 1263 Veterinary Office and Computer Skills
*^VETT 2126 Practicum: Animal Clinics and Nursing
*^VETT 2224 Microbiology and Sanitation
*^VETT 2234 Clinical Pathology II
*^VETT 2254 Laboratory, Wild and Exotic Animal Technology
*^VETT 2313 Veterinary Hospital Technology II
*^VETT 2333 Veterinary Pharmacology
*^VETT 2352 Radiology, Ultrasound and Diagnostic Imaging
*^VETT 2364 Large Animal Technology

Total Credit Hours: 76-78
* Course has prerequisite (See course description section of catalog).
+ Prerequisite to Veterinary Technology curriculum schedule (4 hours).
^ Course must be completed with a "C" or better.
- Admission to VETT program or permission of instructor.

HEALTH SCIENCE

Manufacturing Areas of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

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Manufacturing

Manufacturing Engineering Technology
Process Technology, AAS/CER
Quality Control, AS/AAS/CER

MANUFACTURING

MANUFACTURING ENGINEERING TECHNOLOGY

Program Description:
Tulsa Community College's Manufacturing Engineering Technology program provides the student with solid knowledge and skills in the area of applied engineering. Manufacturing Engineers create and implement the manufacturing build plan in order to take engineering designs from the drawing board to product delivery. The manufacturing build plan includes defining the requirements for facilities, equipment, special machinery, tooling, materials, manpower, and processes required to produce all of the detail parts and assemblies to make the final product. Manufacturing Engineering takes a leading role in the creation, maintenance, and improvement of the processes used in the production of every manufactured product in industry today.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science, Math, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 20-22

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or
*MATH 1513 College Algebra
and
*MATH 1613 Plane Trigonometry

Physics 4 hours
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 38

Computer Information Systems 3 hours
Select any three credit hours of Computer Information Systems (CSCI-CSYS) Courses

Drafting & Computer Aided Design Technology 3 hours
DRFT 1323 Engineering Design with CAD

Manufacturing Engineering Technology 23 hours
ENGR 1313 Manufacturing Processes
ENGR 1363 Metallurgy
*ENGR/QCTT 1443 Geometric Dimensioning and Tolerancing
ENGR 1463 Composite Materials
ENGR 2153 Lean, Six Sigma Quality Systems
*ENGR 2462 Project Engineering and Management
*ENGR 2543 Manufacturing Engineering I
*ENGR 2643 Manufacturing Engineering II

Quality Control Technology 9 hours
QCTT 1223 Blueprint Reading
QCTT 1313 Introduction to Quality Control
*QCTT 2333 Inspection Principles

Recommended Electives Credit Hours: 2-3
DRFT 2473 Tool Design
ENGR 1111 Introduction to Engineering
*ELET 1212 Introduction to Electricity
*ELET 1223 Hydraulics and Pneumatics
MGMT 1353 Management Essentials
NCMT 1212 Introduction to Machining

Total Credit Hours: 60-63
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

PROCESS TECHNOLOGY

Program Description:
This program is designed to provide students with the concepts and skills needed to enter careers as Process Technicians in the petro-chemical industry.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center Northeast: (918) 595-7527

General Education Requirements Credit Hours: 34

Chemistry 8 hours
*CHEM 1114 Principles of Chemistry
*CHEM 2054 Process Organic Chemistry

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Economics 3 hours
ECON 2013 Principles of Macroeconomics

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Physics 4 hours
*PHYS 1014 Conceptual Physics

Social Sciences 6 hours
HIST 1483 U.S. History 1492 to Civil War Era
or
HIST 1493 U.S. History Civil War Era to Present
POLS 1113 American Federal Government

Speech 3 hours
SPCH 1113 Speech Communication I

MANUFACTURING

Specialized Course Requirements Credit Hours: 29

Process Technology
PRCT 1123 Introduction to Process Technology
PRCT 1133 Safety, Health & Work Practices
*PRCT 2024 Process Tech I (Equipment)
*PRCT 2034 Industrial Instrumentation
*PRCT 2134 Process Tech II (Systems)
*PRCT 2224 Process Tech III (Operations)
*PRCT 2243 Principles of Quality
*PRCT 2324 Process Troubleshooting

Total Credit Hours: 63
*Course has prerequisite (See course description section of catalog).

PROCESS TECHNOLOGY
Certificate Option

Program Description:
This program is designed to provide students with the concepts and skills needed to enter careers as Process Technicians in the petro-chemical industry.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

Certificate Requirements Credit Hours: 48

Chemistry 8 hours
*CHEM 1114 Principles of Chemistry
*CHEM 2054 Process Organic Chemistry

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Physics 4 hours
*MATH 1454 Technical Mathematics

Specialized Course Requirements Credit Hours: 29

Process Technology 29 hours
PRCT 1123 Introduction to Process Technology
PRCT 1133 Safety, Health and Work Practices
PRCT 2024 Process Tech I (Equipment)
PRCT 2034 Industrial Instrumentation
*PRCT 2134 Process Tech II (Systems)
*PRCT 2224 Process Tech III (Operations)
PRCT 2243 Principles of Quality
*PRCT 2324 Process Troubleshooting

Total Credit Hours: 48
*Course has prerequisite (See course description section of catalog).

QUALITY CONTROL TECHNOLOGY
NSU Transfer Option

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year Industrial Operations Management curriculum. Students should consult the Northeastern State University catalog and carefully select courses that will meet requirements for both the baccalaureate and associate degree options.

Degree Awarded: Associate in Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 34

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEO 1043 Introduction to Cultural Geography

Humanities 6 hours
HUMN 2113 Humanities I
and select one 3-hour course from the humanities list on the General Education Requirements page.

Mathematics 3 hours
*MATH 1513 College Algebra

Science 7 hours
See General Education Requirements for the complete list.

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 30

Computer Information Systems 3 hours
Select any three credit hours of Computer Information Systems (CSCI/CSYS) courses.

Engineering 9 hours
ENGR 1313 Manufacturing Processes
ENGR 1363 Metallurgy
ENGR 1463 Composite Materials

Management 3 hours
*MGMT 1353 Management Essentials

Quality Control Technology 15 hours
*QCTT 1223 Blueprint Reading
QCTT 1313 Introduction to Quality Control
*QCTT 1443 Geometric Dimensioning and Tolerancing
*QCTT 2333 Inspection Principles
*QCTT 2343 Statistical Process Control

MANUFACTURING

Total Credit Hours: 64
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency . Please see page 22 for complete requirements.

QUALITY CONTROL TECHNOLOGY

Program Description:
This program is designed to prepare the student with no previous experience in quality control for an entry level position as a quality control professional. Students having previous quality control experience will be able to upgrade their skills and knowledge in order to qualify for advancement in their chosen field. This program will help the graduate prepare to sit for the examination to become a Certified Quality Control Technician administered through the American Society for Quality, P.O. Box 3005, Milwaukee, WI 53201-3005, 1-800-248-1946.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 19-20

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 3-4 hours
*MATH 1454 Technical Mathematics
*MATH 1513 College Algebra

Physics 4 hours
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 39

Computer Information Systems 3 hours
Select any three credit hours of Computer Information Systems (CSCI-CSYS) Courses

Engineering 9 hours
ENGR 1313 Manufacturing Processes
ENGR 1363 Metallurgy
ENGR 1463 Composite Materials

Quality Control Technology 27 hours
*QCTT 1223 Blueprint Reading
QCTT 1313 Introduction to Quality Control
*QCTT 1443 Geometric Dimensioning and Tolerancing
QCTT 2153 Lean, Six Sigma Quality Systems
*QCTT 2333 Inspection Principles
*QCTT 2343 Statistical Process Control
*QCTT 2363 Quality Standards and Specifications
*QCTT 2373 Quality Costs, Surveys and Audits
QCTT 2413 ISO 9000/2000

Recommended Elective Credit Hours: 3-4
ENGR 2462 Project Engineering and Management
ENGR 2543 Manufacturing Engineering I
MGMT 1353 Management Essentials
NCMT 1212 Introduction to Machining

Total Credit Hours: 61-63
*Course has prerequisite (See course description section of catalog).

QUALITY CONTROL TECHNOLOGY
General Option Certificate

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Quality Control Technology, General option, may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

Certificate Requirements Credit Hours: 33-34

Computer Information Systems 3 hours
Select any three credit hours of Computer Information Systems (CSCI-CSYS) Courses

English 3 hours
*ENGL 1113 Freshman Composition I

Management 3 hours
MGMT 1353 Management Essentials

Mathematics 3-4 hours
*MATH 1454 Technical Mathematics
*MATH 1513 College Algebra

Quality Control Technology 21 hours
*QCTT 1223 Blueprint Reading
QCTT 1313 Introduction to Quality Control
*QCTT 1443 Geometric Dimensioning and Tolerancing
*QCTT 2333 Inspection Principles
*QCTT 2363 Quality Standards and Specifications
*QCTT 2373 Quality Costs, Surveys and Audits
QCTT 2413 ISO 9000/2000

Total Credit Hours: 33-34
*Course has prerequisite (See course description section of catalog).

Science, Technology, Engineering & Mathematics Area of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Science

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- Biology, AS
- Biotechnology, AS/AAS/CER
- Chemistry, AS
- Environmental Science & Natural Resources, AS
- Geography, AS
- Geographic Information Systems, CER
- Geology, AS
- Horticulture, OSU option, AS
- Horticulture Technology:
  - General Horticulture, AAS/CER
  - Golf and Sports Turf, AAS/CER
  - Greenhouse and Nursery Production, AAS/CER
  - Grow Your Own, CER
  - Floral Design and Interiorscape, AAS/CER
  - Landscape Design and Construction, AAS/CER
  - Landscape Maintenance, AAS/CER
  - Interior Plant Care Specialist, CER
  - Landscape Specialist, CER
- Physics, AS

(Veterinary Technology, AAS see Health Sciences areas of study)

www.careerclusters.com

Technology

- Electronics Engineering Technology OSU, AS
- Electronics Technology NSU, AS
- Civil Engineering/Surveying Technology, AAS/CER
  - CVET/SURV, Construction, AAS/.CER
- Drafting & Design Engineering, AAS
- Drafting and Computer Aided Design, CER
- Electronics Technology, AAS/CER
  - Electronics Technology, Alternative Energy, AAS/CER
  - Electronics Technology, Biomedical Equipment Technology, AAS/CER
  - Electronics Technology, Electromechanical Manufacturing Technology, AAS/CER
  - Electronics Technology, Nanotechnology, AAS
  - Electronics Technology US Navy option, AAS
- Nanotechnology, CER

(Technology, AAS see Business area of study)

Engineering

- Engineering, AS
  - Engineering, Computer Engineering OSU, AS,
  - Electrical OSU, AS
  - Engineering, Mechanical Engineering OSU, AS

Mathematics

Mathematics, AS

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

BIOLOGY

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Majoring in the biological sciences is a likely choice for the student who is curious about life, creative, highly motivated, and interested in solving biological problems. Biologists are involved in agriculture, forestry, wildlife management, environmental science and other fields that make the world a healthier and safer place to live. The biological sciences will also prepare the student for entry into one of a variety of technical fields in Allied Health. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Divisions: Metro: (918) 595-7334, Northeast: (918) 595-7542, Southeast: (918) 595-7742, West: (918) 595-8193
Counseling Centers: Metro: (918) 595-7151, Northeast (918) 595-7527, Southeast: (918) 595-7651, West (918) 595-8176

General Education Requirements Credit Hours: 27
See the General Education Requirements list for complete list. Science and Mathematics requirements satisfied in Specialized Course Requirements section.

Specialized Course Requirements Credit Hours: 34

Biology 16 hours
BIOL 1224 Introduction to Biology for Majors
*BIOL 1404 General Botany
*BIOL 1604 Zoology
*BIOL 2134 Human Anatomy
*BIOL 2154 Human Physiology
*BIOL 2164 Microbiology

Chemistry 15 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
*CHEM 2145 Organic Chemistry I
*CHEM 2245 Organic Chemistry II

Mathematics 3 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 1715 College Algebra and Trigonometry
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III

Recommended Electives Credit Hours: 0-3
CSCI 1203 Computer Concepts and Applications
*MATH 2193 Elementary Statistics
PSYC 1113 Introduction to Psychology

Total Credit Hours: 60-64
*Course has prerequisite (See course description section of catalog). To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements. Physical Education activity classes do not count toward the associate degree requirements in this curriculum.

BIOTECHNOLOGY

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students will be educated in the fundamentals of biology, chemistry and biochemistry with heavy emphasis on a wide range of laboratory procedures. The topics of lab safety, protein isolation and separation techniques, cell culture, molecular biology and recombinant DNA, and quality control will be addressed as they apply to both a manufacturing and research environment. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Division, Southeast Campus (918) 595-7742
Counseling Centers: Metro (918) 595-7151, Northeast (918) 595-7527, Southeast (918) 595-7651, West (918) 595-8176

Contact the Science and Mathematics Division or see an advisor for recommended course sequence.

General Education Requirements Credit Hours: 24
Science and recommended general education elective requirements are satisfied in the Specialized Course Requirements section for this degree.

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Humanities 6 hours
See General Education Requirement page for complete list.
PHIL 2153 Medical Ethics recommended.

Mathematics 3 hours
*MATH 1513 College Algebra

Required Electives 3 hours
Select one 3-hour course from one of the following: Psychology, Social Sciences, Foreign Language, or Fine Arts. (Art, Music, Theatre)

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

Specialized Course Requirements Credit Hours: 43

Biology 4 hours
*BIOL 2164 Microbiology

Biotechnology 24 hours
BIOT 1113 Introduction to Biotechnology
*BIOT 1315 Biotechnology Laboratory Methods & Techniques
*BIOT 1534 Cell Culture Techniques
*BIOT 2246 Molecular Biology
*BIOT 2335 Proteomics and Instrumentation
*BIOT 2101 Biotechnology Quality Assurance

Chemistry 15 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
*CHEM 2145 Organic Chemistry I

Additional Recommended Courses
*ENGL 2333 Technical Professional Writing
*MATH 2193 Elementary Statistics
*CHEM 2353 Introduction to Biochemistry
*CHEM 2245 Organic Chemistry II

Total Credit Hours: 67
*Course has prerequisite (See course description section of catalog). To receive an A. A. or A. S. Degree, students must demonstrate computer proficiency. See page 22 for complete requirements. Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

BIOTECHNOLOGY

Program Description:
This program is designed for students who wish to acquire the skills necessary to work in the field of biotechnology. Students will be educated in the fundamentals of biology, chemistry, and biochemistry with heavy emphasis on a wide range of laboratory procedures. The topics of lab safety, protein isolation and separation techniques, cell culture, molecular biology and recombinant DNA will be included. The topics of technical writing, medical ethics and quality control will be addressed as they apply to both a manufacturing and research environment.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science and Mathematics Division:
Southeast Campus (918) 595-7742
Counseling Centers: Metro (918) 595-7151,
Northeast (918) 595-7527, Southeast (918) 595-7651,
West (918) 595-8176

Contact the Science and Mathematics Division or see an advisor for recommended course sequence.

General Education Requirements Credit Hours: 21

English 6 hours
ENGL 1113 Freshman Composition I
*ENGL 2333 Technical /Professional Writing

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War to Present

Humanities 3 hours
PHIL 2153 Medical Ethics

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Specialized Course Requirements Credit Hours: 42

Biology 8 hours
BIOL 1224 Introduction to Biology for Majors
*BIOL 2164 Microbiology

Biotechnology 26 hours
BIOT 1113 Introduction to Biotechnology
*BIOT 1315 Biotechnology Laboratory Methods & Techniques
*BIOT 1534 Cell Culture Techniques
*BIOT 2246 Molecular Biology and Techniques
*BIOT 2335 Proteomics and Instrumentation
*BIOT 2101 Biotechnology Quality Assurance
*BIOT 2512 Biotechnology Apprenticeship

Chemistry 8 hours
CHEM 1114 Principles of Chemistry
* **CHEM 1124 Introductory Organic and Biochemistry

Total Credit 63 Hours
*Course has prerequisite (see course description section of catalog).
**Admissions to Biotechnology program or permission of instructor.

BIOTECHNOLOGY CERTIFICATE

Program Description:
This program is for students who desire to acquire or upgrade their skills in the area of biotechnology. It is assumed that students will have the required background in the biological sciences and chemistry prior to entering this program. Students will be trained in the practices and procedures of biotechnology as well as in the theory behind the procedures so that they will be prepared to extrapolate present knowledge to solve problems faced in the future. There will be a heavy emphasis on a wide range of laboratory procedures. The topics of lab safety, protein isolation and separation techniques, cell culture, molecular biology and recombinant DNA, and quality control will be addressed as they apply to both a manufacturing and research environment.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science and Mathematics Division:
Southeast Campus (918) 595-7742
Counseling Centers: Metro (918) 595-7151, Northeast (918) 595-7527, Southeast (918) 595-7651, West (918) 595-8176

Please contact the Science and Mathematics Division or see an advisor for recommended course sequence.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

Certificate Requirements Credit Hours: 26

Biotechnology 26 hours
BIOT 1113 Introduction to Biotechnology
*BIOT 1315 Biotechnology Laboratory Methods and Techniques
*BIOT 1534 Cell Culture Techniques
*BIOT 2246 Molecular Biology and Techniques
*BIOT 2335 Proteomics and Instrumentation
*BIOT 2101 Biotechnology Quality Assurance
*BIOT 2512 Biotechnology Apprenticeship

Total Credit Hours: 26
*Course has prerequisite (See course description section of catalog)

CHEMISTRY

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Since chemistry deals with the composition, structure and interactions of matter, the study of chemistry is basic to all sciences. This degree prepares the student to enter the allied health and other medical fields such as nursing, pre-med, and medical laboratory technology. This degree also prepares the student to enter programs in aerospace, agriculture, biology, engineering, environmental science, and petroleum engineering. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Divisions: Metro: (918) 595-7334, Northeast: (918) 595-7542, Southeast: (918) 595-7742, West: (918) 595-8193
Counseling Centers: Metro: (918) 595-7151, Northeast: (918) 595-7527, Southeast: (918) 595-7651, West: (918) 595-8176

General Education Requirements Credit Hours: 27
See the General Education Requirements for complete list. Science and mathematics requirements satisfied in Specialized Course Requirements Section.

Specialized Course Requirements Credit Hours: 34-37

Chemistry 20 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
*CHEM 2145 Organic Chemistry I
*CHEM 2245 Organic Chemistry II

Mathematics 5-9 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry
*MATH 1715 College Algebra and Trigonometry
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III

Physics 8 hours
*PHYS 1114 General Physics I
and
*PHYS 1214 General Physics II
or
*PHYS 2034 Engineering Physics I
and
*PHYS 2124 Engineering Physics II

Total Credit Hours: 60-64
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ENVIRONMENTAL SCIENCE & NATURAL RESOURCES
OSU option

Program Description:
This curriculum includes TCC degree requirements and courses general completed in the first two years of a four-year curriculum. This curriculum is designed for students desiring to transfer to OSU-Stillwater for completion of a baccalaureate degree in Agricultural Science and Natural Resources with a major in either Environmental Science or Natural Resource Ecology and Management. This degree is designed for students interested in pursuing a career in agriculture, conservation, environmental science, or natural resource management (such as forestry, range or wildlife sciences).

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Division
Metro: (918) 595-7334 West (918) 595-8193
Counseling Centers
Metro: (918) 595-7151 West: (918) 595-8176

General Education Requirements Credit Hours: 35
Additional hours of General Education recommended elective requirements satisfied in Specialized Course Requirements.

Biology 8 hours
BIOL 1224 Introduction to Biology for Majors
and select one course from the following
*BIOL 1604 Zoology
*BIOL 1404 General Botany

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements for complete list. ^TCC_OSU Dual admitted students may take PHIL 3413 (course offered through OSU)

Mathematics 3 hours
*MATH 1513 College Algebra

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Controlled Electives 6 hours
ECON 2013 Principles of Macroeconomics
SPCH 1113 Speech Communications I

Specialized Course Requirements Credit Hours: 26-28

Chemistry 10 hours
*CHEM 1315 Chemistry I
*CHEM 1415 Chemistry II

Mathematics 6 hours
*MATH 1613 Plane Trigonometry
*MATH 2193 Elementary Statistics

Earth Science 4 hours
Select one of the following:
GEOL 1014 General Physical Geology
*PHSC 1114 General Physical Science

Select one of the following options:

Environmental Science Option 6-8 hours
select 6-8 credit hours from the following
SOCI 1113 Introduction to Sociology
BIOL 2123 Human Ecology
*MATH 2114 Analytical Geometry and Calculus I
or
*MATH 2523 Calculus for Business, Life, and Social Sciences
*PHYS 1114 General Physics I
*PHYS 1214 General Physics II

Natural Resources Option 6-8 hours
select 6-8 credit hours from the following
*BIOL 1404 General Botany
*BIOL 1604 Zoology
GEOG/GIS 2344 Introduction to Geographic Information Systems
GIS 2373 GIS Data Acquisition and Management
*GIS 2383 Advanced Geographic Information Systems

Total Credit Hours: ^61-63
*Course has prerequisites (See course description section of catalog).
^dual admitted students taking PHIL 3413 to satisfy humanities requirement may transfer 63 credit hours to OSU.
Student should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A.A. or A.S. degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

GEOGRAPHY

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Geography is the scientific study of Earth's surface and its immediate atmosphere. Geographers study the political, economic, social and environmental qualities of places and how these attributes interact. A geography graduate will possess the flexibility to pursue a career in urban and regional planning, international affairs, community development, location analysis in both the public and private sector, resource planning and management, cartography and teaching. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Division Metro: (918) 595-7334,
Liberal Arts Division Southeast: (918) 595-7780
Counseling Centers Metro: (918) 595-7151, Northeast: (918) 595-7527, Southeast: (918) 595-7651, West: (918) 595-8176

General Education Requirements** Credit Hours: 30

See the General Education Requirements for the complete list. Science requirements satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 18-19

Geography 10 hours

+GEOG 1014 Geography (Physical)
GEOG 1023 World Geography (Economic)
GEOG 1043 Introduction to Cultural Geography
GEOG 2033 World Regional Geography
GEOG 2013 Meteorology
GEOG 2113 Introduction to Oceanography
GEOG 2153 Human Ecology

Geology 8-9 hours

GEOL 1014 General Geology (Physical)
GEOL 1024 General Geology (Historical)
GEOL 2021 Map and Airphoto Interpretations

Recommended Electives Credit Hours: 12

*BIOL 1404 General Botany
*BIOL 1604 Zoology
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
*GEOG/GIS/SURV 2344 Introduction to Geographic Information Systems
GEOG 2354 Computer Cartography
*GIS 2373 GIS Data Acquisition and Management
*GIS 2383 Advanced Geographic Information Systems
*GIS 2393 Geographic Information Systems Practicum
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III
SOCI 2123 Introduction to Cultural Anthropology

Total Credit Hours: 60-61

*Course has prerequisite (See course description section of catalog).
**Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible. +This course is required as part of the 10 hour program requirement.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

GEOGRAPHIC INFORMATION SYSTEMS

Program Description:
This certificate is designed for individuals whose objective is to become qualified for employment as a Geographic Information Systems Technician. The certificate will also serve to enable students to pursue education in GIS supplemental to any major they have chosen. In addition, the certificate will provide additional training and education to individuals currently working in a GIS career.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science and Mathematics Division: Metro: (918) 595-7334
Counseling Center: Metro: (918) 595-7151

Certificate Credit Hours: 17

Geography/Geographic Information Systems 17 hours
GIS/GEOG 2344 - Introduction to Geographic Information Systems
GEOG 2354 Computer Cartography
*GIS 2373 GIS Data Acquisition and Management
*GIS 2383 Advanced Geographic Information Systems
*GIS 2393 Geographic Information Systems Practicum

Total Credit Hours: 17
*Course has prerequisite (See course description section of catalog).

GEOLOGY

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Geology is the scientific study of the earth. This endeavor includes Earth's composition, history, surface processes and internal workings. A degree in geology will provide the graduate the skills to discover, recognize and use the earth's natural resources to promote the quality of human life. Because the geologist will be aware of the events that continually shape the earth's surface, the geology graduate will provide to society the knowledge to enable all of us to occupy this planet's physical environment more safely. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Division: Metro: (918) 595-7334
Counseling Center: Metro: (918) 595-7151

General Education Requirements** Credit Hours: 27-29

See the General Education Requirements for the complete list.
NOTE: Students must complete a total of 60 hours to graduate. Science and Mathematics requirements satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 31

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

Geology 8-9 hours
GEOL 1014 General Geology (Physical)
GEOL 1024 General Geology (Historical)
*GEOL 2021 Map and Airphoto Interpretation

Mathematics 5-6 hours
*MATH 1513 College Algebra
and
*MATH 1613 Plane Trigonometry
or
*MATH 1715 College Algebra and Trigonometry

Physics 8 hours
*PHYS 1114 General Physics I and
*PHYS 1214 General Physics II
or
*PHYS 2034 Engineering Physics I and
*PHYS 2124 Engineering Physics II

Total Credit Hours: 60
*Course has prerequisite (See course description section of catalog).
**Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

HORTICULTURE TECHNOLOGY PROGRAMS

For More Information Contact:
Green Country Horticulture Center Northeast: (918) 595-8435
Counseling Center Northeast: (918) 595-7527

HORTICULTURE TECHNOLOGY
OSU Transfer Option

Program Description:
Horticulture Technology is for students who want to make an enduring difference in the environment by working with plants. Opportunities abound in landscape architecture, public horticulture, turf management and numerous related fields. Students may use their associate degree as the first two years of a baccalaureate degree at Oklahoma State University - Stillwater.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 45

Biology 8 hours
BIOL 1224 Introduction to Biology for Majors
*BIOL 1404 General Botany

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements page for complete list

Mathematics 3 hours
*MATH 1513 College Algebra

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 18

Horticulture 18 hours
HORT 1303 Principles of Horticulture Technology
*HORT 1313 Ornamental Horticulture
*HORT 1343 Plant Identification
HORT 2353 Lawn and Turf Care
HORT 2413 Nursery and Greenhouse Management
HORT 2483 Interior Plants

Total Credit Hours: 63
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

HORTICULTURE TECHNOLOGY

Program Description:
This multi-option program is designed to develop the necessary skills for graduates to function in such jobs as foreman, groundskeeper, horticulture technician, interiorscaper, floral designer, landscaper, management trainee, sales person with greenhouses, garden centers, landscaping operation, parks, and private industry.

Options:
General Horticulture Option
Golf and Sports Turf Option
Greenhouse and Nursery Production Option
Floral Design and Interiorscape Option
Landscape Design and Construction Option
Landscape Maintenance Option

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 19

Biology 4 hours
*BIOL 1404 General Botany

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

English 6 hours
* ENGL 1113 Freshman Composition I
and select one course from the following:
* ENGL 1213 Freshman Composition II
* ENGL 2333 Technical/Professional Writing
* ENGL 2343 Business Communications

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 35-39

Horticulture Technology 23 hours
(Required for all Options)
HORT 1233 Introduction to Irrigation
HORT 1303 Principles of Horticulture Technology
HORT 1313 Ornamental Horticulture
*HORT 1343 Plant Identification
*HORT 1353 Fertilizers and Soils
*HORT 1363 Plant Diseases and Pests
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing
*HORT 2493 Horticulture Management Principles

Horticulture Technology Options Credit Hours: 12-16
Depending on Option Selected. Students must complete courses in at least one option.

General Horticulture Option 12 hours
HORT 1413 Equipment Safety and Maintenance
HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
HORT 2413 Nursery and Greenhouse Management

Golf and Sports Turf Option 13 hours
HORT 1413 Equipment Safety and Maintenance
HORT 2224 Golf and Sports Turf
HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I

Greenhouse and Nursery Production Option 15 hours
HORT 1413 Equipment Safety and Maintenance
HORT 2413 Nursery and Greenhouse Management
HORT 2433 Floral Design
HORT 2483 Interior Plants
HORT 2493 Horticulture Management Principles

Floral Design and Interiorscape Option 15 hours
*HORT 2363 Landscape Planning and Design I
HORT 2413 Nursery and Greenhouse Management
HORT 2433 Floral Design
HORT 2483 Interior Plants
HORT 2493 Horticulture Management Principles

Landscape Design and Construction Option 13 hours
HORT 1091 Landscape Construction

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: SCIENCE

HORT 1413 Equipment Safety and Maintenance
*HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
*HORT 2513 Landscape Planning and Design II
*SURV 1324 Surveying I

Landscape Maintenance Option 12 hours
HORT 1413 Equipment Safety and Maintenance
*HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
HORT 2423 Arboriculture Practices

Controlled Electives Credit Hours: 6
Select any Horticulture Classes not applied to major.

Total Credit Hours: 60-64
*Course has a prerequisite (See course description section of catalog).

HORTICULTURE TECHNOLOGY
Certificate Program

Program Description:
This curriculum serves as an overview of Horticulture. Designed primarily to allow individuals to master most home horticulture challenges.

Degree Awarded: Certificate of Achievement

Certification Requirements Credit Hours: 33

Biology 4 hours
*BIOL 1404 General Botany

Horticulture Technology 23 hours
HORT 1233 Introduction to Irrigation
HORT 1303 Principles of Horticulture
*HORT 1313 Ornamental Horticulture
*HORT 1343 Plant Identification
*HORT 1353 Fertilizers and Soils
*HORT 1363 Plant Diseases and Pests
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing
*HORT 2493 Horticulture Management Principles

Courses Required for Specific Options 6 hours
(See Associate Degree, Specialized Course Requirements)

Total Credit Hours: 33
*Course has a prerequisite (See course description section of catalog).

HORTICULTURE TECHNOLOGY
Applied Horticulture Certificate
Interior Plant Care Specialist Option

Program Description:
This program is designed to develop the necessary skills for graduates to function as an assistant to an Interior Plant Technician.

Certification Requirements Credit Hours: 10

Computer Information Systems 2 hours
CSCI 1011 Introduction to Microcomputers
*CSCI 1161 Introduction to Internet

Horticulture Technology 8 hours
HORT 1031 Therapeutic Horticulture
HORT 1041 Bonsai
HORT 1081 Small Greenhouses
HORT 1221 Principles of Floral Arranging
HORT 1241 Cacti and Kin/Orchids and Others
HORT 1261 Tropical Plant Care
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing

Total Credit Hours: 10
*Course has a prerequisite (See course description section of catalog).

HORTICULTURE TECHNOLOGY
Applied Horticulture Certificate
Landscape Specialist Option

Program Description:
This program is designed to develop the necessary skills for graduates to function as a nursery retail assistant or assistant to a Landscape Technician.

Degree Awarded: Certificate of Achievement

Certification Requirements Credit Hours: 10

Computer Information Systems 1 hour
*CSCI 1161 Introduction to Internet

Horticulture Technology 9 hours
HORT 1021 Lawn Sprinkler System and Drainage
HORT 1051 Nightscaping
HORT 1061 Water Gardening
HORT 1071 Annual and Perennial Culture
HORT 1091 Home Landscape Construction
HORT 1201 Habitat Gardening
HORT 1381 Home Landscape Design
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing

Total Credit Hours: 10
*Course has a prerequisite (See course description section of catalog)

HORTICULTURE TECHNOLOGY
Grow Your Own

Program Description:
A sustainable approach to growing your own food.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science and Mathematics Division: Metro: (918) 595-7334

Counseling Center: Metro: (918) 595-7151

Certification Requirements Credit Hours: 4

Horticulture Technology 4 hours
HORT 1141 Basic Plant Science
HORT 1151 Grown Your Own Vegetables
HORT 1171 Sell Your Own Produce
HORT 1181 Build or Buy Your Own

Total Credit Hours: 4

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS/TECHNOLOGY

PHYSICS

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Physics is the foundation for all science areas such as Astronomy, Biology, Chemistry, and Geology. Physics is also the foundation for medicine-related studies and aviation. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Divisions: Metro: (918) 595-7334, Northeast: (918) 595-7542, Southeast: (918) 595-7742, West: (918) 595-8193
Counseling Centers: Metro: (918) 595-7151, Northeast: (918) 595-7527, Southeast: (918) 595-7742, West: (918) 595-8193

General Education Requirements Credit Hours: 27

See the General Education Requirements page for complete list.

Science and mathematics requirements are satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 26

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

Mathematics 8 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II

Physics 8 hours
*PHYS 2034 Engineering Physics I
*PHYS 2124 Engineering Physics II

Recommended Electives Credit Hours: 7

CSCI 1203 Computer Concepts and Applications
*ENGR 1242 Introductory Engineering Computer Programming
*MATH 2134 Analytic Geometry and Calculus III
*MATH 2613 Elementary Differential Equations

Total Credit Hours: 60

*Course has prerequisite (See course description section of catalog).
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

VETERINARY TECHNOLOGY, AAS
See Health Sciences are of Study: Other Health Sciences

CIVIL ENGINEERING / SURVEYING TECHNOLOGY

Program Description:
Civil Engineering / Surveying Technology graduates work for a variety of employers, including consulting firms, government agencies, construction, and utility companies. The program provides a broad based knowledge of construction, civil engineering technology and surveying fundamentals. The major study areas include computer aided drafting and design, construction materials, physics, mathematics, ethics, land law, equipment and calculations used in surveying, hydrology and hydraulics. Graduates of the program may become licensed as a Land Surveying Intern after passing the Fundamentals of Land Surveying examination administered by the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors. After gaining qualified experience, a Land Surveying Intern may apply to take the Principals of and Practices of Land Surveying exam. After successfully completing this second exam, a Land Surveying Intern will become registered as a Professional Licensed Surveyor. Additionally, graduates may apply for the examination to become a Certified Engineering Technician given by the National Institute for the Certification of Engineering Technicians.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 24-25

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

English 6 hours
*ENGL 1113 Freshman Composition I
select any 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing
*ENGL 2343 Business Communications

Mathematics 5-6 hours
MATH 1715 College Algebra and Trigonometry
or the following two courses:
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Physics 4 hours
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 40

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

Civil Engineering Technology 15 hours
*CVET 1373 Materials of Construction
*CVET 1383 Construction Plans, Specifications and Contract Documents
*CVET 1393 Basic Hydrology
*CVET 2373 Physical Properties of Soil
*CVET 2443 Basic Hydraulics

Drafting and Design Engineering Technology: 6 hours
DRFT 1323 Engineering Drawing I
*DRFT 1363 Civil Drafting and Design

Surveying Technology 19 hours
*SURV 1324 Surveying I
*SURV 2262 Professional ENGR/SURV Ethics
*SURV 2334 Surveying II
SURV 2363 Land Law I
*SURV 2373 Land Law II
*SURV 2393 Survey Exam Topics

Total Credit Hours: 64-65
*Course has prerequisite (See course description section of catalog)

CIVIL ENGINEERING / SURVEYING TECHNOLOGY
Certificate Option

Program Description:
The Civil Engineering / Surveying Technology – Certificate Option prepares students with necessary skills for employment in the civil engineering and surveying industries. The Certificate of Achievement recognizes students who have completed 22-23 hours of technical coursework in surveying, computer aided drafting and design, mathematics and construction plans and specifications.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science, Mathematics, and Engineering Technology Division: Northeast (918) 595-7542
Counseling Center: Northeast (918) 595-7527

Mathematics 5-6 hours
*MATH 1715 College Algebra and Trigonometry
or the following two courses:
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Specialized Course Requirements Credit Hours: 17

Civil Engineering Technology 3 hours
*CVET 1383 Construction Plans, Specifications and Contract Documents

Drafting and Design Engineering Technology 6 hours
DRFT 1323 Engineering Drawing I
*DRFT 1363 Civil Drafting and Design

Surveying Technology 8 hours
*SURV 1324 Surveying I
*SURV 2334 Surveying II

Total Credit Hours: 22-23
*Course has prerequisite (See course description section of catalog)

CIVIL ENGINEERING / SURVEYING TECHNOLOGY
Construction Option

Program Description:
The Civic Engineering / Surveying Technology -Construction Option is designed for students who are currently employed by or interested in the construction or supporting industries. Construction careers often are not limited to only working for construction companies. Many construction professionals are employed by consulting firms, government agencies, petrochemical and utility companies. The program provides a broad based knowledge of construction, civil engineering technology and surveying fundamentals. The major study areas include computer aided drafting and design, construction materials, drawing interpretations, physics, mathematics, ethics, construction management, construction planning and scheduling, equipment and calculations used in surveying and construction cost estimating.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division: Northeast (918) 595-7542
Counseling Center: Northeast (918) 595-7527

General Education Requirements Credit Hours: 24-25

Computer Science 3 hours
CSCI 1203 Computer Concepts and Applications

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical / Professional Writing
*ENGL 2343 Business Communication

Mathematics 5-6 hours
*MATH 1715 College Algebra and Trigonometry
or the following two courses:
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Physics 4 hours
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 37

Civil Engineering Technology 6 hours
*CVET 1373 Materials of Construction
*CVET 1383 Construction Plans, Specifications and Contract Documents

Drafting and Design Engineering Technology 6 hours
DRFT 1323 Engineering Drawing I
*DRFT 1363 Civil Drafting and Design

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

Surveying Technology 10 hours
*SURV 1324 Surveying I
SURV 2262 Professional ENGR/SURV Ethics
*SURV 2334 Surveying II

Construction Technology 15 hours
CSTR 2103 Introduction to Construction Management
*CSTR 2123 Construction Drawings and CAD
*CSTR 2163 Construction Cost Estimating
*CSTR 2183 Construction Codes and Practices
*CSTR 2213 Construction Planning and Scheduling

Total Credit Hours: 61-62
*Course has prerequisite (See course description section of catalog)

DRAFTING AND DESIGN ENGINEERING TECHNOLOGY

Program Description:
The American Design Drafting Association has fully certified this program to the level of design drafter. It provides the student with a general education in mathematics, physics, English, engineering drawing, and design as well as specific training in Computer Aided Design Drafting (CADD). Those completing the associate degree program will be prepared for exciting careers in the fields of mechanical, structural, electrical, or other graphics communication technologies. Upon completion of this program, the graduate may apply for the ADDA National Examination for certification.

Degree Awarded: Associate in Applied Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center Northeast: (918) 595-7527

General Education Requirements Credit Hours: 20-22

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Physics 4 hours
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 40

Computer Information Systems 3 hours
*CSYS 2073 MS Office

Drafting and Computer Aided Design Technology 20 hours
DRFT 1323 Engineering Drawing I
*DRFT 1442 Descriptive Geometry
*DRFT 2203 AutoCad 2
*DRFT 2223 Mechanical Design I (CAD)
DRFT 2293 Survey of CAD Applications
and select 6 credit hours from the following:
*DRFT 2023 Pro/Engineer Modeling
*DRFT 2033 Pro/Engineer Manufacturing
DRFT 2233 Autodesk Inventor *DRFT 2393 Basic Solid Works

Electronics 2 hours
*ELET 1212 Introduction to Electricity

Engineering 6 hours
ENGR 1313 Manufacturing Process
*ENGR 1443 Geometric Dimensioning and Tolerancing

Quality Control 3 hours
*QCTT 1223 Blueprint Reading

Speech 3 hours
SPCH 2103 Interpersonal Communication

Controlled Electives Credit Hours: 3
CSCI 1203 Computer Concepts and Applications
*DRFT 1363 Civil Drafting and Design
*DRFT 2042 CATIA Fundamentals
*DRFT 2243 Mechanical Design II (CAD)
*DRFT 2393 Basic Solid Works
DRFT 2233 Autodesk Inventor
QCTT 1313 Introduction to Quality Control

Total Credit Hours: 60-62
*Course has prerequisite (See course description section of catalog).

DRAFTING AND DESIGN ENGINEERING TECHNOLOGY
Drafting and Computer Aided Design Certificate

Program Description:
The Certificate of Achievement in Drafting and Computer Aided Design Technology is designed to recognize the accomplishment of students who have completed the technical coursework required for the Associate of Applied Science degree in Design Engineering Technology, but not the General Education requirements. This certificate is a logical goal for students seeking the technical skill level of the Associate Degree, but whose circumstances impose a more limited time frame than the Degree requires. It also provides documentation of exposure to both basic Drafting and more advanced Design theory and practice.

Degree Awarded: Certificate of Achievement

Specialized Course Requirements Credit Hours: 16-18

Drafting and Computer Aided Design Technology 6 hours
DRFT 1323 Engineering Drawing I
*DRFT 2203 AutoCad 2

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

Engineering 3 hours
*ENGR 1443 Geometric Dimensioning and Tolerancing

Mathematics 4-6 hours
MATH 1454 Technical Mathematics
or the following two courses:
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Quality Control 3 hours
*QCTT 1223 Blueprint Reading

Controlled Electives Credit Hours: 6-8
*DRFT 1363 Civil Drafting and Design
*DRFT 2023 Pro/Engineer Modeling
*DRFT 2033 Pro/Engineer Manufacturing
DRFT 2042 CATIA Fundamentals
*DRFT 2223 Mechanical Design I (CAD)
DRFT 2233 Autodesk Inventor
*DRFT 2243 Mechanical Design II (CAD)
DRFT 2393 Basic Solid Works
*ENGR 1132 Engineering Design with Computer-Aided Design

Total Credit Hours: 22-26
*Course has prerequisite (See course description section of catalog)

ELECTRONICS ENGINEERING TECHNOLOGY

OSU Transfer Option 063
See Science, Technology, Engineering and Mathematics area of study: Engineering.

ELECTRONICS TECHNOLOGY PROGRAMS

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

ELECTRONICS TECHNOLOGY
NSU Transfer Option

Program Description:
This suggested curriculum includes TCC degree requirements and courses in the first two years of a four year Bachelor of Science in Technology. Students should consult the Northeastern State University catalog and carefully select courses that meet requirements for both baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 34

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Humanities 6 hours
See the General Education Requirements page for complete list.

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Science 4 hours
*PHYS 1114 General Physics

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 33

****Apprenticeship 3 hours**
APPR 1203 Apprenticeship

Computer Information Systems 3 hours
Select any 3 hours of CSCI/CSYS courses.

Electronics 27 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 1503 Programmable Controls
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I
*ELET 2525 Wireless Communications
*ELET 2622 Electronic Design

Total Credit Hours: 67
*Course has prerequisite (See course description section of catalog).
**This 3 credit hour apprenticeship will be awarded to those students who have successfully completed the equivalent of 3 credit hours of Computer Science, Electronics or Telecommunications from a Career Technology Center. (Students planning to transfer to pursue a bachelor's degree should contact Northeast Campus Counseling Center staff to select courses that will transfer.)
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.

COMPUTER LABS ON EVERY CAMPUS
Each Campus has a variety of computer labs with staff that provide free assistance to students.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

ELECTRONICS TECHNOLOGY

Program Description:
This program prepares the student with the necessary knowledge and skills to gain employment as an engineering technician, field service technician, research and development technician, or production technician in the field of electronics and be able to advance to positions of increasing responsibility. This program will help the graduate prepare to take the examination to become a Certified Engineering Technician given by the Institute for Certification of Engineering Technicians.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 20-22

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
**ENGL 2333 Technical/Professional Writing

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
***MATH 1513 College Algebra
***MATH 1613 Plane Trigonometry

Science 4 hours
Select one course from the following:
*PHYS 1114 General Physics
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 40

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Drafting and Design Engineering Technology 3 hours
DRFT 1323 Engineering Drawing with CAD

Electronics Technology 28 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 1503 Programmable Control
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I
*ELET 2333 Amplifiers II
*ELET 2525 Wireless Communications

Controlled Electives Credit Hours: 6
*ELET 1223 Hydraulics and Pneumatics
*ELET 2514 Microprocessors
*ELET 2533 Automation Control
ELET 2622 Electronic Design
*ELET/ALTE 1442 Introduction to Alternative Energy
*ELET 2632 Introduction to Nanotechnology
NCMT 1212 Introduction to Machining

Total Credit Hours: 60-62
*Course has prerequisite (See course description section of the catalog).
**It is highly recommended that students select this course as part of their English requirements.
***Recommended for students who plan to transfer to a four-year program.

ELECTRONICS TECHNOLOGY
Certificate

Program Description:
This program prepares the student with the necessary knowledge and skills to gain employment as an engineering technician, field service technician, research and development technician, or production technician in the field of electronics and be able to advance to positions of increasing responsibility. This program will help the graduate prepare to take the examination to become a Certified Engineering Technician given by the Institute for Certification of Engineering Technicians.

Degree Awarded: Certificate of Achievement

Certificate Requirements Credit Hours: 21

Electronics Technology 17 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Total Credit Hours: 21
*Course has prerequisite (See course description section of the catalog).

ELECTRONICS TECHNOLOGY
Alternative Energy Option

Program Description:
This multi-functional program is designed for students interested in working with alternative/renewable energy. Oklahoma is ranked 8th in the United States for wind mill utility operation and is growing with the reduced cost of manufacturing solar cells. The student will measure and analyze both wind and solar power systems. This program will also study Biofuels and Hydrogen power conversion systems.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 20-22

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Social Science 6 hours
POLS 1113 American Federal Government

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Science 4 hours
Select one course from the following:
*PHYS 1114 General Physics
*PHSC 1114 General Physical Science

Specialized Course Requirements Credit Hours: 41

Computer Information Systems. 3 hours
CSCI 1203 Computer Concepts and Applications

Drafting and Design 3 hours
DRFT 1323 Engineering Drawing with CAD

Alternative Energy 13 hours
ALTE/ELET 1223 Hydraulics and Pneumatics
*ALTE/ELET 1442 Introduction to Alternative Energy
ALTE 1453 Solar Energy Systems
ALTE 1463 Wind Energy Systems
ALTE 1472 Renewable Design Project

Electronics 14 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuits
*ELET 1313 AC Circuits
*ELET 1503 Programmable Control
*ELET 2533 Automation Control

Engineering 6 hours
ENGR 1363 Metallurgy
ENGR 1463 Composite Materials

Numerical Control 2 hours
NCMT 1212 Introduction to Machining

Total Credit Hours: 61-63
* Course has prerequisite. (See course description section of catalog).

ELECTRONICS TECHNOLOGY
Alternative Energy Certificate Option

Program Description:
This short program is designed for those interested in working with alternative/renewable energy or wanting a better understanding of the different energy production fields. Oklahoma is ranked 8th (2007) in the US for wind mill utility operation. Solar has long been a part in alternative energy production and is growing with the reduced cost of manufacturing solar cells. The student will measure and analyze both wind and solar power systems. This program also studies Biofuels and Hydrogen power conversion systems.

Degree Awarded: Certificate of Achievement

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast (918) 595-7542
Counseling Center: Northeast (918) 595-7527

Certificate Requirements Credit Hours: 20

Mathematics 4 hours
*MATH 1454 Technical Mathematics

Alternative Energy 11 hours
ALTE/ELET 1223 Hydraulics and Pneumatics
*ALTE/ELET 1442 Introduction to Alternative Energy
ALTE 1453 Solar Energy Systems
ALTE 1463 Wind Energy Systems

Electronics 5 hours
*ELET 1212 Introduction to Electricity
*ELET 1503 Programmable Control

Total Credit Hours 20
* Course has prerequisite. (See course description section of catalog).

ELECTRONICS TECHNOLOGY
Biomedical Equipment Technology Option

Program Description:
This program prepares the student with the necessary knowledge and skills to gain employment as a biomedical equipment technician. The biomedical equipment technician is qualified for positions in medical research and development, operation calibration, and maintenance of medical equipment for hospitals, equipment suppliers, and manufacturers. Upon completion of the program, the graduate may apply for the certification test given by the board of examiners for the International Certification Commission for the Certified Biomedical Equipment Technician (CBET)

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 20-22

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
***MATH 1513 College Algebra
***MATH 1613 Plane Trigonometry

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

Science 4 hours
Select one course from the following:
*PHYS 1114 General Physics I
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 45
Biomedical Equipment 15 hours
*BMET 1304 Introduction to Biomedical Electronics
*BMET 2343 Biomedical Electronics Theory I
*BMET 2353 Biomedical Electronics Theory II
*BMET 2382 Contemporary Issues in Biomedical Electronics
and select one course from the following:
*BMET 2373 Biomedical Electronics Clinical
*CSCI 2103 Networking Technology

Computer Information Systems 6 hours
CSCI 1203 Computer Concepts and Applications
*CSCI 1263 Networking Fundamentals

Electronics Technology 24 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I
*ELET 2525 Wireless Communication
*ELET/NANT 2632 Introduction to Nanotechnology

Total Credit Hours: 65-67
*Course has prerequisite (See course description section of catalog).
***It is highly recommended that students select this course as part of this program.

ELECTRONICS TECHNOLOGY
Biomedical Equipment Technology Certificate Option

Program Description:
This program is designed to prepare students who have already obtained an associate or bachelor's degree in science to work in the medical electronic field.

Degree Awarded: Certificate of Achievement

General Education Requirements Credit Hours: 4-6

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
***MATH 1513 College Algebra
***MATH 1613 Plane Trigonometry

Specialized Course Requirements Credit Hours: 27

Biomedical Equipment 10 hours
*BMET 1304 Introduction to Biomedical Electronics
*BMET 2343 Biomedical Electronics Theory I
*BMET 2353 Biomedical Electronics Theory II

Electronics Technology 17 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I

Total Credit Hours: 31-33
*Course has prerequisite (See course description section of catalog).
***It is highly recommended that students select this course as part of this program.

ELECTRONICS TECHNOLOGY
Electro-Mechanical Manufacturing Option

Program Description:
This multi functional program is designed for students to gain a successful career in many of Tulsa's manufacturing jobs. Automation is the lead technology used to control processes in manufacturing circles. Students will receive training in electronics, fluid power, PLCs, and motor control systems that applies to industry needs. Energy and composite material will be introduced with laboratory experiences. This program is also designed to provide upgrade training to those already employed in a manufacturing environment.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 20-22

English 6 hours
*ENGL 1113 Freshman Composition I
and select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
***MATH 1513 College Algebra
***MATH 1613 Plane Trigonometry

Science 4 hours
Select one course from the following:
*PHYS 1114 General Physics I
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 40

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Drafting and Design Engineering Technology 3 hours
DRFT 1323 Engineering Drawing with CAD

Electronics Technology 19 hours
*ELET 1212 Introduction to Electricity
*ELET/ALTE 1223 Hydraulics and Pneumatics
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

*ELET/ALTE 1442 Introduction to Alternative Energy
*ELET 1503 Programmable Control
*ELET 2533 Automation Control

Controlled Electives Credit Hours: 15

**APPR 1203 Apprenticeship
ELET 2215 Digital Circuits
ENGR 1313 Manufacturing Processes
ENGR 1363 Metallurgy
ENGR/NANT 1463 Composite Material
MGMT 1353 Management Essentials
NCMT 1212 Introduction to Machining
QCTT 1313 Introduction to Quality Control

Total Credit Hours: 60-62

*Course has prerequisite (See course description section of catalog).
**This 3 credit hour block of classes will be awarded to those students who have successfully completed the equivalent of 3 credit hours related coursework from a career technology center, industry training or 3 credit hours of Science and Engineering classes at TCC.
***It is highly recommended that students select this course as part of this program.

ELECTRONICS TECHNOLOGY
Nanotechnology Option

Program Description:

This program prepares the student with a background in the growing field of nanotechnology. Nanotechnology is currently in the forefront of all other new technologies because nano and micro substances is a large part of electrical, chemical, and biological science. This option will help the graduate to obtain employment in the nano sciences or as a field service technician, engineering and research technician or systems electronic technician.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 28-31

Biology 4 hours
BIOL 1114 General Biology for Non-Majors
BIOL 1224 Introduction to Biology for Majors

Chemistry 4-5 hours
*CHEM 1114 Principles of Chemistry
*CHEM 1315 General Chemistry I

English 6 hours
*ENGL 1113 Freshman Composition I
and select 3 credit hours from the following:
*ENGL 1213 Freshman Composition II
**ENGL 2333 Technical / Professional Writing

Mathematics 4-6 hours
*MATH 1454 Technical Mathematics
or the following two courses:
***MATH 1513 College Algebra
***MATH 1613 Plane Trigonometry

Science 4 hours
Select one course from the following:
*PHYS 1114 General Physics
*PHSC 1114 General Physical Science

Social Science 6 hours
POLS 1113 American Federal Government
and select one of the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 36

Computer Information System 3 hours
CSCI 1203 Computer Concepts and Applications

Biomedical Equipment Technology 4 hours
BMET 1304 Introduction to Biomedical Electronics

Electronics Technology 22 hours
*ELET 1212 Introduction to Electricity
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I
*ELET 2525 Wireless Communications

Nanotechnology 8 hours
*NANT/ELET 2632 Introduction to Nanotechnology
*NANT/ELET 2643 Nanoelectronics
*NANT/ELET 2653 Nanoscience

Total Credit Hours 65-68

*Course has prerequisite (see course description of the catalog)
** It is highly recommended that students select this course as part of their English requirements.
***Recommended for students who plan to transfer to a four-year program.

ELECTRONIC TECHNOLOGY
Nanotechnology Certificate Option

Program Description:

This program certificate is designed to prepare the engineering technologist student with a background in Nanotechnology. The study of Nanotechnology includes chemistry, electronics, bio science, plastics, and micro mechanical machines. It is recommended that the additional math and science courses be completed before starting this course work.

Degree Awarded: Certificate of Achievement

General Education Requirements Credit Hours: 7-9

Chemistry 4-5 hours
select one course from the following:
*CHEM 1114 Principles of Chemistry
*CHEM 1315 General Chemistry I

Mathematics 3-4 hours
select one course from the following:
*MATH 1454 Technical Mathematics
***MATH 1513 College Algebra

Specialized Course Requirements Credit Hours: 10

Electronics Technology 2 hours
*ELET 1212 Introduction to Electricity

Nanotechnology/Electronics 8 hours
NANT/ENGR 1463 Composite Materials
*NANT/ELET 2632 Introduction to Nanotechnology
and select one course from the following:

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: TECHNOLOGY

*NANT/ELET 2643 Nanoelectronics
*NANT/ELET 2653 Nanoscience

Total Credit Hours: 17-19
*Course has prerequisite (See course description section of the catalog).
***Recommended for students who plan to transfer to a four year program.

ELECTRONICS TECHNOLOGY
U.S. Navy Technology Option

Program Description:
Successful completion of both blocks of the college coursework: 1) preliminary studies, including general education requirements and specific technical courses at the participating state system institutions, and 2) the successful completion of all USN technical training programs curricula and job experience (college credit recommended by the American Council of Education [ACE] guidelines) is required before the student is eligible to receive an appropriate AAS degree.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
select one course from the following:
*ENGL 1213 Freshman Composition II
*ENGL 2333 Technical/Professional Writing

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Mathematics 3 hours
*MATH 1513 College Algebra

General Education Electives 3 hours
Choose any 3 hours of General Education.

Specialized Course Requirements **Credit Hours: 30

Navy Technical Training Schools (ACE Credit) 30 hours

Controlled Electives: Credit Hours: 12
Electives must be chosen in relation to the student's occupational /educational goal and approved by the instructor to enter the program.

***Total Credit Hours: 60**
*Course has prerequisite (See course description section of catalog).
**Students with less than 30 hours ACE credit should contact counseling or testing for other options.
***Minimum of 15 credit hours must be completed through the degree granting institution.

ELECTRONICS ENGINEERING TECHNOLOGY
OSU Transfer Option
See Science, Technology, Engineering and Mathematics area of study: Engineering.

ELECTRONICS ENGINEERING TECHNOLOGY
OSU Transfer Option

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year Bachelor of Science in Electronics Engineering Technology curriculum. Students should consult the Oklahoma State University catalog and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division: Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 42

Chemistry 5 hours
*CHEM 1315 General Chemistry I

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Humanities 6 hours
See the General Education Requirements page for complete list

Mathematics 8 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II

Physics 8 hours
*PHYS 1114 General Physics I
*PHYS 1214 General Physics II

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Required Electives 3 hours
SPCH 1113 Speech Communication

Specialized Course Requirements Credit Hours: 24

Computer Information Systems 4 hours
*CSCI 1901 UNIX
*CSCI 2473 C Language

Electronics Technology 20 hours
*ELET 1303 DC Circuit Analysis
*ELET 1313 AC Circuit Analysis
*ELET 1212 Introduction to Electricity
*ELET 2215 Digital Circuits
*ELET 2244 Amplifiers I
*ELET 2333 Amplifiers II

Total Credit Hours: 66
*Course has prerequisite (See course description section of catalog).
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: ENGINEERING

ENGINEERING

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Engineering may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division: Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 21

See the General Education Requirements for the complete list, including the 3 hours of required electives from the following: Psychology, Social Sciences, Foreign Languages, Fine Arts (Art, Music, Theatre). Science, Mathematics, and elective requirements satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 45

Chemistry 5 hours
*CHEM 1315 General Chemistry I

Engineering 17 hours
*ENGR 1132 Engineering Design with Computer Aided Design
*ENGR 2103 Engineering Statics
*ENGR 2143 Engineering Strength of Materials
*ENGR 2213 Thermodynamics
*ENGR 2523 Elementary Dynamics
*ENGR 2613 Introduction to Electrical Science

Mathematics 15 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III
*MATH 2613 Elementary Differential Equations

Physics 8 hours
*PHYS 2034 Engineering Physics I
*PHYS 2124 Engineering Physics II

Recommended Electives Credit Hours: 1-5

+*CHEM 1415 General Chemistry II
CSCI 1203 Computer Concepts and Applications
**ENGR 1111 Introduction to Engineering
**ENGR 1242 Introductory Engineering Computer Programming

Total Credit Hours: 67-71

*Course has prerequisite (See course description section of catalog).
**Recommended for all engineering majors.
+Recommended for students wishing to complete a BS degree in chemical or environmental engineering.
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible. Courses needed to remedy any necessary deficiency in mathematics may, in some cases, meet general education requirements. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

ENGINEERING
Computer Engineering
OSU Transfer Option

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Electrical and Computer Engineering may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice. Degree Awarded: Associate in Science.

For More Information Contact:
Science, Mathematics, and Engineering Technology Division: Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 21

See the General Education Requirements for the complete list, including the 3 hours of required electives from the following: Psychology, Social Sciences, Foreign Languages, Fine Arts (Art, Music, Theatre). Science, Mathematics, and elective requirements satisfied in Specialized Course Requirements

Specialized Course Requirements Credit Hours: 46

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

Engineering 6 hours
ENGR 1111 Introduction to Engineering
*ENGR 1132 Engineering Design with Computer Aided Design
*ENGR 2613 Introduction to Electrical Science

Mathematics 15 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III
*MATH 2613 Elementary Differential Equations

Physics 8 hours
*PHYS 2034 Engineering Physics I
*PHYS 2124 Engineering Physics II

Computer Information Systems 7 hours
*CSCI 1901 Beginning UNIX (LINUX)
*CSCI 2473 C Language
*CSCI 2843 C++ Programming Language

Total Credit Hours: 67

*Course has prerequisite (See course description section of catalog).
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible. Courses needed to remedy any necessary deficiency in mathematics may, in some cases, meet general education requirements. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS: MATHEMATICS

ENGINEERING
Electrical Engineering

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Electrical and Computer Engineering may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Science.

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 21
See the General Education Requirements for the complete list, including the 3 hours of required electives from the following: Psychology, Social Sciences, Foreign Languages, Fine Arts (Art, Music, Theatre). Science, Mathematics, and elective requirements satisfied in Specialized Course Requirements

Specialized Course Requirements Credit Hours: 48

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

Engineering 9 hours
ENGR 1111 Introduction to Engineering
*ENGR 1132 Engineering Design with Computer Aided Design
*ENGR 2103 Engineering Statics
*ENGR 2613 Introduction to Electrical Science

Mathematics 15 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III
*MATH 2613 Elementary Differential Equations

Physics 8 hours
*PHYS 2034 Engineering Physics I
*PHYS 2124 Engineering Physics II

Computer Information Systems 7 hours
• CSCI 1901 Beginning UNIX (LINUX)
*CSCI 2473 C Language
*CSCI 2843 C++ Programming Language

Total Credit Hours: 69
*Course has prerequisite (See course description section of catalog). Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible. Courses needed to remedy any necessary deficiency in mathematics may, in some cases, meet general education requirements. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

ENGINEERING

Mechanical Engineering
OSU Transfer Option

Program Description:
Students who are interested in pursuing a course of study leading to a baccalaureate degree in Mechanical Engineering may complete the freshman and sophomore general education and prerequisite courses at TCC. Students should visit a TCC counseling office in order to consult the transfer catalogs of the universities where the four-year degree is offered and design a program of study and select courses that meet requirements for both the TCC associate degree and the baccalaureate degree at the university of their choice.

Degree Awarded: Associate in Science

For More Information Contact:
Science, Mathematics, and Engineering Technology Division:
Northeast: (918) 595-7542
Counseling Center: Northeast: (918) 595-7527

General Education Requirements Credit Hours: 21

See the General Education Requirements for the complete list, including the 3 hours of required electives from the following: Psychology, Social Sciences, Foreign Languages, Fine Arts (Art, Music, Theatre).

Science, Mathematics, and elective requirements satisfied in Specialized Course Requirements.

Specialized Course Requirements Credit Hours: 48

Chemistry 5 hours
*CHEM 1315 General Chemistry I

Engineering 20 hours
ENGR 1111 Introduction to Engineering
*ENGR 1132 Engineering Design with Computer Aided Design
**ENGR 1242 Introductory Engineering Computer Programming
*ENGR 2103 Engineering Statics
*ENGR 2143 Engineering Strength of Materials
*ENGR 2213 Thermodynamics
*ENGR 2523 Elementary Dynamics
*ENGR 2613 Introduction to Electrical Science

Mathematics 15 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III
*MATH 2613 Elementary Differential Equations

Physics 8 hours
*PHYS 2034 Engineering Physics I
*PHYS 2124 Engineering Physics II

Total Credit Hours: 69
*Course has prerequisite (See course description section of catalog).
**Recommended for all engineering majors.
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible. Courses needed to remedy any necessary deficiency in mathematics may, in some cases, meet general education requirements. To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count toward the associate degree requirements in this curriculum at TCC.

MATHEMATICS

Program Description:
This suggested curriculum includes TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. This degree is designed for the student interested in an academic field that reflects the real world through numeric patterns, geometric forms, and analytical processes. A degree in mathematics provides students with tools for lifelong learning in a wide variety of other careers. The mathematics graduate will be prepared to be involved in fields that blend quantitative skills with applied areas such as chemistry, engineering, and physics. Students considering this major should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs.

Degree Awarded: Associate in Science

For More Information Contact:
Science and Mathematics Division:
Metro: (918) 595-7334, Northeast: (918) 595-7542,
Southeast: (918) 595-7742, West: (918) 595-8193
Counseling Centers: Metro: (918) 595-7151,
Northeast: (918) 595-7527, Southeast: (918) 595-7651,
West: (918) 595-8176

General Education Requirements Credit Hours: 37

See the General Education Requirements for the complete list.

Specialized Course Requirements Credit Hours: 15

Mathematics 15 hours
*MATH 2114 Analytic Geometry and Calculus I
*MATH 2124 Analytic Geometry and Calculus II
*MATH 2134 Analytic Geometry and Calculus III
*MATH 2613 Elementary Differential Equations

Recommended Electives Credit Hours: 9

*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II
CSCI 1203 Computer Concepts and Applications
*MATH 1613 Plane Trigonometry
*MATH 1715 College Algebra and Trigonometry
*MATH 2193 Elementary Statistics
*PHYS 1114 General Physics I
and
*PHYS 1214 General Physics II
or
*PHYS 2034 Engineering Physics I
and
*PHYS 2124 Engineering Physics II

Total Credit Hours: 61
*Course has prerequisite (See course description section of catalog).
Students should select hours from the recommended field of concentration and/or recommended electives to satisfy general education requirements where possible.
To receive an A.A. or A.S. Degree, students must demonstrate computer proficiency. Please see page 22 for complete requirements.
Physical Education activity classes do not count

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

Transportation, Distribution & Logistics Area of Study

AA: Associate in Arts, university transfer degree • AS: Associate in Science, university transfer degree
AAS: Associate in Applied Science, workforce degree • CER: Certificate of Achievement

University transfer degree programs include TCC degree requirements and courses generally completed in the first two years of a four-year curriculum. Students should consult the catalog of the college or university to which they are planning to transfer and carefully select courses that will meet requirements for both the baccalaureate and associate degree programs. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

Workforce development degree and certificate programs are specifically designed to prepare students for direct entry into the workforce. They may advance students within their current career or open doors to new career opportunities. Traditionally these programs were not designed for transfer; however, varying amounts of coursework - and in some cases entire degrees - may now apply towards a degree at a four-year institution; the number of applicable transfer hours will vary from one university to another. Check with an advisor for further information. Final decisions regarding the transferability of courses are made by the school to which the student plans to transfer.

www.careerclusters.com

Aviation Sciences Technology options:

Aviation Maintenance Technology, OSU Transfer AAS
Air Traffic Control, AAS
Avionics, OSU Transfer AAS
Flight Simulation Specialist Technician, AAS
Management, OSU Transfer AAS
Professional Pilot, OSU Transfer

For more information on Aviation Science Programs:
Science, Math, and Engineering Technology Division,
Northeast: (918) 595-7542
Counseling Center, Northeast: (918) 595-7527

TTC Riverside Campus
801 E. 91st St.
Tulsa, OK 74132
Counseling Center Riverside: (918) 828-4041

TRANSPORTATION, DISTRIBUTION & LOGISTICS

AVIATION MAINTENANCE TECHNOLOGY
OSU Transfer Option

Program Description:
This option provides an opportunity for Federal Aviation Administration Airframe and Powerplants Certified Technicians to develop skills in mathematics, physics, humanities and social sciences and to earn an Associate in Applied Science Degree. This option was developed by a joint effort of Tulsa Technology Center, Tulsa Community College, and Oklahoma State University.

Students should consult with the Tulsa Community College aviation counselor at the Tulsa Technology Center Riverside Campus before enrolling in this option.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 35

Economics 3 hours
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Sciences 8 hours
ASTR 1104 General Astronomy
*PHYS 1114 General Physics I
*CHEM 1114 Principles of Chemistry
BIOL 1114 General Biology for Non-Majors

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 33

Aviation Sciences Technology 39 hour
**AVST 1209 Aviation Maintenance
** *AVST 1239 Airframe
** *AVST 1259 Powerplant
AVST 2113 History of Aviation

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Total Credit Hours: 68
*Course has prerequisite (See course description section of catalog).
**Students who have graduated from an FAA approved Aviation Maintenance Technology Program and have a valid FAA license may apply for advanced standing credit in these courses. Application must be made in the Counseling and Testing Center at the Northeast Campus.

NOTE - Specialized Course Requirements. These courses should be taken at Tulsa Technology Center or any other educational institution which offers FAA approved programs.
NOTE - It is recommended that students take MGT 2103 Workforce Development Internship during the last semester before graduation to enhance employability.

AVIATION SCIENCES TECHNOLOGY
Air Traffic Control

Program Description:
This program option provides training in the application of terminal tower and radar approach control procedures. The program is designed to offer students aviation subjects related to air traffic control. Upon successful completion of the program students are prepared to apply for entry to the Federal Aviation Administration Air Traffic Control Academy. The curriculum is provided through use of high-fidelity control tower simulation and radar approach simulation in state-of-the-art facilities to meet the changing needs of air traffic control industry. Students should consult with the TCC aviation counselor at the TCC Riverside Campus before enrolling in this option.

Degree Awarded: Associate in Applied Science

General Education Requirements - Credit Hours: 18

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 2333 Technical/Professional Writing

Mathematics 3 hours
*MATH 1513 College Algebra

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Psychology/Speech 3 hours
PSYC 1113 Introduction to Psychology
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 42

Aviation Sciences Technology 39 hour
AVST 1113 Private Pilot Ground School
AVST 1222 Private Pilot Flight Lab
*AVST 1343 Introduction to Air Traffic Control
*AVST 1354 Air Traffic Control Tower Operation I
*AVST 1364 Air Traffic Control Radar Operation I
AVST 2213 Instrument Pilot Ground School
*AVST 2226 Air Traffic Control Tower Operation II
*AVST 2236 Air Traffic Control Radar Operation II
*AVST 2245 Air Traffic Control Advanced Tower and Radar Operations
*AVST 2253 Air Traffic Control Meteorology

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Controlled Electives: 3
*AVST 2263Air Traffic Control ATC Internship
or 3 credit hours of general education electives

TRANSPORTATION, DISTRIBUTION & LOGISTICS

Total Credit Hours: 63
*Course has prerequisite (See course description section of catalog).
**Students who have graduated from an FAA approved Aviation Maintenance Technology Program and have a valid FAA license may apply for advanced standing credit in these courses. Application must be made in the Counseling and Testing Center at the Northeast Campus.

AVIATION SCIENCES TECHNOLOGY
Avionics - OSU Transfer Option

Program Description:
This option provides an opportunity for graduates of the Tulsa Technology Center Avionics program or individuals with documented equivalent training to develop skills in mathematics, physics, humanities and social sciences and to earn an Associate in Applied Science Degree. This option was developed by a joint effort of Tulsa Technology Center, Tulsa Community College, and Oklahoma State University. Students should consult with the Tulsa Community College aviation counselor at the Tulsa Technology Center Riverside Campus before enrolling in this option.

Degree Awarded: Associate in Applied Science

General Education Requirements - Credit Hours: 41

Economics 3 hours
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Humanities 6 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II
PHIL 1113 Introduction to Philosophy
PHIL 1143 Introduction to Business Ethics: Business Issues

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Sciences 8 hours
ASTR 1104 General Astronomy
BIOL 1114 General Biology for Non-Majors
*CHEM 1114 Principles of Chemistry
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 31

Aviation Sciences Technology 31 hours
+*AVST 1007 Avionics I
+*AVST 1017 Avionics II
+*AVST 1027 Avionics III
+*AVST 1037 Avionics IV
AVST 2113 History of Aviation

Total Credit Hours: 72
*Course has prerequisite (See course description section of catalog).
+Course must be taken through Tulsa Technology Center – Riverside Campus.
NOTE - Specialized Course Requirements. These courses should be taken at Tulsa Technology Center or any other educational Institution which offers FCC approved programs.
NOTE - It is recommended that students take MGT 2103 Workforce Development Internship during the last semester before graduation to enhance employability.

TRANSPORTATION, DISTRIBUTION & LOGISTICS

AVIATION SCIENCES TECHNOLOGY
Flight Simulation Specialist

Program Description:
This program is intended to develop the basic skills and experience needed to function as a Simulation Test Engineer at FlightSafety International. It is designed to prepare the student with knowledge in physics, aviation, electronics, digital computers, hydraulics and other skills necessary to assemble, modify, troubleshoot and operate complex training equipment like flight simulators. It is intended for both employees and non-employees of FlightSafety International. Students should consult with the Tulsa Community College aviation counselor at the Tulsa Technology Center Riverside Campus before enrolling in this option.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 22

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Sciences 4 hours
*PHYS 1114 General Physics I

Specialized Course Requirements Credit Hours: 44

Aviation Sciences Technology 31 hours
AVST 1113 Private Pilot Ground School
* **AVST 1007 Avionics I
* **AVST 1017 Avionics II
* **AVST 1027 Avionics III
* **AVST 1037 Avionics IV

Electronics 6 hours
*ELET 1223 Fluid Power
*ELET 2253 Servo-Systems

Computer Information Systems 4 hours
*CSCI 1901 Beginning UNIX
*CSCI 2753 Introduction to Networking

Total Credit Hours: 63
*Course has prerequisite (See course description section of catalog).
**These courses should be taken at Tulsa Technology Center or any other educational institution which offers FCC approved programs.

AVIATION SCIENCES TECHNOLOGY
Management Option - OSU Transfer Option

Program Description:
This option is designed to educate the future managers for the aviation industry. The curriculum stresses scientific principles, the human side of management, computer knowledge, critical thinking, cognitive and analytical skills, and communication skills, in addition to mathematics, science and technology. Upon successful completion, the student will be awarded an Associate in Applied Science degree. This option was developed by a joint effort of Tulsa Community College and Oklahoma State University. Students should consult with the Tulsa Community College aviation counselor at the Tulsa Technology Center Riverside Campus before enrolling in this option.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 41

Economics 3 hours
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Humanities 3 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II
PHIL 1113 Introduction to Philosophy
PHIL 1143 Introduction to Business Ethics: Business Issues

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 2193 Elementary Statistics

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Sciences 8 hours
ASTR 1104 General Astronomy
BIOL 1114 General Biology for Non-Majors
*CHEM 1114 Principles of Chemistry
*PHYS 1114 General Physics I
(One course must be a laboratory science)

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 21

Accounting 6 hours
ACCT 2213 Financial Accounting
*ACCT 2223 Management Accounting

TRANSPORTATION, DISTRIBUTION & LOGISTICS

Aviation Sciences Technology 6 hours
AVST 1113 Private Pilot Ground School
AVST 2113 History of Aviation

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Economics 3 hours
ECON 2013 Principles of Macroeconomics

Management 3 hours
MGT 1353 Management Essentials

Total Credit Hours: 62
*Course has prerequisite (See course description section of catalog).
NOTE - It is recommended that students take MGT 2103 Workforce Development Internship during the last semester before graduation to enhance employability.

AVIATION SCIENCES TECHNOLOGY
Professional Pilot Option - OSU Transfer Option

Program Description:
This option provides degree and courses generally completed in the freshman and sophomore year of the Bachelor curriculum at Oklahoma State University. The student will be provided with the ground school and flight training necessary to acquire a Federal Aviation Administration (FAA) Private Pilot Instrument and Commercial certification. Upon successful completion, the student will be awarded an Associate in Applied Science degree. TCC Professional Pilot School is a FAA Part 141 approved Pilot School.

Procedures for enrolling in Aviation Courses:
1. All prospective flight students must meet with the TCC aviation counselor at the Tulsa Technology Center Riverside Campus located at 801 East 91st Street.
2. Potential Flight Students must provide the following documents to the Aviation Counselor:
   a. Proof of U.S. Citizenship in form of:
      i. An original birth certificate with raised seal documenting birth in the United States or one of its territories.
      ii. A valid, unexpired United States passport.
      iii. An original U.S. Naturalization Certificate with raised seal, Form N-550 or Form N-570.
      iv. An original certification of birth abroad, Form FS-545 or Form DS-1350 or
      v. An original Certificate of U.S. Citizenship, Form N-560 or Form N-561.
   b. Current FAA Medical

Note: A student seeking a Professional Pilot Degree must complete two or more flight labs through TCC resident credit.

Degree Awarded: Associate in Applied Science

General Education Requirements Credit Hours: 37

Economics 3 hours
*ECON 2023 Principles of Microeconomics

English 6 hours
*ENGL 1113 Freshman Composition I
*ENGL 1213 Freshman Composition II

Geography 3 hours
GEOG 1043 Introduction to Cultural Geography

Humanities 3 hours
HUMN 2113 Humanities I
HUMN 2223 Humanities II
PHIL 1113 Introduction to Philosophy
PHIL 1143 Introduction to Business Ethics: Business Issues

Mathematics 6 hours
*MATH 1513 College Algebra
*MATH 1613 Plane Trigonometry

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Sciences 4 hours
*PHYS 1114 General Physics I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 27

Aviation Sciences Technology 24 hours
AVST 1113 Private Pilot Ground School
*AVST 1222 Private Pilot Flight Lab
*AVST 1403 Advanced Theory of Flight
AVST 2113 History of Aviation
*AVST 2122 Cross-Country Flight Lab
*AVST 2132 Instrument Flight Lab
*AVST 2142 Commercial Flight Lab
AVST 2191 Validation Flight
*AVST 2213 Instrument Pilot Ground School
*AVST 2313 Commercial Pilot Ground School

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

Total Credit Hours: 64
*Course has prerequisite (See course description section of catalog).
NOTE - All students who are not U.S. Citizens must meet all Transportation Safety Administration clearance requirements before being enrolled in the aviation courses.
NOTE - It is recommended that students take MGT 2103 Workforce Development Internship during the last semester before graduation to enhance employment.

STUDENT ACTIVITIES OFFICE
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Tulsa Community College

Course Descriptions

COURSE DESCRIPTIONS

Courses at Tulsa Community College are offered in "disciplines." A discipline is a related grouping of courses in a specified subject area. Each course within the discipline is assigned a specific four-digit course number. The prerequisites of each course are listed in the course description. A schedule of classes will be prepared prior to each semester enrollment period. Not all courses listed in the catalog may be offered each semester and certain classes may be offered only on one campus. Please check the current semester schedule for this information.

COURSE NUMBERING SYSTEM:

- First digit - The year in which the course is usually taken.*
- Second and third digit - The individual course number within a discipline.
- Fourth - The credit hours of a course.

*(Zero level courses are not included in the admission, retention, or graduation grade point averages.)

Courses used to fulfill general education requirements at TCC are listed in the catalog section titled, General Education Requirements. A code letter following a course title designates the general education category for which the course may be used, as follows:
(A) Analytical and Quantitative Thought
(D) Diversity
(H) Humanities
(I) International or Non-Western Dimension
(L) Laboratory Science
(S) Social and Behavioral Sciences

ACCOUNTING

ACCT 1003 - Introduction to Accounting
3 Credits
Provides an understanding of the fundamental principles of double entry accounting as applied to practical business situations. Emphasis is given to the following: financial statements, debit and credit rules of accounting, the accounting cycle, special journals, and payroll accounting. Lecture 3 hours. No Laboratory.

ACCT 1211 - Taxes for the Individual
1 Credit
This course will introduce the basic concepts in federal income tax requirements for individuals. Example returns will be completed using current federal tax forms. Lecture 1 hour. No Laboratory.

ACCT 1221 - Taxes for the Small Business
1 Credit
This course will introduce basic concepts of income tax requirements for small businesses. Example returns will be completed using current federal tax forms. Lecture 1 hour. No Laboratory.

ACCT 1231 - Pro Series Turbo Tax
1 Credit
This course will concentrate on the installation and implementation of an individual income tax package using a microcomputer. Consequently, a good working knowledge of IRS tax forms is very beneficial to obtain the most from this course. Initial setup, general operating information, menu options, tax preparation, forecasting, tax record keeping, tax planning and instructions for printing the IRS tax forms will be covered. Data entry exercises will be performed for various tax problems. Requires familiarity with IRS tax forms and basic Windows operating system skills are very beneficial. Lecture and Laboratory 1 hour.

ACCT 1241 - Tax Research on the Internet
1 Credit
A hands-on course that teaches students to perform tax research, tax planning, and other related topics using the Internet. This course will start with the basics of how to access the Internet to find the latest changes in the tax law, etc. Lecture and Laboratory 1 hour.

ACCT 1251 - Payroll and Human Resources Applications
1 Credit
A hands-on course in the calculation of payroll, reporting of payroll to governmental agencies, and internal data storage of Personnel information. Lecture and Laboratory 1 hour.

ACCT 1331- Introduction to Peachtree
1 Credit
This course will provide an in-depth study of automated accounting. It will include the setup and configuration of the software and the use and reporting of modules including General Ledger, Accounts Receivable, Accounts Payable, Payroll and Inventory. The financial statements will be produced as well as other reports. This class will include lecture and in-class simulation. Lecture and Laboratory 1 hour. Prerequisite: Working knowledge of accounting and computers.

ACCT 1411 - Quickbooks Pro
1 Credit
This course includes the review and use of this powerful accounting tool for both accountants and non-accountants to: 1) record sales, track accounts receivable and accounts payable, 2) record expenses and pay bills, 3) track receipts and shipments/sales of inventory as well as inventory analysis, 4) document work estimates, activity by jobs, and employees/contractors time for invoicing and payroll, 5) process employee payroll, print paychecks, prepare quarterly and annual payroll reports and print W-2 forms, and 6) analyze accounting information through the preparation of various reports including balance sheet and income statement. Lecture and Laboratory 1 hour. Prerequisite: Working knowledge of accounting and computers.

ACCT 1421 - Quicken
1 Credit
This course covers the theory and practice of routine personal or business financial management including entering and paying bills, easier spending analysis, organizing tax information, budgeting, credit management, and financial planning. Lecture and Laboratory 1 hour.

ACCT 1621 - Introduction to Accounting Using Access
1 Credit
This course provides necessary instructions to open and complete Access tables, queries, forms, and reports to satisfy accounting information requirements for revenue, purchase, payroll, and production cycles. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011.

ACCT 2213 - Financial Accounting
3 Credits
Theory and practice of measuring and recording financial data for an economic unit: journalizing transactions, adjusting entries for revenue and expense items, inventories, depreciation, internal control with an emphasis on cash, current and long-term liabilities, and accounting for corporation stock transactions. Emphasis also will concentrate on the preparation and use of the income statement, balance sheet, and statement of cash flows. Lecture 3 hours. No Laboratory.

ACCT 2223 - Managerial Accounting
3 Credits
An introduction to managerial accounting. Analysis of cost behavior with an emphasis on the accumulation of product costs and budgeting for planning and performance evaluation. Coverage includes job order costing, process costing, cost-volume-profit analysis, capital budgeting, standard costs, and departmentalization. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2213 with grade of "C" or better.

ACCT 2233 - Financial Accounting Applications
3 Credits
A bridge from Financial Accounting to Intermediate Accounting I with emphasis on measuring/recording business transactions, adjusting entries, the accounting cycle, preparation and interpretation of financial statements, merchandising and manufacturing operations, time value of money and accounting theory. Recommend concurrent enrollment with Managerial Accounting, ACCT 2223. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2213 with a grade of "C" or better.

ACCT 2243 - Payroll Administration
3 Credits
This course will cover a wide spectrum of basic payroll accounting and employment topics for large and small employers. It will concentrate on the administration of the payroll function under the Fair Labor Standard Act and the Internal Revenue Code. Other subjects include overtime pay, payroll taxes, withholding reporting and deposits, voluntary and non-voluntary deductions (cafeteria plans, group health plans, COBRA requirements, worker's compensation issues, pension plans, etc.), and W-2 preparation and reconciliation. The Certified Payroll Professional (CPP) designation requirements will also be introduced. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2213 and ACCT 2223 with a grade of "C" or better or instructor approval.

ACCT 2253 - Peachtree
3 Credits
This class is a study of a comprehensive automated accounting program. Includes all modules of the package, set-up of a business, and actual operation of the package for three months. Includes lecture and in-class production. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ACCT 2213.

ACCT 2303 - Analyzing Financial Statements
3 Credits
This course teaches the basic skills of financial statement analysis to the student who is already familiar with fundamental accounting procedures and practices. The course is a practical means of discovering how financial data are generated and their limitations; techniques for analyzing the flow of business funds; and methods for selecting and interpreting financial ratios. It also presents analytical tolls for predicting and testing assumptions about a firm's performance. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2223 or permission instructor.

ACCT 2313 - Intermediate Accounting I
3 Credits
A review of the accounting cycle and advanced work in the areas of cash, receivables, inventories, current liabilities, plant and equipment, intangible assets and long-term liabilities and stockholders' equity. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2223 and ACCT 2233 with a grade of "C" or better or instructor approval.

ACCT 2323 - Intermediate Accounting II
3 Credits
A continuation of Intermediate Accounting I, with emphasis on investments, long-term liabilities, accounting for leases and pensions, stock holders' equity, earnings per share, revenue recognition, income taxes, accounting changes, statement of cash flows, financial statement analysis, and disclosures. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2313.

ACCT 2333 - Cost Accounting
3 Credits
Basic principles and procedures of cost accounting and cost control in a manufacturing organization through study of job order and process cost procedures, predetermined cost, and variance analysis. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2223 with grade of "C" or better, MATH 1513 or equivalent.

ACCT 2363 - Income Tax I
3 Credits
Provides an understanding of basic income tax laws applicable to individuals and sole proprietorships. Subjects treated include personal exemption, gross income, business expenses, non-business deductions, capital gains, and losses. Emphasis is on problems commonly encountered in the preparation of income and tax returns. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2213 or instructor approval.

ACCT 2383 - Governmental Accounting
3 Credits
A study is made of the unique characteristics of fund accounting used at various levels of governmental units and nonprofit operations. Special emphasis is devoted to budgeting and accounting control as a means of furthering sound financial administration of these organizations. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2213 and ACCT 2223.

ACCT 2393 - Accounting Information Systems
3 Credits
Study of alternative accounting systems used for the collection, organization, and presentation of information. Practice in (1) designing accounting systems to assist management in decision-making process, and (2) designing financial reports for internal and external purposes. Practice in using accounting software. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ACCT 2333, CSCI 1203.

ACCT 2403 - Income Tax II
3 Credits
The study of advanced federal income taxation problems. Special emphasis is placed on the preparation of returns for partnerships, trusts, and corporations. Other subjects include an introduction to tax planning and research. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2363 with a grade of "C" or better or instructor approval.

ACCT 2443 - Auditing
3 Credits
A study is made of the audit function; a survey is made of the professional authority, body of theory, and standards - general, fieldwork and reporting; and a discussion of the audit opinion and its implications. Special emphasis will be placed on work-paper techniques, internal control and internal auditing. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2313 with a grade of "C" or better or instructor approval.

ACCT 2463 - Fraud Examination
3 Credits
An examination of various aspects of fraud detection and prevention, including asset misappropriation, skimming, cash larceny, check tampering, register disbursement schemes, payroll and expense reimbursement schemes, inventory and other assets, corruption, bribery, conflicts of interest and fraudulent financial statements. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2213 and ACCT 2223 or consent of instructor.

ACCT 2523 - Microcomputer Accounting Applications
3 Credits
The study of a computer application package using microcomputers as a vehicle. Systems studied will be general ledger, accounts receivable, accounts payable, billing, payroll, and inventory control. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ACCT 2213 and CSCI 1203.

ACCT 2533 - Fundamentals of Health Care Accounting
3 Credits
This is an introductory course in financial accounting for health care organizations. Vocabulary, financial tools and concepts, and assessing financial information will be included. Lecture 3 hours. No Laboratory.

ACCT 2543 - Management Accounting in Health Care Organizations
3 Credits
An introduction to management accounting that provides the student with techniques necessary to understand management accounting as used in health care organizations. The limitations of management accounting in making health care operations decisions will be included. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2533 or ACCT 2213 or instructor approval.

ACCT 2553 - Essentials of Cost Accounting in Health Care Organizations
3 Credits
This course provides the students with the tools and techniques of cost accounting as they apply to health care organizations. An interactive learning approach will be used. Lecture 3 hours. No Laboratory. Prerequisites: ACCT 2533 and ACCT 2543 or ACCT 2213 and ACCT 2223.

ACCT 2563 - Accounting Internship
3 Credits
Supervised employment in the student's chosen field of Accounting. Intended to provide practical experience for students preparing for a career in accounting. Requires instructor approval. No Lecture. Laboratory 12 hours.

ACCT 2571 - Writing for Accountants
1 Credit
This course is designed for accountants seeking professional improvement in communication skills using formats from actual accounting practice. It covers all the stages of the writing process: planning (including analysis of audience and purpose), critical thinking, accounting research, generating and organizing ideas, writing a draft, revising the draft, and designing a document for effective presentation. Prerequisites: ACCT 2213, ACC 2223 and ENGL 1113 or instructor approval.

ACCT 2990 - Selected Topics in Accounting
1-4 Credits
The study and/or analysis of a selected topic in Accounting. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

ACCOUNTING ASSISTANT
(See Accounting Program and Course Descriptions)

AFRICAN STUDIES

AFRS 2323 - Field Experience and/or Study Abroad
3 Credits
This course is designed to provide an on-site experience in a selected African country or in a location rich in African history and/or African connections. Includes lectures, readings, oral interaction, and written reports. All or a portion of the instruction and activities are conducted at the site. Focus on acquiring knowledge of the economic, political, geographical and cultural makeup of the location. Lecture 3 hour. Self-paced lab may be required. Prerequisite: Permission of associate dean of division before enrollment and in advance of on-site experience.

AFRS 2343 - The African Diaspora
3 Credits
A historical study of the dispersion of African peoples from the continent of Africa. Topics include the peopling of the world, slavery, colonialism, post-emancipation, civil rights and nationalist movements, post-independence struggles, and-Pan Africanism. Lecture 3 hours. No Laboratory.

AFRS 2713 - Survey of African Civilizations (H)
3 Credits
An interdisciplinary survey of the countries and peoples of Africa from the emergence of human society to the present, with a focus on their discoveries and achievements. Areas of consideration include history, literature, music, art, philosophy, and religion. Lecture 3 hours. No Laboratory.

AFRS 2990 - Selected Studies in Africa
1-4 Credits
The study and/or analysis of a selected topic in Africa. May be repeated with a different topic. Lecture and/or Laboratory 1-4 hours.

ALLIED HEALTH

ALDH 1001 - Allied Health Careers Exploration
1 Credit
This course offers a systematic approach to a career search in the medical field. It includes an orientation to self-assessment and decision making techniques to allow the student to pursue allied health career options more compatible to their interest and personality. Each allied health program and the nursing program will be discussed in detail regarding the profession, curriculum, and application process. Lecture 1 hour. No Laboratory.

ALDH 1111- Multimedia for the Allied Health Professional
1 Credit
This one credit hour course is designed to help the Allied health Professional improve his/her efficiency and increase his/her clinical expertise. Within this course, participants will learn to find resources on the Internet about patient care. The student will explore the uses of electronic mailing lists (listservs) to correspond with staff or individuals who have a particular interest in treatments for specific diagnosis. Each participant will develop a web page using the web page editor on a subject which pertains to his/her clinical field of practice. This course will be hands on with a computer available for each participant. Students will have class time to work on projects; however, outside time may be required. Lecture 1 hour. No Laboratory.

ALDH 1323 - Medical Terminology
3 Credits
A comprehensive medical terminology course focusing on root words, suffixes and prefixes, with exposure to medical terms relating to symptomatology, disease process, diagnostic testing, procedures and abbreviations. The medical terms are introduced and examined by body system. Upon completion of the course, students should be proficient in utilizing, defining and accurately spelling medical terms and identifying medical abbreviations. Lecture 3 hours, No Laboratory.

ALTERNATIVE ENERGY
(See Electronics Technology Program)

ALTE 1223 – Hydraulics and Pneumatics
3 Credits
A study of hydraulic and pneumatic systems as it relates to fluids, energy and power, pumps, actuators, control devices, flow distribution, and industrial applications. Lecture 2 hours. Laboratory 2 hours.

ALTE 1442 - Introduction to Alternative Energy
2 Credits
This course provides basic knowledge of alternative energy systems, including wind, solar and Oklahoma-produced biofuels. Students will have the opportunity to build or test a wind power generator and a solar electric generator. Battery storage systems will be included. Lecture 1 hour. Laboratory 2 hours. Prerequisite: ELET 1212.

ALTE 1453 - Solar Energy Systems
3 Credits
Study of electrical and thermal energy conversion using the Sun. Students will design and measure both types of systems for home and/or business use. Lecture 2 hours. Laboratory 2 hours.

ALTE 1463 - Wind Energy Systems
3 Credits
Study of electrical energy conversion using an Oklahoma natural resource, the wind. Students will measure wind system efficiency for the area, and service or design a system. Lecture 2 hours. Laboratory 2 hours.

ALTE 1472 - Renewable Design Project
2 Credits
A student-driven application approach to using any of the alternative energy methods. Wind, solar, biofuels, or hydrogen projects will be examined. Lecture 1 hour. Laboratory 2 hours.

APPAREL DESIGN and MERCHANDISING
(See Marketing Program and Course Descriptions)

APPRENTICESHIP

APPR 1203 - Apprenticeship
3 Credits
Instruction will include supervised on-the-job training, classroom lectures, and outside assignments. This format will provide the training necessary for students to acquire the basic skills required for success in their chosen skilled craft. Laboratory 6 hours.

APPR 1306 - Apprenticeship I
6 Credits
Instruction will include supervised on-the-job training, classroom lectures, and outside assignments. This format will provide the training necessary for students to acquire the basic skills required for success in the chosen skilled craft. Lecture 2 hours. Laboratory 10 hours.

APPR 1346 - Apprenticeship II
6 Credits
Instruction will include supervised on-the-job training, classroom lectures, and outside assignments. This format will provide the training necessary for students to acquire the basic skills required for success in their skilled craft. Lecture 2 hours. Laboratory 10 hours. Prerequisite: APPR 1306.

APPR 2306 - Apprenticeship III
6 Credits
Instruction will include supervised on-the-job training, classroom lectures, and outside assignments. This format will provide the training necessary for students to acquire the basic skills required for success in their skilled craft. Lecture 2 hours. Laboratory 10 hours. Prerequisite: APPR 1346.

APPR 2347 - Apprenticeship IV
Credits
Instruction will include supervised on-the-job training, classroom lectures, and outside assignments. This format will provide the training necessary for students to acquire the basic skills required for success in their skilled craft. Lecture 2 hours. Laboratory 12 hours. Prerequisite: APPR 2306.

ARABIC

ARBC 1001 - Arabic for Communication I
1 Credit
A companion course for ARBC 1103 with emphasis on speaking and comprehension of colloquial Arabic. Recommended that it be taken simultaneously with ARBC 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: ARBC 1103 or approval of instructor.

ARBC 1031 - Arabic Pronunciation
1 Credit
A beginning course in Arabic with special emphasis on pronunciation and the oral skills. May be taken simultaneously with ARBC 1103. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

ARBC 1103 - Arabic I
3 Credits
A beginning course in understanding, speaking, reading, and writing Arabic. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required.

ARBC 1213 - Arabic II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Arabic. The second in sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ARBC 1103 or approval of instructor.

ARBC 1313 - Arabic III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Arabic. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required Prerequisite: ARBC 1213 or approval of instructor.

ARBC 1413 - Arabic IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Arabic. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ARBC 1313 or approval of instructor.

ARBC 2033 - Arabic Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Arabic societies. Conducted in English. Lecture 3 hours. No Laboratory.

ARBC 2041 - Arabic-Introduction to the Arts
1 Credit
An introduction to the arts of Arabic-speaking countries with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day Arabic activities. Conducted in English. Lecture 1 hour. No Laboratory.

ARBC 2071 - Arabic History and Geography Introduction
1 Credit
A survey of history and geography of the Arabic people as it relates to modern day Arabic societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. No Laboratory.

ARBC 2421 - Arabic Culture Comparisons
1 Credit
Focus on the cultural aspects of the Arabic-speaking people. Includes a comparison with the U.S. American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

ARBC 2990 - Selected Topics in Arabic
1-4 Credits
The study and/or analysis of a selected topic in Arabic. May be repeated with a different topic. Lecture 1-4 hours. Self-paced laboratory may be required.

ART

ART 1013 - Fundamentals of Art I
3 Credits
Fundamentals of Art I is a study of the principle elements of two-dimensional design. Those elements include color, perspective, fundamental drawing concepts and compositional elements. By using a variety of materials, students will apply the information to a series of studio assignments. Beginning course required of all art majors. Open to all interested students. Lecture 2 hours. Laboratory 4 hours.

ART 1023 - Painting I
3 Credits
Painting I will develop skills in opaque painting, stressing form and content, visual appreciation, and individual expression. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013.

ART 1033 - Painting II
3 Credits
Painting II will continue to develop the student's skills in opaque painting. The course will continue to stress form and content, visual appreciation, and individual expression. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1023 or instructor approval.

ART 1053 - Art History Survey I (H)
3 Credits
Art History Survey I is a study of the arts, artists and their cultures from the Prehistoric man through the Early Renaissance. Required of all art majors. Lecture 3 hours. No Laboratory.

ART 1063 - Art History Survey II (H)
3 Credit
Art History Survey II is a study of the arts, artists and their cultures from the Early Renaissance to the present. Required of all art majors. Lecture 3 hours. No Laboratory.

ART 1083 - Fundamentals of Art II
3 Credits
Fundamentals of Art II is a continuation of Fundamentals of Art I. The course is a study and analysis of three-dimensional art forms. By using a variety of materials and processes, the student will complete a series of studio assignments. Basic concepts involving the use of line, mass, space, texture, and form as related to various three-dimensional materials will be stressed. Suggested for all art majors. Lecture 2 hours. Laboratory 4 hours.

ART 1113 - Art Appreciation (H)
3 Credits
The study of art from a variety of different backgrounds and cultures as both product and process. Aesthetic judgment-making in evaluation of art from different times and places is stressed. Lecture 3 hours. No Laboratory.

ART 1123 - Drawing I
3 Credits
Drawing I will develop the student's understanding of the basic concepts of drawing and their powers of observation. Students will work with various media utilizing a variety of sources and environments. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013.

ART 1133 - Drawing II
3 Credits
Drawing II will continue to develop the student's understanding of the concepts of drawing. Students will continue to develop their skills in media by using a variety of sources and environments. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013 and ART 1123.

ART 2053 - Art History Survey IV
3 Credits
Art History Survey IV is a study of the arts, artists and their cultures beginning with the early 20th century. Various 20th-century styles will be covered including Cubism, Dada, Pop, Super-Realism, Conceptual, and Performance. Lecture 3 hours. No Laboratory.

ART 2063 - Watercolor I
3 Credits
Watercolor I will develop skills in watercolor painting, stressing form and composition, visual perception, and individual expression. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013.

ART 2073 - Watercolor II
3 Credits
Watercolor II will continue to develop skills in watercolor painting. Projects will continue to stress form and composition, visual perception, and individual expression. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013 and ART 2063.

ART 2083 - Sculpture I
3 Credits
Sculpture I is a creative approach to sculpture techniques and form exploration using a variety of media. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013 and ART 1083.

ART 2093 - Sculpture II
3 Credits
Students will continue to develop their skills, methods, and study of the sculptural form. The course will continue to stress methods, materials, concept, and artistic style. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013, ART 1083, and ART 2083.

ART 2143 - Figure Drawing I
3 Credits
Figure Drawing I includes study in gesture and finished drawings of the model. Emphasis will be placed on pose, composition, and a variety of media. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1123 or instructor approval.

ART 2153 - Figure Drawing II
3 Credits
Figure Drawing II will continue to develop study in gesture and finished drawings of the model. Students will further their skills in use of media and papers. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 2143.

ART 2223 - Printmaking I
3 Credits
Printmaking I will cover basic media and processes involved in the relief, intaglio, lithographic and monotype processes. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013 and ART 1123 or instructor approval.

ART 2233 - Printmaking II
3 Credits
Printmaking II will continue to develop the student's skills and knowledge in the relief, intaglio, lithographic and monotype processes. Students will continue to develop their conceptual and studio skills. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013, ART 1123, and ART 2223 or instructor approval.

ART 2243 - Serigraphy I
3 Credits
Serigraphy I introduces the student to both hand and photo stencil and screen print methods. Each student will produce a body of work exploring the image-making potential of screen printing techniques. Strong emphasis will be placed on exploring color, design, and personal creativity. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013 or instructor approval.

ART 2253 - Serigraphy II
3 Credits
Serigraphy II involves advanced studies in utilizing screen printing techniques. Students will produce a body of work that emphasizes the exploration of color, design, and personal creativity. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 2243.

ART 2263 - Introduction to Ceramics
3 Credits
Introduction to clay as a medium through hand building and wheel forming methods with an emphasis on critical thinking in relation to three-dimensional form. Techniques explored will include forming, glazing, decoration, and firing. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013 and ART 1083.

ART 2313 - Jewelry I
3 Credits
Jewelry I will develop the student's skills in fabrication, metal-forming, and casting. Emphasis will be on artistic design and craftsmanship. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013 and ART 1083.

ART 2323 - Jewelry II
3 Credits
Jewelry II will continue to develop the student's skills in casting, fabrication, and metal-forming. Continued emphasis will be placed on artistic design and craftsmanship. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013, ART 1083, and ART 2313.

ART 2403 - Illustration I
3 Credits
Introduction to historic and contemporary illustration and consideration of a wide range of illustrative styles. Required experiments with media and consideration of alternate ways of illustrating a message through conceptual and compositional variations. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013 and ART 2143.

ART 2413 - Typography I
3 Credits
Letter forms and their characteristics will be explored through a study of spacing, leading, type selection, layout alternatives, type specification, and copy fitting. Hand lettering and computer graphic skills will be taught. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ART 1013.

ART 2423 - Graphic Design I
3 Credits
Computer applications are used to explore basic design principles - line, form, and color - as visual communication. Students will learn problem solving generation of ideas, development of concepts, the integration of word and image, and technical and presentation skills. Lecture 2 hours. Laboratory 4 hours. Prerequisites: ART 1013 and ART 1123.

ART 2503 - Professional Practice
3 Credits
Includes information about artistic materials, how to make them, how to use them, their health risks, and how to mitigate health risks. Students will also explore avenues of making a living as an artist and related skills such as preparation of art for presentation, presentation techniques, and portfolio development. Lecture 2 hours. Laboratory 4 hours. Prerequisites: Six hours of art classes, including at least one studio class.

ART 2530 - Field Studies in Art
1-3 Credits
In this course, students are exposed through travel to art, artists, and inspiring environments. The course includes lectures and readings to prepare for the experience and discussions and writing or artistic creation as a response to or evaluation of the experience. Lecture 1-3 hours. No Laboratory. Prerequisite: Permission of the instructor.

ART 2813 - Filmmaking I
3 Credits
Beginning art filmmaking covering basic technical and aesthetic problems of the experimental films. Lecture 3 hours. No Laboratory.

ART 2823 - Film Internship Filmmaking II
3 Credits
Continuation of art filmmaking covering basic technical and aesthetic problems of the experimental films. Lecture 3 hours.

ART 2853 - Photography
3 Credits
A comprehensive course in darkroom photography. Topics include historical techniques, black and white film exposure, processing and printing, equipment selection, image manipulation, color theory, and digital applications. Emphasis will be placed in the production of informative images that effectively communicate with the viewer, and adapting those images to publication requirements. Lecture 2 hours Laboratory 4 hours.

ART 2863 - Advanced Photography
3 Credits
An advanced black & white photography course for students who have completed ART/JRMC 2853. Students will use fiber-based paper and investigate alternative processing and printing techniques with the goal of creating works of photographic art. Zone System basics and studio lighting techniques will be explored. Students must provide their own 35mm or medium format camera. Lecture 2 hours. Laboratory 4 hours .Prerequisite: ART 2853 or JRMC 2853.

ART 2913 - Film/Video History and Analysis I
3 Credits
Topics vary. Examines films or videos technically as well as aesthetically. Covers either a specific genre of film or video, a certain time period, or works produced by a single director. Lecture 3 hours. No Laboratory.

ART 2990 - Selected Topics in Art
1-4 Credits
The study and/or analysis of a selected topic in Art. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

ASIAN STUDIES

ASNS 1103 - Asian Philosophy and Culture
3 Credits
An Asian introductory course with an interdisciplinary investigation of cultural, philosophical and aesthetic roots. Includes literature, history, art, architecture, geography, music, family issues, and philosophy in association with major cultural and historical movements. Lecture 3 hours. No Laboratory.

ASNS 2103 - Survey of the Asian Civilization (H,I)
3 Credits
In introductory course with an interdisciplinary study of Asian culture, philosophy, and aesthetics. Taught in English. Lecture 3 hours. No Laboratory.

ASNS 2123 - Pacific Century
3 Credits
This interdisciplinary course emphasizes the interconnections of Asian countries and their relationship with the West, the historical and cultural development of the area, and the developing Asian economic structures. The role of the Pacific Rim countries in the 21st century will be considered and examined. Lecture 3 hours. No Laboratory.

ASNS 2693 - Asian Literature in Translation
3 Credits
The study and/or analysis of a selected topic in Asian Studies. May be repeated with a different topic. Lecture 3 hours. No Laboratory.

ASNS 2990 - Selected Topics in Asian Studies
1-4 Credits
The study and/or analysis of a selected topic in Asian Studies. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

ASTRONOMY

ASTR 1104 - General Astronomy
4 Credits
An introduction to the concepts of modern astronomy including the solar system, the sun and stars, the Milky Way, other galaxies, and methods of observation. Lecture 4 hours. No Laboratory.

ASTR 1121 - Field Astronomy
1 Credit
An introduction to field astronomy including how to plan for the field work from star charts, setup of the telescope in the field, alignment to the north celestial pole, astronomical coordinates and observational techniques. Lecture 1 hour. No Laboratory. Prerequisite: ASTR 1104 or concurrent enrollment.

ASTR 2990 - Selected Topics in Astronomy
1-4 Credits
The study and/or analysis of a selected topic in Astronomy. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

AUTOMATION TECHNOLOGY
(See Electronics Technology Program and Course Descriptions.)

AVIATION SCIENCES TECHNOLOGY

AVST 1007 - Avionics I
7 Credits
Students are instructed in mathematics, avionics safety and soldering proficiency. Studies include DC, AC, and semiconductor theory and applications. Students learn to analyze circuits using analog and digital test equipment, oscilloscopes and transistor checkers. Analog amplifiers, power supplies, oscillators, pulse and control circuits are constructed and analyzed. Differential and operational amplifiers are used to construct and test various timers, regulators, and active filters. Lecture 1 hour. Laboratory 12 hours. Requires instructor approval.

AVST 1017 - Avionics II
7 Credits
Students study digital logic with emphasis placed on integrated circuits from the TTL and CMOS families. Number systems, combination logic circuits, boolean algebra, flip-flops, shift registers, counter and data conversions are taught with microcomputer operation and programming. To familiarize students with the requirements for working on and around aircraft, technician courses in basic aircraft sciences and mechanics are taught. Studies in electronic communications include: amplitude modulation, angle modulation, pulse modulation, transmitters and receivers, and antenna and transmission line theory and application. Spectrum analyzers, grid dip meters, SWR meters, and time-domain reflectometers are used in circuit analysis. Lecture 1 hour. Laboratory 12 hours. Prerequisites: AVST 1007.

AVST 1027 - Avionics III
7 Credits
Students study regulating agencies and regulatory requirements pertinent to avionics technicians. Proper use of maintenance manuals, parts procurement, documentation and record keeping are emphasized. Studies include theory and practical application in the operation, maintenance, calibration and repair of aircraft communication, navigation and surveillance (pulse) systems. Systems include: HF and VHF transceivers, ELT, SATCOM, ADF, VHF nav (VOR and localizer), glideslope, marker beacon, GPS, ATC and mode-S transponders, weather radar, radar altimeters and collision-avoidance systems. Lecture 1 hour. Laboratory 12 hours. Prerequisite: AVST 1017.

AVST 1037 - Avionics IV
7 Credits
Students study how avionics systems integrate using various data buses. Flight director and autopilot systems are briefly covered. An avionics radio panel and radio installation are planned and implemented using FM and manufacturers guidelines, wiring diagrams, computer-aided design software and teamwork. Preparation for the FCC General Radiotelephone Operator license examination is emphasized. Lecture 1 hour. Laboratory 12 hours. Prerequisite: AVST 1027.

AVST 1113 - Private Pilot Ground School
3 Credits
A ground school course that complies with the requirements of the Federal Aviation Regulations as set forth in FAR61.105 (b). Completes FAR Part 141 and 61 requirements. Fulfills the ground training requirements for completion of the FAA Private Pilot Airplane knowledge written for the Private Pilot Certificate. Special fee required. Lecture 3 hours. No Laboratory.

AVST 1209 - Aviation Maintenance
9 Credits
Examines theory and practical in general hangar and shop safety, mathematics, physics and basic aerodynamics, aircraft ground handling and servicing, aircraft in flight and weight and balance, structural materials and non-destructive inspection, aircraft hardware and precision measuring instruments. Includes aircraft cleaning and corrosion control, blueprints and drawings, hand and power tools, fluid lines and fittings, basic electricity, DC and AC electrical circuits, and aircraft battery inspection and servicing. Examines theory and practical application in aircraft motors and generators, solid-state circuits, interpretation and application of Federal Aviation Regulations (FAR's), maintenance publications and records, and aircraft wiring installation requirements and practices. Includes applying aircraft finishes and fabric coverings, manufacturing and repairing bonded structures, laminates and plastics, and servicing, inspecting, troubleshooting and repairing hydraulic, pneumatic, landing gear and steering systems and components. Lecture 9 hours. Laboratory 22 hours.

AVST 1222 - Private Pilot Flight Lab
2 Credits
Meets the minimum requirements for the issuance of a Private Pilot Certificate. Includes 20 hours of flight instruction and 15 hours of solo flight with an introduction to instrument and night flying. Additional direct costs apply based upon hourly rates. See the TCC Flight Center advisor at the Tulsa Tech Riverside Campus. No Lecture. Laboratory 4 hours. Prerequisite: Permission required.

AVST 1239 - Airframe
9 Credits
Examines theory and practical application in various types of fixed-wing and rotary-wing aircraft structures, aerodynamics and rigging. Provides practical application of manufacturing and repair of aircraft welded, non-metallic and sheet metal structures. Also covers the following aircraft systems: cabin atmosphere and control, fuel quantity indicating, ice and rain control, fire detection, fire extinguishing, position and warning, pitot-static, and communication and navigation systems. Various types of aircraft design and operation. Examines theory and practical application of reciprocating engine lubrication systems. In-depth study of techniques and hands-on application of reciprocating engine inspection, preventive maintenance, troubleshooting, engine removal, overhaul, and engine installation and operation. Lecture 9 hours. Laboratory 24 hours. Prerequisite: AVST 1209.

AVST 1259 - Powerplant
9 Credits
Examines theory and practical application of preventive maintenance, troubleshooting and repair of reciprocating engine ignition systems and components, fuel and fuel-metering systems, fire protection and instrument systems, and propellers and propeller governing systems. Examines fundamentals of turbine engine design and operation. In-depth study of techniques and hands-on application of servicing, inspecting, troubleshooting and repair of turbine engine fuel, lubrication and cooling systems. Students perform turbine engine overhaul, removal, installation and operation, and perform inspection, maintenance, and troubleshooting on turbine engines. Lecture 9 hours. Laboratory 27 hours. Prerequisite: AVST 1209.

AVST 1343 - Introduction to Air Traffic Control
3 Credits
Introduction to Air traffic Control is the first course in the Tulsa Community College Air traffic Control Degree Program in support of the Federal Aviation Administration Air Traffic Collegiate Training Initiative (AT-CTI) Program. This course is designed to introduce students to various job functions of tower, local control, and enroute positions within the National Airspace System. Students will be introduced to FAA course documents pertaining to air traffic control and flight training procedures. Major class topics include; aircraft type/performance/separation, fundamentals of radar, phraseology, processing procedures for flight progress strips, flight plans, and wake turbulance. Lecture 3 hours. Prerequisite: Permission required. See the TCC Flight Center Advisor at Tulsa Tech Riverside Campus.

AVST 1354 - ATC Tower Operations I
4 Credits
This course expands the student's knowledge of basic ATC tower operations. Students will build upon knowledge gained in AVST 1343 and apply basic ATC tower procedures under supervision in a simulated air traffic environment of moderate or less traffic density, including: proper phraseology for all tower positions of operation, runway separation, initial arrival and dparture separation, runway crossing procedures, issuing IFR and VFR clearances, ground taxi and movement, processing flight progress strips, and adherence to Letters of Agreement (LOA) and Standard Operating Procedures (SOP). In the simulated environment, each student will transition through each position of operation and gain experience working as a member of the tower air traffic team. Lecture 2 hours. Laboratory 4 hours. Prerequisite: AVST 1113, and AVST 1343.

AVST 1364 - ATC Radar Operations I
4 Credits
This course expands the student's knowledge of basic ATC radar operations. Students will build upon knowledge gained in AVST 1343 and apply basic ATC radar procedures in a simulated air traffic environment of moderate or less traffic density, including : basic vectoring techniques, primary and secondary radar, vectoring to final approach and instrument approach requirements, radar arrival and departure procedures, radar identification methods, radar separation and wake turbulance requirements, VFR and special VFR requirements, satellite airport operations, and handoff and point out requirement procedures. During the latter stages of the course, student learn to function as member of the terminal radar team in an integrated multi-position simulated training environment. Lecture 3 hours. Laboratory 2 hours. Prerequisite: AVST 1343.

AVST 1403 - Advanced Theory of Flight
3 Credits
Material addressed includes increasing the knowledge and skills of the certified pilot. Lecture 3 hours. No Laboratory. Prerequisite: AVST 1113 or TCC Flight Center advisor approval.

AVST 2113 - History of Aviation
3 Credits
History of aviation from its early developments to the present. Historic events and the role of government as they relate to the evolution of the regulatory infrastructure of the aviation industry. Lecture 3 hours. No Laboratory.

AVST 2122 - Cross-Country Flight Lab
2 Credits
Meets the cross country pilot in command requirements for the issuance of advanced ratings and certificates. Includes 9 hours of flight instruction and 45 hours of solo (pilot in command) flight. Additional direct costs apply based upon hourly rates. No Lecture. Laboratory 4 hours. Prerequisite: AVST 1222 or Private Pilot Certificate. Permission required. See the TCC Flight Center advisor at the Tulsa Tech Riverside Campus.

AVST 2132 - Instrument Flight Lab
2 Credits
Meets the minimum requirements for the issuance of an instrument rating. Includes 35 hours of flight instruction. Additional direct costs apply based upon hourly rates. No Lecture. Laboratory 4 hours. Prerequisite: AVST 2122. Permission required. See the TCC Flight Center advisor at the Tulsa Tech Riverside Campus.

AVST 2142 - Commercial Flight Lab
2 Credits
Meets the minimum requirements for the issuance of a Commercial Pilot Certificate. Includes 26 hours of flight instruction and 40 hours of solo, improving proficiency in precision maneuvers and flying skills and complex aircraft performance. Additional direct costs apply based upon hourly rates. No Lecture. Laboratory 4 hours. Prerequisite: AVST 2132. Permission required. See the TCC Flight Center advisor at the Tulsa Tech Riverside Campus.

AVST 2191 - Validation Flight
1 Credit
This course is designed to flight check the proficiency of those students who have received their flight training at another school, and wish to transfer those credits to Tulsa Community College. No Lecture. Laboratory 2 hours. Prerequisite: FM Pilot certificate. Permission required. See the TCC Flight Center advisor at the Tulsa Tech Riverside campus.

AVST 2213 - Instrument Pilot Ground School
3 Credits
A ground school course that complies with the requirements of the Federal Aviation Regulations as set forth in FAR61.65. Completes FAR Part 141 and 61 requirements. Fulfills the ground training requirements for completion of the FAA Instrument Airplane knowledge written for the Instrument Pilot Rating. Lecture 3 hours. No Laboratory. Prerequisite: AVST 1403 or TCC Flight Center advisor approval.

AVST 2226 - ATC Tower Operations II
6 Credits
This course is a continuance of Air traffic Control Tower operations I. After an initial review of subjects covered in the previous semester, students receive supervised training in a simulated air traffic envirnment of moderate and greater traffic density. In addition to training received through Air traffic Control Tower Operations I, students will be exposed to : taxi into position and hold (TIPH), handling emergency and other unusual situations, working complex traffic scenarios involving heavy, large and small weight classes of aircraft simultaneously, and land and hold short operations (LASO). This coursr will continue building the students' confidence by working in an air traffic control tower team environment. During latter stages of this course, students will have the opportunity to utilize TCC's own air traffic control tower in a series of ground control and clearance delivery exercises. Students will work actual aircraft on an uncontrolled ramp and position TCC's flight students to a hold short spot short of the active taxiway. Lecture 1 hour. Laboratory 10 hours. Prerequisite: AVST 1354.

AVST 2236 - ATC Radar Operations II
6 Credits
This course is a continuance of Air traffic Control Radar operations I. After an initial review of subjects covered the previous semester, students receive supervised training in a simulated air traffic radar environment of moderate and grater traffic density. In addition to training received through Air Traffic control Radar Operations I, students will be exposed to: parallel instrument approach operations, Airport Surveillance Radar (ASR) approaches, diverging course separation, emergency and unusual situations, and working complex scenarios involving heavy, large, and small aircraft. Lecture 3 hours. Laboratory 6 hours. Prerequisite: AVST 1364.

AVST 2245 - ATC Advanced Tower and Radar Operations
5 Credits
This course is designed to give the student supervised practical combined tower and radar operations experience in a simulated environment. Scenarios will provide the student an opportunity to apply all the knowledge he/she has gaine throughout the ATC program. Students will rotate through all positions of operation, and work in an integrated tower/approach control environment experiencing various levels of traffic volume, complexity, and unusual situations. Air Traffic Control Tower and Radar Operations is designed as a capstone course to all of TCC's Air Traffic Control training program. Lecture 4 hours. Laboratory 2 hours. Prerequisites: AVST 2226, AVST 2236.

AVST 2253 - ATC Meteorology
3 Credits
This course defines characteristics of the atmosphere and places special emphasis on interpretation of meteorology phenomena affecting aircraft. Course content includes basic concepts of aviation meteorology; tower controller visibility, atmospheric temperature and pressure, stability, thunderstorms, cloud formation, causes of wind, air masses, types of precipitation, fronts, icing, and fog. The course covers analysis of weather data and interpretation of weather maps, reports and forcasts from the perspective of ATC personnel. Lecture 2 hours. Laboratory 2 hours.

AVST 2263 - Air Traffic Control ATC Internship
3 Credits
This course is designed to give the ATC student a supervised on-the-job experience in various aspects of the air traffic control environment. Students will be located at a FAA terminal or field facility participating in airport/approach/departure/satellite/enroute/non-radar and radar air traffic control operations. TCC will assist with any letter of recomendation required of students for acceptance into the internship. The student will complete a daily journal and an essay of the experience. Lecture 3 hours. No Laboratory. Prerequisite: Permission required. See the TCC Flight center advisor at the Tulsa Tech Riverside Campus.

AVST 2313 - Commercial Pilot Ground School
3 Credits
A ground school course that complies with the requirements of the Federal Aviation Regulations as set forth in FAR61.125. Completes FAR Part 141 and 61 requirements. Fulfills the ground training requirements for completion of the FAA Commercial Airplane knowledge written for the Commercial Pilot Certificate. Lecture 3 hours. No Laboratory. Prerequisite: AVST 2213.

AVST 2990 - Selected Topics in Aviation Sciences Technology
1-4 Credits
The study and/or analysis of selected topics in Aviation Sciences Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

BIOLOGY

BIOL 0123 - Basic Biology
3 Credits
This course is designed to provide a laboratory-based science for students who have not met the lab science requirements for state college admissions standards. The primary objective is to provide knowledge of the basic concepts and principles of biology: the cell, diversity, energy transformations, complimentarily of organisms and their ecosystems, control and regulation, evolution, form and function. Laboratory activities will demonstrate the process and procedure of the scientific method. Lecture 2 hours. Laboratory 2 hours.

BIOL 1114 - General Biology for Non-Majors (L)
4 Credits
A presentation of selected principles in biological science for the non-science major, including the cell concept, the organization of multi-cellular systems, plants and animals as organized systems, and man in relation to his environment. Lecture 3 hours. Laboratory 3 hours.

BIOL 1132 - Topical Reading in Biology
2 Credits
Reading a combination of popular materials (newspapers, magazines, and books for non-scientists) and semi-technical materials in topics of current biological and popular interests. Discussion of such topics with students, faculty, and visitors. For majors and non-majors. Lecture 2 hours. No Laboratory.

BIOL 1224 - Introduction to Biology for Majors (L)
4 Credits
Introductory biology course for majors with lab. This course includes an in-depth study of fundamental biological concepts, including metabolism, homeostasis, heredity, evolution, and ecology at the sub-cellular, cellular and organismal levels. It provides the foundation for other advanced courses in the biological sciences. Lecture 3 hours.
Laboratory 3 hours.

BIOL 1314 - Human Anatomy and Physiology
4 Credits
An introduction to the basic principles of the structure and function of the human body. A beginning course designed to emphasize the integration of all body systems. Designed for students in Allied Health programs. Lecture 3 hours. Laboratory 3 hours.

BIOL 1323 - Basic Microbiology
3 Credits
An introductory course in microbiology. Consideration will be given primarily to the pathogenic microorganisms, including bacteria, viruses, and protozoa. Emphasis will be placed on nomenclature of organisms, their associated diseases, and related terminology. Lecture 3 hours. Laboratory 1 hour.

BIOL 1383 - Nutrition
3 Credits
An evaluation of basic composition of nutrients and accessory factors required for adequate human nutrition. Application of nutritional principles to the planning of normal and special dietary regime. Lecture 3 hours. No Laboratory.

BIOL 1404 - General Botany (L)
4 Credits
An introduction to photosynthetic organisms and fungi, including their anatomy, physiology, genetics, ecology, classification, and evolution with emphasis on the seed plants. Recommended for science majors. Lecture 3 hours. Laboratory 3 hours. Prerequisite: Completion of BIOL 1224 with a grade of "C" or better or instructor approval.

BIOL 1604 - Zoology (L)
4 Credits
An integrated approach to the evolution of anatomical and physiological mechanisms within the animal kingdom. The morphology, physiology, and embryological development of systems and mechanisms within the major invertebrate and vertebrate phyla will be covered. Lecture 3 hours. Laboratory 3 hours. Prerequisite: Completion of BIOL 1224 with a grade of "C" or better or instructor approval.

BIOL 2123 - Human Ecology
3 Credits
A study of environment apart from mankind (natural environment), the influence of humans on the environment with emphasis on population growth and problems it has created relative to environmental features such as soil, waters, vegetation, wildlife, landforms, and the atmosphere. Lecture 3 hours. No Laboratory.

BIOL 2134 - Human Anatomy (L)
4 Credits
A systemic approach to the study of the human body. Clinical and functional relationships of each organ system is emphasized. Lecture 3 hours. Laboratory 3 hours. Prerequisite: Completion of BIOL 1224 or BIOL 1604 with a grade of "C" or better.

BIOL 2144 - Marine Biology
4 Credits
The nature, interrelationships, and ecology of lifeforms throughout the oceans will be explored. Morphology and physiology of major phyla of marine organisms will be investigated. Interrelationships of marine life to the geological, physical, and chemical characteristics of the ocean will be studied. An ecological approach to all relationships will be used. Lecture 3 hours. Laboratory 3 hours. Prerequisite: BIOL 1114.

BIOL 2154 - Human Physiology (L)
4 Credits
The function of mammalian organ systems including basic, cell-molecular properties, maintenance systems, communication and control, reproduction and integration of activities. Emphasis on humans in homeostasis. Lecture 3 hours. Laboratory 3 hours. Prerequisites: Completion of BIOL 1224 or BIOL 1604, BIOL 2134, and CHEM 1114 or CHEM 1315 with a grade of "C" or better.

BIOL 2164 - Microbiology (L)
4 Credits
Included will be a survey of the protozoa and fungi of medical significance, with an in-depth survey of bacteria, their morphology, metabolism, pathogenic capabilities, and classification. Laboratory will emphasize those techniques concerned with isolation and pure culture of microorganisms and the use of biochemical criteria in taxonomy. Lecture 3 hours. Laboratory 3 hours. Prerequisite: CHEM 1114 or CHEM 1315 and completion of BIOL 1224 with a grade of "C" or better or instructor approval.

BIOL 2213 - Brain and Behavior
3 Credits
This course covers both the biological basis of human behavior (including the nervous system, homeostasis, biological clocks, etc.) and the psychological consequences of the biology of our species (feelings, learning and memory, thinking and consciousness, the malfunctioning brain, etc.) The course also includes speculation on future developments in brain research. Lecture 3 hours. No Laboratory. Prerequisites: BIOL 1114 or BIOL 1224 and PSYC 1113.

BIOL 2364 - Biochemistry
4 Credits
This is an advanced course designed to familiarize students with structure and function of biochemical macromolecules as well as the process of metabolism. Lecture 3 hours. Laboratory 3 hours. Prerequisite: Completion of BIOL 1224, CHEM 1315, CHEM 1415 and CHEM 2145 all with grade of "C" or better. BIOL 2164 is highly recommended.

BIOL 2990 - Selected Topics in Biology
1-4 Credits
The study and/or analysis of a selected topic in Biology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

BIOMEDICAL EQUIPMENT TECHNOLOGY

BMET 1304 - Introduction to Biomedical Electronics
4 Credits
A study of the techniques and instruments used in hospitals and medical clinics. Information on hospital and clinical organization and operations with emphasis on regulations and procedures for patient safety and shock hazard prevention is provided. Additional emphasis is given to medical terminology, and anatomy and physiology. Lecture 3 hours. Laboratory 2 hours. Prerequisite: Concurrent enrollment in ELET 1303.

BMET 2343 - Biomedical Electronics Theory I
3 Credits
A study of the basic principles by which physiological events are measured. Electronic fundamentals are used to understand electrodes, transducers, amplifiers, and patient monitoring systems. Electrode care and placement and the operation of medical electronic instruments are studied. Lecture 2 hours. Laboratory 2 hours. Prerequisite: BMET 1304, concurrent enrollment, or approval of the associate dean.

BMET 2353 - Biomedical Electronics Theory II
3 Credits
A continuation of BMET 2343. An application of the techniques studied in BMET 2343 to measurements made in cardiology, laboratory medicine, and radiology. Theory, operation, and maintenance of equipment used in clinics and hospitals. Testing of equipment used for respiratory and physical therapy will be included. Lecture 2 hours. Laboratory 2 hours. Prerequisites: BMET 2343 and ELET 2244.

BMET 2373 - Biomedical Electronics Clinical
3 Credits
Supervised practical experience in cooperating hospitals, and/or Biomedical Service Centers, which encompass a study of techniques used in repair of medical equipment. No Lecture. Laboratory 12 hours. Prerequisites: BMET 2343 and concurrent enrollment in BMET 2353.

BMET 2382 - Contemporary Issues in Biomedical Electronics
2 Credits
This course will review the topics from the previous biomedical courses and investigate new areas of study in the industry. Networking for biomedical equipment will also be covered. Lecture 2 hours. No laboratory. Prerequisites: CSCI 1263 and BMET 2343 or BMET 2353.

BMET 2990 - Selected Topics in Biomedical Equipment Technology
1-4 Credits
The study and/or analysis of a selected topic in Biomedical Equipment Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

BIOTECHNOLOGY

BIOT 1113 - Introduction to Biotechnology
3 Credits
An introduction to biotechnology including career exploration, history and applications of DNA/RNA technology, molecular biology, bioethics, safe laboratory practices and bioinformatics. The course covers calculations for solution preparations, instruction on making buffers, determining pH, pipetting, making dilutions, calibration of pipets and balances as well as an introduction into DNA and protein isolation and analysis. Lecture 2 hours. Laboratory 2 hours.

BIOT 1315 - Biotechnology Laboratory Methods and Techniques
5 Credits
Emphasis is on laboratory operations, management, equipment, instrumentation, quality control techniques, and safety procedures. Lecture emphasis will be on biochemistry, bioorganic topics and the scientific method, including assay design. Laboratory practice will stress lab safety and the design of assays for various classes of biochemicals, including RNA, DNA, enzyme and total protein assays. Lecture 2 hours. Laboratory 6 hours. Prerequisites: BIOT 1113, BIOL 1224, and CHEM 1114 or CHEM 1315 with grades of "C" or better.

BIOT 1534 - Cell Culture Techniques
4 Credits
This course will discuss the lecture topics of the cell cycle, cell requirements for growth, and bacterial and animal viruses. Lab topics will include sterile technique, bacterial media preparation, the process of preparative fermentation, and the handling of bacteriophage in prokaryotic cultures. In the study of eukaryotic cell culture techniques, the laboratory emphasizes the principles and practices of media preparation and sterilization, initiation, cultivation, maintenance, and the preservation of cell including applications such as project development and biomanufacturing. The topic of lab safety with potentially biohazardous agents will be covered. Lecture 1 hour. Laboratory 6 hours. Prerequisites: BIOT 1315, BIOL 2164 and CHEM 1124 or CHEM 1415 with grades of "C" or better.

BIOT 2101 - Biotechnology Quality Assurance
1 Credit
The issues of quality control in a biotechnology setting will be explored, along with FDA, EPA and OSHA regulations. Lecture 1 hour. No Laboratory. Prerequisite: BIOT 1315.

BIOT 2246 - Molecular Biology and Techniques
6 Credits
An introduction to the principles of heredity and theory of molecular biology with an emphasis on DNA replication, transcription, gene expression and regulation, recombinant DNA, and RNA interference. Techniques such as DNA and RNA isolation, DNA restriction digests, cell transformation, transfection, PCR, DNA sequencing, real-time PCR, blot assays, microarray analysis, DNA mapping, cloning and DNA bioinformatic tools will be discussed and explored. Lecture 3 hours. Laboratory 6 hours. Prerequisites: BIOT 1315, BIOL 2164 and CHEM 1124 or CHEM 1415 with grades of "C" or better.

BIOT 2335 - Biotechnology Proteomics and Instrumentation
5 Credits
Lecture will discuss theory, applications, and operation of various analytical instruments with an emphasis on protein purification in both an R&D laboratory and a biomanufacturing facility. Laboratory exercises will focus on calibration of instruments, quantitative and qualitative analysis by chromatography, centrifugation, spectrophotometry, and SDS-PAGE gel analysis. Additionally, basic immunology including humoral and cellular immunity with ELISAs, Western Blots and cytoimmunology will be taught. An introduction to protein bioinformatics tools is included. Lecture 2 hours. Laboratory 6 hours. Prerequisite: BIOT 1534 with a grade of "C" or better.

BIOT 2512 - Biotechnology Apprenticeship
2 Credits
This is an experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry partner. Mentored and supervised by a workplace employee, the student achieves objectives in a biotechnical project that are developed and documented by the college that directly relate to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. The student should have a minimum of 160 hrs on the job. No Lecture. Laboratory 10 hours. Prerequisites: BIOT 2246 and BIOT 2335 with grades of "C" or better.

BUSINESS

BUSN 1001 - Interpersonal Skills
1 Credit
Students will learn interpersonal skills necessary to participate in highly participative organizations. Emphasis will be on communication skills required as well as on techniques for building trust with co-workers, customers, leaders and others. One session will focus on ways to create a supportive work environment for yourself and your co-workers. A final session will be developed to address handling conflict. Lecture 16 hours.

BUSN 1011 - Microcomputer Keyboarding
1 Credit
Introduction to touch control of the alpha and numeric keys. Lecture 1 hour. Laboratory 1 hour.

BUSN 1021 - Working in Teams/Workplace Diversity
1 Credit
This course will provide opportunities to identify prejudices, determine how they can be managed, and learn how to change stereotypical responses which are often based on fear, lack of positive experiences, and/or misunderstandings. Lecture 1 hour. No Laboratory.

BUSN 1031 - Work Habits for the Manufacturing Workplace
1 Credit
Students will participate in discussions around how changes in the workplace affect them directly. Learning and applying six basic workplace habits will better equip participants to add value to their company. Lecture 16 hours.

BUSN 1041 - Meeting Skills
1 Credit
Students will learn skills necessary to participate in and lead effective meetings. Emphasis will be on communication skills required as well as on methods for reaching agreement in meetings. Lecture 16 hours.

BUSN 1053 - Introduction to Business
3 Credits
Provides overall picture of business operation: includes analysis of specialized fields with business organization; identifies role of business in modern society. Lecture 3 hours. No Laboratory.

BUSN 1062 - Human Safety and Health Fundamentals
2 Credits
This course introduces the field of occupational safety and health. Topics include historical developments, legislative overview, problem identification, introduction to measurement and evaluation, and resources available to the safety professional. Lecture 1 hour. Laboratory 2 hours.

BUSN 1101 - Statistical Process Controls
1 Credit
A study of Statistical Process Control (SPC) as a method of improving and controlling the manufacturing process as well as improving productivity. By using the various statistical tools, SPC can improve the quality of the manufacturing process and the products it produces. Lecture 16 hours.

BUSN 1123 - Keyboarding I
3 Credits
Introduction and development of alpha/numeric keyboarding skills using the touch method on the microcomputer. Development of speed and accuracy. Lecture 1 hour. Laboratory 4 hours.

BUSN 1143 - Introduction to Ethics: Business Issues (H)
3 Credits
An introductory level course in ethics, focusing on the types of situations that pose ethical problems in business. An attempt will be made to help the student develop an ethical framework which will allow the student to address ethical issues in the business world. Lecture 3 hours. No Laboratory. Cross listed as PHIL 1143.

BUSN 1153 - Introduction to Hospitality Operations –Hotels, Restaurants and Tourism
3 Credits
Study of hotels, restaurants, gaming operations, and the tourism and hospitality industry around the world. The course covers the scope of the industry including an analysis of ethical issues and career opportunities. Special emphasis is given to the essential management functions of the hospitality enterprise including marketing, human resources, accounting, finance, and information technologies. Lecture 3 hours. No Laboratory.

BUSN 1163 - Introduction to the Legal System
3 Credits
History and overview of the legal system, legal ethics, unauthorized practice, the rules of professional conduct, importance of communications, judgment and analytical ability, terminology sources, and works of the law. Lecture 3 hours. No Laboratory.

BUSN 1173 - Introduction to Health Care Business Operations
3 Credits
A basic course in United States health care including the history of health care delivery systems, comparable systems outside the United States, available resources, system processes, outcomes, and health policies for the future. Lecture 3 hours. No Laboratory.

BUSN 1200 - Understanding Corporate Finance
1-3 Credits
This course covers the concepts necessary to understand and interpret financial statements and reports, cost of producing a product, profit, and cash flow. Lecture 1-3 hours. No Laboratory.

BUSN 1211 - Basic Corporate Finance
1 Credit
The purpose of this course is to discuss key core business principles and operational realities, providing employees with fundamental information on how businesses operate. Informed and motivated employees are a vital competitive advantage to a business and can dramatically impact profitability. It is in the employees' interest to understand how businesses operate because successful businesses have longevity and profitability, providing a variety of benefits to employees. Lecture 16 hours.

BUSN 1221 - Strategic Planning
1 Credit
Strategic Management is defined including process elements: values, vision, mission, situation analysis, setting goals, objectives strategies, writing action plans, and implementation of the plan. Lecture 16 hours.

BUSN 1233 - Project Management
3 Credits
The study of a project manager's responsibility of guiding a project toward successful completion based upon established parameters including time, cost, and resources while maintaining a high standard of quality. Key elements included: defining the project, project assessment and goal setting, defining tasks, milestones, resources including budgets, timelines, schedule adjustments; and reporting progress and results. Lecture 48 hours.

BUSN 1261 - Food Safety and Quality
1 Credit
A course designed for food manufacturing students. Topics include food handling sanitation, hazardous analysis, critical control points, quality, microbiology, contamination, food borne illness, and establishing the food service safety systems. Lecture 1 hour. No Laboratory.

BUSN 1313 - Employee/Employer Relations
3 Credits
A study of the relationship between employers and employees in industry. The focus is on individuals within organizations and how their habits, patterns, ambitions and motives affect their job performance and job satisfaction. Some of the topics covered include communications, perception, motivation, group behavior, conformity, and leadership. Lecture 3 hours. No Laboratory.

BUSN 1343 - Shorthand I
3 Credits
Presentation of the theory of Gregg shorthand. Development of the ability to read and write shorthand and to take and transcribe familiar and new dictation. Development of correct spelling, punctuation, and language usage. Lecture 2 hours. Laboratory 2 hours.

BUSN 1353 - Business Mathematics
3 Credits
Development of the ability to apply mathematics fundamentals to business applications through the use of the touch method on ten-key electronic calculators. Includes percentage calculations, simple interest, bank discount, compound interest, annuities, and payrolls. Lecture 2 hours. Laboratory 2 hours.

BUSN 1413 - Money and Banking
3 Credits
This course is a fundamental treatment on bankers' stock-in-trade –money and how it functions in the U.S. and world economies. This course explores money as a medium of exchange, introduces the concept of money supply, and discusses the role of banks as money creators and as participants in the nation's payment mechanism. Money and Banking also explains how the various types of financial institutions operate; the workings of monetary and fiscal policies; the functions and powers of the Federal Reserve; and more. Lecture 3 hours. No Laboratory. Prerequisite: ECON 2013 or instructor approval.

BUSN 1433 - Principles of Banking
3 Credits
This course touches on nearly every aspect of banking from the fundamentals of negotiable instruments to contemporary issues and developments within the industry. Lecture 3 hours. No Laboratory.

BUSN 2003 - Credit Internship
3 Credits
Supervised experience in the Credit area of Utility Services designed to provide practical application of Credit procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2023 - Customer Support Internship
3 Credits
Supervised experience in the Customer Support area of Utility Services designed to provide practical application of Customer Support procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2033 - Customer Service/Personal Internship
3 Credits
Supervised experience in the Customer Service/Personal area of Utility Services designed to provide practical application of Customer Service/ Personal procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2043 - Customer Service/Phone Center Internship
3 Credits
Supervised experience in the Customer Service/Phone Center area of Utility Services designed to provide practical application of Customer Service/Phone Center procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2053 - Intercultural Communication (H,I)
3 Credits
An introductory course in intercultural communication; the study of communication among people from different cultures. Emphasis is on increasing students' understanding of cultural theories of communication and cultural issues that affect communication effectiveness especially in educational and business contexts. Lecture 3 hours. No Laboratory. Cross listed as SPCH 2053.

BUSN 2063 - New Accounts - Taps Internship
3 Credits
Supervised experience in the New Accounts - Taps area of Utility Services designed to provide practical application of New Accounts –Taps procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2103 - Apportionment Billing
3 Credits
Supervised experience in the Billing Apportionment area of Utilities Services designed to provide practical application of account apportionment procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2123 - Billing
3 Credits
Supervised experience in the Billing area of Utilities Services designed to provide practical application of commercial and residential billing procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2133 - Stormwater
3 Credits
Supervised experience in the Stormwater Billing area of Utilities Services designed to provide practical application of Stormwater billing, records, research, and account set-up procedures. No lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2153 - Systems Support
3 Credits
Supervised experience in the Systems Support area of Utilities Services designed to provide practical application of utility system support procedures. No Lecture. Supervised Lab. Permission of program coordinator required.

BUSN 2173 - Skillbuilding and Document Processing
3 Credits
An intensive skillbuilding and document processing course designed to prepare students with the skills needed for today's office environment. Skillbuilding and major business document formats including business memos, letters, envelopes, basic reports and tables will be covered. Lecture 1 hour. Laboratory 4 hours. Prerequisite: BUSN 1123 or permission of the instructor.

BUSN 2183 - Word for Administrative Careers
3 Credits
This course is designed to provide students with hands-on experience in creating documents used in a business environment. The course will concentrate on the advanced features of Microsoft Word. Problem-solving and critical thinking skills will be developed and applied to projects that may be encountered in a business office. Integration of the Microsoft Office Suite will be included, as well as proper formatting techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: BUSN 2173.

BUSN 2193 - Constitutional Law 3
Credits
Basic concepts of arrest, search and seizure of persons, places, and things with or without warrant; cause and procedure to obtain and execute warrants; exclusionary rule and effects of illegal actions, with emphasis on hospitality and gaming industries. Lecture 3 hours. No Laboratory.

BUSN 2203 - Supervision & Leadership - Hospitality Industry
3 Credits
Functions and methods of supervision as related to hospitality and related industries; overview of knowledge and skills required by frontline supervisors and managers in diagnosing performance and training issues, analyzing and selecting appropriate supervisory methods, conducting performance and follow-up evaluations; development of emerging or existing leadership skills in industry supervisors and managers. Lecture 3 hours. No Laboratory.

BUSN 2213 - Small Business Management
3 Credits
A study of the steps necessary to start and operate a small business including the development of a business plan covering forecasting, feasibility, financing, location, legal requirements, and other activities as well as a study of market planning, staffing, financial analysis, legal problems, and monitoring on-going activities. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2213, or concurrent enrollment in ACCT 2213, or instructor approval.

BUSN 2231 - International Business Seminar and/or Field Studies
1 Credit
This one credit course is based on completing one of the following components: a lecture seminar, a research writing project, or a field study tour; see BUSN 2253. Prerequisite: instructor approval.

BUSN 2242 - International Business Seminar and/or Field Studies
2 Credits
This two credit course is based on completing two of the following components: a lecture seminar, a research writing project, and/or a field study tour; see BUSN 2253. Prerequisite: instructor approval.

BUSN 2253 - International Business Seminar and/or Field Studies
3 Credits
This course is designed to provide an in-depth view of the business, political, cultural and governmental environment of the selected country. There are three components: a lecture seminar, a research writing project, and a field study tour. All three components may be taken for a total of three credits or each component may be taken for one credit; see BUSN 2231 and BUSN 2242. Requires instructor approval.

BUSN 2303 - Shorthand II
3 Credits
Review of the theory of Gregg shorthand. Reinforcement of the ability to read and write shorthand and to take and transcribe familiar and new-matter dictation. Development of transcription skill for production of mailable copies. Lecture 2 hours. Laboratory 2 hours. Prerequisite: BUSN 1243 and BUSN 1343.

BUSN 2313 - Business Law I
3 Credits
Introduction to basic legal principles with emphasis on torts, contracts, property, bailments, sales, and secured transactions. Lecture 3 hours. No Laboratory.

BUSN 2323 - Business Law II
3 Credits
A continuation of Business Law I with emphasis on commercial paper, insurance, agency, business associations, antitrust, and bankruptcy. Lecture 3 hours. No Laboratory. Prerequisite: BUSN 2313.

BUSN 2333 - Principles of Finance
3 Credits
This course covers concepts essential for successful management of business finances and emphasizes financial analysis and planning techniques, capital investment analysis, techniques for managing financial assets, and sources of business financing. Lecture 3 hours. No Laboratory. Prerequisite: ACCT 2213.

BUSN 2343 - Investments in Stocks and Bonds
3 Credits
The basic principles of the stock market as they affect the individual investor in stocks and bonds. Investments in these securities are studied from the standpoint of the short-term and long-term investor. Lecture 3 hours. No Laboratory.

BUSN 2363 - Supervisory Management
3 Credits
A study of management philosophy and decision-making processes; study of principles in the functions of planning, organizing, supervising, and controlling. Includes cases in handling of morale, discipline, communications, grievances, order-giving, and other phases of effective relations with subordinate employees. Lecture 3 hours. No Laboratory.

BUSN 2403 - Guest Relations and Customer Service
3 Credits
Basic concepts and current trends in customer service and guest relations in the hospitality industry. Special areas of emphasis include problem solving, development of a customer service strategy, creating customer service systems, coping with challenging customers, customer retention and measuring satisfaction. Examines organization and operation of hotels and restaurants from frontline, front office and guest service operations. Explores key front office functions, related systems, and skills necessary to ensure guest satisfaction and efficient operations. Lecture 3 hours. No Laboratory.

BUSN 2483 - Health Care Law
3 Credits
This course provides a foundation of health care law that covers improvement of health care delivery including criminal and civil aspects, staffing issues, records management, legal reporting, ethics, patients' rights, employment laws, and other important legal issues. Lecture 3 hours. No Laboratory. Prerequisite: BUSN 1173 or instructor approval.

BUSN 2492 - Health Care Business Operations Internship
2 Credits
This course provides supervised practice of Health Care Business Operations skills and knowledge gained in the core courses of the program and should be taken during the student's last semester. Laboratory 8 hours per week.

BUSN 2633 - Industrial and Organizational Psychology (S)
3 Credits
An application of the principles of psychology to the problems of business and industry. Special attention will be given to the areas of communication, motivation, job satisfaction, and personnel selection, placement, and training. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or PSYC 1313. Cross listed as PSYC 2633.

BUSN 2643 - Procedures for Administrative Careers
3 Credits
This course includes issues related to changes in the workplace, current technology in the workplace, communications, records management, financial issues, conference and meeting planning, travel arrangements and exploration of career opportunities. Lecture 2 hours. Laboratory 2 hours. Prerequisite: BUSN 2463.

BUSN 2683 - Administrative Careers Internship
3 Credits
Supervised employment providing practical and technical skills experience beyond the scope of the classroom. Lecture 1 hour. Laboratory 12 hours per week. Prerequisite: instructor approval.

BUSN 2783 - Business Seminar (Honors)
3 Credits
A capstone course to integrate the student's business knowledge, and to investigate, analyze, and discuss current business issues. Lecture 3 hours. No Laboratory. Prerequisites: Sophomore standing, 3.0 GPA, honors scholar status, or instructor approval.

BUSN 2813 - Legal Issues in Hospitality Management
3 Credits
A study of the legal environment of the hospitality industry including restaurants, hotels, casinos, meetings and tourist destinations. Basic legal principles such as torts, contract law, property, sales, and secured transactions will be covered. Special emphasis will be given to the study of customer and employee relationships, safety and product liability and alcoholic beverages. The course will emphasize local, state, federal and international law as well as ethical considerations. Lecture 3 hours. No Laboratory.

BUSN 2990 - Selected Topics in Business
1-4 Credits
This course will orient the student to academic and student service areas of the College. Lecture 1 hour. No Laboratory.

CARDIOVASCULAR TECHNOLOGY

CVTC 1011 - Introduction to Cardiovascular Technology
1 Credit
This course is designed to introduce students to Cardiovascular Technology as a profession. The course covers credentialing process, national standards, team roles, safety and basic cardiovascular aassessment. The course will also include exercise stress testing and cardiac rehabilitation as well as observation of the cardiac catheterization laboratory. Lecture 1 hour. No laboratory. Prerequisite: Admission to the Cardiovascular Technology Program.

CVTC 1022 - Cardiovascular Pharmocology
2 Credits
This course introduces the student to basic pharmacological concepts, mechanisms of drug action, druc legislation, and drug categories. A discussion of drugs used to treat cardiovascular disorders such as dysrythymias, angina, congestive heart failure, shock, hypertension and bacterial endocarditis. Drug reference utilization in included. Lecture 2 hours. No laboratory. Prerequisite: Admission to the Cardiovascular technology Program.

CVTC 1033 - Cardiovascular Anatomy and Physiology
3 Credits
This course will include studies in detailed cardiac anatomy, cardiovascular embryology, myocardail histology and function, circulatory dynamics, cardiac output and control mechanisms, electrophysiology and pulmonary circulation. Students will be required to recognize normal cardiac anatomic structures given angiographic projections and cardiac ultrasound images. Lecture 3 hours. No laboratory. Prerequisite: Admission to the Cardiovascular Technology Program.

CVTC 1042 - Cardiovascular Patient Assessment
2 Credits
This course introduces the student to patient care principles and basic cardiovascular assessment which includes patient chart review, patient communication skills, collection and analysis of vital signs and pertinent clinical data, measurement and interpretation of electrocardiograms (ECGs), asepsis and infection control, patient transport and patient safety. Lecture 1 hour. Laboratory 2 hours. Prerequisite: Admission to the Cardiovascular Technology Program.

CVTC 1053 - Cardiovascular Physical Science
3 Cerdits
This course will include studies in the basic physical principles with applications to the measurement, analysis and treatment associated with cardiovascular technology, as well as the structure and function of biomedical instrument systems specific to the field of cardiovascular technology, radiation therapy, radiologic technology and respiratory care. Lecture 3 hours. No laboratory. Prerequisite: Admission to the Cardiovascular Technology Program.

CVTC 1061 - Clinical Practicum I
1 Credit
This course offers to students an orientation in local hospitals, medical center and clinics to cardiac ultrasound and cardiac catherterization laboratories, patient-technician relationships and interaction with other medical professionals in the cardiovascular field. The student will participate in clinical experiences associated with patient history, patient chart review, patient care, physical exam techniques, laboratory tests, oxygen delivery systems, electrocardiographic techniques, as well as basic interpretation of dysrhythmias. No Lecture. Laboratory 8 hours. Prerequisite: Admssion to the Cardiovasular Technology Program.

CVTC 1073 - Cardiovascular Pathophysiology
3Credits
This course covers clinical recognition and detection of abnormal cardiovascular anatomy, physiology and related mechanisms, hemodynamic waveform interpretation, medical and surgical treatment of acquired and congenital cardiovascular disorders and disease processes. Will include studies in the basic physical principles with applications to the measurement, analysis and trearment associated with cardiovascular technology, as well as the structure and function of biomedical instrument systems specific to the field of cardiovascular technology, radiation therapy, radiologic technology and respiratory care. Lecture 3 hours. No laboratory. Prerequisite: CVTC 1011, CVTC 1022, CVTC 1033.

CVTC 1083 - Noninvasive Cardiovascular Theory & Techniques
3 Credits
Concepts and applications in performing cardiac ultrasound diagnostic and quantitative techniques including M-mode, Two-dimensional and Doppler Echocardiography as well as recognition of normal and pathological cardiac ultrasound patterns. Ultrsound safety, bioeffects and quality control techniques will also be presented. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CVTC 1011, CVTC 1033, CVTC 1053.

CVTC 1093 - Cardiovascular Diagnostics I
3 Credits
Students will learn how to obtain and/or measure and interpret electro cardiograms (ECGs), Holter monitoring, arterial blood gases, venipunctures and hemotology and blood chemistries related to cardiovascular diagnosis. Principles of exercise physiology and exercise stress testing will also be presented. AHA Advance Cardiac Life Support certification will be made available outside of te CVTC program. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CVTC 1011, CVTC 1033, CVTC 1053.

CVTC 1102 - Cardiovascular Radiography
2 Credits
This course is designed to provide the physical principe, applications and safety of radiography. Emphasis will be placed on radiation safety, protection and instrumentation, as well as dosimetry and practice, cine film development, imaging and monitoring techniques, digital subtraction angiographr, pressure monitoring modes, electrophysiology studies, instrument calibration and quality control. Lecture 2 hours. No laboratory. Prerequisite: CVTC 1053.

CVTC 1112 - Cardiovascular Clinical Practicum II
2 Credits
This course offers to the student clinical experiences and physician interaction in local hospitals, medical centers and clinics as well as Holter monitoring, ultrasound procedures, including M-mode, PW, CW Doppler, Color Flow Doppler, along with ultrasound equipment set-up, calibration and operation as well as, calculations, data analysis and interpretation of ultrasound diagnostic studies. No lecture. Laboratory 16 hours. Concurrent enrollment in CVTC 1073, CVTC 1083, CVTC 1093, CVTC 1102.

CVTC 1123 - Cardiovascular Clinical Practicum II
3 Credits
This course offers to the student a continuation of clinical experiences and physician interaction in local hospitals, medical centers and clinics in non-invasive cardiovascular technology for adults and an introduction to pediatric ultrasound diagnostic studies. No lecture. Laboratory 24 hours. Prerequisites: CVTC 1073, CVTC 1083, CVTC 1093, CVTC 1102, CVTC 1112.

CVTC 1133 - Invasive Cardiovascular Theory and Techniques
3 Credits
This course is designed to provide the theory and practical application of diagnostic and interventional cardiac catheterization as well as the role of a cardiovascular tech as an assistant in the lab. Performance of diagnostic cardiac catheterization techniques and applications utilizing standard equipment in the catheterization laboratory will include sterile techniques, cardiac catheters, adult and pediatric cardiac cath procedures, hemodynamic monitoring, electrical interventions, calculations, patient assessment, diagnostic and interventional protocols. Lecture 2 hours. Laboratory 2 hours. Concurrent enrollment in CVTC 1143.

CVTC 1143 - Cardiovascular Diagnostics II
3 Credits
This course is desoigned to educate the student in advanced interventional cardiovascular procedures including percutaneous transluminal coronary angioplasty, stent, directional coronary atherectomy, transluminal extraction catheter, permanent and temporary pacemakers, intra-aortic balloon pumping, foreign body retrieval and valuloplasty. Lecture 2 hours. Laboratory 2 hours. Concurrent enrollment in CVTC 1133.

CVTC 1153 - Cardiovascular Clinical Practicum IV
3 Credits
This course offers to the student clinical experiences and physician interaction in local hospitals, medical centers and clinics in cardiac catheterization procedures, including percutaneous transluminal coronary angioplasty, stent, directional coronary atherectomy, transluminal extraction catheter, permanent and temporary pacemakers, intra-aortic balloon pumping, foreign body retrieval and valuloplasty, patient care techniques and care and maintenance of a variety of invasive equipment, as well as experience in alternative imaging systems such as MUGA, PET, MRI, and CT scan. No lecture. Laboratory 24 hours. Prerequisite: CVTC 1123, Concurrent enrollment in CVTC 1133, CVTC 1143.

CVTC 1161 - CCI Examination Review
1 Credit
This course is designed to provide the student with a comprehensive review of noninvasive and invasive cardiovascular technology in preparation for the CCI registry examinations in RCS and RCIS. Lecture 1 hour. No laboratory.

CVTC 1173 - Cardiovascular Clinical Practun V
3 Credits
This course offers the student clinical experiences and physician interaction in local hospitals, medical centers and clinics in pediatric cardiac catheterization procedures, as well as exercise physiology, exercise stress testing, telemetry and cardiac rehabilitation. No lecture. Laboratory 24 hours. Prerequisite: CVTC 1153.

CVTC 2990 - Selcted Topics in Cardiovascular Technology
1-4 Credits
The study and/or analysis of a selected topic in Cardiovascular Technology. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

CAREERS

CARS 0811 - Orientation to College for the Deaf and Hard of Hearing
1 Credit
Designed to introduce deaf and hard of hearing students to the college setting. Special emphasis on self advocacy, accommodations, interaction with faculty and staff, and familiarity with TCC. Lecture 1 hour. No Laboratory.

CARS 1011 - Career Exploration
1 Credit
Involves a systematic approach to a career search, and includes a general orientation to self-assessment and decision making techniques, trends in occupational choice, and a general overview of the class. Services available include: interest inventories, abilities assessments, and three computerized guidance systems: DISCOVER for Colleges and Adults, SIGI Plus (System of Interactive Guidance Information), and GIS (Guidance Information System). No Lecture. Laboratory self-paced.

CARS 2990 - Selected Topics in Careers
1-4 Credits
The study and/or analysis of a selected topic in Careers. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

CHEMICAL LABORATORY TECHNOLOGY

CMLT 1011 - Laboratory Sciences Orientation I
1 Credit
This course serves as an orientation to philosophy, rules, and regulations. Students will become familiar with professional expectations of behavior and dress, and will receive an introduction to the Career Technology Student Organizations. Students will participate in career field trips and community outreach. Lecture 1 hour. No Laboratory.

CMLT 1022 - Option 3: Industrial Safety & Analysis
2 Credits
This course introduces students to industrial laboratory samples including the proper quality control measures, which accompany sampling, testing and clean up. A basic understanding of interaction between environmental and industry is covered. Lecture 1 hour. Laboratory 2 hours.

CMLT 1141 - Professional Support Skills
1 Credit
This course familiarizes the student with maintenance of laboratory records an databooks, preparation of a resume and portfolio, graphing of chemical data, and the use of computers and scientific literature. Lecture 1 hour. No Laboratory.

CMLT 1213 - General Laboratory Safety
3 Credits
This course provides the student with practice in OSHA requirements for personal protective equipment, safety showers, eye washes, fire fighting equipment and procedures, and safety behavior in the lab. Use of MSDS sheets and proper NFPA labeling are included. Lecture 2 hours. Laboratory 2 hours.

CMLT 1242 - Scientific Mathematics
2 Credits
This course provides the student with skills in calculation and application of scientific notation, significant figures, metric, English and temperature conversions, percent, sample statistics, basic algebra and word problems. Lecture 2 hours. Laboratory 1 hour.

CMLT 1331 - General and Inorganic Chemistry
1 Credit
This course familiarizes the student with chemical particles, the Periodic Table, formulas, nomenclature, reactions, concentration calculations, and practice in pH, titration and extraction analytical methods. Lecture 1 hour. Laboratory 1 hour.

CMLT 1351 - Organic Chemistry
1 Credit
This course familiarizes the student with the basis of organic chemistry, bonding; structures, IUPAC naming, physical properties, and functional groups. Lecture 1 hour. Laboratory 1 hour.

CMLT 1413 - Laboratory Techniques I
3 Credits
This course provide students with practice in housekeeping duties, preparing chemical solutions from powders and liquids, and performing analytical methods including centrifugation, filtration, evaporation, distillation, viscosity, conductivity, turbidity, and spectrophotometry. Lecture 2 hours. Laboratory 2 hours.

CMLT 1433 - Lab Glassware and Equipment
3 Credits
This course familiarizes the student with common laboratory glassware and utensils, balances, reading volume, utilization of pipets and burets to make solutions, cutting, bending and fife polishing of glass tubing, and utilization of various heat sources and stirrers. Lecture 3 hours, Laboratory 1 hour.

CMLT 1441 - Introduction to Laboratory Careers
1 Credit
This course familiarizes the student with various laboratory types and the similarities and differences found for each area. A general overview of the area with heavy emphasis on the safety disposal and mathematics used will be covered. Lecture 1 hour. No Laboratory.

CMLT 1452 Option I: Medical Safety and Analysis
2 Credits
Students are introduced to manual testing of blood, including ABO typing, hemocratic, CBC, DLC, hemoglobin, and urinalysis including physical characteristics, chemical characteristics by Multistix®, and microscopic identification of urine solids. A microbiology unit is completed including preparation of agar, inoculation of plates, incubation, description of colonies, heat fixing, Gram staining and identification of bacteria morphology. Lecture 1 hour. Laboratory 2 hours.

CMLT 1522 - Option 2: Environmental Safety & Analysis
2 Credits
This course introduces students to environmental samples including the proper quality control measures, which accompany sampling, testing and clean up. A basic understanding of environmental laws, specifically in Oklahoma is reviewed. The course prepares the student for the Class D Water and Waste Water License test. Lecture 1 hour. Laboratory 2 hours. Prerequisite: must complete year one courses.

CMLT 2011 - Laboratory Sciences Orientation II
1 Credit
Students complete enrollment paperwork, tour the campus, review audio/visual skills, become familiar with on-the-job training requirements, and complete a first-year review evaluation, and participate in career fields and community outreach. Lecture 1 hour. Laboratory 1 hour.

CMLT 2023 - Organic Analysis (GC & IR)
3 Credits
This course familiarizes the student with the analysis of various organic compounds using instrumentation. Instrumentation programming, operation, and maintenance are covered along with sample preparation specifically with a GC and FTIR. Lecture 2 hours. Laboratory 2 hours.

CMLT 2123 - Titration & Standardization
3 Credits
This course provides the student the opportunity to explore the properties of concentrated base pellets, use concentrated bases and acids to make reagents, prepare primary KHP standards, and standardize regents using manual titration and titration by pH meter. Lecture 2 hour. Laboratory 4 hours.

CMLT 2153 - Laboratory Techniques II
3 Credits
Students perform physical methods including sample clean up, preparing solutions and standards, density determination, fractional distillation, extraction, rotary evaporation, and the operation of an atomic absorption spectrometer. Lecture 2 hours. Laboratory 4 hours.

CMLT 2311 - Instrumental Analysis Atomic Absorption (AA)
1 Credit
This course familiarizes the student with electromagnetic energy as it is applied to AA, calculating and preparing standards in dilute acid, preparing an AA for analysis, programming element parameters, analyzing standards and unknowns, preparing standard curves, calculating concentrations of unknowns, and performing minor maintenance. Lecture 1 hour. Laboratory 1 hour.

CMLT 2322 - Laboratory Management and Quality Issues
1 Credit
Students maintain inventory of chemicals, equipment and supplies, interact with vendors, write purchase order requests, and receive goods. Students utilize Quality Performance concepts and tools and become familiar with data collection, sample tracking and control charts. Lecture 1 hour. Laboratory 2 hours.

CMLT 2353 - Laboratory Sciences Practicum
3 Credits
Students who have a passing grade, appropriate attendance and professional behavior, the recommendation of the instructor, and transportation may be placed in industry sites for job training/ internships. Students may also obtain part-time paid employment in program related areas and receive practicum credit. No Lecture. Laboratory 8 hours.

CHEMISTRY

CHEM 1034 - Practical Chemistry
4 Credits
This one semester course for non-science majors will include an examination of the principle concepts, theories, and practical applications of chemistry. These fundamental principles are applied to topics of vital interest to society such as energy, polymers, foods, drugs, and pollution. Lecture 3 hours. Laboratory 3 hours.

CHEM 1114 - Principles of Chemistry (L)
4 Credits
A one semester course for science majors. Not open for credit to students who have credit in CHEM 1315 or 1415. Does not substitute for CHEM 1315. Principle concepts and theories of chemistry are examined. These fundamental principles are applied to a variety of topics such as chemical bonding, chemical reactions, states of matter, solutions, electrochemistry, and nuclear chemistry. The descriptive chemistry of some common elements and compounds is included. Lecture 3 hours. Laboratory 3 hours. Prerequisite: MATH 0013 or equivalent.

CHEM 1124 - Introductory Organic and Biochemistry
4 Credits
A course designed principally for the student whose major interest is one of the health related fields. It will include an introduction to the principles of organic chemistry of significance to biology and to compounds and reactions of physiological importance. Lecture 3 hours. Laboratory 3 hours. Prerequisites: CHEM 1114 or high school chemistry and beginning algebra.

CHEM 1315 - General Chemistry I (L)
5 Credits
Designed for science and science-related majors. The course includes the fundamental laws and theories dealing with the structure and interactions of matter and the use of these principles in understanding the properties of matter, chemical bonding, chemical reactions, the physical states of matter, changes of state, and solutions. The fundamental principles are applied to the solution of quantitative problems relating to chemistry. Lecture 4 hours. Laboratory 2 hours. Prerequisite: MATH 1513 with a grade of "C" or better or equivalent.

CHEM 1415 - General Chemistry II (L)
5 Credits
Designed for science and science-related majors, this course is a continuation of CHEM 1315. The fundamental concepts introduced previously, together with additional ones, are applied to solutions, colloids, chemical kinetics, chemical equilibria, electrochemistry, nuclear chemistry, and organic chemistry. Qualitative inorganic analysis is included in the laboratory work. Lecture 4 hours. Laboratory 2 hours. Prerequisite: CHEM 1315.

CHEM 2054 - Process Organic Chemistry
4 Credits
Terminal course in organic chemistry covering general principles, methods of preparation, reactions and uses of both acyclic and cyclic compounds. Not open for credit to students whohave credit in CHEM 2145 or CHEM 2245. Does not substitue for CHEM 2145 or CHEM 2245. Topics include general principle, methods of preparation, reactions and uses of both acyclic and cyclic compounds. Lecture 3 hours. Laboratory 3 hours. Prerequisite: Completion of CHEM 1114 or a higher level chemistry course with a grade of "C" or better.

CHEM 2145 - Organic Chemistry I (L)
5 Credits
A study of fundamental concepts of organic structure and bonding, reactions of principal functional groups, mechanisms, and nomenclature of hydrocarbons and their derivatives. Laboratory emphasis is on purification, separation, synthesis and instrumental methods of studying organic systems. Lecture 4 hours. Laboratory 2 hours. Prerequisite: CHEM 1415.

CHEM 2245 - Organic Chemistry II (L)
5 Credits
A continuation of CHEM 2145, reactions of principal functional groups and mechanisms. Laboratory emphasis is on synthesis and organic qualitative analysis. Lecture 4 hours. Laboratory 2 hours. Prerequisite: CHEM 2145.

CHEM 2353 - Introduction to Biochemistry
3 Credits
This is an introductory course designed to assist students in their preparation for MCAT, PCAT and upper level biochemistry courses. The course covers the topics of the structure and function biochemicals, especially proteins, carbohydrates, lipids and nucleic acids and goes into the elementary details of membrane structures and transport across membranes, DNA replication, transcription and translation, and intermediary metabolism of carbohydrates. Lecture 3 hours. No Laboratory. Prerequisite: CHEM 2145.

CHEM 2364 - Biochemistry
4 Credits
This is an advanced course designed to familiarize students with the structure and function of biochemical macromolecules as well as the processes of metabolism. Lecture 3 hours. Laboratory 3 hours. Prerequisites: Completion of BIOL 1224, CHEM 1315, CHEM 1415 and CHEM 2145 all with grade of "C" or better.

CHEM 2990 - Selected Topics in Chemistry
1-4 Credits
The study and/or analysis of a selected topic in Chemistry. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

CHILD DEVELOPMENT

(Students are required to earn a "C" or better in Child Development courses in order to graduate.)

CHLD 1102 - CDA: Competencies 1 and 4
2 Credits
This is a preparation course for the CDA Credential. Focus on how to establish and maintain a safe, healthy, learning environment for children and how to establish positive relationships with families. Students will learn how to promote good health and nutrition, prevent illness, reduce injuries, arrange materials and space, and establish routines in the preschool environment for learning, exploration, and play. The importance of involving families in programs for children will be emphasized. Course addresses CDA Competencies #1 and #4. Assigned field experiences. Lecture 2 hours. No Laboratory.

CHLD 1202 - CDA: Competency 3
2 Credits
This is a preparation course for the CDA Credential. Focus on how to promote children's self esteem and independence and how to help children feel physically and emotionally secure. Children's development of social skills, empathy, and respect for others will be emphasized. Students will learn the relationship between guidance methods and children's individuality, personality, and developmental levels. Prevention of behavior problems and positive guidance techniques are presented. Course addresses CDA Competency #3. Assigned field experiences. Lecture 2 hours. No Laboratory.

CHLD 1302 - CDA: Competency 2
2 Credits
This is a preparation course for the CDA Credential. Study of developmentally appropriate equipment, activities, and methods to promote the physical and cognitive development of children. Focus on music, art, drama, books, literature, writing, and block play. Students learn how to provide opportunities that promote creativity, curiosity, exploration, and problem solving. Gross motor, fine motor, and development of children's senses are featured. Language development and communication are studied. Course addresses CDA Competency #2. Assigned field experiences. Lecture 2 hours. No Laboratory.

CHLD 1402 - CDA: Competencies 5 & 6
2 Credits
This is a preparation course for the CDA Credential. Focus on the management of resources, organization strategies, communication, planning, record keeping, and working cooperatively with others. Making professional and ethical decisions based on knowledge of child development theories, practices and quality child care services is emphasized. Importance of participation in activities that promote competence, personal growth, and professional development is stressed. Course addresses CDA Competencies #5 and #6. Assigned field experiences. Lecture 2 hours. No Laboratory.

CHLD 1501 - CDA: Application and Assessment Preparation
1 Credit
This is a preparation course for the CDA Credential. Students will study the CDA assessment system and review the competency standards for the CDA Credential evaluation. How to complete the direct assessment application, compile the Professional Resource File, distribute and collect the parent questionnaires, select a CDA Advisor, and completion of the Observation Instrument will be covered. Student candidates for the CDA credential may apply in one or more of the following: preschool, family childcare, infant/toddler, bilingual, and/or monolingual Spanish. Each of these areas will be explained in this class. Lecture 1 hour. No Laboratory.

CHLD 1722 - Developing a Culture of Care
2 Credits
This is a preparation course for the Residential Child and Youth Care Professional Certification. This course will cover the history of and recent trends in the profession of residential child and youth care. Differences in types of residential programs and methods to establish a healthy culture of care will be studied. Strength- and competency-based theories and philosophies will be included. The various roles of child and youth care workers, professional ethics, and the importance of care for the caregiver will also be discussed. Lecture 2 hours. No Laboratory.

CHLD 1733 - Understanding Child Development
3 Credits
This is a preparation course for the Residential Child and Youth Care Professional Certification. Developmental assessment of individual children will be studied including lifespan stages, special needs, moral and spiritual development, and the effects of child abuse and neglect on growth and development. Understanding developmental delays and how to plan activities that promote life skills development with children and youth in out-of-home care is a primary focus. Lecture 3 hours. No Laboratory.

CHLD 1742 - Building Relationships
2 Credits
This is a preparation course for the Residential Child and Youth Care Professional Certification. Building positive relationships with children and youth is critical to healthy child and youth development. A focus on effective communication, appropriate age/stage expectations, and providing a culturally competent culture of care is featured in this course. Strategies for assisting children and youth through transitions, with problem-solving and personal empowerment will be addressed. Lecture 2 hours. No Laboratory

CHLD 1752 - Teaching Discipline
2 Credits
This is a preparation course for the Residential Child and Youth Care Professional Certification. This course will focus on the critical elements for teaching discipline to children in out-of-home care. Topics include appropriate limit setting, behavior reinforcement, and consequence. Strategies for the effective crisis behavior management are studied. Individual and group level management is discussed. Lecture 2 hours. No Laboratory. Prerequisite: CHLD 1722 with a grade of "C" or better.

CHLD 1762 - Interviewing and Documentation Skills
2 Credits
This is a preparation course for the Residential Child and Youth Care Professional Certification. The course will cover communication strategies, basic case management components, record keeping, and observation skills used with children and youth in residential care. Individual and family interviewing models and techniques will be studied Various types of assessment tools and evaluation reports used with children, youth and families will be reviewed. Assigned field experiences. Lecture 2 hours. No Laboratory. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 1722, CHLD 1733, CHLD 1742 with a grade of "C" or better.

CHLD 1772 - Youth Care Field Experience
2 Credits
This is a preparation course for the Residential Child and Youth Care Professional Certification. This course is designed to help the student apply and enhance the skills and knowledge they have learned in classes. Students will study different types of facilities and current issues in residential care. Identifying community resources and networking supports in residential care will be a primary activity. Field trips to residential programs will be required. Assigned Field Experiences. Lecture 2 hours. No Laboratory. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 1722, CHLD 1733, CHLD 1742, CHLD 1752, CHLD 1762 with a grade of "C" or better.

CHLD 1781 - Youth Care Certification Preparation
1 Credit
This course is optional for the Residential Child and Youth Care Professional Certification. This course will prepare you for taking the University of Oklahoma National Resource Center for Youth Services' Residential Child and Youth Care Professional Certification exam. Also, knowledge and skills for job preparation in the field of residential care for children and youth will be discussed. Lecture 1 our. No Laboratory.

CHLD 1802 - Youth Development: Establishing the Environment
2 Credits
This course is an introduction to the different types of youth development programs for children and youth. How to select materials and establish developmentally appropriate, safe, healthy, enriching environments and daily schedules will be studied. Exercise, rest, and nutritional needs of children and youth will be focused. Assigned field experiences. Lecture 2 hours. No Laboratory.

CHLD 1812 - Youth development: Program Mission and Procedures
2 Credits
This course focuses on mission and procedures of programs serving children and youth. Writing a mission statement that is responsive to the needs and aspirations of the community will be requied. Registration procedures, goals, and responsibilities will be included. Students will examine appropriate guidelines to ensure youth safety through supervision and monitoring, as well as the proper way to maintain the rights and privacy of children, and their families. Assigned field experiences. lecture 2 hours. No laboratory.

CHLD 1822 - Youth Development: Emotional Development and Guidance
2 Credits
A focus on the emotional and social development is featured in this course. Helping children and youth to develop interpersonal skills, communication, empathy, and respect for others will be included. Building healthy relationships between childre and youth and adults will be incorporated. Positive constructive guidance techniques that promote moral autonomy, self-control and self-discipline will be studied. Helping children and youth to feel capable, connected, and contributing will be a goal of this course. Assigned field experiences. Lecture 2 hours. No Laboratory.

CHLD 1833 - Youth Development: Professional Management
3 Credits
Management of youth development programs for children and youth will be focused. Scheduling, planning, resource management, personnel, and other management issues will be featured. Documentation of incidents and safety and emergency procedures will be included. Professionalism and ethical considerations will be studied. Family involvement as volunteers in youth development programs will be discussed. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 1841- Youth Development: Educational Support
1 Credit
This course will focus on the collaboration and cooperation with the child's school and of homework support, literacy, school readiness issues, and academic development. Program activities that provide opportunities to build skills, explore interests, experience a sense of self-efficacy, and belonging and contribute to the commuinity will be included. Assigned field experiences. Lecture 1 hour. No Laboratory.

CHLD 1842 - Youth Development: Professional Development and Recognition
2 Credits
This course will study the program recognition process for after-school programs, as set forth by the Council on Accreditation. Three levels of recognition, Registration, Certification, and Accreditation, will be included. Students will be exposed to the process of application, self-study, and site visit. Profesional development, as described by the Military School-Age Credential, will be integrated. Assigned field experiences. Lecture 2 hours. No laboratory.

CHLD 1851 - Youth development: Developing Community
1 Credit
The course will study the development of community, diversity, acceptance and tolerance in youth and the development of empathy, caring, and community connections. Understanding diversity and multicultural issues within communities, family crisis, recognizing and reporting child abuse and neglect, and identifying community resources and referral services for children and families will be studied. Assigned field experiences. Lecture 1 hour. No Laboratory.

CHLD 1863 - Youth development: Program Quality and Risk Management
3 Credits
This course will focus on financial accountability and viability; and the ability to reduce risk, loss, and liability exposure. Positive financial outcomes are studied through financial planning, management and oversight. Incidence reports and grievances are included. Students will learn how to properly maintain files and records of children and youth. Confidentially and privacy rights of written information are included. Hiring practices, background checks, and training are discussed. Assigned field experiences. Lecture 3 hours. No laboratory.

CHLD 1901 - Head Start: Commitment and Professionalism
1 Credit
This course covers the portfolio assessment and required documentation for the Head Start Credential, Certificate of Achievement. Competency Goal #9 is addressed in this course with an emphasis on commitment, professionalism, theories, practices, code of ethics and values. A student must complete this course before enrollment in CHLD 1912, CHLD 1922, CHLD 1932, or CHLD 1942 or it may be taken simultaneously with CHLD 1912, CHLD 1922, CHLD 1932, CHLD 1942. A student must receive a grade of "C" or better to enroll in the next course in the sequence. Lecture 1 hour. No Laboratory.

CHLD 1912 - Head Start: Building Relationships
2 Credits
The focus of this course is how to establish a mutually respectful, on-going partnership with Head Start families. The Head Start Program philosophy, services, outreach, recruitment, and enrollment will be emphasized. Effective communication, successful Head Start home visits, development of the Head Start IFP, and being an advocate for Head Start families and children will be featured. Head Start Competency Goals #1 and #2 and Indicators are addressed in the course. Assigned Field Experiences. Lecture 2 hours. No Laboratory. Prerequisites: CHLD 1901 or simultaneous enrollment and all previous CHLD coursework with a grade of "C" or better.

CHLD 1922 - Head Start: Parent Involvement and Services
2 Credits
Educational activities, Head Start policy groups, and group activities will be featured in this course. Students will learn how to coordinate and integrate Head Start services. Head Start Competency Goals #3 and #5 and Indicators are addressed in this course. Assigned Field Experiences. Lecture 2 hours. No Laboratory. Prerequisites: CHLD 1901 or simultaneous enrollment and all previous CHLD coursework with a grade of "C" or better.

CHLD 1932 - Head Start: Resources and Assistance
2 Credits
Community resources for families will be identified and how to assist families in accessing services will be emphasized in this course. Head Start Competency Goals #6 and #7 and Indicators are addressed in this course. Assigned Field Experiences. Lecture 2 hours. No Laboratory. Prerequisites: CHLD 1901 or simultaneous enrollment and all previous CHLD coursework with a grade of "C" or better.

CHLD 1942 - Head Start: Literacy, Culture, and Language
2 Credits
Students will learn about Head Start family literacy services and will study the rich diversity of family cultures, lifestyles, and values. Head Start Competency Goals #4 and #8 and Indicators are addressed in this course. Assigned Field Experiences. Lecture 2 hours. No Laboratory. Prerequisites: CHLD 1901 or simultaneous enrollment and all previous CHLD coursework with a grade of "C" or better.

CHLD 2003 - Child Development in the Lifespan
3 Credits
This course focuses on the study of child development beginning with conception and continuing through the significant age periods of human life. Students will study the principles of development, developmental theories and the dynamics of development within the context of the cultural, societal, and family environments. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 2023 - Child Development and Parenting
3 Credits
A systems perspective of child development and parenting with an emphasis on the ecological approach. Course will include the study of family processes, parenting philosophies, styles, and techniques. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 2031 - Early Field Experience
1 Credit
This course is for education majors, child development majors, and others interested in school related careers working with children and/or families. Students in this course will receive tutor/mentor training for preschool and/or school age children. The primary focus of the course is to provide students an opportunity to help children in public school settings build self-esteem and academic skills. A 2-hour weekly field experience is required. Lecture 1 hour. No Laboratory.

CHLD 2103 - Child Guidance
3 Credits
This course presents the theoretical basis for the use of constructive child guidance and discipline techniques in programs serving children. Students learn observational methods and behavior analysis to help determine the most appropriate guidance techniques and understand the impact of development on children's behavior. Laboratory facilitates the acquisition of observational skills and provides models for discussion and learning child guidance and classroom management skills. Lecture 3 hours. No Laboratory. Assigned field experiences. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 2003 with a grade of "C" or better.

CHLD 2113 - Child Care Center Management I
3 Credits
Course provides an overview of how to effectively manage child care programs. A focus on relevant and current issues in child care is presented. Licensing requirements, managing staff, conflict resolution, and ethical issues are addressed. How to implement developmentally appropriate practices and create a positive and safe learning environment will be addressed. The course also emphasizes the development of a program vision. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 2133 - Middle Childhood Foundations
3 Credits
How school-age children develop and learn, as well as techniques to enhance learning will be addressed. Study will include out-of-school and in-school programs, planning, implementing, and evaluating appropriate activities and environments for school-age children. Lecture 3 hours. No Laboratory. Assigned Field Experiences. Prerequisites: CHLD 2003 with a grade of "C" or better.

CHLD 2173 - Historical and Philosophical Foundations of Schools
3 Credits
This course provides an overview of the history and philosophy of schools in the United States. The purposes, structure and organization of schools in a multi-cultural society are explored. Lecture 3 hours. No Laboratory. Fifteen clock hours of field experiences are required. Prerequisite: CHLD 2003 and a minimum grade of "C" in ENGL 1113 and ENGL 1213, MATH 1513 and MATH 1613 or a higher level mathematics course, completion of 30 hours of general education, and a minimum overall grade point average of 2.00.

CHLD 2203 - Child and Family in the Community
3 Credits
Focus on contemporary societal factors including diversity, culture, and family structures as they relate to children in various childcare programs. Ethics, professionalism, and skills development for child development and human services professionals will be addressed. Emphasis on promoting optimum development and support of families and children within programs and the larger community. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 2213 - Children with Special Needs
3 Credits
Focus on the exceptional child. Emphasis on implementing practical strategies and inclusive practices. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 2223 - Early Childhood Foundations
3 Credits
History and philosophy of early childhood education with emphasis on planning, implementing, evaluating, and developing appropriate learning experiences for children birth to eight. Course includes application of Piaget's and Vygotskgi's principles of learning and development. Art, music, science, math and other curricula in preschool education will be studied. Lecture 2 hours. Laboratory 3 hours. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 2003 with a "C" or better.

CHLD 2233 - Physical Development and Creative Expression: Early Childhood
3 Credits
Study of creativity, play, and motor development with appropriate experiences in play, music, art, and motor skills for children, birth to eight years. Lecture 3 hours. No Laboratory. Assigned field experiences. Prerequisites: CHLD 2223 or CHLD 2513 with a grade of "C" or better.

CHLD 2243 - Language and Cognitive Development: Early Childhood
3 Credits
Study of language and cognitive development with consideration of appropriate experiences in literacy, numeracy, and science for children birth to eight years. Lecture 3 hours. No Laboratory. Assigned field experiences. Prerequisites: CHLD 2223 with a grade of "C" or better.

CHLD 2253 - Child Development Practicum
3 Credits
The practicum is the culminating experience for the Child Development student. Practicum site placements will be individualized based on the student's degree option. Students will interact with children and/or families teaching appropriate curriculum and activities. A portfolio of previously completed course work will be compiled by each student to document student knowledge, skills and abilities as they relate to the NAEYC associate degree standards for early childhood education. Lecture 1 hour. Laboratory 4 hours. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 2223, CHLD 2243, CHLD 2263, CHLD 2233 or CHLD 2333, CHLD 2313 and CHLD 2323 with a grade of "C" or better.

CHLD 2263 - Social and Emotional Development: Early Childhood
3 Credits
Study of social and emotional development and appropriate experience for children birth to eight years. Lecture 3 hours. No Laboratory. Assigned field experiences. Prerequisites: CHLD 2223 with a grade of "C" or better.

CHLD 2273 - Teacher Assistant Practicum
3 Credits
Observation and participation in an elementary school or program serving school-age children. Emphasis on teaching strategies in math, science, and computer technology for school-age children. Lecture 1 hour. Laboratory 4 hours. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 2003, CHLD 2103, CHLD 2133, CHLD 2323, CHLD 2333 with a "C" or better.

CHLD 2301- Preschool Behavior and Guidance
1 Credit
Students will study the physical, cognitive, social, and emotional development of preschool children 2 to 6 years of age. Course will present positive guidance and discipline techniques that promote the development of healthy personalities and moral autonomy. Appropriate expectations and guidance based on children's needs, and ages/stages will be addressed. Lecture 1 hour. No Laboratory.

CHLD 2313 - Child Care Center Management II
3 Credits
Course presents an in depth study of topics meaningful to child care center managers. The class will focus on leadership skills, understanding families and their needs, managing and empowering staff, and working with program budgets and finances. Assigned field experiences. Lecture 3 hours. No Laboratory.

CHLD 2323 - Physical and Creative Activities: Middle Childhood
3 Credits
Study of physical and motor development, creativity, and play in middle childhood. Students will learn appropriate experiences and activities for children 6 to 12 years. Study and implementation of activities to promote physical and motor development, drama, literature, creative expression, art appreciation, and play will be emphasized. Lecture 3 hours. No Laboratory. Assigned Field Experiences. Prerequisites: CHLD 2003, CHLD 2133 with a grade of "C" or better.

CHLD 2333 - Science, Math, and Computer Activities: Middle Childhood
3 Credits
Study of cognitive development in middle childhood. Science, math, and computer activities for children 6 to 12 years. Students will learn how to develop and implement activities in science, math and computer technology for children in middle childhood. Lecture 3 hours. No Laboratory. Assigned Field Experiences. Prerequisites: CHLD 2003, 2133 with a grade of "C" or better.

CHLD 2341 - Brain Development: Birth to Age Eight
1 Credit
The focus of this course is research findings in the field of neuroscience that relate to early childhood development, care, and education. Students will students will study the impact of negative experiences as well as the protective functions of responsive care and attachment in elation to brain development during early childhood. A primary objective will be to learn how to make practical application of brain development knowledge to the early care and education of young children. Assigned field experiences. Lecture 1 hour. No Laboratory.

CHLD 2401 - Child Development Assessment and Evaluation
1 Credit
Developmental assessment and evaluation of individual children will be studied including portfolios, developmental checklists and screenings, observational records, and other assessment strategies. Assessment and evaluation issues regarding children will be addressed. Lecture 1 hour. No Laboratory.

CHLD 2421 - Children and Trauma
1 Credit
The study of how children are affected by traumatic experiences is the emphasis of this course. Students will learn the difference between trauma and stress. Post-Traumatic Stress Syndrome, including the definition, symptoms, and a discussion of referral criteria and commonly used treatments will be included. Students will be introduced to supportive techniques for children in early childhood care and education programs who may be exhibiting behaviors that are indicative of trauma. Behaviors consistent with different types of trauma will be discussed. Assigned field experiences. Lecture 1 hour. No Laboratory.

CHLD 2501 - Infant and Toddler Behavior and Guidance
1 Credit
An in-depth study of the physical, cognitive, social, and emotional development of children birth to two. Appropriate expectations, activities and guidance for infants and toddlers will be addressed. Lecture 1 hour. No Laboratory.

CHLD 2513 - Programming for Infants and Toddlers
3 Credits
This course will focus on developmental theories as they relate to infant and toddler development and behavior. Students will study infant and toddler care-giving routines as opportunities for facilitating development through focus on individuality and responsiveness. Developmentally appropriate environmental and interaction practices, including health and safety, will be addressed. Lecture 2 hours. Laboratory 3 hours. Prerequisites: Criminal History and Sex Offender Registry Background Check, CHLD 2003 with a grade of "C" or better and all previous CHLD coursework with a grade of "C" or better.

CHLD 2523 - Physical Development in Infants and Toddlers
3 Credits
The focus of this course is the physical development of children birth to three years. Developmentally appropriate expectations, environments and activities that encourage freedom of exploration and that support the physical development of infants and toddlers are studied. Assigned field experiences. Lecture 3 hours. No Laboratory. Prerequisites: CHLD 2003, CHLD 2513 or concurrent enrollment and all previous CHLD coursework with a grade of "C" or better.

CHLD 2543 - Cognitive and Language Development in Infants and Toddlers
3 Credits
This course focuses on cognitive and language development from birth to three years. Sensitive, supportive, and responsive care-giving that meets the needs and interests of infants and toddlers is emphasized. Developmentally appropriate expectations and environments that support the cognitive and language development of infants and toddlers are studied and emphasized. Assigned field experiences. Lecture 3 hours. No Laboratory. Prerequisites: CHLD 2003, CHLD 2513 or concurrent enrollment and all previous CHLD coursework with a grade of "C" or better.

CHLD 2601 - School-Age Behavior and Guidance
1 Credit
This course focuses on the physical, cognitive, social, and emotional development of children from 6 to 12 years of age. Course will present positive guidance and discipline techniques that promote the development of healthy personalities and moral autonomy. Appropriate expectations and guidance based on children's needs, and ages/stages will be addressed. Lecture 1 hour. No Laboratory.

CHLD 2701 - Child Abuse and Neglect
1 Credit
An in-depth study of child sexual, physical, and emotional abuse and child neglect. The impact of abuse on children at different ages/stages will be covered. Course will feature community and individual factors associated with abuse as well as prevention and intervention strategies. Lecture 1 hour. No Laboratory.

CHLD 2723 - Effects of Abuse and Neglect on Child and Youth Development
3 Credits
An in-depth study of child sexual, physical and emotional abuse and child neglect. The impact of abuse on child and youth development at different ages/stages will be covered. Course will feature community and individual factors associated with abuse as well as prevention and intervention strategies. Lecture 3 hours. No Laboratory.

CHLD 2990 - Selected Topics in Child Development
1-4 Credits
The study and/or analysis of selected topics in child development. May be repeated with a different topic. Field experiences in topic-related settings may be required beyond the normal class hours. Lecture 1-4 hours. No Laboratory.

CHINESE

CHNS 1001 - Chinese for Communication I
1 Credit
A companion course to CHNS 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with CHNS 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: CHNS 1103 or approval of instructor.

CHNS 1031- Chinese Pronunciation
1 Credit
A beginning course in Chinese with special emphasis on pronunciation and the oral skills. May be taken simultaneously with Chinese 1103. Lecture 1 hour. Prerequisite: CHNS 1103 or approval of instructor.

CHNS 1103 - Chinese I
3 Credits
An elementary course in understanding, speaking, reading, and writing Chinese. The first in a sequence of related courses. Lecture 3 hours. No Laboratory.

CHNS 1201- Chinese for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Lecture 1 hour. No laboratory. Prerequisite: CHNS 1103 or approval of instructor.

CHNS 1213 - Chinese II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Chinese. Lecture 3 hours. No Laboratory. Prerequisite: CHNS 1103 or approval of instructor.

CHNS 1313 - Chinese III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Chinese. Lecture 3 hours. No Laboratory. Prerequisite: CHNS 1213 or approval of instructor.

CHNS 1413 - Chinese IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Chinese. Lecture 3 hours. No Laboratory. Prerequisite: CHNS 1313 or approval of instructor.

CHNS 2033 - Chinese Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Chinese culture and societies. Conducted in English. Lecture 3 hours. Self-paced lab may be required.

CHNS 2041 - Chinese - Introduction to the Arts
1 Credit
An introduction to the Chinese arts with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day Chinese activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

CHNS 2071 - Chinese History and Geography Introduction
1 Credit
A survey of Chinese history and geography as it relates to modern day Chinese societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

CHNS 2113 - Intermediate Chinese I
3 Credits
An intermediate course in understanding, speaking, reading, and writing Chinese. Taught in Chinese. Lecture 3 hours. No Laboratory. Prerequisite: CHNS 1413 or approval of instructor.

CHNS 2121 - Intermediate Chinese Communication
1 Credit
Intensive practice in speaking Chinese at the intermediate level or above covering a wide range of subjects, i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in Chinese. Lecture 1 hour. No Laboratory. Prerequisite: CHNS 2113 or Chinese Proficiency Exam results.

CHNS 2143 - Asian Civilization and Culture
3 Credits
This course provides a comprehensive look at the Asia-Pacific region including China and how it relates to America. Recommended for all interested in Asia including students of Chinese. Conducted in English. Lecture 3 hours. No Laboratory.

CHNS 2213 Intermediate Chinese II
3 Credits
An intermediate course in understanding, speaking, reading, and writing Chinese. Taught in Chinese. Lecture 3 hours. No Laboratory. Prerequisite: CHNS 2113 or approval of instructor or Dean of Global Education.

CHNS 2330 - Chinese International Seminar and/or Field Studies
1-3 Credits
This course is designed to provide an on-site experience in the selected Chinese speaking country or site. Includes lectures, readings, oral interactions, and written reports. All or a portion of instruction and activities are conducted at the international site. Focus on language (oral and written forms) and culture development. Prerequisite: Permission of Dean of Global Education and Associate Dean before enrollment and in advance of in-country experience.

CHNS 2421 - Chinese Culture Comparisons
1 Credit
Focus on the cultural aspects of the Chinese people. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

CHNS 2990 - Selected Topics in Chinese
1-4 Credits
The study and/or analysis of a selected topic in Chinese. May be repeated with a different topic.

CIVIL ENGINEERING TECHNOLOGY

CVET 1373 - Materials of Construction
3 Credits
Fundamentals of construction materials such as masonry, wood, concrete, asphalt, and steel along with their application to construction. Blueprint techniques, planning and code provisions are studied through design problems. Lecture 3 hours. No Laboratory. Prerequisite: MATH 1454, or MATH 1715 or MATH 1513 and MATH 1613.

CVET 1383 - Construction Plans, Specifications and Contract Documents
3 Credits
A study and interpretation of construction plans, shop drawings, contract documents, specifications, scheduling, and estimating relative to construction operations. An introduction to the purpose and use of A.I.S.C., A.S.T.M., A.S.M.E., A.C.I., C.S.I. of standards. Lecture 3 hours. No Laboratory. Prerequisite: Concurrent enrollment in or completion of MATH 1454, or MATH 1715 or MATH 1513.

CVET 1393 - Basic Hydrology
3 Credits
A study of the hydrologic cycle; precipitation, evapotranspiration, infiltration, runoff, and underground flow. Will also include a study of drainage problems confronting the hydrologist in urban areas and techniques used to prevent flooding. Lecture 3 hours. No Laboratory. Prerequisites: MATH 1454, or MATH 1715 or MATH 1513 and MATH 1613.

CVET 1413 - Wastewater Treatment
3 Credits
A study of wastewater treatment systems including flow estimation, sewer system design, and design of each unit in a wastewater treatment plant. Other topics studied will be environmental concerns, water quality, laboratory analysis, and sludge disposal. Lecture 3 hours. No Laboratory. Prerequisite: MATH 1454, or MATH 1513 and MATH 1613.

CVET 2373 - Physical Properties of Soil
3 Credits
Load bearing qualities of soils and methods of analyzing subsoil conditions, bearing capacity and settlement. Types of foundation design and behavioral characteristics studied. Lecture 2 hours. Laboratory 3 hours. Prerequisites: MATH 1454 or MATH 1513 and MATH 1613, or MTH1715 and PHYS 1114.

CVET 2443 - Basic Hydraulics
3 Credits
Principles of fluid mechanics, pressure conduits, open channel flow, fluid measurement, drainage structure, design of collection systems for municipal drainage. Lecture 3 hours. No Laboratory. Prerequisite: PHYS 1114.

CVET 2461 - HEC I
Credit
An introduction to the HEC-I computer model which is designed to simulate the surface runoff at a river basin by unit hydrographic and routing components. The Corps of Engineers and the City of Tulsa use this model. Lecture 1 hour. No Laboratory. Prerequisite: MATH 1454 or MATH 1513 and MATH 1613.

CVET 2471 - HEC II
1 Credit
An introduction to the HEC-2 computer model which is intended for calculating water surface profiles in natural or man-made channels. Both subcritical and supercritical flow profiles can be calculated. The Corps of Engineers and the City of Tulsa use this program. Lecture 1 hour. No Laboratory. Prerequisite: MATH 1454 or MATH 1513 and MATH 1613.

CVET 2990 - Selected Topics in Civil Engineering Technology
1-4 Credits
The study and/or analysis of a selected topic in Civil Engineering Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

CODING AND REIMBURSEMENT SPECIALIST
(See Health Information Technology and Course Descriptions)

COMPUTER AIDED DESIGN (CAD)
(See Drafting and Design Engineering Technology Program and Course Descriptions)

COMPUTER AIDED MANUFACTURING (CAM)
(See Numerical Control/Machinist Technology Program and Course Descriptions)

COMPUTER INFORMATION SYSTEMS

CSYS 1013 - XHTML
3 Credits
Hypertext Markup Language (HTML) and the syntax of eXtensible Markup Language (XML) combined in the form of eXtensible Hypertext Markup Language (XHTML) will be presented along with web page design and efficiency principles and techniques. Projects will include the creation of a variety of different types of web pages for Internet and intranet use. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203. CSCI 2163 recommended.

CSYS 1022 - MS Word for Medical Documents
2 Credits
This course provides introductory word processing skills for medical professionals. Creating, formatting, editing, and illustrating documents; creating tables, forms, and templates; and collaborating on documents will be covered. Lecture 1 hour. Laboratory 2 hours.

CSYS 1033 - Adobe Photoshop
3 Credits
Key Photoshop concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on the work area, basic photo corrections, retouching and repairing, working with selections, layer basics, masks and channels, correcting and enhancing digital photographs, typographic design, vector drawing, techniques, advanced layering, advanced compositing, preparing files for the web, working with scientific images, and producing and printing consistent color. This is the first course to prepare students with the skills for continued creative study in CSYS 1073 Advanced Photoshop. Students will learn about the benefits of obtaining Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall, spring, and summer sessions. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 1043 - Adobe Acrobat
3 Credits
A presentation of key Acrobat concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on Acrobat basics, the work area, creating Adobe PDF files, creating Adobe PDF files from Microsoft Office files (Windows), creating Adobe PDF files from Microsoft Office files (Mac OS), combining files in PDF packages, creating Adobe PDF from web pages, converting email files to Adobe PDF (Windows), working with PDF files, editing PDF files, using Acrobat in a review cycle, adding signatures and security, creating multimedia presentations, using engineering and technical features, using legal features, working with forms in Acrobat, creating forms with Adobe Live Cycle Designer (Windows), using Acrobat in professional publishing, and making documents accessible and flexible. Students will be encouraged to obtain Adobe Certified Ace (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval instructor approval

CSYS 1063 - Digital Image Editing
3Credits
Explore your creativity while learning the industry standard graphics editing software in a hands-on environment. Enhance digital photographs and artwork. Put into practice the principles behind layers, channels, patha and special effects. Design techniques are explored when producing collages, logos, ads and web graphics. Promote success with your digital designs for personal use, marketing and the Web. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 or CSYS 1203 or instructor approval, CSCI 2163 recommended.

CSYS 1073 - Advanced Photoshop
3 Credits
An advanced course in Adobe Photoshop. Students will learn professional Photoshop techniques to enhance and alter digital photographs and illustrations and prepare them for web and print output, using Macintosh computers. Emphasis will be placed on masking, shortcuts, and choosing a non-destructive workflow that will raise skill levels to new heights. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall, spring, and summer semesters. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1211 and CIS1033 or instructor approval.

CSYS 1103 - Introduction to Computer Electronics
3 Credits
An introduction to electronic principles used in microcomputers. Elements from DC, AC, Digital Electronics, and Microprocessors will be covered. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203.

CSYS 1133 - Oracle: Introduction to SQL
3 Credits
This course offers an extensive introduction to data server technology. The course covers the concepts of relational databases and the SQL languages. Demonstrations and hands-on exercises reinforce the concepts. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 1153 - Adobe Dreamweaver
3 Credits
A presentation of key Dreamweaver concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on Dreamweaver basics, customizing the workspace, applying cascading style sheets, working with text, designing with images, inserting links, crafting page layouts, creating interactive pages, integrating AJAX with Spry, constructing forms, adding multimedia, publishing to the web, increasing productivity with templates, and working with code. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall and spring semesters. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1013; and CSYS 1033 or permission of instructor.

CSYS 1203 - Introduction to Computer Programming
3 Credits
This course is a required prerequisite for all programming classes and will serve as an introduction to structured programming techniques. Topics to be covered include flowcharting, pseudo code, sequence, selection, iteration, arrays, I/O, principles of problem solving, debugging, documentation and good programming practice. Topics will be applied using an appropriate programming language. Lecture 2 hours. Laboratory 2 hours. Co-requisite: CSCI 1203 Computer Concepts and Applications.

CSYS 1211 - Introduction to MAC OS
1 Credit
This course is a hands-on introduction to the MacIntosh operating system. The student will learn to setup and configure as well as launch and run multiple applications in the Mac environment. Basic features and operations performed in Mac applications will be demonstrated and practiced, including file management techniques. Offered fall and spring semesters. Lecture 1 hour. Laboratory 1 hour.

CSYS 1233 - XML
3 Credits
This course will focus on the use of XML markup language to create valid, well-formed XML documents. Topics covered will include the proper use of the XML markup language, Document Type Definitions (DTD), XML Schema and the X-Path and X-pointer specifications. XSL and XSLT will also be discussed as a means of formatting and converting XML formatted data. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1013 or instructor approval.

CSYS 1393 - Web Design and Marketing
3 Credits
An introduction to Web site creation and marketing as it relates to E-Commerce business. Topics may include market research, usability issues, and design guidelines which include marketing approaches such as importance of logos, psychology of color, product promotion and cost factors. Students will develop and test a Web site using popular Web development software. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 Recommended: MKTG 2423.

CSYS 1443 - Electronic Commerce
3 Credits
This course will examine the foundation, operation and implications of the Internet economy. Course content may include such topics as Internet technologies, privacy, security, online market mechanisms, interaction with customers, electronic publishing, electronic shopping, knowledge-based products, pricing in the Internet economy, database issues, online auctions and e-marketplaces, intellectual property, policies, ethics for the Internet economy, emerging technologies and an outlook for the new economy. Lecture 2 hours. Laboratory 2 hours.

CSYS 1593 - Computer and Video Game development I
3 Credits
A hands on introduction to designing, developing and testing computer and video games. Input/Output, structured programming, object oriented programming, problem solving, debugging and documentation will be among the topics covered using appropriate game development software. Lecture 2 hours. Laboratory 2 hours.

CSYS 2013 - Webserver Administration
3 Credits
Methods of building, maintaining, monitoring and controlling a web site. Architecture of web sites and integration with other servers will be addressed. Security issues. Firewall options and current web server software will be explored. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1203, CSCI 1203, and CSCI 1263.

CSYS 2023 - A+ Essentials
3 Credits
CompTIA A+ Essentials validates knowledge of basic computer hardware and operating systems, covering skills such as installation, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing and preventive maintenance, with additional elements of security and soft skills. The Essentials Exam validates the basic skills needed by any entry-level service technician regardless of job environment. As the Comp TIA exam is modified to meet industry needs, this course will also be modified to cover the new topics in the exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSC1203 or instructor approval.

CSYS 2033 - Scripting
3 Credits
Course objectives consist of learning the JavaScript scripting language and how it is used to create dynamic content for web pages through the use of variables, functions, objects and events along with data types and operators. Also covered will be the use of the JavaScript language to process web page based forms, animations, cookies, and implementing web page security. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1013 or concurrent enrollment.

CSYS 2043 - Microsoft Windows 2000 Professional
3 Credits
Students will develop the abilities for installing, configuring, managing, monitoring, and troubleshooting Windows 2000 Professional. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 2053 - Windows Network Administration
3 Credits
Installation and configuration of Windows Server with an emphasis on the management and administration of user hardware and software resources. Hands-on application of network administration principles on an operational NT Network is provided. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1263 or instructor approval.

CSYS 2063 - Microsoft Windows 2000 Series Server
3 Credits
Students will perform server installation and operations of networking services, Active Directory services, monitoring and troubleshooting, as well as gain an understanding of the operating system functions and capabilities. Comp TIA's objectives and certification guidelines will be covered. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1263 or instructor approval.

CSYS 2073 - MS Office
3 Credits
An in-depth treatment of the Microsoft Office product. Access, Excel, Word, and PowerPoint will be used separately and as an integrated part of Office. Emphasis will be placed on hands-on training. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 2083 - Microsoft Windows 2000 Series Network Infrastructure
3 Credits
Students will develop the abilities for installing, configuring, managing, monitoring, and troubleshooting DNS in a Windows 2000 Series Network Infrastructure. Install, configure, and troubleshoot DHCP, remote access, network protocols, WINS, and IP routing protocols. Install Internet Connection Sharing. Install and configure Certificate Authority (CA). Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2063 or instructor approval.

CSYS 2093 - Implementing Microsoft Windows 2000 Series Directory Services Infrastructure
3 Credits
Students will develop the ability to install, configure and troubleshoot the components of Active Directory. Install Active Directory, create sites, create subnets, create site links, create site link bridges, create connection objects, create global catalog servers, move server objects between sites. Transfer operations master roles, verify Active Directory installation, Implement an organizational unit (OU) structure. Back up and restore Active Directory, perform authoritative restore of Active Directory, and recover from a system failure. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2063 or instructor approval.

CSYS 2103 - Designing Microsoft Windows 2000 Series Network Infrastructure
3 Credits
Students will develop the skills required to analyze the business requirements for a Windows 2000 Series network infrastructure and design a network infrastructure that meets business requirements. Network infrastructure elements include: network topology, routing, IP addressing, name resolution such as WINS and DNS, virtual private networks, remote access, and telephony solutions. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2063 or instructor approval.

CSYS 2113 - Designing Security in a Microsoft Windows 2000 Network
3 Credits
Students will develop the skills required to analyze the business requirements for security and design a security solution that meets business requirements in a Windows 2000 Series environment. Security includes: controlling access to resources, auditing access to resources, authentication, and encryption. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2063 or instructor approval.

CSYS 2123 - Advanced Computer Electronics
3 Credits
A continuation of CSYS 1103 Introduction to Computer Electronics. Electronic principles used in microcomputers. Elements from DC AC, Digital Electronics, and Microprocessors will be covered. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1103.

CSYS 2133 - Designing Microsoft Windows 2000 Series Directory Services Infrastructure
3 Credits
Students will develop the ability to analyze the business requirements and design a directory services architecture, including: unified directory services such as Active Directory and Windows NT domains, connectivity between and within systems, systems components, and applications, and data replication such as directory replication and database replication. Students will also develop the skills required to analyze the business requirements for desktop management and design a solution for desktop management that meets business requirements. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2063 or instructor approval.

CSYS 2143 - Advanced Hardware/Software Installation/Configuration
3 Credits
A continuation of CSCI 2143. Advanced techniques used to install hardware and software into microcomputers. Troubleshooting installation and configuration problems will be addressed. Hardware and software utilized in troubleshooting and PC maintenance will be addressed. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2143.

CSYS 2153 - Advanced XHTML Technologies
3 Credits
This course focuses on the development of multimedia-intensive, platform independent web pages for conventional Internet, Intranet, and Extranet based applications. Topics will include DHTML, CSS, client-side scripting, XML, and multimedia. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1013.

CSYS 2203 - NT Essentials
3 Credits
Course covers basic networking terminology, the OSI Model, hardware, software, topology, user and group management, domains, resource sharing/access, trusts and printer implementations. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Extensive knowledge of Windows 95, NT Workstation or approval of program coordinator.

CSYS 2213 - Oracle DBA: Database Fundamentals I
3 Credits
Students will learn the basic administrative tasks and the knowledge needed to setup, maintain, and troubleshoot an Oracle database. The student will use an administrative tool to startup and shutdown a database, create a database, manage file and database storage, and manage users and their privileges. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1133 or instructor approval.

CSYS 2233 - Oracle DBA: Database Fundamentals II
3 Credits
This course introduces students to several methods to backup and to recover an Oracle database and to develop skills for basic network administration. Several utilities and the Recovery Manager are introduced. Network configuration and recovery techniques are demonstrated through various workshop scenarios. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 2213 or instructor approval.

CSYS 2253 - Database Server Programming
3 Credits
This course will cover multi-user, client-server relational database concepts. Topics may include development of forms and reports, normalization of databases, and SQL. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1263; CSCI 2043 would be beneficial for students to have taken.

CSYS 2273 - Internet Business Applications
3 Credits
An introduction to the development of applications that can be used in a web-based environment. Topics can include Active Server Pages, JAVA Server Pages, and DCOM development. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1013.

CSYS 2303 - NT Workstation
3 Credits
Course covers how to support, secure and troubleshoot NT Servers and Workstations. Includes work with printers, disk/file systems and applications in both homogenous and heterogeneous NT networks. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2203 or program coordinator approval.

CSYS 2313 - Novell Advanced Administration
3 Credits
This course provides students with the knowledge and the skills they need to design, configure and administer a complex NetWare 5 network. Skills learned include upgrading from a NetWare 3 environment, migrating to NetWare Distributed Print Services executing Java-based utilities, network backup and configuring NetWare 5 for remote access. This course will focus on the objectives and skills to pass the latest version of the Novell test. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1263, CSCI 2053 or instructor approval.

CSYS 2323 - Outlook
3 Credits
This course covers the topics necessary to utilize a powerful integrated messaging, scheduling, and information management tool and to assist n the preparation necessary for the Microsoft Office Specialist Outlook core exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 2333 - NDS Design and Implementation
3 Credits
This course teaches network administrators, network designers and networking consultants the skills needed to create an NDS design and implementation strategy. Students will complete an NDS design strategy and implementation schedule using templates that they can re-use to create a design for their workplaces. Students will then use these strategies and schedules to complete a NetWare implementation in a hands-on environment. The processes taught in this course for creating a solid NetWare design have been proven in use with Novell Consulting Services. This course will focus on the objectives and skills to pass the latest version of the Novell test. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1263, CSCI 2053, CSYS 2313 or instructor approval.

CSYS 2343 - Visual Basic for Applications
3 Credits
The Visual Basic for Applications language is presented with emphasis on how to record, edit, and write VBA macros and procedures for use with word processing, spreadsheet, and database applications. Specific topics include automating routine applications tasks, automating OLE and other types of data exchanges between applications programs, and writing complete programs that handle all aspects of performing complex tasks. Lecture 2 hours. Laboratory 2 hours. Prerequisites: (CSCI 2013 and CSCI 2033) or (CSCI 2013 and CSCI 2043) or (CSCI 2033 and CSC2043) or instructor approval.

CSYS 2353 - Integrating NetWare and Windows
3 Credits
In this course students learn the fundamentals of Windows networking and how to integrate Windows networks with a NetWare network. This course will focus on the objectives and skills to pass the latest version of the Novell test. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1263, CSCI 2053, CSYS 2313, CSYS 2333 or instructor approval.

CSYS 2363 - NT Advanced Server
3 Credits
Course covers the following subjects: Trusts, domain models, Performance Monitor, performance optimization, Network Monitor, network traffic, troubleshooting. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2303 or approval of coordinator.

CSYS 2373 - NT Advanced Server/Enterprise
3 Credits
Continuation of subjects and coursework outlined in CSYS 2363. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2363 or coordinator approval.

CSYS 2383 - Implementing and Supporting TCP/IP
3 Credits
Course covers installation, configuration, use, and support TCIP/IP, to include: protocol suite components, IP addressing, subnet masks, DHCP, LMHOSTS, WINS, DNS, SNMP. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2393 - Internet Information Server
3 Credits
Course covers installation and management of an intranet or internet site using Internet Information Server, to include: virtual directories and servers, FTP servers, Web pages, databases using ODBC. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2403 - TCP/IP for NetWare
3 Credits
In this course students learn the TCP/IP protocol with special emphasis on NetWare with the latest version of NetWare the core protocol for NetWare is now TCP/IP or IPX with deference to TCP/IP. The NetWare CNE curriculum recognized this change and incorporated some of the concepts from the older courses into the core CNE classes. Understanding how to use TCP/IP on a NetWare network is critical to successfully using the NOS, especially for NetWare 3 and 4 CNEs who tend to be familiar only with IPX. This course will focus on the objectives and skills needed to pass the latest version of the Novell test. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1263, CSCI 2053, CSYS 2313, CSYS 2333 or instructor approval.

CSYS 2413 - Advanced JAVA
3 Credits
This is an advanced programming course that emphasizes JDBC and advanced client server programming techniques in JAVA. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2133 or instructor approval.

CSYS 2433 - Microsoft Exchange Server
3 Credits
Course covers installation and configuration of Exchange Server and clients, to include: public folders, replication of folders, forms, Internet mail, Netware connectivity. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2443 - Systems Network Architecture (SNA) Server
3 Credits
Course covers installation and configuration of SNA Server, to include: hierarchical model, peer oriented model, peer within hierarchical model, mainframe and AS/400. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2453 - Object Oriented Analysis/Design
3 Credits
An advanced course that focuses on creating computer programs using an OOP (Object Oriented Programming) approach. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2133 or instructor approval.

CSYS 2463 - PHP Programming
3 Credits
Course objectives consist of learning the PHP scripting language and how it is used to create dynamic content for web pages through the use of variables, functions, and objects along with data types and operators. Also covers the use of the PHP language to: process web page based forms, read and write cookies, perform service side file I/O and access databases. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2033.

CSYS 2473 - ColdFusion
3 Credits
This course will focus on the use of Macromedia's ColdFusion application server and its ability to provide powerful visual layout and prototyping, enhanced code editing and development capabilities, and integrated debugging. The course will allow the student to create powerful dynamic web sites through the use of ColdFusion Markup Language (CFML), ColdFusion Components (CFC's), integration with Microsoft's Active Server Pages (ASP) and .NET as well as Sun Microsystem's Java Server Pages (JSP), XML handling, session management, and database connectivity. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CIS1013, CSYS 1153, or permission of the instructor.

CSYS 2483 - Security+
3 Credits
This course emphasizes various aspects of access control, authentication, malicious software, and general exploits and attacks, basics of protocols such as RADIUS, TACACS, L2TP, PPTP, SSH, SSL, and ISPEC. Topics include: vulnerabilities, ports, and OSI layers related to these protocols, system hardening, DMZs, firewalls, router placement, VLANs, mobile devices, cryptology, physical security, backup strategies, proper data disposal, basic forensics, risk assessment, user education, policy creation and documentation. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 2063, CSCI 1483. Admission to the program and a criminal background check are required.

CSYS 2493 - Principles of Information Assurance
3 Credits
Introduction to all areas of information assurance, including attackers and techniques, policies & procedures, hardening of operating systems, applications, and networks, email and web security, cryptography, public key infrastructures, operational security, and recovery of digital evidence (forensics). This course prepares students to take the CompTIA Security+ certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1263 or instructor approval.

CSYS 2503 - ASP.NET
3 Credits
This course will teach students how to use ASP.NET to create data driven web pages. Topics will include a brief overview of MS-SQL Server and Internet Information Server, creating web pages that dynamically display, insert, update, and delete records from a SQL Server database and use Crystal Reports to present data on a web page. Programming techniques are presented that enhance Rapid Application Development for web based programs. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2283 or instructor approval.

CSYS 2523 - Secure Electronic Commerce
3 Credits
This course provides general aspects of Internet security including websites, e-commerce and transactions. Topics covered are digital currency schemes, public key infrastructure, smartcards and biometrics, and inventory management. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2493, admission to the program and a criminal background check are required.

CSYS 2533 - Java Server Pages
3 Credits
This course prepares students to develop real world web applications using Java Server Pages (JSP). Students are introduced to the fundamentals of JSP technology with an emphasis on extensible and dynamic web applications that include the following: how to write Java Server Pages using Java Beans, how to submit and process HTML forms, how to write customized Tag Libraries which simplify web page maintenance, and how to write web applications that connect to a database. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1013, CSYS 2413, or instructor approval.

CSYS 2543 - Network Security
3 Credits
This course provides network security fundamentals. A layered defense for networks is examined including perimeter security, routers, VPNs, intrusion detection and assessment. The design of networks for maximum security, and how to monitor for unauthorized activity is studied. After an introduction to firewalls, packet filtering, and access lists, router setup is discussed with special-purpose firewalls, and general-purpose hosts with security in mind. Also coverage of network access and security as well as network troubleshooting are included. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2493, admission to the program and a criminal background check are required.

CSYS 2553 - Information Technology Services, Hospitality & Gaming Emphasis
3 Credits
Overview of computer system components, file structure, operating systems, word processing, spreadsheets, and databases utilized in the hospitality and gaming industries. Integrated applications between technology and communications, both written and oral, in the hospitality and gaming organizations. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or Computer Proficiency exam on file, any higher level CSYS or CSCI course with instructor approval.

CSYS 2563 - Enterprise Security
3 Credits
A broad view of information security for the entire organization from a management perspective. Topics include the history and development of computer and network security, system development life cycle, user needs, threats, attacks, risk analysis and management, legal & ethical issues, policy & procedure development, converged network security, cryptology, tools & techniques, physical security, operational security, implementation & administration, personnel security, contingency planning, incident handling and disaster recovery. Lecture 3 hours. No Laboratory. Prerequisite: CSCI 1203.

CSYS 2573 - Fundamentals of Videography
3 Credits
An introductory study in video techniques, basic equipment – including digital video camera operation - video, composition, basic lighting and audio, production planning and visual story telling. Lecture 2 hours. Laboratory 2 hours. Prerequisite: JRMC 1103 or instructor approval.

CSYS 2583 - Cyber Forensics
3 Credits
Students will learn how to recover, preserve, extract and analyze digital evidence from a variety of media, utilizing sound forensics techniques, which will stand up in court. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Admission to the Information Security program and an OSBI background check.

CSYS 2593 - Computer and Video Game Development II
3 Credits
A continuation of Computer and Video Game Development I. Among the topics to be covered: arrays, pointers, files, high-speed player input and the game design process. Topics will be covered using appropriate game development software and appropriate high-level programming languages. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Computer and Video Game Development I

CSYS 2633 - Systems Management Server
3 Credits
Course covers installation and configuration, to include: multiple sites, hardware/software inventory, distributing software, shared applications and remote diagnosis. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2643 - Database Design on MS SQL Server
3 Credits
Course covers modeling components, storage allocation, creating objects, data retrieval and manipulation, referential integrity, row operations and distributed data. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2653 - System Administration for MS SQL Server
3 Credits
Course covers installation and configuration, to include: storage management, user accounts, login security, permissions, import and export, replication and day to day operations. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2373 or coordinator approval.

CSYS 2673 - Adobe Illustrator
3 Credits
Key Illustrator concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis on Illustrator basics, the work area, selecting and aligning, creating shapes transforming objects, drawing with the pen tool, working with type, layers, brushes, and symbols; blending shapes and colors, applying effects, appearance attributes, and graphic styles; combining Illustrator graphics with the Creative Suite, printing artwork and producing color separations. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered spring semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 2683 - Adobe InDesign
3 Credits
Key InDesign concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on InDesign basics, the work area, setting up a document, working with frames, importing and editing text, working with typography, working with color and styles, importing and linking graphics, creating tables, working with transparency, working with long documents, output and PDF exporting and using XML. Students will be encouraged to obtain Adobe Certified Associates (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall semester only. Lecture 2 hours, Laboratory 2 hours. Prerequisites: CSCI 1203 or instructor approval.

CSYS 2703 - Computers in the Law
3 Credits
A beginning class covering the use of computer applications in legal organizations designed to introduce the use of computer software and hardware; word processing; databases; timekeeping and billing; docket control; case management; litigation support; computer-assisted research; courthouse-related applications; and specialized legal software. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSYS 2713 - Adobe Premiere
3 Credits
Key Premiere concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on Premiere basics such as working with audio, creating transitions, and producing titles; the ability to build Blu-Ray Disc, DVD, and Flash projects with Adobe Encore; the ability to record directly to computer with Adobe OnLocation; slow motion effects with time-remapping; and compressing video for handheld devices such as mobile phones, iPods, PSPs, and smartphones. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 and CSYS 1211 or instructor approval.

CSYS 2733 - Adobe Soundbooth
3 Credits
Key Soundbooth concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on Soundbooth basics, the work area, repairing and adjusting audio clips, editing and enhancing voice-over recordings, creating background music, exploring effects, working with markers, importing, exporting, and round-trip editing. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered spring semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 and CSYS 1211 or instructor approval.

CSYS 2753 - Adobe AfterEffects
3 Credits
Key AfterEffects concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on AfterEffects basics, the work area, creating a basic animation using effects and presets, animating text, working with shape layers, animating a multimedia presentation, animating layers, working with masks, distorting objects with the puppet tools, keying, performing color correction, building and animating a 3D object, using 3D effects, advanced editing techniques, and rendering and outputting. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered spring semester only. . Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 and CSYS 1211 or instructor approval.

CSYS 2763 - Digital Photography
3 Credits
The techniques and procedures of digital photography will be introduced. Working with digital cameras to input images into the digital environment and using Adobe Photoshop software, students will learn how to enhance, resize, and alter photographs while preparing them for print and online distribution. The integration of technical skills and aesthetic expression are emphasized. Projects require exploration and experimentation. Students must provide their own cameras. Offered fall and spring semesters. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1033 or instructor approval.

CSYS 2990 - Selected Topics in Computer Science
1-4 Credits
The study and/or analysis of a selected topic in Computer Science. May be repeated with a different topic. Lecture 1-4 hours and/or Laboratory 1-3 hours.

CSCI 0802 - Computer Concepts for the Deaf and Hard of Hearing
2 Credits
This course is designed to give students with a hearing loss the vocabulary and conceptual base necessary to succeed in college level computer classes, specifically introductory theory classes. Lecture 2 hours. No Laboratory.

CSCI 0811 - Computer Exploration for the Deaf and Hard of Hearing
1 Credit
This course is designed to introduce students to the Windows operating system and beginning word processing with Microsoft Word. An introduction to the Internet, Email, PowerPoint and Excel may be explored. May be repeated with a different topic. Lecture and Laboratory 1 hour.

CSCI 1011 - Introduction to Personal Computers
1 Credit
This class for the complete novice is designed to eliminate the fear of computers and introduce the Windows environment plus word processing, spreadsheet, and database programs. Hands-on sessions on the personal computer will help the student gain confidence in using the computer. Lecture and Laboratory 1 hour.

CSCI 1043 - TPF Operating System Concepts
3Credits
This course is a required prerequisite for any class using the TPF Operating System. This course will serve as an introduction to the TPF Real-Time Environment. It includes the design characteristics of TPF including the required hardware, the location and contents of main storage, the Online Database, and miscellaneous support utilities. This course will follow the processing flow from the original entry into the system until the response is sent back to the original terminal. Many operational entries are made to demonstrate various concepts as we progress through the course. Lecture 2 hours. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisite: Enrollment restricted to TPF majors.

CSCI 1083 - Using the TOOLKIT
3 Credits
This course explains the use of the TPF TOOLKIT Utility. This utility is the platform for creating source programs, compiling/loading the programs, and testing/debugging the programs. This course is a co-requisite for all classes using the TPF operating environment. Lecture 2 hours. Laboratory 2 hours. Prereuisite: Enrollment restricted to TPF majors.

CSCI 1093 - Basic Assembler Language
3 Credits
This course is both lecture and hands-on. This student will create, assemble, load, and test many programs using Assembler Language. The Assembler instructions include processing Binary, Packed Decimal, Character data, and even instructions working "bits". Instructions for normal program control are covered: if/then/else, how data is passed/returned to back the originating program. Lecture 2 hours and Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisites: CSCI 1043. Enrollment is restricted to TPF majors.

CSCI 1123 - 3D Graphics Using Lightwave
3 Credits
The study of terminology and principles relating to the creation of ray-traced images using Lightwave computer graphics software. Students will design and construct 3D objects with surface detail. Topics will include mapping textures, fundamental modeling tools, and techniques. Additional topics will include the use of 3D graphics within the web, multimedia, and digital video. Offered fall and spring semesters. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 and or CSYS 1033 or instructor approval.

CSCI 1133 - Advanced Assembler Language
3 Credits
This course is both lecture and hands-on. Topics include how to address data data fields/records in memory, how to use some more complicated assembler instructions, and how to send short messages to the terminal. All data will be in memory; there is no disk I/O involved. Lecture 2 hours. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerquisites: CSCI 1043 and CSCI 1093. Enrollment is restricted to TPF majors.

CSCI 1143 - Introduction to AS/400
3 Credits
The purpose of this course is to introduce the student to the AS/400 Programmer Option Certificate of Achievement. It will also be useful to Computer Integrated Manufacturing majors to introduce them to the computer used as the data repository for much of CIM. Topics introduced will include: AS/400 hardware, operating system software, menus, programming development manager, an introduction to RPG, messages, printing, physical files, source entry utility, an introduction to utilities and control language. There will be hands-on exercises in the lab part of the course. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203.

CSCI 1153 - Using TPF standard I/O Macros
3 Credits
This course is both lecture and hands-on. Topics include allocation and freeing of memory, and the following processing of data records: record length/contents, reading records, creating records, updating records, and record deletion. Also included is the processing of possible error conditions. Lecture 2 hours. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisites: CSCI 1043, CSCI 1093, and CSCI 1133. Enrollment restricted to TPF majors.

CSCI 1161 - Introduction to Internet
1 Credit
This course is designed to develop skills at locating and using the many resources that are available locally and globally through the Internet. This course will concentrate on hands-on experience with the various tools through structured tours as well as unstructured "hunts." Lecture and laboratory 1 hour. Prerequisite: CSCI 1011 or concurrent enrollment, or instructor approval.

CSCI 1171 - Introduction to Web Page Design
1 Credit
This course is intended to provide students with an overview of the tools available to design and develop an effective personal or corporate presence on the World Wide Web. This will be accomplished through the use of hands-on projects and exercises. Lecture and laboratory 1 hour.

CSCI 1193 - TPF ISOC Programming
3 Credits
This course is both lecture and hands-on. Topics include creating, compiling linkage edit, load, and test a C program to run in the TPF environment. Included are the linkages for C to Assembler and Assembler to C processing, editing the input messages, and displaying output messages. Lecture 2 hours. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisites: CSCI 1043 and CSCI 1183. Enrollment restricted to TPF majors.

CSCI 1203 - Computer Concepts and Applications
3 Credits
This is a theory/applications course. The theory introduces the role of computers in all aspects of global society including security issues. The applications segment utilizes Microsoft Windows, Word, Excel, Access, Power Point and the Internet to equip students with basic computer skills necessary for their academic and professional careers. It will serve as the first course to be taken by any computer science major, may satisfy a computer science requirement for another discipline, a university parallel transferable course and meets the computer proficiency requirements mandated by the Oklahoma State Regents for Higher Education. Lecture 2 hours. Laboratory 2 hours.

CSCI 1253 - Internet Research
3 Credits
An introduction to the basic tools of the Internet (ftp, gopher, telnet, WWW, searching, e-mail, etc.), discussion lists and newsgroups, research possibilities, and basic web page construction. Methods for efficiently locating specific information on the Internet will be emphasized. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or concurrent enrollment or instructor approval.

CSCI 1263 - Network Fundamentals
3 Credits
This first course in the network curriculum provides a general introduction to networking. Topics will include an overview of the hardware and software needed for network connectivity including personal computer operating systems, network media and topology, network card configuration and installation, communication protocols and standards. This course provides for hands-on interaction with network related hardware and software. The focus will include coverage of Comp TIA'S objectives for the Network + certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval. Recommended: CSYS 2023 and CSCI 2143.

CSCI 1273 - Customer Support
3 Credits
Designed to show how customer support positions provide guidance and assistance in both consulting and troubleshooting roles within a helpdesk environment. Guidance in educating the user community based upon current hardware/software products. Understanding the importance of developing a better understanding of a customer's business environment and troubleshooting/resolving the customer's problems as quickly as possible. Develop troubleshooting and problem solving techniques to distinguish between communication vs. equipment hardware/software problems and be able to effectively communicate with non technical users over the telephone. Lecture 3 hours. No Laboratory. Prerequisite: CSCI 1263.

CSCI 1283 - Adobe Flash
3 Credits
Key Flash concepts and techniques plus the more advanced features and tools in the latest version of the software will be covered. Emphasis will be placed on Flash basics, the work area, working with graphics, creating and editing symbols, working with text, adding animation, creating interactive files, ActionScript basics, using components, working with sound and video, loading and optimizing Flash content and publishing Flash documents. Students will be encouraged to obtain Adobe Certified Associate (ACA) and/or Adobe Certified Expert (ACE) status through industry certification. Offered fall and spring semesters. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSCI 1293 - 3D Animation Using Lightwave
3 Credits
The study of terminology and principles relating to the creation of ray-traced 3D animations using Lightwave computer graphics software on Macintosh platforms. Students will design and construct motion graphics for the web, multimedia, and digital video. Topics will include keyframe animation, animation using paths, and procedural animation techniques. Offered fall and spring semesters. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1123, or instructor approval.

CSCI 1363 - AS/400 RPG
3 Credits
RPG is used to teach the Report Program Generator language on the IBM AS/400. Programming assignments are from normal business applications. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203, CSCI 1143, or instructor approval.

CSCI 1403 - BASIC Language
3 Credits
Interactive ANSI standard BASIC is presented along with extensions that have widespread application. The student will write, execute, test, and debug programs drawn from a variety of disciplines using loops, subroutines, table handling, sequential file processing, and other fundamental programming techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 and CSYS 1203 or instructor approval.

CSCI 1463 - Disk Operating Systems
3 Credits
An in-depth study of a microcomputer operating system. Emphasis will be placed on command line operations and learning the proper syntax for commands, including keywords, parameters, and switches and their proper usage, both at the command line and batch files. Other major concepts will include configuration and management of disks, file management, memory configuration and optimization, system troubleshooting, and use of an edit program. Additional operating concepts and examples from Graphical User Interface based operating systems may be covered at the instructor's option. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203.

CSCI 1473 - Software Utility Packages for Microcomputers
3 Credits
Provides the microcomputer user with a working knowledge of commonly used utility software packages. Several industry standard application software packages will be used to demonstrate enhanced memory and disk management. Critical issues like operating system add-on's and virus protection will also be discussed. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1463.

CSCI 1483 - Introduction to UNIX (Linux)
3 Credits
An introduction to UNIX operating system with specific reference to UNIX commands, the UNIX file structure, editors, and shell programming. Includes an introduction to system administration and security. Lecture 2 hours, Laboratory 2 hours. Prerequisites: CSCI 1203 or instructor approval.

CSCI 1493 - AS/400 CL
3 Credits
Introduction to IBM AS/400 Control Language. Overview of operating system. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203, CSCI 1143 or instructor approval.

CSCI 1501 - Disk Operating System 1 Credit
This course concentrates on disk storage organization, batch file operation, and utilities provided by the popular Microsoft Disk Operating System (DOS). Emphasis is placed on device and file naming conventions, system functions, commands, and the hardware interface enabling students to effectively create and manage files, execute programs, and manage logically related data. Lecture and Laboratory I hour. Prerequisite: CSCI 1011.

CSCI 1511 - Beginning Visual BASIC
1 Credit
This is a hands-on course which is designed to introduce students to fundamental principles of programming using Visual BASIC. Several simple programs will be written to illustrate the use of commonly used Visual BASIC commands. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1011 and CSCI 1501.

CSCI 1521 - PC Setup and Configuration
1 Credit
This course is designed to help individuals maintain or upgrade their computers and diagnose a problem if one should arise. Peripheral devices will be discussed from a compatibility and capability standpoint. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011.

CSCI 1531 - Introduction to Excel
1 Credit
This course is designed for the beginning spreadsheet student. Instruction will focus on the set-up and elementary operations of using and building spreadsheets and workbooks. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011 or CSCI 1641 or instructor approval.

CSCI 1541 - Advanced Excel
1 Credit
A brief review of the basic spreadsheet operations will be covered. Emphasis will be on data commands and shortcuts. Add-In options and macros will be discussed. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1531 or CSCI 1203 or instructor approval.

CSCI 1551 - Introduction to Word
1 Credit
This course is designed for the beginning word processing student. Instruction will focus on the set-up and elementary operations of creating and using documents. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011 or CSCI 1641 or instructor approval.

CSCI 1561 - Advanced Word
1 Credit
A brief review of the basic word processing operations will be covered. Emphasis will be on assembly and merging documents. There will be discussion on shortcuts, styles, macros, and creating templates. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1551 or CSCI 1203 or instructor approval.

CSCI 1571 - Introduction to Access
1 Credit
This course is designed for the beginning database student. Instruction will focus on the set-up and elementary operations of creating and using a database. Queries and reports will be generated. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011 or CSCI 1641 or instructor approval.

CSCI 1581 - Advanced Access
1 Credit
Programs illustrating record management, multiple file handling, and menu driven systems will be written. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1571 or CSCI 1203 or instructor approval.

CSCI 1601 - Introduction to Integrated Software
1 Credit
This course is designed for the student who wants to manipulate word processing, spreadsheet, database, and graphics packages easily. Instruction will focus on the common tools of these packages. Integration will be demonstrated. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011 and CSCI 1641 or CSCI 1203.

CSCI 1641 - Windows
1 Credit
This course is a hands-on introduction to the Windows operating system. The student will learn how to set-up and configure the Windows environment plus launch and run multiple applications. Many of the basic features and operations that are performed in most Windows applications will be demonstrated and practiced. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011.

CSCI 1663 - TPF/DF Database Facility
3 Credits
This course is both lecture and hands-on. Topics include added fields in the data records to support the Database Facility, opening and closing sub-files, the System Work Block and its contents, macros to read, write, create, delete, and update records. The concept of logical record processing with keys is a majot portion of this course. Lecture 2 hours. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisites: CSCI 1043, CSCI 1093, CSCI 1133, and CSCI 1153. Enrollment restricted to TPF majors.

CSCI 1671 - Beginning Network Administrator
1 Credit
This course will consist of a lecture/lab combination to acquaint students to a network environment and to provide basic entry level skills to become a network administrator. Hands-on exercises will allow the students to become familiar with a network operating system's management utilities. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1501 or instructor approval.

CSCI 1681 - Advanced Network Administrator
1 Credit
This course will be a continuation of CSCI 1671 and will build on the concepts and assignments previously presented. Advanced network commands and utilities will be demonstrated to further supplement the skills required by a network administrator. Directory structures, security, printing, and network administration will be covered. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1501 and CSCI 1671.

CSCI 1692 - TPF ISOC with TPF/DF Functions
2 Credits
This course is both lecture and hands-on. Topics include data records using the C language and the TPF/DF Database Facility for the disk I/o. Lecture 1 hour. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisites: CSCI 1043, CSCI 1183, CSCI 1193, and CSCI 1663. Enrollment restricted to TPF majors.

CSCI 1702 - TPF ISOC with Standard I/O Functions
2 Credits
This course is both lecture and hands-on. Topics include processing data records using IBM Assembler Language and TPF/DF Database Facility for the disk I/O. Lecture 1 hour. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisite: CSCI 1043, CSCI 1093, CSCI 1133 and CSCI 1153. Enrollment restricted to TPF majors

CSCI 1711 - Introduction to PowerPoint
1 Credit
This course is designed for the beginning student. Instruction will be on developing slide presentations, speaker notes, handouts and flyers. Guidelines for effective presentation will be discussed. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1011 and CSCI 1641 or CSCI 1203.

CSCI 1721 - Applied Integrated Software
1 Credit
The student must have basic integrated spreadsheet knowledge. The study of the integration of the functions of the package including the development and use of charts will be provided through lecture and lab activities. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1601.

CSCI 1733 - AS/400 Operation and Utilities
3 Credits
An interactive study of the physical operations and utilities of the IBM AS/400. Emphasis will be on controlling the operations of the entire system, i.e., device configuration and communications, working with subsystems and jobs, handling messages and printer output, implementation of system backup and restore procedures, networking in a client/server environment, and working knowledge of commonly used utilities. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1143 or instructor approval.

CSCI 1741 - Advanced Integrated Software
1 Credit
This course is a continuation of CSC1601. The student will learn advanced Word software techniques. PowerPoint skills will be developed to aid the student in presenting information including spreadsheet data. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1601 and CSCI 1721.

CSCI 1762 - TPF Utilities
2 Credits
This course is both lecture and hands-on. Topics include using memory resident data fields/records, increase processing throughout using coupled TPF processors, processing tapes, and detailed processing of how the system performs disk I/O program interrupts. Lecture 1 hour. Laboratory 2 hours. Co-requisite: CSCI 1083. Prerequisites: CSCI 1043, CSCI 1093, CSCI 1133, and CSCI 1153. Enrollment restricted to TPF majors.

CSCI 1801 - Advanced DOS
1 Credit
This course is a hands-on continuation of CSCI 1501, Disk Operating System. Hard disk management, memory management, batch files, system configurations, and DOS shells and editors will be covered through in-depth lecture and hands-on exercises. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1011 and CSCI 1501.

CSCI 1811 - PC Utilities
1 Credit
This course is designed for the experienced DOS user. This course teaches the student how to optimize and manage a PC's hard disk. Elements of the microcomputer's architecture and configuration will be discussed. Typical utility packages also will be discussed and demonstrated, such as RAM resident programs, diagnostics utilities, desktop organizers, print spoolers, public domain tools, and backup methods. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1011 and CSCI 1501.

CSCI 1821 - Introduction to PC Communications
1 Credit
This course provides an introduction for microcomputer users to the fundamentals of data communication, hardware, software networks, and E-mail. Demonstration, discussion, and hands-on exercises emphasize telecommunications and applications, including use of modems and popular software to connect with RBBS's and on-line services. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1011 and CSCI 1501.

CSCI 1861 - Introduction to Object Oriented Programming
1 Credit
This is a hands-on course which is designed to introduce students to an industry standard object oriented programming language. Exercises and lecture will concentrate on teaching the features of an object oriented package through developing several simple applications. It will be helpful if the student is already proficient in at least one programming language. Lecture and Laboratory 1 hour. Prerequisites: CSCI 1011 and CSCI 1501.

CSCI 1901 - Beginning UNIX (Linux)
1 Credit
A practical introduction to the UNIX operating system, with emphasis on creating and manipulating files and using basic commands. Includes an introduction to shell programming. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1011 or instructor approval.

CSCI 1911 - Intermediate UNIX (Linux)
1 Credit
Continued coverage of the UNIX operating system, including more commands and further work with file editing and shell scripts. Program development is also covered. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1901 or instructor approval.

CSCI 1921 - UNIX (Linux) AWK Programming
1 Credit
This course provides instruction in the AWK programming language. Programs that interact with files and devices will be created and implemented. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1911 or instructor approval.

CSCI 1931 - Graphical User Interfaces Using X Window
1 Credit
This course covers the design and creation of graphical user interfaces, with emphasis on the current standards of window layouts. The X Window system will be used to implement the interfaces. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1911 or instructor approval.

CSCI 1941 - Client/Server Computing
1 Credit
This course provides instruction in the set-up and operation of a distributed system in a UNIX network environment. It covers both the Remote Procedure Call (RPC) interface and file sharing utilities. Lecture and laboratory 1 hour. Prerequisite: CSCI 1911 or instructor approval.

CSCI 1951 - Advanced UNIX (Linux)
1 Credit
This class covers advanced user techniques. Emphasized are shell-scripting techniques, security, process and memory control, and networking. Also covered are backups and file management, communication, and specialized tools. Lecture and laboratory 1 hour Prerequisites: CSCI 1911 or instructor approval.

CSCI 1961 - Using a Network
1 Credit
Practical application of a major Network operating system as it relates to users of the network. The student will learn the capabilities and limitations of a network. Hands-on experience with an operational network operating system is provided. Courses may be repeated with a different network operating system. Lecture and Laboratory 1 hour. Prerequisite: CSCI 1671 or instructor approval.

CSCI 2013 - Word
3 Credits
This course offers an in-depth coverage of the concepts and techniques required to create complex documents for business use and to assist in the preparation for the Microsoft Office Specialist Word expert exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSCI 2033 – Excel
3 Credits
This course provides an in-depth coverage of the concepts and techniques required to use a spreadsheet to express, analyze, and solve business-related problems and to assist in the preparation for the Microsoft Office Specialist Excel expert exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSCI 2043 - Access
3 Credits
This course covers the topics required to create, update, and query a database and generate reports and to assist in the preparation necessary for the Microsoft Office Specialist Access core exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSCI 2053 - NOVELL Network Administration
3 Credits
This course is an introduction to Novell Network Administration. Topics will include installation and configuration of server software with an emphasis on the management and administration of user hardware and software resources. Hands-on application of network administration principles on an operational network is provided. The focus will include coverage of Comp TIA's objectives for the server + certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1263 or instructor approval.

CSCI 2072 - Network Seminar
2 Credits
Study of network related concepts from current literature and periodicals to keep up with the changes in this fast paced field. The course will familiarize the student with research methods and sources for ongoing self study. Sources include: trade periodicals, vendor brochures and spec. sheets, current books, tours, demonstrations, and guest speakers. Course may be repeated. Lecture 1 hour. Laboratory 2 hours. Prerequisite: CSCI 1263 or instructor approval.

CSCI 2083 - AS/400 Advanced CL
3 Credits
Continuation of CSCI 1493, Introduction to AS/400 Control Language. Additional Control Language instruction in the AS/400 operating system. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1363, CSCI 1493, and CSCI 2113.

CSCI 2103 - Networking Technologies
3 Credits
A continuation of network fundamentals and administration expanded to the Wide Area Network (WAN) environment. Topics to include Internet and Intranet connectivity on a variety of platforms (routers, bridges, and gateways to hosts); including an exploration of network protocols with the emphasis on Transmission Control Protocol/Internet Protocol (TCP/IP). Hands-on application of the hardware and software relevant to wide area connectivity will be provided whenever possible. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2053 or permission from the instructor.

CSCI 2113 - AS/400 Advanced RPG
3 Credits
Continued instruction in RPG Language. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1363.

CSCI 2123 - Microcomputers for Teachers
3 Credits
This course will cover how to select a microcomputer for the classroom, evaluating existing instructional programs (software), and learning to develop your own course material. This hands-on course will provide teachers the opportunity to acquire experience in entering and executing programs on the microcomputer. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1011.

CSCI 2133 - Introduction to JAVA
3 Credits
An introduction to how Java language is used to develop highly portable applications and applets. Topics will include data objects exceptions, threads, and the Abstract Windows Toolkit. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1203 and CSCI 2473 or CSCI 2843 or instructor approval.

CSCI 2143- - A+ IT Technician
3 Credits
The second of the A+ courses deals with more in-depth technical aspects of hardware and software troubleshooting and security issues, soft skills and office communication, as well as some basics on electricity and safety procedures. Students familiar with computer technology, but unfamiliar with service communication, delve deeper into the proper methods of assisting customers, coworkers, and superiors. As the Comp TIA exam is modified to meet industry needs, this course will also be modified to cover the new topics in the exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSC1203 or instructor approval.

CSCI 2153 - Microcomputer to Mainframe Communications
3 Credits
This course will discuss the various protocols, cabling, expansion cards, and trade-offs in connecting microcomputers to mainframe computers. The lab work will be to connect one or more types of microcomputers to a mainframe computer, including installation, cabling, software installation, and troubleshooting and diagnostics. Lecture 2 hours. Laboratory 2 hours. Prerequisites: MATH 1513, CSCI 1203, CSCI 1463, CSCI 2203, CSCI 2433, and CSCI 2353.

CSCI 2163 - Windows Operating Systems
3 Credits
This course covers a state-of-the-art operating system environment. Major areas to be studied will include coverage of installation procedures, customizing desktops, security issues, file management, network/internet connectivity, managing programs/hardware/digital media, maximizing performance, and some troubleshooting techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203.

CSCI 2203 - Data Communications
3 Credits
This course serves as an introduction to the complex and extensive field of data communications in a cross-platform environment. Concepts and terminology associated with networks, protocols, equipment and applications are presented. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 and a 3 credit hour computer programming language course.

CSCI 2233 - AS/400 RPG IV ILE
3 Credits
The RPG IV programming language presented on the AS/400 platform covering the following: Creation, syntax & processing of physical files, display files, logical files, subfiles, and printer files using the SEU, DFU, PDM & SDA in both batch & interactive environments. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 2113.

CSCI 2243 - Network Design and Troubleshooting
3 Credits
Planning, analysis, design, and installation of a network will be discussed; students will design networks for a variety of situations. Problems common to networks will be integrated into the course. Troubleshooting methods and procedures will be discussed. Hardware and software to aid with problem identification and resolution will be discussed and demonstrated where possible. The focus will include coverage of Comp TIA's objectives for the Server + certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 2063, CSCI 2053, and CSCI 1263 or permission of the instructor.

CSCI 2253 - Network Programming
3 Credits
Programming considerations and applications as they apply to network operating systems. The course will include writing programs that will be run in a network environment and developing program applications specific to the network. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1203 and CSCI 1593 and CSCI 1403 or CSCI 1443 or CSCI 2303 or CSCI 2473, or one year of experience with one of these programming languages, or permission of the instructor.

CSCI 2263 - Digital Video I/Final Cut Pro
3 Credits
A general overview of digital video editing. Students will gain hands on experience in video capture and editing using Final Cut Pro nonlinear video editing software on Macintosh platforms. Offered fall semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1211 and CSYS 2573 or JRMC 1303 or instructor approval.

CSCI 2273 - Digital Video II/ Final Cut Pro
3 Credits
An in depth continuation of CSCI 2263 where students will integrate graphics, audio, animation, and special effects into digital video projects. Students will use Final Cut Pro editing software on Macintosh platforms. Offered spring semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2263 or instructor approval.

CSCI 2283 - Visual Basic
3 Credits
The Visual Basic language is presented with the students creating applications that will run in the Windows environment. Topics include event processing techniques, incorporating GUI objects and menus into an application and discussion of application specific commands and functions. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1203 and CSCI 1403, CSCI 1463, CSCI 1641 or CSCI 2163 or instructor approval.

CSCI 2293 - AS/400 Networking
3 Credits
Discuss the different types of Local Area Network (LAN), Token Ring, Ethernet, and PC support as used with an AS/400. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1733 and CSCI 2193.

CSCI 2303 - PASCAL
3 Credits
The PASCAL language is presented with the students writing, compiling, debugging, executing, and testing PASCAL programs drawn from a variety of disciplines. Students should have a working knowledge of the operating system in which they will be interacting. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1203 and CSYS 1203 or instructor approval.

CSCI 2333 - Systems Analysis and Design
3 Credits
An overview of the entire system development life cycle with a more detailed discussion of the analysis and design phases. Topics include: fact gathering techniques, communication skills, project management, feasibility analysis, and data flow diagrams. Lecture 3 hours. No Laboratory. Prerequisites: CSYS 1203 or CSCI 1403 or instructor approval.

CSCI 2433 - Telecommunication Systems
3 Credits
A study of the concepts involved in the design, implementation, and utilization of systems transmitting information between a computing system and remotely located sending and receiving devices. Lecture 3 hours. No Laboratory. Prerequisite: CSCI 2333.

CSCI 2473 - C Language
3 Credits
The C programming language is presented with emphasis on applications as a portable, "mid-level" language. The student will write several programs utilizing the important features of C such as functions, structures, pointers, recursion and bit-operations. Students should have a working knowledge of the operating system in which they will be interacting. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1203 or CSCI 1403 or CSCI 2303 or instructor approval.

CSCI 2483 - PowerPoint / Multimedia
3 Credits
This course provides comprehensive coverage of the concepts and techniques to create presentations suitable for professional purposes, to understand the underlying functionality of presentation software, and to assist in the preparation for the Microsoft Office Specialist PowerPoint comprehensive exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

CSCI 2653 - Database for UNIX (Linux) Systems
3 Credits
An introduction to UNIX database software including how to create, update, and query a database, generate reports, set up a command file, and organize a database. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1483 and a 3-credit hour programming class, or instructor approval.

CSCI 2673 - Advanced PASCAL
3 Credits
Advanced programming concepts and techniques using the PASCAL programming language. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2303 or instructor approval.

CSCI 2683 - Data Structures
3 Credits
Advanced programming techniques and concepts using the C programming language. Topics will include algorithm analysis and design, memory management, software engineering concepts and standard data structures including linked lists and binary trees. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2473 or instructor approval.

CSCI 2753 - Introduction to Networking
3 Credits
This course is designed for the student majoring in microcomputer programming, microcomputer software applications, or mainframe programming. It provides an overview of networks in a computer environment. Topics will include installation and configuration of software and hardware components of a network, typical network configurations, and file and software sharing. Hands on experience will be provided on a typical network in the lab. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1463 or instructor approval.

CSCI 2773 - Advanced Database for UNIX (Linux) Systems
3 Credits
Continued instruction in the creation and use of UNIX databases, including performance improvement techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2653.

CSCI 2783 - Advanced UNIX (Linux)
3 Credits
Continued instruction in the UNIX operating system, including system administration functions. Emphasis will be placed on setting up and maintaining file systems, networks, devices, and users. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1483 or instructor approval.

CSCI 2793 - UNIX (Linux) Programming
3 Credits
This course provides instruction in the various programming methods available with UNIX, including advanced shell scripts, awk, sed, C, make files, and SCCS. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 1483 and CSCI 2473, or instructor approval.

CSCI 2803 - UNIX (Linux) Networking
3 Credits
A study of networking and distributed processing in the UNIX environment. Topics covered include TCP/IP, UUCP, Network File System (NFS), and electronic mail. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2783 or instructor approval.

CSCI 2823 - UNIX (Linux) Programming in C
3 Credits
An advanced programming class utilizing Inter Process Communications (IPCs) and system calls. An in-depth review of device driver programming will be done. Device drivers will be among the programs created. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 2683 and CSCI 2783 or instructor approval.

CSCI 2833 - X Window Programming
3 Credits
This course provides in-depth coverage of the X Window system. Students will learn the X protocol and how to design and develop Graphical User Interface (GUI) programs. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSCI 2683 and CSCI 2783 or instructor approval.

CSCI 2843 - C+ + Programming Language
3 Credits
Programming techniques in object-oriented programming, including data abstraction, inheritance, polymorphism, and dynamic object creation. Emphasis will be placed on the reusability of objects and the focus on object concepts as they deal with future program maintenance. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSYS 1203 and CSCI 2473 or instructor approval.

CSCI 2863 - PowerBuilder
3 Credits
This course is designed to teach students how to use PowerBuilder to develop Windows based client/server business applications. The PowerBuilder application systems tools and object oriented controls and language will be used to create robust event driven programs. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2163.

CSCI 2873 - Advanced C+ +
3 Credits
This course is intended to strengthen a student's ability to design an object oriented system and implement that system on a Windows based platform. The class will concentrate on conforming to industry-standard user and system interface guidelines to build potentially commercial level products. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2843 or instructor approval.

CSCI 2893 - Advanced Visual Basic
3 Credits
This course provides continued instruction in Visual Basic using advanced object oriented programming techniques. Subject matter includes classes, ADO database connectivity, SQL, ASP, and various web service topics. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 2283 or instructor approval.

CSCI 2903 - C Language for TPF Majors
3 Credits
The C programming language (for TPF majors) is presented with emphasis on applications as a portable,"mid-level" language. The student will write several programs utilizing the important features od C such as functions, structures, pointers, recursion, and bit-operations. Students should have a working knowledge of the operating system in which they will be interacting. This class uses the PC for all programming. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1203 or CSCI 1403 or CSCI 2303 or instructor approval. Enrollment restricted to TPF majors.

CSCI 2953 - Analysis/Solution Architecture
3 Credits
This course is designed to help prepare for the Solution Architecture component of the Microsoft Certified Solutions Developer certification exam. Topics include how to gather, analyze, and present business processes and requirements and the use of appropriate Microsoft® Solutions Framework (MSF) models and processes to create conceptual, logical and physical designs for a business solution. Students will learn how to select suitable technologies and architectures for their solution, based on trade-off analysis. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 2903, CSYS 2913 or instructor approval.

CSCI 2973 - Digital Media Internship
3 Credits
Expands the Digital Media Program, offering internship as a means to provide students with hands-on learning and working experience in their chosen specialty options of Adobe Master Design Specialist, Digital Media Specialist, or Web Design Specialist. Offered fall and spring semesters. Initiation of the application process with the program coordinator or Associate Dean. No Lecture. Laboratory 12 hours.

CSCI 2990 - Selected Topics in Computer Science
1-4 Credits
The study and/or analysis of a selected topic in Computer Science. May be repeated with a different topic. Lecture 1-4 hours. Laboratory 1-3 hours.

CONSTRUCTION TECHNOLOGY
(See Civil Engineering/Surveying Technology Program)

CSTR 2103 - Introduction to Construction Management
3 Credits
An introduction to the skills, knowledge, tools and techniques needed for successful management of projects from the prospective of the construction contractor. Lecture 3 hours. No Laboratory.

CSTR 2123 - Construction Drawings and CAD
3 Credits
Interpretation and production of construction drawings, including architectural and civil engineering drawings using computer aided drafting software and techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DRFT 1363.

CSTR 2163 - Construction Cost Estimating
3 Credits
Calculations and computer techniques for quantity takeoffs, material requirements and labor for estimating costs of construction. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSTR 2123.

CSTR 2183 - Construction Codes and Practices
3 Credits
An introduction to building codes, regulations and OSHA safety requirements affecting the construction industry. Commonly used practices and techniques in construction. Lecture 3 hours. No Laboratory. Prerequisite: CSTR 2103.

CSTR 2213 - Construction Planning and Scheduling
3 Credits
Methods of scheduling including Gantt charts and critical path methods; development of work breakdown structures; computer techniques using construction industry software. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSTR 2103 and concurrent enrollment in or completion of CSTR 2183.

CRIMINAL JUSTICE

CRIM 1013 - Introduction to Criminal Justice
3 Credits
An examination of the historical development of law enforcement. Fundamental functions of federal, state, and local law enforcement agencies. The trend toward professionalism. Lecture 3 hours. No Laboratory.

CRIM 1213 - Police Fundamentals
3 Credits
Theory and basic knowledge necessary to enable a beginning peace officer to perform field services. Emphasis on authority, ethics, arrest, evidence, public relations, preventive patrol, crimes, and basic criminal procedure. Lecture 3 hours. No Laboratory. Prerequisite: State certification as peace officer.

CRIM 1253 - Police Methods and Equipment
3 Credits
Methods and equipment necessary to enable a beginning peace officer to perform field services. Lecture 3 hours. No Laboratory. Prerequisite: State certification as peace officer.

CRIM 2023 - Traffic Investigation
3 Credits
A study of traffic enforcement, education, and engineering with primary emphasis on techniques, traffic accident investigation analysis, and selective enforcement. Lecture 3 hours. No Laboratory. Collegiate officer program only. Prerequisite: LENF 1023.

CRIM 2063 - Law Enforcement Supervision
3 Credits
The essentials of supervision with primary emphasis toward the supervisor's role in planning, budgeting, training, methods of improving leadership, and awareness of the managerial role. Lecture 3 hours. No Laboratory.

CRIM 2103 - Criminal Evidence
3 Credits
The law, rules, and kinds of evidence. Admissible evidence for criminal prosecution. Lecture 3 hours. No Laboratory.

CRIM 2113 - Criminalistics
3 Credits
Basic criminalistics designed to develop proficiency in the scientific detection, collection, and preservation of evidence in criminal investigation. Forensic science from a practical, rather than theoretical point of view. Lecture 3 hours. No Laboratory. Prerequisite: CRIM 1013.

CRIM 2123 - Criminal Law I
3 Credits
An examination of the nature of the criminal act. Classification of crimes, necessary elements, and defenses. Consideration of the effects of case decisions on criminal law. Lecture 3 hours. No Laboratory.

CRIM 2133 - Introduction to Crime Scene Investigation
3 Credits
This course is designed to familiarize the student with the collection of physical evidence at the scene of the crime. The course will emphasize the crime scene search, the recognition of physical evidence, the techniques and methods for collection, preservation and transmission for laboratory analysis of visible and latent evidence. Lecture 3 hours. No Laboratory.

CRIM 2143 - Criminal Law II
3 Credits
The substantive criminal law defining common law and statutory offenses and punishments. Lecture 3 hours. No Laboratory. Prerequisite: CRIM 2123.

CRIM 2183 - Police Equipment and Weapons
3 Credits
A study of the various types of equipment and weapons used in law enforcement. Lecture 3 hours. No Laboratory.

CRIM 2213 - Interrogation Techniques
3 Credits
Basic fundamentals of proper techniques of interrogation, interview, case preparation, and courtroom testimony. Lecture 3 hours. No Laboratory.

CRIM 2223 - Criminal Procedures I
3 Credits
The control machinery of criminal law from investigation to pardon. Problems incident to investigation, search and seizure, arrest, trial, judgment, and disposition of persons suspected and/or accused of criminal acts. Lecture 3 hours. No Laboratory.

CRIM 2333 - Criminal Procedures II
3 Credits
A hybrid course presented in lecture, independent and on-line study requiring service learning/internship in a field-study environment. The course includes review and preparation of common documents in law enforcement including a case report, affidavit of probable cause, and a search warrant with accompanying documents. Lecture 3 hours. No Laboratory. Prerequisite: CRIM 2223 or concurrent enrollment.

CRIM 2990 - Selected Topics in Criminal Justice
1-4 Credits
The study and/or analysis of a selected topic in Criminal Justice. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

DEAF AND HARD OF HEARING COURSES

Tulsa Community College offers specialized courses for the deaf and hard of hearing in the following subjects, each of which has its own category heading and course prefix numbers: English, Math, Computer Science, Sign Language and personal development. These courses are listed in alphabetical order within their discipline. For more information please refer to the Student Services section of this catalog.

DENTAL ASSISTING

DAST 1124 - Dental Assisting Introduction
4 Credits
An overview of dental specialties which include all the dental team members, reviewing educational requirements, responsibilities, and job duties. Lecture 3 hours. Laboratory 2 hours.

DAST 1133 - Dental Anatomy and Physiology
3 Credits
A study in the structures of the head and neck, including tooth anatomy and morphology. The course focuses on preventive dentistry with an emphasis on disease transmission and pathology. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DAST 1124.

DAST 1231 - Office Procedures
1 Credit
The course provides an overview of general office procedures. Manual procedures and dental computer software will be utilized. Lecture 1 hour. No Laboratory.

DAST 1242 - Operative Chairside Procedures I
2 Credits
Course covers theory and clinical practice of concepts and methods used in infection control, rotary and dental hand instruments, pharmacology and pain control, oral evacuation, instrument transfer, dental materials, restorative dental procedures and the dental operatory. Lecture 1 hour. Laboratory 2 hours.

DAST 2344 - Operative Chairside Procedures II
4 Credits
Course covers theory and clinical practice in the use of dental materials, restorative dental procedures, and the dental operatory. Students will also practice oral screening exams and dental charting. Lecture 3 hours. Laboratory 2 hours.

DAST 2432 - Radiology and Laboratory Techniques
2 Credits
A study of physical and chemical properties of x-radiation. Clinical/practical experience in techniques, processing, evaluation, and care of equipment. Practical laboratory topics include theory and fabrication of diagnostic casts, custom trays, elastrometric impressions, and crown and bridge. Lecture 1 hour. Laboratory 2 hours.

DAST 2444 - Clinical Dental Assisting
4 Credits
Course offers clinical dental experience working in a dental office with professional staff, and the application of dental assisting knowledge and objectives in a clinical setting. No Lecture. Laboratory 8 hours.

DENTAL HYGIENE
(A student must be admitted into the Dental Hygiene Program and remain a student in good standing before enrolling in any course within the discipline.)

DHYG 1012 - Dental and Oral Anatomy
2 Credits
This course includes anatomy of the oral structures, tooth morphology, dental anomalies, and physiology of occlusion. Lecture 1 hour. Laboratory 2 hours. Prerequisite: BIOL 1314.

DHYG 1022 - Head and Neck Anatomy
2 Credits
Gross anatomy of the head and neck with emphasis on osteology, circulation, innervation and musculature as these structures relate to the clinical practice of dental hygiene. Lecture 2 hours. No laboratory. Prerequisite: BIOL 1314.

DHYG 1303 - Oral Embryology and Histology
3 Credits
Embryonic development and microscopic anatomy of human body systems with emphasis on the oral structures. Lecture 3 hours. No Laboratory. Prerequisite: BIOL 1314.

DHYG 1333 - Pathology
3 Credits
This course provides an overview of the principles of general pathology, the study of pathology of organ systems of most importance to the dental hygienist and an in-depth study of pathology of the head, neck, and oral structures. The course includes the etiology of disease, host responses of inflammation, repair and immunology, and common clinical features of disease. It emphasizes visual differentiation between normal and abnormal tissues and conditions. Lecture 3 hours. No Laboratory. Prerequisites: DHYG 1303 and DHYG 1314.

DHYG 1353 - Periodontology
3 Credits
This course is designed to provide the student with a thorough understanding of the role of the dental hygienist in the treatment of periodontal disease. The normal periodontinum, pathogenesis and etiology of periodontal disease will be reviewed. This course also includes host response and periodontitus as a manifestation of systemic diseases along with incorporating an evidence-based approach to periodontal care. Assessment, planning implementing and maintenance strategies for the prevention and treatment of periodontal diseases are also presented. Lecture 3 hours. No Laboratory. Prerequisites: DHYG 1303, DHYG 1363. Corerequisite: DHYG 1394.

DHYG 1363 - Dental Hygiene Theory I
3 Credits
Introduction to the dental hygiene profession. Principles of ethical and professional behavior are presented along with professional responsibility. This course includes dental terminology, basic principles of infection control (standard precautions), concepts of oral hygiene and disease prevention, patient health education, dental deposits and their significance in oral disease. Introduction to oral inspection procedures (extra/intra oral examination, examinations of teeth and surrounding periodontal structures) along with obtaining medical/dental histories and vital signs are also presented. Lecture 3 hours. No laboratory. Prerequisites: CHEM 1124, BIOL 1314, BIOL 1323. Corequisite: DHYG 1382.

DHYG 1373 - Dental Hygiene Theory II
3 Credits
This course includes an overview of dental specialties; procedures for emergencies; concepts of planning dental hygiene care for the child, adolescent, adult, and geriatric patients along with patients who have special needs. Also included in this course are the rationale and the use of instrument sharpening, tobacco use cessation, the ultrasonic scaler, and the air polisher. Lecture 3 hours. Laboratory 1 hour. Prerequisites: DHYG 1363, DH1382; Corequisite: DHYG 1394.

DHYG 1382 - Clinical Dental Hygiene I
2 Credits
This course includes the preclinical experience designed to develop thorough and efficient dental instrumentation techniques for comprehensive oral hygiene services. It includes clinical concepts of patient education and treatment, the setup and care of equipment and instruments, aseptic technique and the prevention of disease transmission, taking medical/dental histories and vital signs, inspection of oral hard and soft tissues, dental charting procedures, and instrumentation skills. Preclinical experience will be gained through mannequins and student partner practice. Materials fee required. No lecture. Laboratory 12 hours. Prerequisite: Basic Life Support for Health Care Providers. Corequisite: DHYG 1363.

DHYG 1394 - Clinical Dental Hygiene II
4 Credits
Focus will be on the application of treatment concepts into clinical skills and techniques. Emphasis on integrating knowledge into individualized treatment plans for patient motivation/education, using charting/data gathering skills, data processing support, instrumentation skills, selection of appropriate oral health products, ultrasonic utilization, desenitization lab, administration of local anesthesia, nitrous oxide/oxygen analgesia along with fluoride applications. Materials fee required. No Lecture. Laboratory 16 hours. Prerequisites: DHYG 1382, Basic Life Support for Healthcare Providers. Corequisite: DHYG 1373.

DHYG 1412 - Dental Radiography Foundation
2 Credits
A study of physical and chemical properties of X-radiation, biological effects of X-rays, materials and procedures. Lecture 2 hours. No Laboratory. Corequisite: DHYG 1421.

DHYG 1421 - Dental Radiography Techniques
1 Credit
The student will receive practical experience in radiography techniques, processing, evaluation, and interpretation, care of equipment, radiation safety and infection control. No Lecture. Laboratory 3 hours. Corequisite: DHYG 1412.

DHYG 1512 - Dental Pain Management
2 Credits
Introduction to dental pain management therapies with emphasis on administration of Nitrous Oxide/Oxygen sedation and local anesthesia. Lecture 1 hour. Laboratory 3 hours. Prerequisites: CHEM 1124, Basic Life Support for Healthcare Providers. Corequisite: DHYG 1532.

DHYG 1532 - Dental Hygiene Pharmacology
2 Credits
This course includes an introduction to the basic principles of drug actions and interactions, emphasizing dental-related therapeutics and drugs associated with common system disorders. Also included in this course are the indications and procedures for use of emergency drugs that are commonly used in dentistry. Lecture 2 hours. No Laboratory. Prerequisite: CHEM 1124.

DHYG 2022 - Special Needs/Geriatrics
2 Credits
Focus is on the management of those patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment for those individuals. These individuals include, but are not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations. Lecture 2 hours. No Laboratory. Prerequisites: DHYG 1373, DHYG 2363.

DHYG 2312 - Community Dental Health I
2 Credits
This course is designed to prepare students to promote oral health and prevent oral disease through organized community-based efforts. Topics presented include: the role of the dental public health professional, epidemiological patterns of oral diseases, basic principles of research methodology and biostatistics and governmental influences in the oral health care delivery system. Principles in program assessment, planning, implementation, and evaluation are also presented. Cultural competency, social responsibility and service-learning are also introduced. Lecture 2 hours No Laboratory.

DHYG 2321 - Community Dental Health II
1 Credit
This course provides practice experience within the community for developing, implementing and evaluating dental health projects. Students will participate in dental screenings, health fairs, table clinics, school health oral presentations and other community-based projects. No Lecture. Laboratory 2 hours. Prerequisite: DHYG 2312 and Basic Life Support for Healthcare Providers.

DHYG 2343 - Dental Materials, Techniques and Support Services
3 Credits
Presentation of procedures and materials used in dentistry, including their chemical composition and physical characteristics. Allows student to perform procedures that fall within the scope of dental hygiene practice, manipulate materials, and explain procedures to patients. Lecture 2 hours. Laboratory 4 hours. Prerequisite: CHEM 1114. Corequisite: DHYG 2384.

DHYG 2363 - Dental Hygiene Theory III
3 Credits
This course includes concepts and application of non-surgical periodontal therapy, advanced instrumentation skills, reevaluation of oral and Periodontal health status and referral, application of chemotherapeutic agents, care and maintenance of implants, insurance coding for dental hygiene procedures, dietary analysis and counseling, and planning dental hygiene case presentations. Students will participate in extra-mural clinical rotations with outside agencies. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Basic Life Support for Healthcare Providers. Corequisite: DHYG 2384.

DHYG 2372 - Dental Hygiene Theory IV
2 Credits
This course focuses on preparation for practice, including principles of professionalism, principles of office management with emphasis on productivity, renumeration, risk management and the concept of the dental health team, jurisprudence, current dental hygiene issues, preparation for board examinations, preparation of personal resumes, and interviewing techniques. Lecture 2 hours. No Laboratory. Corequisite: DHYG 2394.

DHYG 2384 - Clinical Dental Hygiene III
4 Credits
Continued emphasis on clinical techniques including implementation of individualized dental hygiene treatment plans, reevaluation of oral and periodontal health status, subsequent treatment needs, referral, risk assessment, expanded functions, dental hygiene case presentations and current advances in dental hygiene services. Clinical application of radiography, non-surgical periodontal therapy and advanced instrumentation, ultrasonic and air polisher utilization, the administration of nitrous oxide/oxygen analgesia and local anesthesia. Materials fee required. No Lecture. Laboratory 24 hours. Prerequisite: DHYG 1394, Basic Life Support for Healthcare Providers. Corequisite: DHYG 2363.

DHYG 2394 - Clinical Dental Hygiene IV
4 Credits
This course offers continued development of competency in clinical techniques and current procedural practices of the dental hygienist with emphasis on self evaluation. Includes continuing clinical application of nitrous oxide/oxygen analgesia and local anesthesia, along with non-surgical periodontal therapy and periodontal maintenance strategies. Students also participate in extramural clinical rotations at selected community sites. Materials fee required. No Lecture. Laboratory 24 hours. Prerequisite: DHYG 2384, Basic Life Support for Healthcare Providers. Corequisite: DHYG 2372.

DHYG 2990 - Selected Topics in Dental Hygiene
1-4 Credits
The study and/or analysis of a selected topic in Dental Hygiene. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

DESIGN ENGINEERING TECHNOLOGY
(See Drafting and Design Engineering Technology)

DRAFTING AND DESIGN ENGINEERING TECHNOLOGY

DRFT 1323 - Engineering Drawing with CAD
3 Credits
This introductory course for the beginning drafter includes such topics as drafting room practices, graphical geometry, orthographic projection, dimensioning, and perspective views. Emphasis is placed on developing the abilities of three-dimensional vision, graphic communication skills, and lettering. Dimensioning is taught to ASME standards. Course also includes introduction to AutoCAD. Lecture 2 hours. Laboratory 4 hours.

DRFT 1363 - Civil Drafting and Design
3 Credits
This course introduces the different drawings used in the field of Civil Engineering. Typical subjects covered include project stationing, development of roadway; storm sewer; sanitary sewer; water line and drainage structure plan and profile sheets, plotting drawings from survey field notes, contour interpolation and cross-sections. Lecture 2 hours. Laboratory 2 hours. Prerequisites: DRFT 1323 and MATH 1513 or MATH 1454.

DRFT 1442 - Descriptive Geometry
2 Credits
Study geometric projection of lines, points, and planes in AutoCAD. Solve related drafting problems. Study space relations that points, lines, and planes share in forming any given shape. Lecture 2 hours. No Laboratory. Prerequisite: DRFT 1323 or DRFT 2203.

DRFT 2023 - Pro/Engineer Modeling
3 Credits
This course in solid modeling covers all basic aspects of Pro/ENGINEER in a project oriented environment. The student uses the current version of Pro/ENGINEER Wildfire to create part models with their drawings and assemblies. Also covered are advanced modeling, BOM and sheet metal techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Computer skills with Windows software and an understanding of basic drafting.

DRFT 2033 - Pro/Engineer Manufacturing
3 Credits
This course is designed to explore the manufacturing module in Pro/ENGINEER in a project oriented environment. The student uses the current version of Pro/ENGINEER Wildfire to create manufacturing assemblies. Also covered are advanced modeling, structure and mechanism techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DRFT 2023 or equivalent.

DRFT 2042 - CATIA Fundamentals
2 Credits
This course is designed to familiarize the student with the functional skills required to employ CATIA in a project orientated environment. Instruction will be provided covering the basic concepts needed to use CATIA to create part models, file functions, and analysis. Lecture 2 hours. No Laboratory. Basic Windows skills and an understanding of Basic Drafting is highly recommended.

DRFT 2052 - CATIA Solids and Surfacing
2 Credits
This course is designed to familiarize the student with the advanced skills required to employ CATIA's Surfacing and Solid functions in a project orientated environment. Instruction will be provided covering the concepts needed to use CATIA to create part models, file functions, and analysis. Lecture 2 hours. No Laboratory. Prerequisite: DRFT 2042.

DRFT 2123 - Construction Drawings and CAD
3 Credits
Interpretation and production of construction drawings, including architectural and civil engineering drawings using computer aided drafting software and techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DRFT 1363.

DRFT 2203 - AutoCAD 2
3 Credits
This course introduces AutoCAD software as a drafting tool. Students develop skills needed to produce 2D drawings, basic dimensioning, and disk data storage. Covers creation, retrieval, and modification of drawings using basic AutoCAD commands. Lecture 2 hours. Laboratory 4 hours. Prerequisite: DRFT 1323.

DRFT 2223 - Mechanical Design I (Computer Aided Design)
3 Credits
A study of mechanical design principles which addresses such problems as geometric arrangements, effects of motion of one part on others, and effects of forces. Also addressed are properties of materials, limitation of manufacturing processes and economics, and the use of handbooks to aid in the study of the interrelationship of parts. Computer aided drafting equipment is utilized. Lecture 2 hours. Laboratory 4 hours. Prerequisites: MATH 1513 or MATH 1454 and DRFT 2203.

DRFT 2233 - Autodesk Inventor Modeling
3 Credits
This course introduces 3D solid modeling and parametric modeling techniques and concepts using the Inventor program. It starts by constructing basic shapes to building intelligent more complex solid models and creating multi-view drawings. Lecture 2 hours. Laboratory 2 hours.

DRFT 2293 - Survey of CAD Applications
3 Credits
This course is intended to provide comprehensive overview of production drawings and documents from the standpoint of the production designer. This course is project-oriented comprised of three component phases, and the final project is delivered as a set of documents. One phase demonstrates the relation between tool and product design processes and manufacturing methods. Another phase covers structural working drawings per AISC design specifications with a focus on members, connections, and fasteners. A third phase presents fundamentals in process piping drafting. The use of handbook and standards including architectural design will be highlighted throughout the course. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DRFT 2203 and a 3D solids course such as ProE, Inventor or Solidworks.

DRFT 2393 - Basic SolidWorks
3 Credits
A fundamental introduction to 3-dimensional production solids modeling utilizing SolidWorks CAD software, including generation of the solids model and conversion to a working drawing. Lecture 2 hours. Laboratory 4 hours.

DRFT 2453 - Architectural Drafting
3 Credits
A course that is designed to teach the procedures and practices that are necessary to produce a set of working architectural drawings. The student will complete a set of drawings and specifications that would be required in the design and construction of a residential building using a CAD program. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DRF 2203.

DRFT 2473 - Tool Design
3 Credits
An introductory course designed to provide fundamental knowledge of designing efficient tools for material removal, pressworking, joining, and inspecting manufactured parts, such as die design, jig and fixture design, and gage design. Emphasis will be placed on troubleshooting, safety, and economics. Lecture 2 hours. Laboratory 4 hours. Prerequisite: ENGR 1313.

DRFT 2990 - Selected Topics in Drafting and Design Technology
1-4 Credits
The study and/or analysis of a selected topic in Drafting and Design Technology. May be repeated with a different topic, Lecture 1-4 hours. No Laboratory.

ECONOMICS

ECON 1353 - Personal Finance
3 Credits
The study of practical applications in budgeting, borrowing, insurance, investments, taxes, home ownership, and other aspects of personal money management. Lecture 3 hours. No laboratory.

ECON 2013 - Principles of Macroeconomics (S)
3 Credits
An introduction to the functioning and current problems of the aggregate economy. Major topics include supply and demand, determination and analysis of national income, employment and unemployment, inflation, monetary and fiscal policy, and international trade. Lecture 3 hours. No Laboratory.

ECON 2023 - Principles of Microeconomics (S)
3 Credits
An introduction to prices and markets. Major topics include elasticity and consumer choice, product markets, factor markets, income distribution, and the foreign exchange market. Lecture 3 hours. No laboratory. Prerequisite: ECON 2013 or instructor approval.

ECON 2123 - International Economic Issues (S,I)
3 Credits
This course examines the unique aspects of business operations within various regions of the world and the nature of international trade, foreign exchange, and the critical operational problems and issues involved in conducting business in other countries. A review of global geography will be conducted during the course and current international business trends and topics will be discussed. Lecture 3 hours. No laboratory. Prerequisite: ECON 2013.

ECON 2990 - Selected Topics in Economics
1-4 Credits
The study and/or analysis of a selected topic in Economics. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

ELECTRONICS TECHNOLOGY

ELET 1212 - Introduction to Electricity
2 Credits
A beginning course in basic electricity/electronics. Emphasis will be placed on equipment familiarization using digital multimeters, oscilloscopes, also electrical safety, and analyzing simple direct and alternating current circuits. This course is designed for students needing an exposure to electricity or as a beginning class for electronics. Lecture 2 hours. No Laboratory. Prerequisite: MATH 0013 or instructor approval.

ELET 1223 - Hydraulics and Pneumatics
3 Credits
A study of hydraulic and pneumatic systems as it relates to fluids, energy and power, pumps, actuators, control devices, flow distribution, and industrial applications. Lecture 2 hours. Laboratory 2 hours.

ELET 1303 - DC Circuit Analysis
3 Credits
An introductory course in basic electricity including electrical properties of materials, units, basic electrical laws and theorems, and electrical circuits and components. This course also introduces the student to electronic design software used in troubleshooting circuits. Lecture 2 hours. Laboratory 2 hours. Prerequisite: MATH 1513.

ELET 1313 - AC Circuit Analysis
3 Credits
Introduction to alternating current electricity. A study of the characteristics of sine wave including the amplitude, frequency, period, and phase relationships; analyzing AC circuits by use of AC network theorems, resonant circuits and filter circuits. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ELET 1303 and MATH 1613.

ELET 1433 - Kinematics
3 Credits
This course is designed to help the student develop an understanding of the fundamental concepts related to basic mechanical systems. Topics include gears, gear trains, cams, belt drives, chain drive and linkages. Lecture 2 hours. Laboratory 2 hours. Prerequisite: MATH 1454 or MATH 1613 or concurrent enrollment.

ELET 1442 - Introduction to Alternative Energy
2 Credits
This course provides basic knowledge of alternative energy systems, including wind, solar and Oklahoma-produced biofuels. Students will have the opportunity to build or test a wind power generator and a solar electric generator. Battery storage systems included. Lecture 1 hour. Laboratory 2 hours. Prerequisite: ELET 1212.

ELET 1503 - Programmable Control
3 Credits
A study of programmable controllers as they relate to the control of automated systems. Included is a study of the memory system and I/O interaction, specifications, wiring, logic concepts, number systems and codes, the instruction set, ladder logic programming and application problems. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET 1212.

ELET 2215 - Digital Circuits
5 Credits
The course is a comprehensive study of the principles and techniques of modern digital system. Topics to be included are number systems and codes, logic gates and Boolean algebra, combinational logic circuits, flip-flops and related devices, arithmetic circuits, counters and registers, MSI logic circuits, analog conversion, memory devices, and integrated-circuit logic families. Lecture 4 hours. Laboratory 2 hours. Prerequisites: ELET 1303 and ELET 1313.

ELET 2244 - Amplifiers I
4 Credits
A thoroughly modern introduction to solid state electronic devices and basic electronic circuits. The study includes diodes, rectifiers transistor bias and load lines, common emitter, common collector and common base circuits, and an introduction to field effect transistors and thyristors. It deals with special amplifiers, power amplifiers, push-pull amplifiers, feedback amplifiers, differential amplifiers, direct coupled and integrated circuit amplifiers, and operational amplifiers. Lecture 3 hours. Laboratory 2 hours. Prerequisites: ELET 1303 and ELET 1313.

ELET 2253 - Servo-Systems
3 Credits
A study of the operational characteristics of electro-hydraulic servovalves as they relate to robotics, machine tools, and automated systems. Topics to be studied include: basic control concepts, transducers, operational amplifiers, loading characteristics, and system response. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ELET 1223 and ELET 2244.

ELET 2333 - Amplifiers II
3 Credits
A continuation of topics covered in Amplifiers I. This course will cover power and operational amplifier circuits. The study also includes generators, timers, active filters, and power supply circuits. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET 2244.

ELET 2514 - Microprocessors
4 Credits
An introduction to the architecture and instruction sets of the 8080A, 8085, and 8086. Logic switches, lamp monitors, pulsers, and displays are used in the lab. Included will be a study of the hardware and software used for input and output by the microprocessor. Address decoding, part decoding, and signal flow between the microprocessor and peripheral chips will be covered. Diagnostic software/hardware will be demonstrated and used. Lecture 3 hours. Laboratory 2 hours. Prerequisite: ELET 2215.

ELET 2525 - Wireless Communications
5 Credits
This course is designed to instruct the student in communication circuits and systems. Topics will include R.F. amplifiers, variable oscillators, amplitude and frequency modulation. Lab experience will include receiver trouble shooting, antenna fabrication and testing on an antenna range, microwave test equipment, LNA design, and wireless telecommunication systems. Lecture 4 hours. Laboratory 2 hours. Prerequisite: ELET 2244.

ELET 2533 - Automation Control
3 Credits
This course covers electrical power, motors and the devices used to control motor systems. Topics to be included are a review of DC/AC circuits, servo-controls, sensors, and integrated applications. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET 1313 or ELET 1503.

ELET 2622 - Electronics Design
2 Credits
This course will analyze and design a selected project in electronics. The student will be introduced to surface mount soldering and will build a project that emphasizes the principles covered from previous courses. Lecture 1 hour. Laboratory 2 hours. Prerequisites: ELET 2244 or ELET 2215.

ELET 2632 - Introduction to Nanotechnology
2 Credits
This course is designed to help the student develop an understanding of the fundamental concepts behind nano and micro technology. Topics include fabrication, clean-rooms, microscopy, lithograph, and materials used in the building of silicon devices. Other areas of study will focus on where and how this new technology is used. Classroom demonstration will be used. Lecture 2 hours. No Laboratory. Prerequisite: ELET 1212.

ELET 2643 - Nanoelectronics
3 Credits
Nanoelectronics covers the processes of developing micro and no scale electronics devices. The student will be introduced to carbon nanotubes, MEMS, memory, self-assembly, top-down and bottom-up techniques. Students will also be taken through the steps in building a micro-chip and how it applies to nano-structures. Equipment topics will include wet and dry etch, lithograph, deposition, evaporators, and vacuum systems. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET/NANT 2632 or instructor approval.

ELET 2653 - Nanoscience
3 Credits
Nanoscience explores the many possibilities for which nano-structures can and are being used. The study will include nanotube and nanopartical applications in medicine, drug delivery and detection. Microscopy will include the scanning tunneling, atomic force and optical microscopes. Material and chemical make-up of micro and nano-structures will be introduced. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET/NANT 2632 or instructor approval.

ELET 2990 - Selected Topics in Electronics Technology
1-4 Credits
The study and/or analysis of a selected topic in Electronics Technology. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

EMERGENCY MEDICAL TECHNOLOGY

EMDT 1013 - EMT Basic Introduction
3 Credits
Study of modules of EMT preparatory activities, basic airway management, and patient assessment. This course of study also includes blood sugar determination and intravenous therapy maintenance. A physical examination and certain immunizations required. Lecture 2 hours. Laboratory 2 hours. Prerequisites: American Heart Association CPR for the Health Care Provider or American Red Cross Professional Rescuer CPR.

EMDT 1024 - EMT Basic Practicum
4 Credits
This course covers modules of medical emergencies, trauma, pediatrics, and EMT operations. During this course of study the EMT Basic student will be concurrently enrolled in EMT-Basic Clinical course. Lecture 2 hours. Laboratory 2 hours. Prerequisite: EMDT 1013.

EMDT 1041 - EMT-Basic Clinical
1 Credit
Under the direct supervision of a clinical preceptor the EMT-Basic student will spend time in the emergency department of a health care facility and in the ambulance. The student will be required to have liability insurance. Laboratory/Clinical 2 hours. Prerequisite: Permission of program director.

EMDT 1213 - Paramedicine Introduction
3 Credits
This course is designed to introduce the student to the roles and responsibilities of a Paramedic within the EMS system. The content includes pathophysiology and pharmacology related to assessment and management of emergency patients, administration of medications, and patient communication. The student will be able to establish and/or maintain a patient airway, oxygenate, and ventilate a patient. Lecture 3 hours. Laboratory 1 hour. Prerequisite: EMT - Basic and permission of program director.

EMDT 1231 - Paramedicine Clinical Introduction
1 Credit
This course is taken concurrently with Introduction to Paramedicine. Under the supervision of a clinical preceptor, the paramedic student will administer medications, start intravenous lines, establish patient airways, oxygenate, and ventilate patients. No Lecture. Laboratory 2 hours.

EMDT 1342 - Paramedic Patient Assessment
2 Credits
This course is designed to instruct the student in obtaining a proper history and performing a comprehensive physical examination on a variety of patients. The student will be expected to be able to communicate their findings to other health professionals. Lecture 1 hour. Laboratory 2 hours. Prerequisite: Completion of EMDT 1213 –Introduction to Paramedicine and permission of program director.

EMDT 1351 - Patient Assessment Clinical
1 Credit
This course is taken concurrently with Paramedic Patient and Assessment. Under the supervision of a clinical preceptor, the paramedic student will take proper histories and perform comprehensive physical examinations on patients. No Lecture. Laboratory 2 hours. Prerequisite: Permission of program director.

EMDT 2003 - Paramedic Trauma and Trauma Clinical
3 Credits
This course is designed for the paramedic student to be able to integrate pathophysiological principles and assessment findings in order to formulate a field impression and implement the treatment plan for the trauma patient. The clinical component will allow students to apply what they have learned in the classroom. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Completion of EMDT 1342 - Paramedic Patient Assessment and permission of program director.

EMDT 2014 - Paramedic Medical
4 Hours
This course is designed for the paramedic student to be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the medical patient. Lecture 3 hours. Laboratory 2 hours. Prerequisite: Completion of EMT-2003 Paramedic Trauma and Clinical and permission of program director.

EMDT 2031 - Paramedic Medical Clinical
1 Credit
This course is taken concurrently with the Paramedic Medical course. Focus will be on the assessment and treatment for medical patients. Lecture 1 hour. Laboratory 1 hour. Prerequisite: Permission of program director.

EMDT 2061 - PreHospital Trauma Life Support
1 Credit
This course is taken concurrently with the Paramedic Trauma and Clinical. The course is designed to provide prehospital care providers knowledge related to both prehospital assessment of the trauma patient and intervention technique. Laboratory 2 hours. Prerequisite: Permission of program director.

EMDT 2111 - EMS Clinical
1 Credit
This course allows the student to apply all aspects learned thus far in the program in the prehospital setting under the supervision of a clinical preceptor. Laboratory 3 hours. Prerequisites: Completion of EMDT 2014 -Paramedic Medical and permission of program director.

EMDT 2131 - Paramedic Special Considerations and Assessment Based Management
1 Credit
This course is designed to integrate pathophysiological principles assessment findings to formulate a field impression and implement the treatment plan for neonatal, pediatric, and geriatric patients, diverse patients, chronically ill patients, and patients with common complaints. Lecture 1 hour. Laboratory 2 hours. Prerequisite: Permission of program director.

EMDT 2151 - Special Considerations Clinical
1 Credit
This course is taken with Paramedic Special Consideration and Assessment Based Management. Under the supervision of a clinical preceptor the student will experience the management of pediatric and geriatric patients. Lecture 1 hour. Laboratory 1 hour. Prerequisite: Permission of program director.

EMDT 2212 - Physician Internship
2 Credits
This course is designed for the student to experience patient management under the supervision of a preceptor that covers all aspects learned thus far in the Paramedic Program. Lecture 2 hours. Laboratory 1 hour. Prerequisite: Permission of program director.

EMDT 2231 - Paramedic Operations
1 Credit
This course covers ambulance operation, medical incident command, rescue operations, hazardous materials awareness, and crime scene management. This course is designed so that the paramedic student will be able to safely manage the scene of an emergency. Lecture 1 hour. Laboratory 2 hours. Prerequisite: Permission of program director.

EMDT 2252 - EMS Internship
2 Credits
This course is designed to integrate all of the didactic, knowledge, psychomotor skills, and clinical instruction into the prehospital environment. The paramedic student under the direct supervision of a paramedic preceptor will demonstrate the ability to serve as a team leader in a variety of prehospital emergency situations. Laboratory 4 hours. Prerequisite: Completion of EMDT 2231 Paramedic Operations and permission of program director.

ENGINEERING

ENGR 1111 - Introduction to Engineering
1 Credit
An overview of study skills, orientation and entrance requirements for a typical engineering college, computer-based productivity tools, and engineering ethics and careers. Lecture 1 hour. No laboratory.

ENGR 1132 - Engineering Design with Computer Aided Design
2 Credits
An introduction to engineering design using modern methodologies and state-of-the-art computer-aided design tools. Hands-on design construction and testing through class participation. Lecture 1 hour. Laboratory 2 hours. Prerequisite: MATH 1454 or MATH 1613.

ENGR 1242 - Introductory Engineering Computer Programming
2 Credits
Programming to solve problems typical of practice in engineering. Instruction and writing programs in computer languages. Lecture 2 hours. No laboratory. Prerequisites: MATH 1454 or MATH 1513.

ENGR 1253 - Introduction to Industrial and Systems Engineering
3 Credits
An overview of the dynamics of industrial and systems engineering techniques in modeling, production control, inventory control, quality control, layout, method engineering, material handling, and engineering economy. Lecture 3 hours. No laboratory.

ENGR 1263 - Productivity Planning and Inventory Control
3 Credits
An overview of the dynamics of managing production and inventory in the constantly changing industrial and commercial environments. Topics include forecasting sales, "just in time" manufacturing, production, and inventory requirements. The relationships of marketing management to production planning and inventory control are studied. Lecture 3 hours. No laboratory.

ENGR 1301 - Introduction to Manufacturing Processes –the BAMA Model
1 Credit
A study of the manufacturing processes used by a single manufacturing company. An overview of the entire process from raw materials to the finished product will be studied. Lecture 1 hour. No laboratory.

ENGR 1313 - Manufacturing Processes
3 Credits
A study of the history of, and current trends in, industrial processes, their development and impact, and the sources and classifications of engineering materials used in manufacturing. The means of material recovery from nature to fabrication as it is related to tools, machines, and processes, which are combined to produce a finished product. Visits to local industrial plants are arranged. Lecture 3 hours. No Laboratory.

ENGR 1363 - Metallurgy
3 Credits
A basic metallurgy course that includes instruction In process and physical metallurgy covering composition, structure, heat treatment, and properties of various alloys, both ferrous and non-ferrous. Designed for manufacturing engineering and quality control majors. Lecture 3 hours. No laboratory.

ENGR 1443 - Geometric Dimensioning and Tolerancing
3 Credits
An in depth study of dimensional tolerancing as identified in the American National Standards Institute, ANSI Y 14.5 specification. This course will explore the meaning of symbols used in the International Standard, their application and the processes necessary to achieve the specified geometry, as well as the common practices used in Engineering drawings and practical limits and challenges in the manufacturing environment. Lecture 3 hours. No Laboratory. Prerequisite: NCMT/QCTT 1223 or any DRFT class.

ENGR 1463 - Composite Materials
3 Credits
This course explores the properties and the processes of manufacturing used with today's modern composite materials. Typical processes used in the Tulsa area will be reviewed along with site visits. Lecture 2 hours. Laboratory 2 hours.

ENGR 2023 - Pro/Engineer Modeling
3 Credits
This course in solid modeling covers all basic aspects of Pro/ENGINEER in a project oriented environment. The student uses the current version of Pro/ENGINEER Wildfire to create part models with their drawings and assemblies. Also covered are advanced modeling, BOM and sheet metal techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Computer skills with Windows software and an understanding of basic drafting.

ENGR 2033 - Pro/Engineer Manufacturing
3 Credits
This course is designed to explore the manufacturing module in Pro/ENGINEER in a project oriented environment. The student uses the current version of Pro/ENGINEER Wildfire to create manufacturing assemblies. Also covered are advanced modeling, structure and mechanism techniques. Lecture 2 hours. Laboratory 2 hours. Prerequisite: DRFT/ENGR 2023 or equivalent.

ENGR 2042 - CATIA Fundamentals
2 Credits
This course is designed to familiarize the student with the functional skills required to employ CATIA in a project orientated environment. Instruction will be provided covering the basic concepts needed to use CATIA to create part models, file functions, and analysis. Lecture 2 hours. No laboratory. Basic Windows skills and an understanding of Basic Drafting are highly recommended.

ENGR 2052 - CATIA Solids and Surfacing
2 Credits
This course is designed to familiarize the student with the advanced skills required to employ CATIA's Surfacing and Solid functions in a project orientated environment. Instruction will be provided covering the concepts needed to use CATIA to create part models, file functions, and analysis. Lecture 2 hours. No laboratory. Prerequisite: ENGR 2042 and Basic Windows skills and an understanding of Basic Drafting are highly recommended.

ENGR 2103 - Engineering Statics
3 Credits
Topics covered are: equilibrium of particles and rigid bodies in two and three dimensions, vector algebra of forces and moments, friction, centroids, moments of inertia, distributed forces, internal loads with loading diagrams, trusses, and frames. Lecture 3 hours. No laboratory. Prerequisites: PHYS 2034 and MATH 2114.

ENGR 2143 - Engineering Strength of Materials
3 Credits
Topics covered are elastic and plastic stress, strain and deformation, axial, torsion, bending and combined loading, thermal stress, pressure vessels, columns and buckling, shear flow, bending moment and torque diagrams, beam deflection; Mohr's circle of stress, statically indeterminate members. Lecture 3 hours. No laboratory. Prerequisites: ENGR 2103 and MATH 2124.

ENGR 2153 - Lean, Six Sigma, Quality Systems
3 Credits
An introduction to the history, evolution and practice of advanced manufacturing and quality systems, including Lean Manufacturing, Kiazen, 5-S, Kanban, Toyota Production System and Six Sigma. Exploration into the theory and tools behind today's most advanced business philosophies. Lecture 3 hours. No Laboratory.

ENGR 2213 - Thermodynamics
3 Credits
Energy and energy relationships involving heat, work, and mass. First and second laws of thermodynamics for ideal and pure substances, control volume analysis and cyclic systems; equations of state. Lecture 3 hours. No laboratory. Prerequisites: CHEM 1315, PHYS 2034, and MATH 2124.

ENGR 2231 - Project Engineering
1 Credit
Project engineering skills are required in all types of businesses including manufacturing facilities. This course will introduce the student to the basic elements that are required to implement a successful project from initiation to completion. The course material will include project scheduling, project cost management, resource allocation, project scope, and risk management. Lecture 1 hour. Prerequisite: ENGR 1313.

ENGR 2253 - Productivity, Measurement, and Improvements
3 Credits
An introduction to productivity work analysis, productivity measurement, time and motion studies, and productivity implements. Designed to provide training and simulated on-the-job experience in the analysis and evaluation of present and improved or proposed methods of production. Lecture 3 hours. No laboratory.

ENGR - 2262 - Professional ENGR/SURV Ethics
2 Credits
This course covers an introduction to contemporary ethics and provides an overview of professional issues dealing with responsibility and professionalism. It delves into everyday problems encountered by professional land surveyors and engineers. Lecture 2 hours. No laboratory.

ENGR 2462 - Project Engineering and Management
2 Credits
Project engineers are responsible for overseeing the various stages of development for a variety of products and projects. This course will preapre the student for assignments in industrial project management. Course material includes project scheduling, cost management, resource allocation, team building, project scope, and risk management. Lecture 2 hours. No Laboratory.

ENGR 2523 - Elementary Dynamics
3 Credits
Kinematics and Kinetics of particles and bodies, using the three different coordinate systems in two and three dimensions; pulley systems; work-energy methods, impulse-momentum principles, including oblique impact, coefficient of restitution, linear and angular momentum. Lecture 3 hours. No laboratory. Prerequisite: ENGR 2103.

ENGR 2543 - Manufacturing Engineering I
3 Credits
An introduction to manufacturing engineering methods used for component parts manufacture. Topics covered include concurrent engineering and manufacturing plan development for formed metal parts, machined parts, and composite parts. This course emphasizes the methods used in the aerospace industry to create producible designs and successful manufacturing build plans. Lecture 3 hours. No Laboratory. Prerequisite ENGR 1313.

ENGR 2613 - Introduction to Electrical Science
3 Credits
Elements of electrical engineering; AC and DC Circuits, mesh and nodal formulation of network equations, steady-state response to sinusoids and step function, energy, power, power factor, Thevenin and Norton analysis, Laplace transforms. Introduction to PSPICE. Lecture 3 hours. No laboratory, Prerequisites: PHYS 2124 and MATH 2124.

ENGR 2643 - Manufacturing Engineering II
3 Credits
A study of manufacturing engineering techniques required to create and implement a manufacturing build plan. Topics covered include concurrent engineering and planning of bonding and assembly manufacturing sequences. This course emphasizes the methods used in the aerospace industry to create successful manufacturing build plans and disciplined bills of material for detail parts, subassemblies, and major assemblies. Lecture 3 hours. No Laboratory. Prerequisite: ENGR 2543.

ENGR 2990 - Selected Topics in Engineering
1-4 Credits
The study and/or analysis of a selected topic in Engineering. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

ENGLISH

ENGL 0123 - Basic English
3 Credits
Designed for students who have not met high school English/ Language Arts requirements or need to satisfy a high school curricular deficiency. Primary objective is to improve reading and writing skills. The course presents an introductory study of literature and includes the use of laboratory materials and equipment. Grade options are satisfactory or unsatisfactory. Lecture 3 hours. Laboratory 1 hour.

ENGL 0601- Basic Grammar
1 Credit
Designed to teach fundamental principles of grammar: parts of speech, clauses and phrases, sentence patterns, subject-verb agreement, and major sentence errors. No lecture. Laboratory self-paced.

ENGL 0611 - Sentence Improvement
1 Credit
Designed to teach different kinds of sentence construction and the application of that knowledge to actual writing experiences. No lecture. Laboratory self-paced.

ENGL 0621- Punctuation
1 Credit
Designed to teach students the rules of punctuation and their proper application. No lecture. Laboratory self-paced.

ENGL 0631- Spelling and Phonics
1 Credit
Designed for the student who needs to master basic spelling literacy and principles of phonics. Mastery of commonly misspelled words and decoding skills is included. No Lecture. Laboratory self-paced.

ENGL 0641 - Basic Vocabulary
1 Credit
Designed to provide fundamentals for vocabulary building. Course content includes instruction in dictionary use, presentation of prefixes, suffixes, and roots and the application of that knowledge to the decoding of words. No Lecture. Laboratory self-paced.

ENGL 0651- Study Skills
1 Credit
Designed to show the student proper study habits: note and test-taking techniques, the SQ3R (survey, question, read, recite and review) method for reading, exercises for memory, vocabulary building aids, and hints for specific writing assignments. No Lecture. Laboratory self-paced.

ENGL 0661 - Writing Skills
1 Credit
Designed to help the student with basic techniques of writing: organization, diction, word economy, and order. Content will also include paragraph development, paragraph unity, and coherence. No Lecture. Laboratory self-paced.

ENGL 0681- Reading Comprehension
1 Credit
Level of material determined by pretest. Both course levels emphasize the different types of reading comprehension: factual, inferential, and evaluative. No Lecture. Laboratory self-paced.

ENGL 0691 - One by One Fundamentals of Reading
1 Credit
Designed to teach students the fundamental skills necessary to increase reading proficiency. The primary emphasis is placed on creating an individualized study program of teacher-directed and self-paced activities to improve skills in comprehension, vocabulary, and phonics. Lecture 1 hour. Laboratory 2 hours.

ENGL 0711 - Essay Writing
1 Credit
Designed to provide individualized instruction in the basic process of writing an essay. No Lecture. Laboratory self-paced.

ENGL 0731 - Research Paper
1 Credit
Designed to provide individualized instruction in the basic process of writing a research paper. No Lecture. Laboratory self-paced.

ENGL 0753 - Computer-Enhanced Reading
3 Credits
This course is designed to strengthen students' basic reading skills through a comprehensive computerized curriculum. Each student will follow an individualized course of study based upon personal academic needs and goals. Students' assignments will focus on reading comprehension, vocabulary building, and spelling enrichment. Lecture 3 hours. Laboratory 1 hour.

ENGL 0801 - Study Skills for the Deaf and Hard of Hearing
1 Credit
Designed for the deaf and hard of hearing students to improve academic performance and enhance skills in time management, note taking, effective tutoring sessions, study techniques and introduction to college support services. Lecture 1 hour. No Laboratory.

ENGL 0813 - Reading and Vocabulary for the Deaf and Hard of Hearing
3 Credits
Designed for deaf and hard of hearing students to enhance vocabulary and teach basic reading skills necessary to proceed through the Developmental Studies Program and on through a planned college program. Emphasis on comprehension, vocabulary, and grasping main ideas. Lecture 3 hours. No Laboratory.

ENGL 0823 - Writing Skills for the Deaf and Hard of Hearing
3 Credits
Designed for deaf and hard of hearing students to improve their writing skills to proceed through the Developmental Studies Program and on through a planned college program. Emphasis on English language usage including sentence structure, grammar, punctuation, paragraphs and writing essays. Lecture 3 hours. No Laboratory.

ENGL 0903 - Reading I
3 Credits
Designed to teach students the basic reading skills which are necessary for a planned college program. Primary emphasis is placed on developing interest in reading, improving comprehension of textbook materials, skills in grasping main ideas, and vocabulary building. Practice materials, computers, and both individual and group instruction are in continued use to accomplish these goals. Lecture 3 hours. Laboratory 1 hour.

ENGL 0913 - Reading II
3 Credits
Designed to enhance the skills and techniques taught in Reading I. Emphasis is on improving the student's ability to locate central themes and/or main ideas, distinguish between major and minor details, and draw logical conclusions, as well as to recognize purpose and tone. Practice materials and computer programs are in continued use to accomplish these goals. Lecture 3 hours. Laboratory 1 hour. Prerequisite: ENGL 0903, ACT, appropriate placement score, or approval of instructor.

ENGL 0923 - Writing I
3 Credits
Designed to help students improve their writing skills so that they may proceed through a planned college program. Emphasis is on practical writing experiences for social, business, and academic life. Designed as a clinic for individual problems: English language usage with specialized practice in sentence structure, grammar, punctuation, and spelling. Course work includes use of tapes, and other laboratory equipment. Lecture 3 hours. Laboratory 1 hour.

ENGL 0933 - Writing II
3 Credits
A continuation of Writing I. A step-by-step approach to paragraph and essay writing. Special emphasis will be placed on sentence structure, punctuation, editing and revising skills, and English language usage and basic types of academic writing. Lecture 3 hours. Laboratory 1 hour. Prerequisite: ENGL 0923, ACT, appropriate placement score, or approval of instructor.

ENGL 0963 - College Survival
3 Credits
Designed to teach traditional and nontraditional students study techniques that will enable them to successfully complete their college program. Course activities include practice in taking tests, organizing lecture notes, establishing a study schedule and determining career goals. Special activities are designed to familiarize participants with student services available at TCC. Lecture 3 hours. Self-paced laboratory may be required.

ENGL 0990- Selected Topics in Developmental English
1-4 Credits
The study and/or analysis of a selected topic in Developmental English. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

ENGL 1003 - Strategies for Academic Success
3 Credits
Designed to improve academic performance and enhance skills in time management, test taking, note taking, memory, diversity, and critical thinking. Special emphasis will be placed on writing, also preparing and presenting group and individual presentations. College Orientation material will be included. Lecture 3 hours. Appropriate placement or ACT reading score recommended. Self-paced laboratory may be required.

ENGL 1083 - Grammar and Mechanics of Writing
3 Credits
A study of English grammar and the mechanics of writing. Fundamental principles of English will be emphasized: word classification, sentence parts, sentence structure, proper usage, capitalization, and punctuation. Lecture 3 hours. Laboratory self-paced.

ENGL 1091 - College Orientation
1 Credit
Designed to help traditional and non-traditional college students understand and respond to many academic issues that face them at TCC. Special emphasis on structured interaction of students with faculty, staff, and other students. Lecture 1 hour. No laboratory.

ENGL 1113 - Freshman Composition I
3 Credits
Composition I guides students through the writing process with regular practice and analysis of effective writing. It is the first in a sequence of two freshman composition courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisites: Appropriate placement score or ACT score, or completion of ENGL 0933 with a grade of "C" or better, or permission of Associate Dean.

ENGL 1121 - College Composition Lab
1 Credit
Designed to supplement freshman composition courses, providing individualized instruction in standard usage and essential college writing skills. No Lecture. Laboratory, self-paced.

ENGL 1131 - College Reading Lab
1 Credit
Designed to assist the student who has already achieved college-level reading skills to develop efficient techniques in college content area reading and to approach the reading process with critical and evaluative skills. No Lecture. Laboratory self-paced.

ENGL 1141 - Effective Business Writing
1 Credit
Designed to provide individualized instruction on letters and memos commonly used in business. Special emphasis on effective organization, correct format, grammar usage, and diction. No Lecture. Laboratory self-paced.

ENGL 1151 - Effective Communications
1 Credit
This course is designed to study the principles and the theories of communication in one-on-one and group settings. Emphasis will be on increasing student awareness of verbal and nonverbal communication behavior. Focus will be directed toward establishing improved communication skills. Lecture 1 hour. No Laboratory.

ENGL 1161 - Information in the Digital Age
1 Credit
This course is designed to teach fundamental research skills and familiarize students with library and Internet information resources. The course emphasizes how to find print and online sources appropriate for college-level research assignments; how to evaluate information; and how to use information effectively and ethically. Skills acquired in this course will help develop information literacy and lifelong learning abilities, benefiting students' performance in other classes and in personal and professional pursuits. Lecture 1 hour. No Laboratory.

ENGL 1213 - Freshman Composition II
3 Credits
A continuation of English 1113 (Freshman Composition I), Composition II involves critical reading, thinking, and writing. The course includes analysis and evaluation of reading selections and techniques of research and documentation. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ENGL 1113.

ENGL 1691 - Speed Reading
1 Credit
Designed to help the student improve his/her rate of reading. Reading machines and other mechanical devices are used with special consideration and instruction for the transfer of those skills to the written page. No lecture. Laboratory self-paced.

ENGL 2223 - Reading Enhancement
3 Credits
Designed to direct the student in more efficient college reading. Especially emphasized is the application of logical thinking and deep speculation related to reading across the curriculum. Laboratory exercises, which are designed to promote skill in vocabulary, comprehension, and speed, may be tailored to enhance these skills in a student's major area of study if he/she so desires. Lecture 3 hours. Laboratory 1 hour. Prerequisite: ENGL 0903.

ENGL 2333 - Technical/Professional Writing
3 Credits
Techniques of style, organization, and format for the appropriate audience. Emphasis on objectivity, clarity, and precision. Writing assignments adapted from specialized forms used in industry. Lecture 3 hours. No Laboratory. Prerequisite: ENGL 1113 or approval of instructor or Associate Dean.

ENGL 2343 - Business Communications
3 Credits
The course focuses on effective methods of business communications, including various letters, memoranda, a presentation, and a researched report. Attention is given to audience analysis and business writing style and usage. Word processing and/or keyboarding skills are strongly recommended. Lecture 3 hours. No Laboratory. Prerequisite: ENGL 1113 or approval of instructor or Associate Dean.

ENGL 2363 - Advanced Business Communication
3 Credits
This course focuses on advanced methods of business communications, including the application of written and oral communication techniques to the business setting. Attention is given to audience analysis and business writing style and usage. Word processing and/or keyboarding skills are strongly recommended. Lecture 3 hours. No Laboratory. Prerequisite: ENGL 2343 or approval of instructor or Associate Dean.

ENGL 2373 - Teach-A-Reader
3 Credits
Designed to teach the student to tutor functionally illiterate adults who wish to learn to read. Fifteen hours of training workshop is provided, and the student commits to 55 hours of tutoring. One paper is required at the completion of the 55 hours of tutoring. Lecture 1 hour. Laboratory 4 hours.

ENGL 2383 - Advanced Composition
3 Credits
Advanced Composition is designed for students who have successfully completed ENGL 1113 and 1213 but who desire to reinforce and refine their writing skills. Assignments will provide practice in drafting and revising expository essays and analyzing the work of professional writers through primary and secondary sources. Some sections will use the computer as a writing aid. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and 1213.

ENGL 2393 - Introduction to Drama (H)
3 Credits
Introductory study of the performance of dramatic literature. Lecture 3 hours. No Laboratory. Prerequisite: ENGL 1113 or THEA 1093 or approval of instructor.

ENGL 2403 - Advanced Reading Enhancement and Speed
3 Credits
A comprehensive program designed to improve the following: critical thinking and evaluating, vocabulary, comprehension, and reading rate. Students will use practice materials and computer programs to attain improvement. Lecture 3 hours. Laboratory 1 hour. Prerequisite: ENGL 1113 or instructor approval.

ENGL 2413 - Introduction to Literature (H)
3 Credits
Introductory study of major literary types: fiction, poetry, and drama. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2433 - Creative Writing: Introduction to the Novel I
3 Credits
The techniques of writing the novel. Lecture 3 hours. No Laboratory.

ENGL 2443 - Creative Writing: Poetry
3 Credits
The techniques of writing poetry. Lecture 3 hours. No Laboratory.

ENGL 2453 - Creative Writing: Scriptwriting
3 Credits
The course teaches screenplay writing techniques. Attention is given to subject and character development. Students learn the components of plot development, scene building and screenplay formats. Lecture 3 hours. No Laboratory.

ENGL 2463 - Creative Writing Non-Fiction Prose
3 Credits
The techniques of writing non-fiction prose. Lecture 3 hours. No Laboratory.

ENGL 2473 - Creative Writing: Short Story I
3 Credits
The techniques of writing the short story. Lecture 3 hours. No Laboratory.

ENGL 2483 - Creative Writing: Introduction to the Novel II
3 Credits
The techniques of writing the novel. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 2433.

ENGL 2493 - Creative Writing: Introduction
3 Credits
Introductory study of three major genres: poetry, the short story, and drama. Lecture 3 hours. No Laboratory.

ENGL 2533 - Creative Writing: Short Story II
3 Credits
Techniques of writing specific types of short fiction. Lecture 3 hours. No Laboratory. Prerequisite: ENGL 2473.

ENGL 2543 - Survey of British Literature to 1800 (H)
3 Credits
Old English to 1800. Works of representative authors from the Anglo-Saxon period to the Romantic period. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2653 - Survey of British Literature from 1800 (H)
3 Credits
1800 to Present. Works of representative authors from the Romantic period to the present. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2663 - The Novel
3 Credits
The origins and development of the novel. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2673 - Survey of World Literature to 1700 (H)
3 Credits
The study of representative works of literature to 1700. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2683 - Survey of World Literature from 1700 (H)
3 Credits
The study of representative works of literature from 1700. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2773 - Survey of American Literature to 1865 (H)
3 Credits
Survey of representative American literary works from the colonial period through the Civil War. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2883 - Survey of American Literature from 1865 (H)
3 Credits
Survey of representative American literary works from Civil War to the present. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2893 - Minority Literature
3 Credits
The study of representative works of literature from African-American, Asian-American, Hispanic-American, and Native American writers. Lecture 3 hours. No Laboratory. Prerequisites: ENGL 1113 and ENGL 1213 or approval of instructor.

ENGL 2990 - Selected Topics in English
1-4 Credits
The study and/or analysis of a selected topic in English. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

ENGLISH AS A SECOND LANGUAGE

English as a Second Language (ESL) courses are designed for students whose native language is not English. In accordance with the policy statement of the State Board of Regents, ESL students with a TOEFL score below 500 are not eligible for admission in undergraduate coursework at Oklahoma institutions of higher learning. The state approved Intensive English Program at Tulsa Community College incorporates classroom instruction with language laboratory activities which assist students in gaining sufficient language skills to become eligible for undergraduate coursework. A proficiency check is made at the end of each level. No credit toward graduation is awarded. Placement in each course is determined through an evaluation process administered by the ESL Program.

ESLG 0513 - ESL Listening for Understanding
3 Credits
This intermediate course will develop basic listening strategies for everyday communication. The emphasis is on identifying the main idea, and sound discrimination. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0523 - ESL Reading for Understanding
3 Credits
This intermediate level course will develop basic reading strategies necessary in everyday life. The emphasis is on identifying the main idea and identifying details. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0533 - ESL Grammar for Understanding
3 Credits
This intermediate level course develops fundamental principles of English grammar in both written and spoken form. Using grammar in communication is emphasized. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0543 - ESL Writing for Understanding
3 Credits
This intermediate course develops basic sentence and paragraph structures as well as vocabulary and some grammatical concepts. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0553 - ESL Speaking for Understanding
3 Credits
This intermediate level course develops the basic strategies for oral communication. The focus in this course is on day-to-day conversation. Vocabulary and idiomatic usage is also developed. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0613 - ESL Listening for Communication
3 Credits
This intermediate level course continues the development of listening strategies used in everyday communication. The emphasis is on listening for both details and the main idea. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0623 - ESL Reading for Communication
3 Credits
This intermediate level course continues the development of basic reading strategies. The emphasis is on reading for speed and comprehension. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0633 - ESL Grammar for Communication
3 Credits
This intermediate level course continues the development of basic grammatical principles in spoken and written form. Using appropriate grammar in communication is stressed. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0643 - ESL Writing for Communication
3 Credits
This intermediate level course continues development of paragraph writing with attention to organization, word economy and order, paragraph development with unity and coherence needed for longer connected discourse. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0653 - ESL Speaking for Communication
3 Credits
This intermediate level course continues the development of oral communication strategies. Vocabulary development, grammatical issues and context usage are examined in this course. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced Laboratory may be required.

ESLG 0713 - ESL Listening for Academic Purposes
3 Credits
This advanced level course develops listening skills necessary in an academic setting. The emphasis is on identifying important points and note taking strategies. Listening passages are based on college lecture material. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0723 - ESL Reading for Academic Purposes
3 Credits
This advanced level course develops reading skills necessary in an academic setting. Texts are based on actual college level textbooks. A variety of strategies for academic reading are addressed. Speed and comprehension are stressed. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0733 - ESL Grammar for Academic Purposes
3 Credits
This advanced level course develops the advanced English grammatical concepts necessary for success in the American college classroom. Written and spoken forms are developed. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0743 - ESL Writing for Academic Purposes
3 Credits
This advanced level course develops writing skills necessary for success in the American college classroom with attention to essay development. Organization of multiple paragraphs, word economy and vocabulary development are examined in this course. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0753 - ESL Speaking for Academic Purposes
3 Credits
This advanced level course develops speaking strategies necessary in an academic setting as well as daily life. The emphasis is on speaking on and American classroom setting as well as development of idiomatic speech. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0763 - ESL TOEFL Preparation
3 Credits
This course reviews English reading, writing, listening and speaking skills to prepare students for the Test of English as a Foreign Language (TOEFL). Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0813 - ESL Listening for College
3 Credits
This advanced level course continues the development of listening strategies necessary in an American college setting. The emphasis is on note-taking and identifying verbal and non-verbal cues. Listening passages are based on college lecture material. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0823 - ESL Reading for College
3 Credits
This advanced level course continues the development of college level reading skills. Speed and comprehension are the focus. Texts are based on authentic college texts. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0833 - ESL Grammar for College
3 Credits
This advanced level course continues the development of English grammatical concepts necessary for success in the American college classroom. Written and spoken forms are focused on. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0843 - ESL Writing for College
3 Credits
This advanced level course continues to develop the essay writing skills necessary for success in the American college. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0853 - ESL Speaking for College
3 Credits
This advanced level course continues the development of speaking strategies in both academic and daily life settings. The emphasis is on speaking in a variety of classroom situations and the use of idiomatic speech. Placement is determined by the ESL Program. Lecture 3 hours. A self-paced laboratory may be required.

ESLG 0990 - Selected Topics in English as a Second Language
1-4 Credits
The study and/or analysis of a selected topic in ESL. May be repeated with a different topic. Placement determined by the ESL Program. Lecture 1-4 hours. Self-paced laboratory may be required.

FIRE AND EMERGENCY SERVICES

FESR 1013 - Fire Practices I
3 Credits
A general state-approved course covering minimum requirements in firefighting skills and basic knowledge designed to enable a beginning firefighter to perform public firefighting services. Emphasis is placed on forcible entry, rope and portable extinguisher practices, ladder, hose, salvage and overhaul practices, and fire stream practices. Lecture 2 hours. Laboratory 2 hours.

FESR 1023 - Fire Practices II
3 Credits
A companion course to Fire Practices I to equip a beginning firefighter with specific skills and theories in approved methods and operating procedures including fire apparatus practices, ventilation theory and practices, rescue and first aid practices, and fire prevention inspection procedures. Lecture 2 hours. Laboratory 2 hours.

FESR 1313 - Fundamentals of Fire Protection
3 Credits
The history and development of fire protection; the role of the fire service in the development of civilization; introduction to general fire hazards; and a discussion of the problems and possible solutions for current and future fire protection. Lecture 3 hours. No Laboratory.

FESR 1333 - Fire Protection Hydraulics and Water Supply
3 Credits
Mathematics designed to develop understanding of fluid flow through hoses, pipes, pumps, and fire protection appliances. Water supply and distribution analysis using hydraulics calculations. Testing techniques to detect anomalies in design or performance capabilities. Lecture 3 hours. No Laboratory. Prerequisite: One year of high school algebra or MATH 0013.

FESR 1343 - Fundamentals of Fire Prevention
3 Credits
The fundamentals of fire prevention codes and their enforcement; the techniques of fire safety inspection which result in maximum compliance; fire prevention through the methods of public fire safety education. Lecture 3 hours. No Laboratory.

FESR 1353 - Introduction to Emergency Incident Management
3 Credits
The aspects of tactics and strategy in extinguishing fires; pre-fire plans, organization of the fire ground, including techniques of using available equipment and manpower; a study of conflagrations and techniques of predicting fire severity; the development of skills for effective response to crisis. Lecture 3 hours. No Laboratory.

FESR 1363 - Fire Investigation and Arson
3 Credits
The firefighter's role in fire investigations; the method and mechanics of protecting, searching, and controlling the fire scene; determining the point or origin, path of fire travel, and fire causes; interviews and interrogations; recognizing and preserving evidence; Oklahoma arson laws; alibis, motives, providing the corpus delicti, preparation of the case, court testimony, and reports and records; juvenile fire setters. Lecture 3 hours. No Laboratory.

FESR 1403 - Fire Prevention Inspection Certification
3 Credits
A course leading to State Certification in fire prevention inspection covering the following topics: letter writing, chemistry of fire, hazards and causes, sprinkler systems, N.F.P.A. Code Numbers 30, 70 and 101, blueprint reading, public fire education, and the management of a fire prevention inspection program. Lecture 2 hours. Laboratory 2 hours.

FESR 1413 - Fire Cause Determination and Investigation
3 Credits
A course leading to State Certification in fire investigation covering the following topics: report writing, fire scene investigation, fire cause determination, photography, evidence gathering and preservation, interviewing and interrogation, motives, structural investigation, wildland investigation, legal aspects, courtroom procedures, and case studies. Lecture 2 hours. Laboratory 2 hours.

FESR 1431 - Life Safety Code Seminar
1 Credit
A survey of the National Fire Protection Association's Life Safety Code, including its history and development, as well as its current requirements and application. Lecture 1 hour. No Laboratory.

FESR 1451 - Fire Investigation Overview
1 Credit
An overview of the current state of the art of fire investigations delivered in a seminar format. Lecture 1 hour. No Laboratory.

FESR 2108 - Basic Emergency Medical Technician Certification
8 Credits
A study of the role of the EMT, CPR, triage, patient assessment, treatment of shock, hemorrhage, unconscious patients, fracture, traumatic injuries, medical emergencies, light extrication, and Universal Precautions. A field and hospital practicum is an integral part of the course. Curriculum is prescribed by the U.S. DOT and controlled by the Oklahoma State Department of Health. Advanced standing credit will only be granted upon proof of current National Registry Certification as an EMT-Basic. Lecture 6 hours. Laboratory 4 hours.

FESR 2213 - Introduction to Homeland Defense
3 Credits
Presents a broad overview of an emergency management system and the importance of an integrated approach to managing emergencies. Enables the student to formulate the elements of an integrated teamwork system and devise specific actions for improving their own contributions to local emergency management teams. Focuses on all disciplines that work together in planning for or responding to emergencies. Lecture 3 hours. No Laboratory.

FESR 2313 - Building Construction for Fire Protection
3 Credits
Concepts in fire safe building design and construction to include a detailed study of materials, assemblies and methods, building codes and the Life Safety Code, and relationships among public and private agencies with fire safety interests. Lecture 3 hours. No Laboratory.

FESR 2323 - Fire and Emergency Services Administration
3 Credits
Planning and organization for the municipal fire service, methods of management and supervision applied to the fire service, relations with other municipal entities, the bargaining agent and the public, and the expanding scope of municipal fire service responsibilities. Lecture 3 hours. No laboratory.

FESR 2343 - Fire Behavior and Combustion
3 Credits
A review of basic physical science; fundamental chemistry and physics of fire; the hazards of many materials, systems, and processes, and appropriate techniques to control their risks. Lecture 3 hours. No Laboratory

FESR 2403 - Fire Protection Systems
3 Credits
A study of fire hazards related to various industrial processes, techniques, and facilities; the design and properties of private fire protection devices and agents; automatic fire detection and fire extinguishing systems; familiarization with regulatory agencies, codes, and standards. Lecture 3 hours. No Laboratory.

FESR 2423 - Fire Officer Preparation
3 Credits
Designed to prepare firefighters to assume leadership positions in the fire service. Topics include driving and pumping fire apparatus, ladder operations, fire pumps and hydraulics, pre-fire planning, records, emergency communications, leadership and team effectiveness, fire tactics, hazardous materials and safety, fire prevention through inspections, investigations, and public fire safety education. Lecture 2 hours. Laboratory 2 hours.

FESR 2433 - Fire Problems and Solutions
3 Credits
This course provides a survey of current issues and problems in the fire service. Alternative methods of addressing these problems are developed by the students using the nominal group process. Lecture 3 hours. No Laboratory.

FESR 2463 - Emergency Services Internship
3 Credits
This advanced level course provides 160 hours of experience in a fire service administrative functional area with a local fire department. Students must have completed seven of the core FPT courses. Instructor permission required. Lecture 3 hours. No Laboratory.

FESR 2990 - Selected Topics in Fire and Emergency Services
1-4 Credits
The study and/or analysis of a selected topic in Fire Protection Technology. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

FOREIGN LANGUAGE

Tulsa Community College offers courses in the following languages, each of which has its own category heading and course prefix: Arabic, Chinese, ESL, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, and Spanish. These languages are listed in alphabetical order.

FRENCH

FREN 1001 - French for Communication I
1 Credit
A companion course to FREN 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with FREN 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: FREN 1103 or approval of instructor.

FREN 1031 - French Pronunciation
1 Credit
A beginning course in French with special emphasis on pronunciation and the oral skills. May be taken simultaneously with FREN 1103. Lecture 1 hour. Self-paced lab may be required. Prerequisite: FREN 1103 or approval of instructor.

FREN 1103 - French I
3 Credits
A beginning course in understanding, speaking, reading, and writing French. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required.

FREN 1201 - French for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Conducted in French. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: FREN 1103 or approval of Instructor.

FREN 1213 - French II
3 Credits
Continued instruction in understanding, speaking, reading, and writing French. The second in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: FREN 1103 or approval of instructor.

FREN 1301 - French for Communication III
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in French. Self-paced laboratory may be required. Prerequisite: FREN 1213 or approval of instructor.

FREN 1313 - French III
3 Credits
Continued instruction in understanding, speaking, reading, and writing French. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: FREN 1213 or approval of instructor.

FREN 1401 - French for Communication IV
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in French. Lecture 1 hour. No Laboratory. Prerequisite: FREN 1313 or approval of instructor.

FREN 1413 - French IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing French. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: FREN 1313 or approval of instructor.

FREN 2033 - French Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Francophone societies. Conducted in English. Lecture 3 hours. Self-paced laboratory may be required.

FREN 2041 - French - Introduction to the Arts
1 Credit
An introduction to the French arts with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day French activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

FREN 2071 - French History and Geography Introduction
1 Credit
A survey of French history and geography as it relates to modern day French societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

FREN 2113 - Intermediate French I
3 Credits
An intermediate course in understanding, speaking, reading, and writing French. Taught in French. Lecture 3 hours. No Laboratory. Prerequisite: FREN 1413 or approval of instructor.

FREN 2121 - Intermediate French Communication
1 Credit
Intensive practice in speaking French at the intermediate level covering a wide range of subjects; i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in French. Lecture 1 hour. No Laboratory. Prerequisite: FREN 2113 or approval of instructor.

FREN 2143 - French Civilization and Culture
3 Credits
Conversations and readings concerning French culture and civilization. Conducted in French. Lecture 3 hours. No Laboratory. Prerequisite: FREN 2113 or approval of instructor.

FREN 2213 - Intermediate French II
3 Credits
An intermediate course in understanding, speaking, reading, and writing French. Taught in French. Lecture 3 hours. No Laboratory. Prerequisite: FREN 1413 or approval of instructor.

FREN 2263 - Intermediate French Literature
3 Credits
Development of reading skills in the target language using intermediate level literary texts. Conducted in French. Lecture 3 hours. No Laboratory. Prerequisite: FREN 2113 or approval of instructor.

FREN 2320 - International Work and/or Study Seminar
1-3 Credits
Practicum with an international firm and/or study abroad. Focus on application and enhancement of language skills (oral and written forms). Lecture and/or laboratory equivalent. Prerequisite: Permission of Dean of Global education and Associate Dean before enrollment and in advance of work/ study abroad experience.

FREN 2330 - French International Seminar and/or Field Studies
1-3 Credits
This course is designed to provide and on-site experience in the selected French speaking country. Includes lectures, readings, oral interactions, and written reports. All or a portion of instruction and activities are conducted at the international site. Focus on language (oral and written forms) and culture development. Prerequisite: Permission of Dean of Global Education and Associate Dean before enrollment and in advance of in-country experience.

FREN 2413 - French Translating
3 Credits
Translating skills course with focus on translating the written language of French to English with some English to French. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: FREN 2113 or approval of instructor.

FREN 2421 - French Culture Comparisons
1 Credit
Focus on the cultural aspects of the Francophone people. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

FREN 2433 French Cinema and Conversation
3 Credits
Analytical study of French films in terms of historical and cultural contexts. Students will use language in a meaningful way to address the different cultural aspects portrayed in the films. Lecture 3 hours. Self-Paced Laboratory may be required

FREN 2523 - Intermediate French Grammar and Composition
3 Credits
This course includes a thorough review of syntax and grammar and the development of composition skills. Conducted in French and English. Lecture 3 hours. Self-paced lab may be required. Prerequisite: FREN 2213 or 18 hours of French or permission of instructor.

FREN 2533 - Advanced French Conversation
3 Credits
This course is intended for students who have studied French structure through the intermediate level and have gained a basic oral fluency and proficiency. Class activities will focus on acquiring sufficient speaking skills to interact with native speakers and the use of French as the main language of communication without the aid of an interpreter. Conducted in French. Lecture 3 hours. Self-paced lab may be required. Prerequisite: FREN 2213 or 18 hours of French or permission of instructor.

FREN 2990 - Selected Topics in French
1-4 Credits
The study and/or analysis of a selected topic in French. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

GAMING OPERATIONS

GMOP 1113 - Basic Room & Basic Game Operations
3 Credits
Covers observation techniques for suspicious activity and breaches of policy and procedure including basic camera systems and operation; policy and procedures for the various geographical areas of the casino; observation techniques for gaming sheets, slots and table games; rules and regulations for casino games; and personnel roles, duties, and functions. Lecture 3 hours. No Laboratory.

GMOP 1213 - Gaming Management & Protection
3 Credits
History, development, and management of casinos and gaming. Emphasis on environment, operations, regulation, accounting, auditing and taxation of casinos and gaming operations. Also covers basic gaming sheets, slots, and table games; observation of suspicious activity and breaches of policy and procedure. Lecture 3 hours. No Laboratory. Prerequisite: GMOP 1113 or instructor approval.

GEOGRAPHIC INFORMATION SYSTEMS

GIS 2344 - Introduction to Geographic Information Systems
4 Credits
An introductory course designed to acquaint students with the theory and uses of Geographic Information Systems to capture, store, query, and analyze data referenced to a location on the Earth's surface. Topics include history and applications, map projections, coordinate systems, data sources, structures, and models, along with methods of data acquisition, management, manipulation, analysis, and visualization. The lab component will provide students hands-on experiences with ArcGIS software. Lecture 3 hours. Laboratory 3 hours.

GIS 2373 - GIS Data Acquisition and Management
3 Credits
This course will serve as an introduction to spatial data acquisition for Geographic Information Systems. Students will gain the experience necessary in order to acquire, convert, and create spatial data. Emphasis will be placed on Global Positioning Systems, Metadata, and the creation and editing of data in a personal geo database. Lecture 2 hours. Laboratory 3 hours.

GIS 2383 - Advanced Geographic Information Systems
3 Credits
Students will explore various components of spatial analysis and raster data. The lab component of this course will provide students with an introduction to the ArcGIS Spatial Analyst and 3D Analyst extensions. This course is a continuation of the Introduction to GIS course (GEOG 2344 or GIS 2344) course. Lecture 2 hours. Laboratory 3 hours. Prerequisite: GEOG 2344, GIS 2344, SURV 2344 or instructor approval.

GIS 2393 - Geographic Information Systems Practicum
3 Credits
This course is designed to provide the student with experience in designing, implementing, and completing GIS projects. Emphasis will be placed on project planning, data acquisition, management, analysis, and presentation. Prior knowledge of GIS is required. Lecture 1 hour. Laboratory 4 hours. Prerequisites: GIS/GEOG/SURV 2344, GEOG 2354, GIS 2373, GIS 2383 or instructor approval.

GIS 2990 - Selected Topics in Geographical Information Systems
1-4 Credits
The study and/or analysis of selected topics in Geographical Information Systems. Lecture 1-4 hours. Laboratory 1-4 hours.

GEOGRAPHY

GEOG 1014 - Geography (Physical) (L)
4 Credits
Physical geography is a survey of those sciences which study the natural environment. The course presents a study of meteorology, climatology, geology, hydrology, oceanography, soil science, and plant and animal ecology. A major thrust of the course is to establish the interrelatedness of these sciences in terms of scientific principles which apply to each of them. Attention is given to the laws of thermodynamics as well as factors influencing the distributions of weather phenomena, climate zones, landforms, oceanic processes, soil processes, plants, and animals. The course is specifically aimed at non-science majors. Lecture 3 hours. Laboratory 2 hours.

GEOG 1023 - World Geography (Economic) (S)
3 Credits
A study of the relation of mankind to his environment and his utilization of natural resources, dealing with problems of production manufacture, and distribution of goods throughout the world. The aspects of primitive subsistence and degrees of commercialism are considered. Lecture 3 hours. No Laboratory.

GEOG 1043 - Introduction to Cultural Geography (S,I,H)
3 Credits
An introduction to the basic concepts associated with people and their relationships to their physical and cultural environment, with an emphasis on social, economic and political organization. Lecture 3 hours. No laboratory.

GEOG 2013 - Meteorology
3 Credits
A study of the Earth's atmosphere including its dynamics, processes, and structure as they pertain to the establishment of weather. Attention will be given to the relationships between weather conditions and air pollution. Lecture 3 hours. No Laboratory.

GEOG 2033 - World Regional Geography (S,I,H)
3 Credits
A study of China, the former USSR, Europe, Latin America, the Arab world, and other parts of our globe. Special emphasis will be given to the five dimensions: political, economic, historical, social, and geographic as each relates to the specific regions. Foresights and options will be examined to improve our vision of the modern world with its ever more close associations and dependencies. Lecture 3 hours. No laboratory.

GEOG 2153 - Human Ecology
3 Credits
A study of the environment apart from mankind (natural environment), the influence of humans on the environment with emphasis on population growth and problems it has created relative to environmental features such as soil, waters, vegetation, wildlife, landforms, and the atmosphere. Lecture 3 hours. No Laboratory.

GEOG 2344 - Introduction to Geographic Information Systems
4 Credits
An introductory course designed to acquaint students with the theory and uses of Geographic Information Systems to capture, store, query, and analyze data referenced to a location on the Earth's surface. Topics include history and applications, map projections, coordinate systems, data sources, structures, and models, along with methods of data acquisitions, management, manipulation, analysis, and visualization. The lab component will provide students hands-on experiences with ArcGIS software. Lecture 3 hours. Laboratory 3 hours.

GEOG 2354 - Computer Cartography
4 Credits
This course will provide students with a brief history and an introduction of cartography. Students will be introduced to the basics of map creation, interpretation, and design. The lab component of this course will introduce students to ESRI's ArcView software mapping capabilities. Lecture 3 hours. Laboratory 2 hours.

GEOG 2990 - Selected Topics in Geography
1-4 Credits
The study and/or analysis of a selected topic in Geography. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

GEOLOGY

GEOL 1014 - General Geology (Physical) (L)
4 Credits
Study of earth materials and processes for science and non-science majors. Includes examination of the Earth's interior, magnetism, gravity, setting in space, minerals, rocks, structure, and geologic processes. Lecture 3 hours. Laboratory or Field Studies 3 hours.

GEOL 1024 - General Geology (Historical) (L)
4 Credits
Study of earth materials and processes within a time perspective. For science and non-science majors. Utilizes fossils, geologic maps, and field studies to interpret geologic history. Lecture 3 hours. Laboratory or Field Studies 3 hours.

GEOL 1113 - Introduction to Oceanography
3 Credits
General survey of the scientific framework of the four specializations of oceanographic study- biological, chemical, geological/geophysical, and physical oceanography. Lecture 3 hours. No Laboratory.

GEOL 2021 - Map and Airphoto Interpretation
1 Credit
Recognition of landforms and geologic features on topographic maps and airphotos. Includes interpretation of geologic maps and fundamentals basic to all types of contour maps. No Lecture. Laboratory 3 hours. Prerequisite: GEOL 1014 or GEOG 1014, or instructor approval.

GEOL 2990 - Selected Topics in Geology
1-4 Credits
The study and/or analysis of a selected topic in Geology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

GERMAN

GRMN 1001 - German for Communication I
1 Credit
A companion course to GRMN 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with GRMN 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: GRMN 1103 or approval of instructor.

GRMN 1031 - German Pronunciation
1 Credit
A beginning course in German with special emphasis on pronunciation and the oral skills. May be taken simultaneously with GRMN 1103. Lecture 1 hour. No Laboratory. Prerequisite: GRMN 1103 or approval of instructor.

GRMN 1103 - German I
3 Credits
A beginning course in understanding, speaking, reading, and writing German. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required.

GRMN 1201 - German for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Conducted in German. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: GRMN 1103 or approval of instructor.

GRMN 1213 - German II
3 Credits
Continued instruction in understanding, speaking, reading, and writing German. The second in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: GRMN 1103 or approval of instructor.

GRMN 1301- German for Communication III
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in German. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: GRMN 1213 or approval of instructor.

GRMN 1313 - German III
3 Credits
Continued instruction in understanding, speaking, reading, and writing German. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: GRMN 1213 or approval of instructor.

GRMN 1401 - German for Communication IV
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in German. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: GRMN 1313 or approval of instructor.

GRMN 1413 - German IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing German. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: GRMN 1313 or approval of instructor.

GRMN 2033 - German Literature in Translation
3 Credits
Readings of literary in translation selected to increase the student's knowledge of German societies. Conducted in English. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: Permission of the instructor.

GRMN 2041 - German - Introduction to the Arts
1 Credit
An introduction to the German arts with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day German activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

GRMN 2071 - German History and Geography Introduction
1 Credit
A survey of German history and geography as it relates to modern day German societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

GRMN 2113 - Intermediate German I
3 Credits
An intermediate course in understanding, speaking, reading, and writing German. Taught in German. Lecture 3 hours. No Laboratory. Prerequisite: GRMN 1413 or approval of instructor.

GRMN 2121 - Intermediate German Communication
1 Credit
Intensive practice in speaking German at the intermediate level covering a wide range of subjects; i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in German. Lecture 1 hour. No Laboratory. Prerequisite: GRMN 2113 or approval of instructor.

GRMN 2143 - German Culture and Civilization
3 Credits
Focus on conversational skills and readings concerning German culture and civilization. Conducted in German. Lecture 3 hours. No Laboratory. Prerequisite: GRMN 2113 or approval of instructor.

GRMN 2213 - Intermediate German II
3 Credits
An intermediate course in understanding, speaking, reading, and writing German. Taught in German. Lecture 3 hours. No Laboratory. Prerequisite: GRMN 1431 or approval of instructor.

GRMN 2263 - Intermediate German Literature
3 Credits
Development of reading skills in the target language using intermediate level literary texts. Conducted in German. Lecture 3 hours. No Laboratory. Prerequisite: GRMN 2113 or approval of instructor.

GRMN 2320 - International Work and/or Study Seminar
1-3 Credits
Practicum with an international firm and/or study abroad. Focus on application and enhancement of language skills (oral and written forms). Lecture and/or laboratory equivalent. Prerequisite: Permission of Dean of Global Education and Associate Dean before enrollment and in advance of work/study abroad experience.

GRMN 2330 - German International Seminar and/or Field Studies
1-3 Credits
This course is designed to provide an on-site experience in the selected German speaking country. Includes lectures, readings, oral interactions, and written reports. All or a portion of instruction and activities are conducted at the international site. Focus on language (oral and written forms) and culture development. Prerequisite: Permission of Dean of Global Education and Associate Dean before enrollment and in advance of in-country experience.

GRMN 2413 - German Translating
3 Credits
Translating skills course with focus on translating the written language of German to English with some English to German Lecture 3 hours. Self- paced laboratory may be required. Prerequisite: GRMN 1413 or approval of instructor.

GRMN 2421 - German Culture Comparisons
1 Credit
Focus on the cultural aspects of the Germanic people. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

GRMN 2523 - Intermediate German Grammar and Composition
3 Credits
This course includes a thorough review of syntax and grammar and the development of composition skills. Conducted in German and English. Lecture 3 hours. Self-paced lab may be required. Prerequisite: GRMN 2213 or 18 hours of German or approval of instructor.

GRMN 2533 - Advanced German Conversation
3 Credits
This course is intended for students who have studied German structure through the intermediate level and have gained a basic oral fluency and proficiency. Class activities will focus on acquiring sufficient speaking skills to interact with native speakers and the use of German as the main language of communication without the aid of an interpreter. Conducted in German. Lecture 3 hours. Self-paced lab may be required. Prerequisite: GRMN 2213 or 18 hours of German or approval of instructor.

GRMN 2990 - Selected Topics in German
1-4 Credits
The study and/or analysis of a selected topic in German. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

GRAPHICS AND IMAGING TECHNOLOGIES

GRPH 1011 - Graphics & Imaging Technologies Introduction
1 Credit
This course presents an overview of the graphic arts industry and career opportunities in the offset and flexographic industry. Lecture 1 hour. No Laboratory.

GRPH 1143 - Reproduction Photography
3 Credits
This course focuses on techniques and procedures for creating a photographic negative to be used to produce an offset printing plate. Students are taught the effective use of darkroom equipment, safe use of chemicals, and camera operations include line negative, halftone negative and diffusion transfer. Lecture 3 hours. Laboratory 1 hour Prerequisite: GRPH 1011.

GRPH 1223 - Image Assembly/Platemaking
3 Credits
In this course, image preparation techniques for assembling a photographic negative and producing an offset printing plate are taught. Flat reproduction, contacting and proofing, metal and photo-direct reproduction and special platemaking operations are covered. Lecture 3 hours. Laboratory 1 hour. Prerequisite GRPH 1143.

GRPH 1333 - Basic Press Operation
3 Credits
The student will be taught equipment and chemical safety procedures for operating presses, set up and operation, cleanup and maintenance procedures, and use of materials and chemicals. Lecture 3 hours. Laboratory 1 hour. Prerequisite: GRPH 1223.

GRPH 1413 - Basic Electronic Imaging
3 Credits
This course focuses on image composition techniques and procedures utilizing page layout and drawing software. Basic principles of design and layout, electronics imaging software, type and typography, scanning and layout are taught Lecture 3 hours. Laboratory 1 hour. Prerequisite: GRPH 1011.

GRPH 1443 - Finishing/Binding
3 Credits
This course covers techniques and procedures involved in finishing the printed copy: cutting, folding, stitching, collating, numbering, scoring, perforating, and binding. Lecture 3 hours. Laboratory 1 hour. Prerequisite: GRPH 1011.

GRPH 2014 - Advanced Electronic Imaging I
4 Credits
Provides a further study of imaging utilizing advanced techniques, software usage, composition techniques and procedures utilizing Quark Xpress. Lecture 4 hours Laboratory 2 hours. Prerequisite: GRPH 1413.

GRPH 2064 - Advanced Electronic Imaging II
4 Credits
Advance study of electronic imaging utilizing techniques, software, composition techniques and procedures utilizing Adobe Illustrator and Photoshop. Lecture 4 hours. Laboratory. 2 hours. Prerequisite. GRPH 2014.

GRPH 2124 - Advanced Press Operation I
4 Credits
This course covers methods and procedures used to produce one and two color reproduction using various offset and flexographic printing presses. (AB Dick 360, AB Dick 8800 and 9850 with colorhead). Lecture 4 hours. Laboratory 2 hours. Prerequisite: GRPH 1443.

GRPH 2224 - Advanced Press Operation II
4 Credits
This course focuses on methods and procedures used to produce one and two color reproduction using various offset and flexographic printing presses. (Itek 975, AB Dick 3500, and Cadet Flexographic Press). Lecture 4 hours. Laboratory 2 hours. Prerequisite: GRPH 2124.

GREEK

GREE 1001 - Greek for Communication I
1 Credit
A beginning course in basic language with emphasis on speaking and comprehension skills. May be taken simultaneously with GREE 1103. Lecture 1 hour. No Laboratory. Prerequisite: GREE 1103 or approval of instructor.

GREE 1023 - Biblical Greek I
3 Credits
This course will serve as an introduction to New Testament Greek with an emphasis on work with biblical texts and Biblical Greek grammar. Lecture 3 hours. No Laboratory.

GREE 1103 - Greek I
3 Credits
An elementary course in understanding, speaking, reading, and writing Greek. The first in a sequence of two related course sections. See GREE 1213. Lecture 3 hours. No Laboratory.

GREE 1143 - Greek for Travel I
3 Credits
A beginning course in understanding, speaking, reading, and writing Greek with emphasis on language needed for traveling. Includes basic language and culture concepts. Lecture 3 hours. No Laboratory.

GREE 1201 - Greek for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Lecture 1 hour. No Laboratory. Prerequisite: GREE 1103 or approval of instructor.

GREE 1213 - Greek II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Greek. Lecture 3 hours. No Laboratory. Prerequisite: GREE 1103 or approval of instructor.

GREE 1223 - Biblical Greek II
3 Credits
This course of elementary readings in New Testament Greek will involve translation of narrative material to gain a familiarity with simple biblical texts and to continue the process of vocabulary building. Lecture 3 hours. No Laboratory. Prerequisite: GREE 1023 or approval of instructor.

GREE 1313 - Greek III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Greek. Lecture 3 hours. No Laboratory. Prerequisite: GREE 1213 or approval of instructor.

GREE 1413 - Greek IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Greek. Lecture 3 hours. No Laboratory. Prerequisite: GREE 1313 or approval of instructor.

GREE 2990 - Selected Topics in Greek
1-4 Credits
The study and/or analysis of a selected topic in Greek. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

HEALTH CARE ADMINISTRATION
(See also Business course descriptions and Business - Health Care Business Operations)

HCAD 1103 - Legal Practices in Health Care
3 Credits
Both general and specific legal practices of health care delivery and administration are explored in this course. Topics included are management issues, credentialing, liability, access to and financing of treatment, consent to treatment, corporate and structural issues for the health care system and emerging legal topics. Lecture 3 hours. No Laboratory.

HCAD 1113 - Risk Management in Health Care
3 Credits
This course presents an introduction to the basic concepts of maintaining a safe and healthful environment in patient care facilities. An overview of loss control topics including patient-visitor liability, accident problem analysis investigation, workers compensation, legislative review and alternative risk management action is presented. Lecture 3 hours. No Laboratory.

HEALTH INFORMATION TECHNOLOGY
(Medical Records)

HITC 1113 - Introduction to Health Information Management
3 Credits
Students are exposed to the educational requirements and professional credentials for health information management as well as job functions, career opportunities, and alternative work settings. The organizational structure of the American Health Information Management Association (AHIMA) is reviewed along with member services provided. Record format, content, documentation guidelines, and procedures for quantitative and qualitative analysis of the record are also examined. Other topics addressed include: the master patient index, the number index, numbering and filing systems, record tracking, retrieval and retention, abstracting and the diagnosis, procedure, and physician indices. Lecture 3 hours. Laboratory 1 hour. Prerequisite: Admission to the Health Information Technology Program.

HITC 1131 - Health Care Delivery Systems and Trends
1 Credit
Students are exposed to the evolution and organization of current health care systems in the United States, regulatory agencies, health care organizations, health care settings (i.e., hospitals, ambulatory care, long term care, home health care, hospice), health care professionals, third party payers, and health care financing. Terminology associated with health care delivery systems will be defined and current trends with health care delivery examined. Lecture 1 hour. No Laboratory.

HITC 1213 - Statistics and Data Management
3 Credits
Basic statistics and health care statistics are introduced including definitions, sources, methods for collection and reporting, and analysis techniques to determine significance, reliability, validity, and/or manipulation. Registers (i.e., birth, death, cancer, and trauma) maintained in the health information management department are examined. Micrographics and optical imaging, as well as, computer applications and issues (i.e., data integrity, security and compatibility, networking capabilities, voice recognition and other technological advances) are also presented. Lecture 3 hours. Laboratory 1 hour. Prerequisite: HITC 1113, with a "C" or better.

HITC 1231 - Management of Medical Document Processing
1 Credit
This course is designed to expose students to report formats utilized in medical transcription, dictation challenges (i.e., accents, mumbling, speed problems, and specialized terminology), and dictation and transcription equipment. Other issues examined include automated authentication, voice recognition technology, centralized versus decentralized transcription, outsourcing of transcription services and incentive pay plans. Lecture 1 hour. Laboratory 1 hour. Prerequisite: CSYS 2073 or program director/ instructor approval.

HITC 1242 - Health Information Management in Alternate Care Settings
2 Credits
Alternate care settings (i.e., physician's office, ambulatory care, long term care, home health, hospice, subacute care, rehabilitation, mental health, and dental care) will be examined individually with respect to accrediting agencies, regulatory guidelines, and professional associations. An emphasis will be placed on documentation requirements, systems and administrative procedures, medical office procedures, software and technological tools and professional practice standards related to management of health information in each of the settings. Lecture 2 hours. No Laboratory. Prerequisite: HITC 1113 with a "C" or better or concurrent enrollment.

HITC 1333 - CPT and HCPCS Coding
3 Credits
The course will examine the process of coding procedures using Current Procedural Terminology IV (CPT-IV) and HCFA's Common Procedural Coding System (HCPCS). CPT coding guidelines, section guidelines, modifier usage, and code linkage will be examined in detail. Students will be exposed to HCPCS codes and the hospital chargemaster. Coding exercises will demonstrate the student's understanding of the principles of CPT coding. Lecture 2 hours. Laboratory 2 hours. Prerequisites: BI0 1314 and ALDH 1323, with a "C" or better.

HITC 1353 - Legal Aspects of Health Records
3 Credits
The focus of this course is on legal issues affecting health information. It provides exposure to the American legal system, legal terminology, case studies, and statutes with practical application of these principles and concepts to medical records. Confidentiality and security of medical information is addressed as are HIPAA regulations. Other topics examined include: birth and death certificates, informed consent, response to subpoenas, admissibility, discoverability, negligence, liability, living wills, and organ donations. Lecture 3 hours. No laboratory. Prerequisite: HITC 1113, with a "C" or better.

HITC 1363 - ICD-9-CM Coding I
3 Credits
The principles, guidelines, and conventions utilized in coding diagnoses and procedures with the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) are examined in detail. Differences between hospital and physician based coding will be delineated. Pertinent reference books and publications will be identified, and guidelines from the Uniform Hospital Discharge Data Set (UHDDS) will be reviewed. Proficiency in coding will be demonstrated through coding exercises and practical application. Lecture 2 hours. Laboratory 2 hours. Prerequisites: B10 1314 and ALDH 1323 with a "C" or better.

HITC 1412 - Practicum I
2 Credits
Supervised experience in a hospital's health information management department. Emphasis on record assembly, quantitative analysis, chart completion, master patient index, abstracting, indexes and registers, statistics, filing, microfilming and/or optical imaging, birth registry, and release of information. No Lecture. Laboratory 8 hours. Prerequisites: HITC 1213 and HITC 1353 with a "C" or better.

HITC 2053 - Pathophysiology and Pharmacology I
3 Credits
Review of current theories of disease process by body systems to assist the student in interpreting documentation within the medical record. This course will familiarize students with common diseases by examining diagnostic criteria, tests and procedures, etiological factors, associated complications and treatment regimens, including procedures and/or medications. Drug classification and adverse drug reactions are examined as are the implications of diagnostic test results. Lecture 3 hours. No Laboratory. Prerequisites: BIOL 1314 and ALDH 1323, with a "C" or better.

HITC 2113 - Management Techniques for Health Information Services
3 Credits
During this course the application of basic management techniques as they relate to health information services are examined including planning, organizing, staffing, supervising, and controlling. Students will be exposed to the development and use of job descriptions, policies and procedures, productivity standards, performance evaluations, and budgets. Techniques for resume writing, interviewing, counseling, procedure analysis, forms design, department design and/or layout with ergonomic equipment consideration, and purchase, will also be addressed. Critical thinking skills, decision making techniques and team building concepts are examined. Lecture 3 hours. No laboratory. Prerequisite: HITC 1213, with a "C" or better.

HITC 2121 - Physician Billing and Reimbursement
1 Credit
Introduction to physician billing and reimbursement issues including insurance verification, preauthorization, claims processing and adjudication, interpretation of explanation of benefits (EOB), appeal of denials, accounts receivable, postings and collections. Other issues examined include the physician fee schedule, Resource Based Relative Value System (RBRVS) and major third party players (private and government sponsored). Lecture 1 hour. Laboratory 1 hour. Prerequisites: HITC 1333 and HITC 1363 with a "C" or better and HITC 2403 or concurrent enrollment.

HITC 2133 - Reimbursement and Classification Systems
3 Credits
Students are introduced to the following reimbursement systems: Ambulatory Patient Classification (APC), Diagnosis Related Groups (DRG), Resource Utilization Groups (RUG), Home Health Resource Groups (HHRG), and the prospective payment systems for inpatient rehabilitation and psychiatric facilities. Retrospective and prospective reimbursement systems are examined as is capitation and managed care (HMO, PPO, etc). Other issues addressed include preparation of the UB-92, review of Remittance Advice, appeal of denials, case mix index, charge master maintenance and coding quality and compliance plans. Other nomenclature and classification systems (i.e., ICD-10-CM, ICD-10-PCS, SNDO, DSM, SNOMED, CDT) utilized in reimbursement or managing health information are investigated. Lecture 3 hours. No Laboratory. Prerequisites: HITC 1333 and HITC 1363 with a "C" or better and HITC 2403 or concurrent enrollment.

HITC 2153 - Pathophysiology and Pharmacology II
3 Credits
This course continues the review of current theories of disease process for the remaining body systems not covered in HITC 2053. Students will investigate common diseases by examining diagnostic criteria, tests and procedures, etiological factors, associated complications and treatment regimens, including procedures and/or medications. Drug classification and adverse drug reactions are examined as are the implications of diagnostic test results. Lecture 3 hours. No Laboratory. Prerequisites: BIOL 1314 and ALDH 1323 with a "C" or better.

HITC 2213 - Quality, Utilization, and Risk Assessment
3 Credits
Course includes a detailed examination of licensure and accreditation standards utilized to measure department compliance. Students are introduced to quality improvement theory and techniques (departmental and hospital-wide) and to the "team concept approach" including a review of member and/or facilitator skills needed to successfully participate. The course will also address the concepts and theories of utilization management, critical care pathways, severity of illness systems, quality improvement organizations, and risk management. The role of the medical staff coordinator in credentialing, privileging, committee preparation, and minutes documentation is also examined. Lecture 3 hours. No laboratory. Prerequisite: HITC 1213, with a "C" or better.

HITC 2342 - Coding and Reimbursement Internship
2 Credits
ICD-9-CM and CPT/HCPCS coding guidelines and principles are integrated and applied to advanced coding problems. Coding software, groupers and optimizers are utilized. Students receive supervised experience coding and abstracting medical information at a physician's office or billing service and at a hospital coding inpatient, outpatient and emergency room records. No Lecture. Laboratory 8 hours. Prerequisites: HITC 1333, HITC 1363, HITC 2403, HITC 2133, HITC 2121, HITC 2053 and HITC 2153 with a "C" or better or instructor approval.

HITC 2403 - ICD-9-CM Coding II
3 Credits
The application of coding principles and guidelines introduced in HITC 1363 will be continued. Source documents are reviewed to practice identifying diagnostic and procedural information to be coded. ICD-9- CM coding guidelines and UHDDS reporting guidelines are applied to diagnostic and procedural information obtained from the health records. This enables the student to establish the necessary skills for achieving totality of codes, coding accuracy, and appropriate sequencing. Students are introduced to coding software, groupers and optimizers. Lecture 2 hours. Laboratory 2 hours. Prerequisite: HITC 1363 with a "C" or better.

HITC 2412 - Practicum II
2 Credits
Supervised experience in alternative care settings including long term care, ambulatory care, subacute care, mental and rehabilitation facilities, hospice, home health and insurance companies. Emphasis is placed on policies and procedures and documentation requirements specific to each setting. Students will also have supervised exposure to the state quality improvement organization, tumor registry activities, quality improvement, utilization management, and risk management. No lecture. Laboratory 8 hours. Prerequisites: HITC 1412 and HITC 2213, with a "C" or better.

HITC 2990 - Selected Topics in Health Information Technology
1-4 Credits
The study and/or analysis of a selected topic in Health Information Technology. May be repeated with a different topic. Lecture 1-4 hours. No laboratory.

HEBREW

HEBR 1011 - Introduction to Hebrew
1 Credit
Includes a study of language structure and vocabulary of biblical scriptures. Lecture 1 hour. No Laboratory.

HEBR 1023 - Biblical Hebrew I
3 Credits
This course will serve as an introduction to biblical Hebrew with an emphasis on language use through work with biblical texts as well as instruction in the fundamentals of Hebrew grammar. Lecture 3 hours. No Laboratory.

HEBR 1223 - Biblical Hebrew II
3 Credits
This course of elementary readings in biblical Hebrew will involve translation of narrative material to gain a familiarity with simple biblical texts and to continue the process of vocabulary building. Lecture 3 hours. No Laboratory. Prerequisite: HEBR 1023 or approval of instructor or Associate Dean.

HEBR 2990 - Selected Topics in Hebrew
1-4 Credits
The study and/or analysis of a selected topic in Hebrew. May be repeated with a different topic. Lecture 1-4 hours. Self-paced laboratory may be required.

HISTORY

HIST 1033 - History of Oklahoma
3 Credits
Intercultural contributions from prehistoric to present, including explorations, Indian cultures, homesteading, and statehood. Lecture 3 hours. No Laboratory.

HIST 1044 - Oklahoma History plus Research
4 Credits
Intercultural contributions from prehistoric to present, including explorations, Indian cultures, homesteading, and statehood with individually directed research. Lecture 3 hours. Laboratory 2 hours.

HIST 1053 - Ancient and Medieval Western Civilization (H)
3 Credits
A survey of the background for development of civilization in the West including the Near East, Greece, and Rome through the Middle Ages and into the period of the Renaissance and Reformation. Lecture 3 hours. No Laboratory.

HIST 1063 - Modern Western Civilization (H)
3 Credits
The unfolding of the pattern of modern western civilization from the Renaissance to current times. A study of the Age of Revolution and the beginnings of industrialism in the nineteenth century and the social, economic, and political factors of recent world history. Lecture 3 hours. No Laboratory.

HIST 1073 - Twentieth Century World History (H) (I)
3 Credits
A survey of world history covering World War I and its aftermath, the Depression and the rise of totalitarianism, World War II, the decline of Western imperialism and the growth of the Third World, and the issues of the 1980's. Lecture 3 hours. No Laboratory.

HIST 1083 - Survey of English History to 1688 (H)
3 Credits
An introductory survey of English history from its prehistoric beginnings to 1688. The course will trace the early development of the English people, the growth of monarchy and representative government in the Middle Ages, and the golden age of the Tudors to the triumph of parliament over the Stuarts in 1688. Lecture 3 hours. No Laboratory.

HIST 1093 - Survey of English History from 1688 to Present (H)
3 Credits
An introductory survey of English history from the Glorious Revolution of 1688 to the present. The course will trace the emergence of the modern British political system after 1688, the growth and decline of the British Empire, and the role of Britain as a great world power. Lecture 3 hours. No Laboratory.

HIST 1483 - U.S. History 1492 to the Civil War Era
3 Credits
A general presentation of United States history, commencing with the European background and first discoveries. The pattern of exploration, settlement, and development of institutions is followed throughout the colonial period and the early national experience to Civil War era. Lecture 3 hours. No Laboratory.

HIST 1493 - U.S. History - Civil War Era to the Present
3 Credits
A survey of the unfolding of United States history from the Civil War Era to the present day. The study includes social, economic, and political aspects of American life and follows the development of the United States as a world power. Lecture 3 hours. No Laboratory.

HIST 2023 - Modern Eastern Civilization (H,I)
3 Credits
A survey of modern East Asian civilizations, including Japan, during the nineteenth and early twentieth centuries, and China, during the early and mid-twentieth century. A study of the impact of the West on these Eastern societies will be considered with particular emphasis placed on the problems of trade and diplomacy, the political and industrial transformation of Japan, the revolutionary process in China, and the rise of nationalism in Southeast Asia. Lecture 3 hours. No Laboratory.

HIST 2043 - Contemporary Affairs (H) (D)
3 Credits
A study of contemporary affairs based on news magazines, newspapers, and audiovisual resources. By studying current events the student can gain a greater insight into his/her own time and also into historical methodology. Emphasis on self-directed study and skills in using the Learning Resources Center. Lecture 3 hours. No Laboratory.

HIST 2163 - Introduction to the History and Philosophy of Science (H)
3 Credits
An introductory survey of the development of Western science, and some of the philosophical issues involved in this development. The development of the scientific method will be examined, as will the effects that this method has had on man's perception of himself and the world around him. Lecture 3 hours No Laboratory.

HIST 2223 - Modern Latin American History (I)
3 Credits
The study of Latin American republics after the independence movements, emphasizing the dictators and the liberal reform movement of the nineteenth century, U.S. involvements, and the recent social revolutions of the twentieth century. Lecture 3 hours. No Laboratory.

HIST 2333 - African-American History (H)
3 Credits
A survey of the African-American experience in American history, beginning with slavery during the creation of the United States as a democratic republic. Tracing the abolitionist movement, African-Americans in the Civil War, Reconstruction and post-Reconstruction, the course will focus on America's attempts to deal with the consequences of slavery throughout the twentieth century. Lecture 3 hours. No Laboratory.

HIST 2343 - Native American History
3 Credits
An introduction to the cultures, experiences, and conflicts of Native Americans from pre-history to the present. Lecture 3 hours. No Laboratory.

HIST 2533 - Survey of the American Frontier
3 Credits
An introductory survey of the frontier movement in American history. Attention will go to the various phases of the frontier, to the interaction of Anglo-immigrant and Indian cultures and to the effects that the process of western settlement had on the development of the American national character. Lecture 3 hours. No Laboratory.

HIST 2990 - Selected Topics in History
1-4 Credits
The study and/or analysis of a selected topic in History. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

HORTICULTURE TECHNOLOGY

HORT 1011 - Rose Culture
1 Credit
This course provides information on the culture and uses of a number of types and varieties of roses, their propagation, production, pruning, planting, and maintenance. Lecture 1 hour. No Laboratory.

HORT 1021 - Lawn Sprinkler System/Drainage
1 Credit
A study of subsurface water management required to establish and maintain high quality residential turf and landscape plants. Lecture 1 hour. No Laboratory.

HORT 1031 - Therapeutic Horticulture
1 Credit
An introductory background and orientation on how to improve the physical and mental health of the individual, using plants in many settings such as psychiatric, medical, vocational rehabilitation, geriatric, corrections and community gardening. Lecture 1 hour. No Laboratory.

HORT 1041 - Bonsai
1 Credit
The study of miniaturizing living trees in small containers and shaping into beautiful treelike forms. Lecture 1 hour. No Laboratory.

HORT 1051 - Nightscaping
1 Credit
Practical design study using outdoor lights to illuminate the home landscape. Lecture 1 hour. No Laboratory.

HORT 1061 - Water Gardening
1 Credit
The functions of water fountains and garden pools in the home landscapes to include design, construction, and maintenance. Lecture 1 hour. No Laboratory.

HORT 1071 - Annual and Perennial Culture
1 Credit
The culture and uses of a number of types and varieties of annuals and perennials including bulbs, corns, tuberous plants, and ornamental grasses to include their planting, maintenance, and propagation. Lecture 1 hour. No Laboratory.

HORT 1081 - Small Greenhouses
1 Credit
The use of materials, methods of construction, and related environmental systems used to operate the backyard greenhouse. Methods of growing are covered. Lecture 1 hour. No Laboratory.

HORT 1091 - Landscape Construction
1 Credit
Emphasis on the study of various landscape materials, their proper application in the residential and small commercial landscape. Job plan reading, specifications, bidding, with coverage of job estimating. Lecture 1 hour. No Laboratory.

HORT 1141 - Basic Plant Science
1 Credit
This course will instruct the student on how plants grow and reproduce, basic soil science, and an introduction to pest management using integrated pest management techniques. Lecture 1 hour. No laboratory.

HORT 1151 - Grow Your Own Vegetables, Fruit, and Nuts
1 Credit
Introduction to the sustainable production of vegetables both field grown and hydroponics, tree borne fruit such as apples and pecans, blackberries, and grapes. Lecture 1 hour. No Laboratory.

HORT 1171 - Sell Your Own Produce
1 Credit
This course will prepare a person to store, package and market produce that is grown at home. Lecture 1 hour. No Laboratory.

HORT 1181 - Build or Buy Your Own
1 Credit
This course is an overview of how to build or buy tools and structures needed for growing your crops using sustainable techniques of production. Lecture 1 hour. No laboratory.

HORT 1201 - Habitat Gardening
1 Credit
Class will discuss wildlife-friendly landscape techniques. This class will teach the basics of using native plants as well as other important features necessary for inviting nature to your doorstep. Lecture 1 hour. No Laboratory.

HORT 1221 - Principles of Floral Arranging
1 Credit
Principles of floral design, which include basic design shapes, corsages, bud vases, centerpieces and bows. Study will include care and handling of cut flowers from both the florist and the home garden. Each class will have a lecture followed by a creative hands-on laboratory. Lecture 1 hour. No Laboratory.

HORT 1233 - Introduction to Irrigation
3 Credits
This course will focus on the following topics: greenhouse and nursery; topics pertaining to lawn and turf; components and terms used in industry; differences in AC and DC current; use of test equipment; interpreting wiring diagrams and schematics; and systematic troubleshooting of mechanical and electrical components. Lecture 3 hours. No Laboratory.

HORT 1241 - Cacti and Kin/Orchids and Others
1 Credit
Identification, growth habits, cultural requirements and use of cacti, succulents, orchids and bromeliads for indoor and outdoor environments. Lecture 1 hour. No Laboratory.

HORT 1261 - Tropical Plant Care
1 Credit
This class will cover the basics for caring for common interior foliage plants used at home and in the office. Lecture 1 hour. No Laboratory.

HORT 1303 - Principles of Horticulture Technology
3 Credits
Introduction to horticultural principles and practices, including basics of landscape design, characteristics and the use of horticultural plants, and the scope and development of the horticulture industry. Lecture 2 hours. Laboratory 2 hours.

HORT 1313 - Ornamental Horticulture
3 Credits
Care and maintenance of trees, shrubs, hedges, groundcovers, and flowers. Principles of planting, transplanting, pruning, mulching, and fertilizing techniques will be covered. Emphasis will also be given to the care and identification of annuals and perennials. Lecture 3 hours. No Laboratory. Prerequisites: HORT 1303, HORT 1363, BIOL 1404, or consent of instructor.

HORT 1343 - Plant Identification
3 Credits
Identification and classification of plants. Will include growth habits, cultures, habitat, range and uses of vines, shrubs, trees, and ornamental plants. Lecture 3 hours. No Laboratory. Prerequisite: BIO 1404.

HORT 1353 - Fertilizers and Soils
3 Credits
The evaluation of soils and their properties in relation to plant growth and climate factors. Economical use of commercial fertilizers also will be discussed. Lecture 3 hours. No Laboratory. Prerequisite: HORT 1303.

HORT 1363 - Plant Diseases and Pests
3 Credits
A study of common plant diseases, insects, weeds, and other pests indigenous to the local horticulture industry. Will include recognizing pest life-cycle vulnerabilities, calculation of application rates, and a brief survey of laws pertaining to the industry. Lecture 3 hours. No Laboratory.

HORT 1381 - Home Landscape Design
1 Credit
Individual landscape plans will be constructed by the students with professional help from the instructor. Emphasis is on what will grow where, what works and does not work for your particular site. Where to buy and proper methods of installations for all materials will be discussed. Emphasis on solving particular landscape problems. Lecture 1 hour. No Laboratory.

HORT 1413 - Equipment Safety and Maintenance
3 Credits
Techniques involved in preventive maintenance, operational safety, and minor repairs of commonly used machinery and equipment used in landscaping, golf courses, parks, and related areas. The student will study safety program planning and develop actual maintenance schedules. Lecture 2 hours. Laboratory 2 hours.

HORT 2224 - Golf and Sports Turf
4 Credits
This course is a management based study of principles used in caring for and design of golf course and sports turf areas, with emphasis on seasonal maintenance and construction problems and procedures. This will include equipment and maintenance record keeping, labor and materials budgeting, and time scheduling of daily work activities such as mowing, fertilizing, and pest control. Lecture 4 hours. No Laboratory.

HORT 2251 - Horticulture Internship 1 Project
1 Credit
This course will provide a supervised work experience as an internship either with a local firm or a supervised special project with the student's current employer with input from TCC faculty. This course should be considered a capstone experience for advanced students in the Horticulture program. No Lecture. Laboratory 2 hours. Prerequisite: Permission of the instructor.

HORT 2262 - Horticulture Internship 2 Project
2 Credits
This course will provide a supervised work experience as an internship either with a local firm or a supervised special project with the student's current employer with input from TCC faculty. This course should be considered a capstone experience for advanced students in the Horticulture program. No Lecture. Laboratory 4 hours. Prerequisite: Permission of the instructor.

HORT 2273 - Horticulture Internship 3 Project
3 Credits
This course will provide a supervised work experience as an internship either with a local firm or a supervised special project with the student's current employer with input from TCC faculty. This course should be considered a capstone experience for advanced students in the Horticulture program. No Lecture. Laboratory 6 hours. Prerequisite: Permission of the instructor.

HORT 2353 - Lawn and Turf Care
3 Credits
The study of the factors influencing the successful establishment and maintenance of turf grasses. Includes budgets, schedules, and selection of equipment. Lecture 3 hours. No Laboratory.

HORT 2363 - Landscape Planning and Design I
3 Credits
Planning and designing landscape areas. Basic drafting techniques will be covered. Emphasis on location of lawns, trees, shrubs, walks, driveways patios, planters, and other landscape structures for home and commercial areas. Reading of job plans as well as techniques of job estimating will be covered. Lecture 2 hours. Laboratory 2 hours. Prerequisites: HORT 1313 and HORT 1343.

HORT 2401 - Pest Control Certification and Licensing
1 Credit
The study of general and specific standards required by federal and state laws in the obtaining of licenses in the State of Oklahoma for pest control purposes. Lecture 1 hour. No Laboratory.

HORT 2413 - Nursery and Greenhouse Management
3 Credits
Analysis and comparison of practices involved in building and operating a commercial nursery and greenhouse including design, construction, maintenance, environmental control, and crop production. Lecture 2 hours. Laboratory 2 hours.

HORT 2423 - Arboriculture Practices
3 Credits
A study of the organization and management of the work done by municipal departments and businesses concerned with the care of trees. Street tree planting and care are emphasized. Tree maintenance is practiced in actual field experiences. Lecture 2 hours. Laboratory 2 hours.

HORT 2433 - Floral Design
3 Credits
Elementary principles of floral design, which include design of boutonnieres and corsages, rose bud vases and vase arrangements, hospital arrangements centerpiece designs, and bows. Study will include floral care and handling customer service, order taking and telephone skills, computer-wire-service fundamentals, and delivery. Lecture 2 hours. Laboratory 2 hours.

HORT 2483 - Interior Plants
3 Credits
Course designed to familiarize the student with the use of foliage plants and blooming plants for interior use. Emphasis on identification, culture, and maintenance of interior plants. Both residential and commercial design application will be reviewed. Lecture 3 hours. No Laboratory.

HORT 2493 - Horticulture Management Principles
3 Credits
Aspects of establishment and operation of various wholesale and retail horticulture business ventures including financing, purchasing, advertising, and merchandising. Includes taxes, insurance, security, and governmental regulations of horticultural businesses as compared to others. Lecture 3 hours.

HORT 2513 - Landscape Planning and Design II
3 Credits
A continuation of HORT 2363 with theory and practical application of some advanced landscape design practice. Special emphasis will be on working drawings, which are illustrated with the use of color plot plans and elevation. Construction details and specification writing will be covered. Computer aids also will be discussed. Lecture 2 hours. Laboratory 2 hours. Prerequisites: SURV 1324 and HORT 2363, or consent of instructor.

HORT 2533 - Horticulture for Special Populations
3 Credits
An intensive study of the concepts and methods of using plants and gardening as therapeutic activities with developmentally disabled, geriatric, economically and socially disadvantaged, emotionally disturbed, educationally deprived or physically disabled clients. Lecture 2 hours. Laboratory 2 hours.

HORT 2990 - Selected Topics in Horticulture
1-4 Credits
The study and/or analysis of a selected topic in Horticulture. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

HOSPITALITY AND FOOD SERVICE

HFSV 1413 - Labor and Food Cost Management
3 Credits
Concepts related to preparation of hot foods, pantry, and bakery items for commercial kitchens. Emphasis on essential components and techniques of food production, food cost control, setting standards, ordering, and inventory. Lecture 3 hours. No Laboratory.

HFSV 2021 - Quality Control Procedures for Hospitality
1 Credit
Techniques, logistics and responsibilities involved in overseeing product specification compliance, sanitation, standard operating procedures and food safety programs. Understanding of the process of establishing product specifications and of product labeling to ensure compliance and an operationally specific HACCP (Hazard Analysis Critical Control Point) program. Instruction for investigative processes associated with possible food-borne illness incidents, including the working relationship with regulatory and investigative agencies. Lecture 1 hour. No Laboratory.

HFSV 2312 - Off-Premise Service Management
2 Credits
Techniques, logistics and responsibilities involved in managing carry-out, delivery and off-premise catering operation. Covers such topics as legal requirements of delivery and off-premise catering; developing and executing catering contracts, menu planning and food quantities; off-premise service of alcoholic beverages, pricing, sanitation and safety; accessory services; theme parties; and accounting. Also includes instruction in managing personnel, market catering services, identifying appropriate equipment, and creating innovative solutions to catering problems and demands; and instruction in risk management associated with delivery operations, including training, driver-risk assessment, tracking, and insurance related issues. Lecture 2 hours. No Laboratory.

HUMAN RESOURCES

HRES 1313 - Principles of Human Resources
3 Credits
The principles, policies, and practices currently related to the organization and administration of the human resources department. Will include topics on the employment process, diversity in the workplace, promotion principles, retirement plans, union and nonunion activities and relations. Comparative analysis of such human resources practices as rating scales, job evaluation, safety, and welfare programs also will be included. Lecture 3 hours. No Laboratory.

HRES 1333 - Benefits Management
3 Credits
A study of employee benefits management. Will include the analysis, selection, and administration of benefit plans, including health delivery systems (HMO's and PPO's, etc.), retirement plans, savings investment plans, and workers' compensation. Lecture 3 hours. No Laboratory. Prerequisite: HRES 1313 or instructor approval.

HRES 1343 - Compensation Management
3 Credits
A study of compensation management systems. A salary planning emphasis which includes organizational policies, job analysis, job evaluation, salary surveys, compensation structuring computer generated programs, and employee performance appraisals. Lecture 3 hours. No Laboratory. Prerequisite: HRES 1313 or instructor approval.

HRES 2313 - Human Resource Law I
3 Credits
An in-depth study of the various human resource laws which have an effect on companies and organizations today. Topics to be covered include the ADA, EEO, affirmative action programs, discrimination, employment contracts, employee discipline, and employee termination. Lecture 3 hours. No Laboratory. Prerequisite: HRES1313 or instructor approval.

HRES 2323 - Employment and Evaluation Techniques
3 Credits
Recruitment and selection will be covered for both exempt and non-exempt employees, with concentration on interviewing techniques. Employee evaluation will be covered including performance appraisal, discipline and reward system. Case examples will be reviewed in both the manufacturing and service sectors. Lecture 3 hours. No Laboratory. Prerequisite: HRES 1313 or instructor approval.

HRES 2333 - Employee and Labor Relations
3 Credits
A study of issues in the areas of industrial, labor, and employee relations including handling personnel problems, analyzing labor relations problems and their resolutions, and negotiating collective bargaining agreements. Lecture 3 hours. No Laboratory. Prerequisite: HRES 1313 or instructor approval.

HRES 2343 - Training and Development
3 Credits
An introduction to training and development, including program development, media, methods, and resources. Will include section on cost benefits resulting from the relationship of training and development to employee productivity. Will include oral presentations. Lecture 3 hours. No Laboratory. Prerequisite: HRES 1313 or instructor approval.

HRES 2353 - Human Resource Law II
3 Credits
A continuation of Human Resource Law I with an emphasis on the importance of legal compliance related to performance appraisals, training, employee privacy, OSHA, safety programs, union-management relations including NLRB and current labor legislation, compensation and benefits, retirement, worker's compensation and unemployment compensation. Lecture 3 hours. No Laboratory. Prerequisite: HRES 1313 or instructor approval.

HRES 2990 - Selected Topics in Human Resources
1-4 Credits
The study and/or analysis of a selected topic in Human Resources. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

HUMAN SERVICES
Students must earn a grade of "C" or better in HSVC courses in order to progress to advanced courses in the program, or gain instructor approval.

HSVC 1113 - Principles of Human Services
3 Credits
An interdisciplinary approach to the understanding of human services. The theoretical and practical approaches utilized by various human service agencies within the community will be considered. The course will also introduce the student to the skills necessary for the paraprofessional in education, developmental disabilities, gerontology, mental health care, and substance abuse areas. Lecture 3 hours. No Laboratory.

HSVC 1213 - Basic Counseling Skills
3 Credits
Basic models and techniques of individual and group counseling for a variety of clients will be introduced. Content will emphasize communication skills, interviewing techniques, assessment of client's needs, problem identification skills, client rights, and development of client goals and objectives. Lecture 3 hours. No Laboratory.

HSVC 1313 - Chemical Dependency and Treatment
3 Credits
Introduction to substance abuse and treatment; includes treatment strategies, perspectives, and understanding of the addiction process and its effects upon the individual, his/her family, his/her employer, and society. Lecture 3 hours. No Laboratory.

HSVC 1403 - Direct Support Professional Foundations
3 Credits
Basic knowledge necessary to enable a beginning Direct Support Professional (DSP) or Habilitation Training Specialist (HTS) to provide supports in residential, employment or vocational, community waiver or specialized foster care services for individuals with disabilities. Emphasis on fundamentals of working in the field, effective teaching/learning, communication, ethical and legal issues, basic residential support, health and safety issues, physical assistance, behavioral intervention, and community inclusion. Lecture 2 hours. Laboratory 4 hours. Prerequisite: DDSD Certificate of Training and instructor approval.

HSVC 1413 - Introduction to Developmental Disabilities
3 Credits
This course will provide an overview of developmental disabilities, focusing on education and training needs of persons with mild to severe/profound disabilities, as well as trends and issues in services to this population. Students will be exposed to strategies/outcomes planning and assessment skills that are used to help the consumer with disabilities prepare for transition from school to community living and employment. Students will examine job opportunities, training and skill requirements for employment. Lecture 3 hours. No Laboratory.

HSVC 1423 - Models for Supporting Persons with Developmental Disabilities
3 Credits
An examination of the community environment support settings in which persons with disabilities live, go to school, and work. The course will emphasize the concepts of values, beliefs, ethics, attitudes, respect, and choices as the foundation within all the support networks. The latest models in the areas of family, education, employment, medical, recreation and leisure, advocacy, and community-based programming will be reviewed. Lecture 3 hours. No Laboratory.

HSVC 1433 - Leisure, Recreation, and Visual and Performing Arts in Disabilities
3 Credits
An examination of the resources, programs, literature, technical assistance, and support services available to enhance the lives of persons with disabilities. Course will examine training and research for a variety of paraprofessionals to expand and enhance their skills relevant to leisure, recreation, and visual and performing arts. Lecture 2 hours. Laboratory 2 hours. Prerequisite: HSVC 1413.

HSVC 1443 - Direct Support Professional I
3 Credits
This course will enhance professional awareness and knowledge of issues related to the Direct Support Professional. Emphasis on professionalism, code of ethics, DSP roles and interaction with various professionals and organizations. Course will also guide participants in analysis of life experiences and professional growth, incorporating portfolio and career path development. Lecture 3 hours. No Laboratory. Instructor approval required.

HSVC 1453 - Direct Support Professional Practicum
3 Credits
Practicum provides an opportunity for students to observe daily operations and practice skills in a setting specializing in disabilities. Faculty-guided seminar and assignments will provide opportunities for students to demonstrate the application of attitudes, skills, and knowledge to the field of developmental disabilities. Students will demonstrate sensitivity to diverse populations, self-examination, and satisfactory proficiency in developing, interpreting, implementing, and documenting helping interventions specific to the provider agency. Demonstration of effective communication, positive behavioral interventions, documentation of activities icorporating client-specific supportive services, and other DSP role competencies will be emphasized. Lecture 1 hour. Laboratory 7 hours. Prerequisites: Instructor approval required.

HSVC 1523 - Volunteer Management in Human Services
3 Credits
Many health and human services agencies and providers expand and extend their services through the work of volunteers. This course will examine the operation of volunteer programs, including program design, recruitment and selection, orientation, and training and supervision. Lecture 2 hours. Laboratory 2 hours. Prerequisite: HSVC 1113.

HSVC 2003 - Dynamics of Family Relationships
3 Credits
The study of interpersonal relationships with family members addressing processes and influences throughout family life. Principles and issues of family life perspective, including dynamics of families affected by chemical and alcohol dependency will be addressed. Lecture 3 hours. No Laboratory.

HSVC 2023 - Lifespan Development
3 Credits
Theoretical concepts and principles of development from prenatal period through death. Addresses the nature and dynamics of developmental changes and the impact upon individuals and family groups over their life spans with emphasis on multidimensional and ecological perspectives. Directed observation/field assignments. Lecture 3 hours. No Laboratory.

HSVC 2053 - Human Services Applications/ Case Management
3 Credits
Intervention strategies for diverse populations, recognizing family, community, state, and societal systems and each system's role in mental and physical health. Course content will include treatment planning, community resources, referral and networking, program coordination, ethical standards for human services workers, and advocacy. Lecture 3 hours. No Laboratory. Prerequisites: HSVC 1113 and HSVC 1213.

HSVC 2073 - Issues in Human Services
3 Credits
This course is designed to address recent trends, issues, values and ethics, policies, and laws relevant to working with diverse populations. Human services planning and in-depth coverage of specific areas in human services, such as developmental disabilities, elderly, and other special populations, will provide the student with current information and strategies in human services. Lecture 3 hours. No Laboratory. Prerequisite: HSVC 1113.

HSVC 2103 - Practicum I
3 Credits
This course is designed to give students field experience through a supervised work experience in an alcohol or chemical dependency program. In addition to the 100 hour on-site experience, students will also participate in a weekly lecture to analyze their experiences and concerns. Lecture 1 hour. Laboratory 7 hours per week. Prerequisites: HSVC 1113, HSVC 1213, HSVC 1313, HSVC 2213, and SOCI 1133 or PSYC 2133 with a "C" or better and Instructor approval.

HSVC 2113 - Internship
3 Credits
This course is designed to give students field experience through a supervised work experience with an appropriate agency. This experience should relate to the student's area of concentration. In addition to the 160 hours of on-site work experience, students will meet weekly in a lecture/discussion to discuss and analyze their experiences and concerns. Lecture 1 hour. Laboratory 12 hours per week. Prerequisites: HSVC 1113, HSVC 1213, HSVC 2023 and HSVC 2053 and Instructor approval.

HSVC 2153 Peer - Mentoring and Leadership I
3 Credits
This course provides students with the opportunity whereby advanced human services majors can serve peers and faculty in the Human Services program at Tulsa Community College while practicing various skills critical to professional development. No Lecture. Laboratory 10 hours. Prerequisite: Instructor approval.

HSVC 2163 - Peer Mentoring and Leadership II
3 Credits
This course provides students with the opportunity whereby advanced human services majors can serve peers and faculty in the Human Services program at Tulsa Community College while practicing various skills critical to professional development. Students previously serving as peer mentors will progress in professional competencies individualized to meet the needs of the student and the program. No Lecture. Laboratory 10 hours. Prerequisite: Instructor approval.

HSVC 2173 - Service Learning in Human Services
3 Credits
Features hands-on learning in diverse human service settings. Learning in a "real world" environment by participating in activities that contribute to improving conditions for those in need. Students will perform various assignments available at the identified agencies. In-class time may include conceptual overview lecture/discussion prior to field assignments and "process" assignments, such as journals and group discussions while in the field. Lecture 1 hour. Laboratory 4 hours.

HSVC 2203 - Parent-Child Relations
3 Credits
Focus on parent-child relations across the lifespan. The interactional influence of children on the family and the impact of parenting on the child will be addressed within a variety of system contexts, including family, school and neighborhood, community and professionals. Emphasis on promoting optimum development and support of families and children addressing challenging issues of contemporary parenting, such as single parenting, stepfamilies, and high risk families. Assigned field experiences. Lecture 3 hours. No Laboratory. Prerequisite: HSVC 2023.

HSVC 2213 - Introduction to Group Dynamics
3 Credits
Lecture will focus on the history and application of group dynamics and group therapy. Students will gain knowledge and skill in conducting group therapy. Application of group therapy with special populations, such as chemical dependency, adolescents, and mental disorders, will be discussed. Students will gain awareness of group therapy techniques in an experiential setting. Lecture 2 hours. Laboratory 2 hours per week. Prerequisites: HSVC 1213 and HSVC 1313.

HSVC 2342 - Recreation Therapy/Rope Course Training
2 Credits
Certified low sequencing of icebreakers, warm-ups and initiatives for low challenge course elements. Trained in belaying, repelling, high set-ups, rescues, and all technical aspects of running a high challenge course. Lecture 2 hours. No Laboratory. (Miscellaneous fees may be required.)

HSVC 2363 - Recreation Therapy/Outdoor Adventure
3 Credits
Field based course to understand origins and components of involvement in outdoor pursuits. Numerous skills applied to various outdoor settings. Lecture 3 hours. No Laboratory. (Miscellaneous fees may be required.)

HSVC 2413 - Introduction to Leisure Services
3 Credits
The nature, scope and significance of leisure and recreation. Delivery systems for leisure services, major program areas and the interrelationship of special agencies and institutions serving the recreation needs of society. This course is also available as PHED 2513. Lecture 3 hours. No Laboratory.

HSVC 2433 - Introduction to Therapeutic Recreation
3 Credits
Theory and application of therapeutic recreation with emphasis on types of illnesses and disabilities, delivery systems, programming and services. This course is also available as PHED 2533. Lecture 3 hours. No Laboratory.

HSVC 2513 - Management of Community Programs
3 Credits
This course will prepare students for management careers and/or enhance the skills of professionals already employed in a community setting. It will include an examination of management philosophies, guidelines, strategies, personnel issues, and current program operations of human service agencies/organizations, particularly small non-profit entities. Lecture 3 hours. No Laboratory. Prerequisite: HSVC 1113.

HSVC 2613 - Gerontology in Human Services
3 Credits
Focus on the roles and responsibilities of the human services worker with this specialized population, including knowledge of the social welfare system, bereavement, current status of managed care, and other related issues. An overview of the aging process and implications of an aging population will be presented. Discussion of levels of care, resources, and options for the elderly population within the community will be addressed. Fifteen to twenty field hours in a related service agency are required. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 2713 or SOCI 2713.

HSVC 2990 - Selected Topics in Human Services
1-4 Credits
The study and/or analysis of a selected topic in Human Services. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

HUMANITIES

HUMN 2113 - Humanities I (H)
3 Credits
An interdisciplinary survey designed to strengthen the student's fundamental grasp of human values, ideas, discoveries, and creative achievements. Areas of consideration may include architecture, cosmology, dance, drama, film, history, literature, music, mythology, painting, philosophy, religion, and sculpture. Lecture 3 hours. No Laboratory.

HUMN 2223 - Humanities II (H)
3 Credits
A continued interdisciplinary survey designed to strengthen the student's fundamental grasp of human values, ideas, discoveries and creative achievements. Areas of consideration may include architecture, cosmology, dance, drama, film, history, literature, music, mythology, painting, philosophy, religion, and sculpture. Lecture 3 hours. No Laboratory.

HUMN 2313 - Field Studies in Humanities
3 Credits
An interdisciplinary Humanities course designed to provide students with faculty-led experiences of different creative expressions. The course includes lectures and readings to prepare students for on-site experiences and discussion. May be repeated with different on-site experiences for up to nine hours credit. Requires instructor approval.

HUMN 2323 - 20th Century Humanitites (H)
3 Credits
This course will allow a global focus on creative achievements from 1900 to the present. It is a survey of the "modern" humanities. Lecture 3 hours. No laboratory.

HUMN 2333 - Humanities: Literature and Film (H)
3 Credits
An introductory study of the narrative through examination of selected literature and its adaptation into film. Lecture 3 hours. No Laboratory.

HUMN 2443 - Art of Film (H)
3 Credits
A critical study of film as an art form and as a reflection of modern culture through examination of selected works and reviews. Lecture 3 hours. No Laboratory.

HUMN 2553 - American Humanities (H)
3 Credits
An interdisciplinary, multi-cultural survey designed to strengthen the student's appreciation of America's rich cultural heritage. Areas of consideration may include architecture, cosmology, dance, drama, film, history, literature, music, painting, philosophy, religion, and sculpture. Lecture 3 hours. No Laboratory.

HUMN 2613 - International Film (H,I)
3 Credits
Analytical study of exemplary international films in terms of major historical periods or trends, themes and aesthetics. Critical analysis of aesthetic and narrative traditions of film as a reflection of the humanistic values of the cultures of their production. Students will speak and write critically about film as an art form as well as about film in relation to culture. Lecture 3 hours. No Laboratory.

HUMN 2663 - Hollywood's America (H)
3 Credits
This course will explore values, myths, and legends about America as portrayed by Hollywood. It will examine how films about America both reflect and lead popular American and international consciousness of America's society, history, heroes, heroines, and villains. Lecture 3 hours. No Laboratory.

HUMN 2773 - American Popular Culture (H)
3 Credits
This course is a critical analysis of the form and content of the arts Americans experience on a daily basis. Areas of consideration may include advertising arts, cartoons, dance, fashions, film, new religions, popular literature, popular music, and television. Lecture 3 hours. No Laboratory.

HUMN 2883 - Art and Identity: Cultural Encounters in America (H)
3 Credits
This course examines cultural identities in America as they are expressed through oral traditions, music, literature, and the arts. The course explores how the various cultures which came together in America borrowed for each other to produce the forms we see today. Distinctions are made between perceived cultural differences and those cultural elements which are common to all humanity. Lecture 3 hours. No Laboratory.

HUMN 2990 - Selected Topics in Humanities
1-4 Credits
The study and/or analysis of a selected topic in Humanities. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

INDEPENDENT STUDY

INDP 2990 - Independent Study
1-6 Credits
An above average student may earn from 1-6 hours credit through specially approved academic projects relating to lower division course offerings. Procedures and criteria for enrolling in Independent Study courses may be obtained from the Associate Dean's offices.

INTERIOR DESIGN

INTD 1313 - Interior Design Orientation
3 Credits
An introductory course into the field of interior design which includes the basic elements and principles of design. The development of creative ability is stressed through space planning projects. An overall view of the profession including professional standards, employment opportunities, interior materials, and an understanding of basic human needs in relation to design. Concurrent enrollment in INTD 1343 is recommended. Lecture 3 hours. No Laboratory.

INTD 1333 - Design I: Color
3 Credits
This course will reinforce theories taught in previous courses and will advance students' drafting and space planning skills. There will be an emphasis on color theory, applications, materials and color boards. Lecture 2 hours. Laboratory 2 hours. Prerequisites: INTD 1313, INTD 1343. No concurrent enrollment allowed.

INTD 1343 - Drawing and Mechanical Drafting
3 Credits
This course will introduce interior design students to visual communications for the design professional through technical drafting skills including floor plans, elevations, isometrics and perspectives. Lecture 2 hours. Laboratory 2 hours. Prerequisite: INTD 1313 or concurrent enrollment.

INTD 1353 - Design II: Presentation
3 Credits
This course will advance the interior design student in architectural drawing skills. Presentation elevations, perspectives, isometrics, and floor plan enhancement with color delineation and architectural sketching techniques will be included. Lecture 2 hours. Laboratory 2 hours. Prerequisites: INTD 1313, INTD 1333, INTD 1343. (Fall Only)

INTD 1373 - Color Graphics for Interior Designers
3 Credits
This course presents color techniques using markers, colored pencils and other media to produce interior presentations. Lecture 2 hours. Laboratory 2 hours. Prerequisites: INTD 1313, INTD 1343, and INTD 1333 or concurrent enrollment. (Spring only).

INTD 1383 - Lighting Concepts
3 Credits
A study of lighting design for interiors. This course will focus on lighting systems, fixtures, specifications and Reflected Ceiling Plans. Lecture 3 hours. No Laboratory. Prerequisites: INTD 1313, INTD 1343, and INTD 1333 or concurrent enrollment. (Spring only).

INTD 1413 - History of Interiors
3 Credits
Includes a comprehensive study of architecture and period furnishings from prehistoric through American art-deco period. Major political, religious and art movements influencing the interior design profession are included. Lecture 3 hours. No Laboratory.

INTD 2313 - Professional Practice
3 Credits
This course is a study of professional practices in interior design. Includes: business procedures, professional ethics, contracts, project management and specifications. Lecture 3 hours. No Laboratory. Prerequisites: INTD 1313, INTD 1333, and INTD 1343

INTD 2323 - Design III
3 Credits
Provides information in planning interior floor plans and elevations with consideration to traffic flow and room functions. Included is planning of traditional as well as contemporary interiors, multiple design solutions; coordination of schemes, styles, and furnishings ranging from the single dwelling to the business and recreational complex. Lecture 2 hours. Laboratory 2 hours. Prerequisites: INTD 1333, ID1343, INTD 1353, INTD 1373, INTD 1383, INTD 1413, and INTD 2313.

INTD 2333 - Applied Interior Design IV
3 Credits
Will apply knowledge and skills to advanced solutions to special problems of commercial and residential interiors, working drawings, specifications, oral presentations, and critical thinking will be stressed. Lecture 2 hours. Laboratory 2 hours. Prerequisite: INTD 2323.

INTD 2343 - Field Application
3 Credits
Supervised employment in the student's chosen field. Intended to provide practical experience for students preparing for a career in the area of interior design and decorating who are not already employed in this field. No Lecture. Laboratory 12 hours per week. Prerequisites: INTD 1333, INTD 1343, INTD 2313, INTD 2323, and instructor approval.

INTD 2352 - Field Application
2 Credits
Supervised employment in the student's chosen field. Intended to provide practical experience for students preparing for a career in the area of interior design and decorating who are not already employed in this field. No lecture. Laboratory 8 hours per week. Prerequisites: INTD 1333, INTD 1343, INTD 2313, INTD 2323 and instructor approval.

INTD 2383 - Introduction to Computer Aided Design for Interior Design
3 Credits
This course introduces the principles and techniques utilized in Computer Aided Design and drafting for two dimensional application. Students will be introduced to concepts of drawing entities and objects, as well as processes to manipulate, edit, or modify drawings. Lecture 2 hours. Laboratory 2 hours. Prerequisites: INTD 1313, INTD 1333, and INTD 1343 and instructor approval.

INTD 2403 - Market Field Trip
3 Credits
Students will become familiar with market showroom services available to interior designers. Showroom procedures in relation to samples, ordering, and financial requirements will be covered. Lecture 1 hour. Laboratory 4 hours.

INTD 2413 - Advanced CAD for Interior Design
3 Credits
This course will teach advanced principles and techniques in Computer Aided Design. Lecture 2 hours. Laboratory 2 hours. Prerequisites: Instructor approval and INTD 2383 and INTD 2323. Concurrent enrollment in INTD 2333 is recommended.

INTD 2990- Selected Topics in Interior Design
1-4 Credits
The study and/or analysis of a selected topic in Interior Design. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

INTERPRETER EDUCATION

INED 0612 - Conversational Sign Language for the Deaf and Hard of Hearing I
2 Credits
This course is designed for deaf and hard of hearing students, offering a continuation of manual communication skills leading to the development of conversational skills. Lecture 2 hours. Laboratory 1 hour. Prerequisite: INED 0812 or instructor approval.

INED 0622 - Conversational Sign Language for the Deaf and Hard of Hearing II
2 Credits
The continuation of Conversational Sign Language for the Deaf and Hard of Hearing I. Lecture 2 hours. Laboratory 1 hour. Prerequisite: INED 0612 or instructor approval.

INED 0802 - Sign Language for the Deaf and Hard of Hearing I
2 Credits
This course is designed for deaf and hard of hearing students in developing basic manual communication skills for social, classroom, and work situations. Emphasis will be placed on learning elementary receptive and expressive conversational skills through targeted vocabulary. Lecture 2 hours. Laboratory 1 hour.

INED 0812 - Sign Language for the Deaf and Hard of Hearing II
2 Credits
The continuation of Sign Language for the Deaf and Hard of Hearing I. Lecture 2 hours. Laboratory 1 hour. Prerequisite: INED 0802 or instructor approval.

INED 1351 - Receptive Fingerspelling
1 Credit
This course is designed to provide intensive study of fingerspelled word recognition skills. Emphasis is placed on cognitive and practical aspects of receptive fingerspelling. Class activities should enable the student to develop improved fingerspelled word recognition skills and strategies for continued improvement. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 2414.

INED 1363 - American Sign Language I
3 Credits
An introductory course in American Sign Language (ASL) using a natural language approach to introduce culturally appropriate signed concepts related to the immediate environment. Common communicative events and interactions are utilized to acquire a basic working vocabulary and grammar. Includes development of appropriate linguistic/cultural behaviors and awareness of respect for deaf culture. Receptive and expressive skills are fostered through interactive ASL lessons without voice. Lecture 3 hours. Laboratory 1 hour.

INED 1373 - American Sign Language II
3 Credits
This course is a continuation of ASL I progressing from common, concrete communicative events and interactions to language expressing abstract ideas. Emphasis is on the comprehension and production of increasingly complex linguistic structure focusing on dialogues and conversational expressions. More complex receptive and expressive skills are fostered through interactive ASL lessons without voice. Lecture 3 hours. Laboratory 1 hour. Prerequisite: INED 1363 with a grade of "C" or better or instructor approval.

INED 1413 - Deaf Culture and History
3 Credits
This is an interdisciplinary course to introduce students to human values through the exploration of American deaf culture through its history, literature, and arts. Students will explore deaf culture as a minority culture focusing on awareness and understanding of cultural diversity and preservation of language. Culture and relationships are examined through the impact of modern technology and moral trends. Lecture 3 hours. No Laboratory.

INED 1423 - Introduction to Interpreting
3 Credits
This course is designed to provide students with a working knowledge of the profession of interpreting, including the Code of Ethics, certification criteria, the roles and responsibilities of an interpreter, and compensation. The role of the interpreter in a variety of professional settings including educational, medical, legal, the performing arts, mental health, and employment will be addressed. Lecture 3 hours. No Laboratory.

INED 1501 - Sign Choir I
1 Credit
This course is designed to allow students to experience music through the medium of American Sign Language. Students work together as a unit to present songs visually by following the signed directions of the director. Students will learn how to gloss English lyrics into ASL matching the spirit of the music. There are opportunities for outside performances by the group. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 1363, or proficiency skills approved by the instructor.

INED 2001 - Sign Choir II
1 Credit
This course is a continuation of Sign Choir I, with the requirement that the student's final song be performed before an audience with the director present. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 1501 with a grade of "C" or better or instructor approval.

INED 2101 - Artistic Interpreting
1 Credit
This course is designed to study techniques of facial expression, characterization, body movement, and spatialization as it relates to American Sign Language. Students will develop expressive sign language skills through he use of poetry, songs, and skits. No Lecture. Laboratory 2 hours. Prerequisite: INED 1373 with a grade of "C" or better or instructor approval.

INED 2131 - Conceptual Sign Vocabulary Development
1 Credit
This course is designed to increase conceptually accurate sign vocabulary. Emphasis will be on analysis of English texts and finding appropriate sign equivalents. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 1373 with a grade of "C" or better or instructor approval.

INED 2213 - American Sign Language to English Interpreting I
3 Credits
This course is designed to develop consecutive interpreting skills from American Sign Language to spoken English. Emphasis will be on development of interpreting processing skills. Lecture 3 hours. Laboratory 1 hour. Prerequisites: INED 1373 and INED 1423 with a "C" or better or instructor approval. Concurrent enrollment with INED 2414 and INED 2393 is recommended.

INED 2233 - American Sign Language to English Interpreting II
3 Credits
This course is a continuation of American Sign Language to English Interpreting I. Students will refine consecutive interpretation skills and develop simultaneous interpretation skills from American Sign Language to English. Students will discuss the application of process skills, contrastive ASL-English linguistics, contrastive cultural analysis, and teaming skills. This course includes practice of requisite skills and process tasks of increased complexity with rehearsed and unrehearsed language samples. Lecture 3 hours. Laboratory 1 hour. Prerequisite: INED 2213 with a "C" or better or instructor approval. Concurrent enrollment with INED 2403 and INED 2524 is recommended.

INED 2251 - Preparing for Interpreter Evaluations
1 Credit
This course is designed to provide instruction for those persons seeking certification for the state Quality assurance Screening Test (QAST) or the National Registry of Interpreters for the Deaf (RID) evaluation. Students will be exposed to the application processes, test-taking techniques for the written portions, protocol for the interview section, and the skill assessment procedures for both evaluations. Upon completion of the course, students will be given the opportunity to take the QAST written test. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 2403 or instructor approval.

INED 2393 - Interpreting I
3 Credits
This course is designed to develop skills in consecutive interpretation from spoken English to American Sign Language. Coursework will enhance development in auditory memory, visualization, message analysis and target language production. Students are required to observe interpreters in two instructor-approved situations beyond the classroom. Lecture 3 hours. Laboratory 1 hour. Prerequisites: INED 1373 and INED 1423 with a grade of "C" or better and an appropriate CPT or ACT score or a grade of "C" or better in ENGL 1113 or instructor approval. Concurrent enrollment with INED 2213 and INED 2414 is recommended.

INED 2403 - Interpreting II
3 Credits
This course is a continuation of Interpreting I with an emphasis on transliteration skills. Students will work from consecutive interpreting to simultaneous interpreting increasing linguistic competency and cultural appropriateness. Students are required to observe interpreters in two instructor-approved situations beyond the classroom. Lecture 3 hours. Laboratory 1 hour. Prerequisite: INED 2393 with a grade of "C" or better or instructor approval. Concurrent enrollment with INED 2233 and INED 2524 is recommended.

INED 2414 - American Sign Language III
4 Credits
An ASL course focusing on specific grammatical and cultural topics. Emphasis is on the development of fluent conversational skills utilizing grammatical non-manual signals and markers. Students will learn how to narrate, describe, compare, and comment. Narratives of native language users are utilized for beginning text analysis of ASL. Interactive ASL lessons without voice lead to expanded vocabulary mastery and fluency. Lecture 4 hours. Laboratory 2 hours. Prerequisite: INED 1373 with a grade of "C" or better or instructor approval.

INED 2443 - Interpreting in Specialized Settings
3 Credits
This course is designed to equip the student with the skills and vocabulary needed to interpret in a variety of settings including but not limited to medical, mental health, legal, employment, educational, religious and the performing arts. Lecture 3 hours. Laboratory 1 hour. Prerequisites: INED 2393 and INED 2414 with "C' or better or instructor approval.

INED 2461 - Medical Interpreting
1 Credit
This course is designed to provide students with practical skills development for interpreting in a variety of medical settings. Skills development will focus on three primary aspects: interpreting medical terminology with appropriate sign concepts, demonstrating professional problem-solving and decision-making skills when faced with medical ethical issues, and identifying special needs and characteristics of various medical situations. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 2393 with a grade of "C" or better or instructor approval.

INED 2471 - Religious Interpreting
1 Credit
This course is designed to provide students with an intensive study of religious interpreting/transliterating. The course of study includes vocabulary related to the religious setting, interpreting/transliterating prayers, hymns, sermons, and certain religious ceremonies; studying factors related to Deaf culture, including sensitivity to social and educational implications, studying the roles and responsibilities of the religious interpreter/transliterator, and studying the basic structure of church ministries for persons who are deaf. Students will be assigned to observe interpreters/transliterators in an instructor-approved religious setting beyond the classroom. Lecture 1 hour. Laboratory 1 hour. Prerequisite: INED 2403 or instructor approval.

INED 2483 - Educational Interpreting I
3 Credits
Issues related to the administration of Educational Interpreting and best practices in primary, elementary and middle school settings. Topics will include a discussion of sign systems used in educational settings, certification issues, working conditions, analyzing classroom interpreting tasks and knowledge, skills, appropriate roles in a regular education classroom, and attitudes needed for educational interpreting at the primary through middle school levels. Site visits are a mandatory portion of the curriculum. Lecture 3 hours. No Laboratory. Prerequisite: INED 2393 or instructor approval.

INED 2524 - American Sign Language IV
4 Credits
An advanced ASL performance course integrating cultural and linguistic competencies ranging from informal to formal communication events. Emphasis is on greater fluency in idiomatic language usage and mastery of vocabulary and syntax. Linguistic competence is enhanced through interactive discourse without voice. Lecture 4 hours. Laboratory 2 hours. Prerequisite: INED 2414 with a grade of "C" or better or instructor approval.

INED 2613 - Interpreting III
3 Credits
This course is designed to strengthen processing skills and target language production from spoken English to American Sign Language and from American Sign Language to spoken English through the use of interactive materials. Continued application of process skills, contrastive ASL-English linguistics, contrastive cultural analysis and teaming skills will be provided using rehearsed and unrehearsed texts. Lecture 3 hours. Laboratory 1 hour. Prerequisites: INED 2403 with a grade of "C" or better or instructor approval. Concurrent enrollment with INED 2643 is recommended.

INED 2643 - Interpreting Internship
3 Credits
This course provides practical experience in settings such as educational, rehabilitation, community service center, and agencies serving children, adolescents, and/or adults who are Deaf or hard of hearing. Students have the opportunity to synthesize practical and academic experiences gained during coursework. The site, supervision, and plan of activity will be agreed upon mutually by student and instructor. Lecture 2 hours. Laboratory 10 hours. Prerequisites: INED 1413, INED 2233, INED 2403, INED 2443, and INED 2524 with a grade of "C" or better or instructor approval. Concurrent enrollment with INED 2613 is recommended.

INED 2990 - Selected Topics in Interpreter Preparation
1-4 Credits
The study and/or analysis of a selected topic in Interpreter Preparation. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

ITALIAN

ITAL 1001 - Italian for Communication I
1 Credit
A companion course to ITAL 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with ITAL 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: ITAL 1103 or approval of instructor.

ITAL 1103 - Italian I
3 Credits
A beginning course in understanding, speaking, reading, and writing Italian. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required.

ITAL 1201 - Italian for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Conducted in Italian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: ITAL 1103 or approval of instructor.

ITAL 1213 - Italian II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Italian. The second in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ITAL 1103 or approval of instructor.

ITAL 1301 - Italian for Communication III
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Italian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: ITAL 1213 or approval of instructor.

ITAL 1313 - Italian III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Italian. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ITAL 1213 or approval of instructor.

ITAL 1401 - Italian for Communication IV
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Italian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: ITAL 1313 or approval of instructor.

ITAL 1413 - Italian IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Italian. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ITA1313 or approval of instructor.

ITAL 2033 - Italian Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Italian societies. Conducted in English. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: None.

ITAL 2041 - Italian - Introduction to the Arts
1 Credit
An introduction to the Italian arts with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day Italian activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

ITAL 2071 - Italian History and Geography Introduction
1 Credit
A survey of Italian history and geography as it relates to modern day Italian societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

ITAL 2113 - Intermediate Italian I
3 Credits
An intermediate course in understanding, speaking, reading, and writing Italian. Taught in Italian. Lecture 3 hours. No Laboratory. Prerequisite: ITAL 1413 or approval of instructor.

ITAL 2121 - Intermediate Italian Communication
1 Credit
Practice in speaking Italian at the intermediate level covering a wide range of subjects: i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in Italian. Lecture 1 hour. Self-paced lab may be required. Prerequisite: ITAL 2113 or approval of instructor.

ITAL 2143 - Italian Civilization and Culture
3 Credits
Conversations and readings concerning Italian culture and civilization. Conducted in Italian. Lecture 3 hours. No Laboratory. Prerequisite: ITAL 2113 or approval of instructor.

ITAL 2213 - Intermediate Italian II
3 Credits
An intermediate course in understanding, speaking, reading, and writing Italian. Taught in Italian. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ITAL 1413 or approval of instructor.

ITAL 2263 - Intermediate Italian Literature
3 Credits
Development of reading skills in the target language using intermediate level literary texts. Conducted in Italian. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ITAL 2113 or approval of instructor.

ITAL 2320 - International Work and/or Study Seminar
1-3 Credits
Practicum with an international firm and/or study abroad. Focus on application and enhancement of language skills (oral and written forms). Lecture and/or laboratory equivalent. Prerequisite: Approval of Dean of Global Education and Associate Dean before enrollment and in advance of work/study abroad experience.

ITAL 2330 - Italian International Seminar and/or Field Studies
1-3 Credits
This course is designed to provide an on-site experience in the selected Italian speaking country. Includes lectures, readings, oral interactions, and written reports. All or a portion of instruction and activities are conducted at the international site. Focus on language (oral and written forms) and culture development. Prerequisite: Permission of the Dean of Global Education and Associate Dean before enrollment and in advance of in-country experience.

ITAL 2413 - Italian Translating
3 Credits
Translating skills course with focus on translating the written language of Italian to English with some English to Italian. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: ITAL 1413 or approval of instructor.

ITAL 2421 - Italian Culture Comparisons
1 Credit
Focus on the cultural aspects of the Italian people. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

ITAL 2433 - Italian Film/Literature
3 Credits
This course explores various literary and cinematic movements from 20th century Italy. Readings and films in Italian will correspond to particular themes. Lecture 3 hours. No Laboratory. Prerequisite: ITAL 1413 or approval of instructor.

ITAL 2523 - Intermediate Italian Grammar and Composition
3 Credits
This course includes a thorough review of syntax and grammar and the development of composition skills. Conducted in Italian and English. Lecture 3 hours. Self-paced lab may be required. Prerequisite: ITAL 2213 or 18 hours of Italian or approval of Instructor.

ITAL 2533 - Advanced Italian Conversation
3 Credits
This course is intended for students who have studied Italian structure through the intermediate level and have gained a basic oral fluency and proficiency. Class activities will focus on acquiring sufficient speaking skills to interact with native speakers and the use of Italian as the main language of communication without the aid of an interpreter. Conducted in Italian. Lecture 3 hours. Self-paced lab may be required. Prerequisite: ITAL 2213 or 18 hours of Italian or approval of instructor.

ITAL 2990 - Selected Topics in Italian
1 - 4 Credits
The study and/or analysis of a selected topic in Italian. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

INFORMATION TECHNOLOGIES CONVERGENCE

ITCV 1033 - Introduction to Voice Communications and Convergence
3 Credits
An introductory study of voice communications and convergence hardware, standards, protocols, and technologies. Topics include the history and development of the telecommunications infrastructure, regulatory agencies, standards organizations, electricity, Ohm's law, power, analog and digital signaling and transmission techniques, protocols, framing, decimal, binary, and hexadecimal numbering systems, service providers, transmission media, numbering plans, customer premise equipment, cable plant, PBX's, key systems, circuit and packet switching, TCP/IP, cellular, satellite and other wireless voice communications systems, WAN technologies, information security, CTI, voice over IP, jitter, latency, QoS, and convergence protocols and technologies. This course will help to prepare students for portions of TIA certification exams. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or demonstration of computer proficiency.

ITCV 2014 - Data Convergence
4 Credits
An in-depth study of data communications, networking, and convergence hardware, standards, protocols and technologies. Topics include the history and development of computer networks, the OSI model, digital and analog signaling and conversion, decimal, binary, and hexadecimal numbering systems, data codes, wired and wireless media, dialup, cable, DSL, ISDN, FDM, TDM, and STDM, multiplexing, LAN topologies, Ethernet, Token Ring, FDDI, encapsulation, segmentation, internetworking, NIC's, cables, hubs, bridges, swirches, routers, NOSs, PANs, LANs, CANs, MANs, WANs, IP, IPX, TCP, UDP, ICMP, ARP, NAT, HCP, FTP, Telnet, SSH, VPN's, IPv6, ISDN, network security, SNMP, packet sniffers, resource sharing, and troubleshooting. This course will help students prepare for portions of the CompTIA Network+, Cisco CCNA INTRO, and TIA certification exams. Lecture 3 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or demonstration of computer proficiency.

ITCV 2023 - Wireless Networking
3 Credits
An in-depth study of current and emerging wireless communications and networking technologies used in personal area networks, local area networks, metropolitan area networks, and wide area networks. Topics include wireless transmission, RF, IR, antennas, WLAN's, security, global positioning systems, cellular technologies, RFID, Blue Tooth, satellite, VoWLAN, ZigBee, and Wi-Max. This course also prepares the student to take the CWNP Wireless# certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2014 or instructor approval.

ITCV 2033 - Broadband Networking/CCENT
3 Credits
An in-depth study of broadband networking hardware, standards, protocols, and technologies. Topics include the history and development of telecommunications networks into a broadband transport vehicle, the merger of voice and data networks, digital and analog signaling, QoS, routing, WAN interfaces, access circuits, transmission methods, frame relay, ATM, SONET, SDH, VPN's, FDDI, DSL, ISDN, B-ISDN, wireless WAN technologies, RPR, Fibre Channel, InfiniBand, SAN's, BPL, MPLS, IP addressing, subnet masks, internets, intranets, extranets, network management and monitoring, SNMP, Telnet, SSH, problem solving & troubleshooting. This course prepares students for the Cisco ICNDI certification exam, which is part 1 of the CCNA exam. Lecture 2 hours. Laboratory 2 hours. Prerequisites; ITCV 1033 and ITCV 2014.

ITCV 2043 - CWNA Wireless LAN Administration
3 Credits
This course provides the student with the necessary skills to plan, design, deploy, administer, secure, and manage a wireless network in a business environment. It also helps students prepare for the CWNA certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2023 or instructor approval.

ITCV 2053 - CWSP Wireless LAN Security
3 Credits
This course provides the student with the necessary skills to implement and manage wireless LAN security in the enterprise environment. It also helps students prepare for the CWSP certification exam. Topics include physical security, layers 2 and 3 security, authentication, authorization, accounting, intrusion prevention, and wireless management. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2043 or instructor approval.

ITCV 2063 – VoIP & Convergence Technologies
3 Credits
This course prepares the student to install, configure, and maintain VoIP and other convergent networking technologies. It will also help students to prepare for CompTia and TIA convergence certification exams. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ITCV 1033 and CSCI 1263.

ITCV 2203 - CCNA Routing and Switching
3 Credits
Configure and manage Cisco routers and switches. Topics include LAN switching, STP, VLAN's, trunking, IP addressing & subnetting, static routing, RIP, IGRP, OSPF, EIGRP, route summarization, classless routing, VLSM, CIDR, NAT, PAT, 802.1Q, PPP, ISDN, Frame relay, and access control list security. This course prepares the student to take the CCNA ICND certification exam, and reviews materials found in the CCNA INTRO exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2033 or instructor approval.

ITCV 2233 - CCNP Routing
3 Credits
Installation, configuration, maintenance, and troubleshooting of complex routed networks. This course helps students prepare for the CCNP BSCI certification exam. Topics include multicast routing and security authentication. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2203 or instructor approval.

ITCV 2253 - CCNP Switching
3 Credits
Installation, configuration, maintenance, and troubleshooting of complex networks. This course helps students prepare for the CCNP BCMSN certification exam. Topics include VLAN's, QoS, and security. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2203 or instructor approval.

ITCV 2263 - CCNP Secure Converged WANs
3 Credits
Installation, configuration, maintenance, and troubleshooting of secure converged WANs. Topics include VPNs, AAA, QoS, wireless technologies, and security. This course helps students prepare for the CCNP ISCW certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ITCV 2253 or instructor approval.

ITCV 2283 - CCNP Optimizing Converged Cisco Networks
3 Credits
Optimization and advanced troubleshooting techniques for converged Cisco networks. This course helps student prepare for the CCNP ONT certification exam. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ITCV 2233 and ITCV 2263 or instructor approval.

ITCV 2990 - Selected Topics in Information Technologies Convergence
3 Credits
Selected topics in Information Technologies Convergence. Lecture 1-4 hours. May include 1 hour of laboratory.

JAPANESE

JAPN 1001 - Japanese for Communication I
1 Credit
A companion course to JAPN 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with JAPN 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: JAPN 1103 or approval of instructor.

JAPN 1103 - Japanese 1 3 Credits
A beginning course in understanding, speaking, reading, and writing Japanese. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required.

JAPN 1201 - Japanese for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Conducted in Japanese. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: JAPN 1103 or approval of instructor.

JAPN 1213 - Japanese II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Japanese. The second in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: JAPN 1103 or approval of instructor.

JAPN 1301 - Japanese for Communication III
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Japanese. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: JAPN 1213 or approval of instructor.

JAPN 1313 - Japanese III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Japanese. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: JAPN 1213 or approval of instructor.

JAPN 1401 - Japanese for Communication IV
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Japanese. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: JAPN 1313 or approval of instructor.

JAPN 1413 - Japanese IV
3 Credits
Continued instruction in understanding speaking, reading, and writing Japanese. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: JAPN 1313 or approval of instructor.

JAPN 2033 - Japanese Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Japanese societies. Conducted in English. Lecture 3 hours. Self-paced laboratory may be required.

JAPN 2041 - Japanese - Introduction to the Arts
1 Credit
An introduction to the Japanese arts with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day Japanese activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

JAPN 2071 - Japanese History and Geography Introduction
1 Credit
A survey of Japanese history and geography as it relates to modern day Japanese societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

JAPN 2113 - Intermediate Japanese I
3 Credits
An intermediate course in understanding, speaking, reading, and writing Japanese. Taught in Japanese. Lecture 3 hours. No Laboratory. Prerequisite: JAPN 1413 or approval of instructor.

JAPN 2121 - Intermediate Japanese Communication
1 Credit
Practice in speaking Japanese at the intermediate level covering a wide range of subjects; i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in Japanese. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: Japanese 1413 or approval of instructor.

JAPN 2143 - Japanese Civilization and Culture
3 Credits
Conversations and readings concerning Japanese culture and civilization. Conducted in Japanese. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: JAPN 2113 or approval of instructor.

JAPN 2213 - Intermediate Japanese II
3 Credits
An intermediate course in understanding, speaking, reading, and writing Japanese. Taught in Japanese. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: JAPN 1413 or approval of instructor.

JAPN 2320 - International Work and/or Study Seminar
1-3 Credits
Practicum with an international firm and/or study abroad. Focus on application and enhancement of language skills (oral and written forms). Lecture and/or laboratory equivalent. Prerequisite: Approval of Dean of Global Education and Associate Dean before enrollment and in advance of work/study abroad experience.

JAPN 2413 - Japanese Translating
3 Credits
Translating skills course with focus on translating the written language of Japanese to English with some English to Japanese. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: JAPN 1413 or approval of instructor.

JAPN 2421 - Japanese Culture Comparisons
1 Credit
Focus on the cultural aspects of the Japanese people. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

JAPN 2990 - Selected Topics in Japanese
1-4 Credits
The study and/or analysis of a selected topic in Japanese. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

JOURNALISM/MASS COMMUNICATIONS

JRMC 1013 - Introduction to Mass Communications
3 Credits
A survey course designed to provide students with a panoramic view of mass communications and an understanding of the role of mass media in modern society. Not restricted to Journalism and Mass Communications majors. Lecture 3 hours. No Laboratory.

JRMC 1103 - Introduction to Broadcasting
3 Credits
History, growth, and development of broadcasting; FCC and other federal regulatory agencies; station and network operations and their effects on society. Lecture 3 hours. Laboratory 1 hour.

JRMC 1113 - Writing for the Mass Media
3 Credits
Introduction to writing which focuses on both news and non-news styles used by media writers and professionals. Directed study of practice in writing for print and electronic media. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Typing/word processing ability and ENGL 1083 or concurrent enrollment.

JRMC 1123 - News Writing and Reporting
3 Credits
Techniques of news writing and reporting: writing leads, structuring, and polishing the news story; using the stylebook; introduction to information gathering and interviewing; determining news value; practice in writing different types of stories - news, feature, police, government, and speech coverage. Lecture 2 hours. Laboratory 2 hours. Prerequisite: Typing/word processing ability, successful completion of ENGL 1083 and JRMC 1113 or instructor's permission. Students are required to pass the News Writing Skills Test with a "C" or better.

JRMC 1143 - Reporting Across Cultures
3 Credits
Students will learn how to approach, report and write about various cultures, communities and genders with knowledge and sensitivity, and will learn how to include these voices in the media. Not restricted to Journalism and Mass Communications majors. Lecture 3 hours. No Laboratory.

JRMC 1151 - Reporting in the Digital Age
1 Credit
Students will learn how changing technology is influencing how journalists do their work, the structure of the newsroom, the relationship among news organizations, and the content of the news itself. Student will also discuss current events associated with digital media and reporting. Lecture 1 hour. No Laboratory.

JRMC 1233 - Television Scriptwriting
3 Credits
A study in the style, terminology, structure and narrative devices employed in scriptwriting for television. Emphasis is on the process of scriptwriting, from treatment to final script. Lecture 2 hours. Laboratory 2 hours. Prerequisite: JRMC 1103 or instructor approval.

JRMC 1303 - Fundamentals of Videography
3 Credits
An introductory study in video technologies, basic equipment -- including digital video camera operation -- video composition, basic lighting and audio, production planning and visual story telling. Lecture 2 hours. Laboratory 2 hours. Prerequisite: JRMC 1103 or permission of the instructor.

JRMC 2013 - Principles of Advertising
3 Credits
Elements and purposes of advertising; study of historical, legal, ethical, psychological, economic, global, societal and artistic aspects. Focus on advertising structure, comprehensive campaign reports, marketing and promotional mixes, budget, and media planning, practice in advertising copywriting and design and sales. Lecture 3 hours. Prerequisites: JRMC 1113 and/ or concurrent enrollment.

JRMC 2143 - Studio Production
3 Credits
Students learn to write, produce and direct multi-camera studio productions. Topics include studio camera operation, lighting and sound, as well as organized pre-production and crewing in a studio environment. Lecture 2 hours. Laboratory 2 hours. Prerequisites: JRMC 2263 or permission of the instructor.

JRMC 2153 - International Communication and Global Media
3 Credits
This course focuses on international mass communication, cross-cultural audiences and global media systems. Students will gain an understanding of associated theoretical, pragmatic, political and ethical issues, including cultural differences, comparative media systems, development communication, patterns of world news flow, political propaganda, and the impact of international advertising. Lecture 3 hours. Self-paced laboratory may be required. Not restricted to Journalism and Mass Communications majors.

JRMC 2163 - Editing
3 Credits
Copy editing and legal considerations for print and online media from an editor's perspective; design techniques for newspapers, magazines and online content, picture editing, introduction to type, makeup and design practices. Lecture 1 hour. Laboratory 2 hours. Prerequisites: JRMC 1123, CSYS 2683.

JRMC 2173 - Advanced Broadcasting
3 Credits
An advanced-level study in the techniques of writing for television and radio broadcasting; practice in script writing; broadcast performance/ announcing; pre-production; broadcast reporting and management of programs and formats Lecture 2 hours. Laboratory 2 hours. Prerequisites: Successful completion of JRMC 1103, JRMC 1113, and JRMC 1123 and/or concurrent enrollment.

JRMC 2183 - Principles of Public Relations
3 Credits
An historical survey course designed to provide students with fundamental principles of public relations processes: research, planning, and communication. An examination of selected case study methodologies, including writing acceptable publicity news releases, planning, detailing, and producing a comprehensive public relations campaign. Lecture 3 hours. Laboratory 1 hour. Prerequisites: JRMC 1013, JRMC 1113, and JRMC 1123 and/or concurrent enrollment.

JRMC 2263 - Digital Video I/Final Cut Pro
3 Credits
A general overview of digital video editing. Students will gain hands-on experience in video capture and editing using Final Cut Pro nonlinear video editing software on Macintosh platforms. Offered Fall semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisites: CSYS 1211 and CSYS 2573 or JRMC 1303 or instructor approval.

JRMC 2273 - Digital Video II/Final Cut Pro
3 Credits
An in-depth continuation of JRMC 2263 where students will integrate graphics, audio, animation, and special effects into digital video projects. Students will use Final Cut Pro video editing software on Macintosh platforms. Offered Spring semester only. Lecture 2 hours. Laboratory 2 hours. Prerequisite: JRMC 2263 or instructor approval.

JRMC 2373 - Broadcast Laboratory
3 Credits
Course focuses on practical application of writing, performance, and technical production of TCC student video programs and program segments. Students will work as a broadcasting team, rotating duties as they produce campus-related programming throughout the semester. Emphasis is on a studio-laboratory setting. Lecture 1 hour. Laboratory 4 hours. Prerequisite: JRMC 2353 or permission of the instructor.

JRMC 2423 - Advanced Video Production
3 Credits
An advanced-level study in the techniques and practices of today's video production, using broadcast video technology. Students will develop their skills in pre-production, production and post-production video work, both in the studio and on location. The course will include concept development, story boarding, shooting and editing video projects. Lecture 2 hours. Laboratory 2 hours. Prerequisites: Successful completion of JRMC 2353 or instructor approval.

JRMC 2433 - Field Production
3 Credits
Pre and post-production processes involved in field (on location) television productions. Topics include field camera setup and operation, field audio, television direction, and in-camera or basic continuity editing with an emphasis on underlying principles of video technology. Lecture 2 hours. Laboratory 3 hours. Prerequisites: JRMC 2263 or instructor approval.

JRMC 2853 - Photography
3 Credits
A comprehensive course in darkroom photography. Topics include historical techniques, black and white film exposure, processing and printing, equipment selection, image manipulation, color theory, and digital applications. Emphasis will be placed in the production of informative images that effectively communicate with the viewer, and adapting those images to publication requirements. Lecture 2 hours. Laboratory 4 hours.

JRMC 2863 - Photojournalism
3 Credits
This course will take an in-depth look at all aspects of photojournalism from news reportage to editorial photography and the photo-essay. Course emphasis is placed mainly on content, but technical considerations such as film characteristics, incident and strobe lighting, equipment choices and printing for reproduction are not ignored. Students can expect to be challenged regularly to articulate their rationale for choosing the manner in which they portray their assigned topics. Lecture 2 hours. Laboratory 4 hours. Prerequisites: JRMC 1013, and JRMC 2853.

JRMC 2973 - Journalism and Mass Communications Internship I
3 Credits
Expands the Digital Media Program, offering internship as a means to provide students with hands-on learning and working experience in their chosen specialty options of Adobe Master Design Specialist, Digital Media Specialist, or Web Design Specialist. Offered fall and spring semesters. Students must apply through instructor. No Lecture. Laboratory 12 hours.

JRMC 2983 - Journalism and Mass Communications Internship II
3 Credits
Designed as an expansion of the TCC Journalism and Mass Communications Program, offering internship as a means to provide students with hands-on learning experiences and working experience in their chosen field(s) of Journalism: Print Media (newspaper/magazine), Broadcasting (radio/television), Public Relations and Advertising. Prerequisite: Successful completion of JRMC 2973, initiation of the application process with the Program Coordinator or Associate Dean.

JRMC 2990 - Selected Topics in Journalism
1-4 Credits
The study and/or analysis of a selected topic in Journalism and Mass Communications. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

LANGUAGE INSTRUCTIONAL TECHNOLOGY

LNIT 1101 - Introduction to Language Instructional Technology
1 Credit
Focus on basic components and activities of language learning systems. Includes organization of instructional software, scheduling of lab usage, presentation of lab orientations, organization of lab menu, selection of lab equipment. Lecture 1 hour self-paced laboratory required. Prerequisite: 3 hours of a foreign language.

LNIT 1121 - Language Lab Maintenance Basics
1 Credit
Includes an introduction to the mechanical operations of lab equipment with training in troubleshooting and minor repair.

LNIT 1131 - Language Instructional Technology Internship I
1 Credit
Practicum in operating a language laboratory under supervision of a lab director. Focus on lab activities and interaction with lab users. All assignments completed in language lab. May be taken simultaneously with other language lab courses. Lecture 1 hour. Self-paced laboratory required. Prerequisite: LNIT 1101.

LNIT 1141 - Language Instructional Technology Internship II
1 Credit
Practicum II in operating a language laboratory under supervision of a lab director. Focus on lab activities and multi-group use. Allows the student to learn to integrate technology with language acquisition. May be taken simultaneously with other language lab courses. Lecture 1 hour. Self-paced laboratory required. Prerequisite: LNIT 1131.

LNIT 1151 - Language Instructional Technology Internship III
1 Credit
Practicum III in operating a language laboratory under supervision of a lab director. Focus on lab activities and setting up/organizing a new lab. Allows the student to learn to integrate technology with language acquisition. May be taken simultaneously with other language lab courses. Lecture 1 hour. Self paced laboratory required. Prerequisite: LNIT 1141.

LNIT 1161 - Language Instructional Technology Concepts
1 Credit
Focus on learning activities appropriate for instruction using technical systems. Lecture 1 hour. Self-paced laboratory required. Prerequisite: LNIT 1131 and 12 hours of a foreign language.

LNIT 1171 - Language Instructional Software Development
1 Credit
Development of software (video, computer, and/or audio) for learning activities in the language lab. Lecture 1 hour. Self-paced laboratory required. Prerequisite: LNIT 1161.

LNIT 1181 - Language Instructional Curriculum Development
1 Credit
Development of language learning activities with interactive technology. Lecture I hour. Self-paced laboratory may be required. Prerequisite: Permission of instructor or Director of ILC.

LNIT 2990 - Selected Topics in Language Instructional Technology
1-4 Credits
The study and/or analysis of a selected topic in Language Instructional Technology. May be repeated with a different topic. Lecture 1-4 hours. Self-paced laboratory may be required.

LATIN

LATN 1103 - Latin I
3 Credits
An elementary course in understanding, speaking, reading, and writing Latin. The first in a sequence of four related course sections. See LATN 1213, LATN 1313, and LATN 1413. Lecture 3 hours. No Laboratory.

LATN 1213 - Latin II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Latin. Lecture 3 hours. No Laboratory. Prerequisite: LATN 1103 or approval of instructor.

LATN 1313 - Latin III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Latin. Lecture 3 hours. No Laboratory. Prerequisite: LATN 1213 or approval of Instructor.

LATN 1413 - Latin IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Latin. Lecture 3 hours. No Laboratory. Prerequisite: LATN 1313 or approval of instructor.

LATN 2113 - Intermediate Latin I
3 Credits
An intermediate course in understanding, reading, and writing Latin. Lecture 3 hours. No Laboratory. Prerequisite: LATN 1413 or approval of instructor.

LAT 2413 - Latin Translations
3 Credits
This course will focus on the meaning of Latin Terminology used in areas of professional, legal, research, health, and government areas. Lecture 3 hours. No Laboratory. Prerequisite: Permission of instructor.

LATN 2990 - Selected Topics in Latin
1-4 Credits
The study and/or analysis of a selected topic in Latin. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

LAW ENFORCEMENT

LENF 1013 - Introduction to Law Enforcement
3 Credits
An orientation course to the basic tools related to success in the law enforcement discipline. Emphasis is placed on field note taking, report writing, telecommunications, and police ethics. Lecture 3 hours. No Laboratory. Prerequisite: LENF 1023.

LENF 1023 - Law and Law Enforcement
3 Credits
An examination of the basic legal skills and knowledge required by the law enforcement officer. Topics include introduction to criminal law, legal research, the court system, probable cause, laws of arrest, deadly force, weapons law, search and seizure, rules of evidence, the exclusionary rule, and trial of a criminal case. Lecture 3 hours. No Laboratory.

LENF 1033 - Patrol Function
3 Credits
The role and responsibilities of the police patrol emphasizing the concepts of patrol function, perception, beat familiarization, crimes in progress, vehicle pullover, and building search techniques. Lecture 3 hours. No Laboratory. Prerequisites: LENF 1023.

LENF 2013 - Police and Community Relations
3 Credits
A study of the relationship between the law enforcement officer and the citizenry with emphasis on effective community relations, victimology, civil rights, protective orders, mentally ill, suicides and officer survival. Lecture 3 hours. No Laboratory. Prerequisites: LENF 1023.

LENF 2021 - Custody and Control
1 Credit
In this course the student will be exposed to the basic control techniques utilized by the law enforcement officer. Weaponless control techniques, basic police baton, hand-cuffing, and defensive tactics are among the topics explored. Students should be physically prepared for the demands of this active skills course and will be expected to supply certain equipment needs. Lecture 1 hour. No Laboratory. Prerequisite: LENF 1023.

LENF 2033 - Law Enforcement Drivers Training
3 Credits
The fundamentals of police operation of a patrol vehicle. Topics include the law of police vehicle operation, driving techniques, cornering and steering, pursuit, and safe stops. Training requires student provide own transportation to the driving range. Lecture 3 hours. No Laboratory. Prerequisite: LENF 1023

LENF 2041 - Police Basic Firearms
1 Credit
Topics discussed include safety, nomenclature, range procedures, dry-fire techniques, accuracy, clearing malfunctions, and proper stances. The student will successfully complete a live-fire course with an approved handgun and police shotgun. Training requires student provide own transportation to the firing and will be expected to supply certain equipment needs. Lecture 1 hour. No Laboratory. Prerequisite: LENF 1023.

LEGAL ASSISTANT
(See Paralegal)

LEGAL SECRETARY
(See Business Program)

LIBRARY TECHNOLOGY

LIBT 1161- Information in the Digital Age
1 Credit
This course is designed to teach fundamental research skills and familiarize students with library and Internet information resources. The course emphasizes how to find print and online sources appropriate for college-level research assignments; how to evaluate information; and how to use information effectively and ethically. Skills acquired in this course will help develop information literacy and lifelong learning abilities, benefiting students' performance in other classes and in personal and professional pursuits. Lecture 1 hour. No Laboratory.

MANAGEMENT

MGMT 1003 - Team Basics
3 Credits
A course which emphasizes the basic processes of team management and the importance of working relationships. Methods of developing attitudes which lead to increased productivity, harmony in the workplace, success as a team member, effectively managing stress and change, and strengthening business ethics are discussed. Lecture 3 hours. No laboratory. Prerequisite: ENGL 1113, CSCI 1203 or instructor approval.

MGMT 1043 - Team Leadership
3 Credits
A focus on the leadership roles expected of team members with practical suggestions for improved leadership skills. Sources of power and influence, delegation, group processes, conflict resolution, and group decision-making techniques will be discussed. Additionally, students will review basic business principles in economics, marketing and accounting. Lecture 3 hours. No laboratory. Prerequisite: MGMT 1003 or instructor approval.

MGMT 1063 - Management Experiential Studies
3 Credits
Experiential learning credit may be granted for knowledge gained through bona fide corporate training programs. Personal involvement in certain professional organizations offering bona fide training programs may also be considered. The student will be required to attend a portfolio orientation session with the instructor, then develop a portfolio of management training and experiences to be submitted to the college for review to determine the equivalence to college learning. No Lecture. No Laboratory. Prerequisite: Completed 12 credit hours of coursework at TCC with a 2.0 GPA or higher.

MGMT 1073 - Business Experiential Studies
3 Credits
Experiential learning credit may be granted for knowledge gained through bona fide corporate training programs. Personal involvement in certain professional organizations offering bona fide training may also be considered. The student will be required to attend a portfolio orientation session with the instructor, then develop a portfolio of business training and experiences to be submitted to the college for review to determine the equivalence to college learning. No lecture. No Laboratory. Prerequisite: Completed 12 credit hours of coursework at TCC with a 2.0 GPA or higher.

MGMT 1213 - Call Center Management
3 Credits
A study of the application of sound management theory and decision making techniques in the call center environment. Focuses on ways for call center professionals to increase their proficiency as managers and supervisors. Lecture 3 hours. No Laboratory.

MGMT 1233 - Health Care Management
3 Credits
A study of the application of sound management theory and decision-making techniques to the health services environment. Focuses on ways for health care professionals to increase their proficiency as managers and supervisors. Lecture 3 hours. No Laboratory.

MGMT 1343 - Management Internship I
3 Credits
Supervised employment in the student's chosen field of management. Intended to provide practical experience for students preparing for a career in management. No Lecture. Laboratory 12 hours. Prerequisites: Concurrent enrollment in MGMT 1353 and instructor approval.

MGMT 1353 - Management Essentials
3 Credits
Introduction to practical management with emphasis on the role of the manager in the company/organization. Examines the function of management in conjunction with leadership, motivation, and communication. Lecture 3 hours. No Laboratory.

MGMT 1363 - Management Internship II
3 Credits
Supervised employment in the student's chosen field of management. Intended to provide practical experience for students preparing for a career in management. No Lecture. Laboratory 12 hours. Prerequisites: MGMT 1343, MGMT 1353, concurrent enrollment in MGMT 1373, and instructor approval.

MGMT 1373 - Human Resources Management
3 Credit
Study of the principles and practices of management with emphasis on the human factors, including recruitment, interviewing, testing, training, and performance appraisal. Emphasizes the responsibilities of all managers for human resources in their organization. Lecture 3 hours. No Laboratory. Prerequisite: MGMT 1353 or instructor approval.

MGMT 1383 - Human Resources Management for the Hospitality Industry
3 Credits
Study of the principles of management for the hospitality industry with emphasis on human factors including the employee selection process, orientation and training, effective communication and motivational techniques. Special emphasis is placed on the legal landscape of the hospitality including issues such as wage and hour laws, employee rights and working with union organizations. Lecture 3 hours. No Laboratory.

MGMT 1393 - Industrial Management
3 Credits
Basic introduction to first-time industrial management concepts where the primary concern is production. Includes basic management theory, total quality management concepts, human relations, and quality/ productivity improvement. Lecture 3 hours. No Laboratory. Prerequisite: ENGR 1313 or instructor approval.

MGMT 2001 - Quality Concepts/Problem Solving
1 Credit
Basic quality concepts are addressed in this course, along with the BAMA Quality Story and historical overview of a 12 year quality process. The course then summarizes the primary quality principles Deming, Covey, Joiner, and Goldratt and explains how these theories shape the quality culture of a business. The course also outlines basic problem solving concepts, the Plan, Do, Study, and Act model and gives a seven stop methods of employing problem solving techniques. Lecture 1 hour. No Laboratory.

MGMT 2041 - Effective Problem Solving
1 Credit
The problem solving methods continues with the teaching of problem solving tools and applying that knowledge and the information from Quality Concepts and Problem Solving to problems. Measurement is a key ingredient in the Problem Solving process and this course teaches how to apply effective measures to situations to measure the extent of a problem and determine root cause fixes for it. Lecture 1 hour. No Laboratory.

MGMT 2061 - Quality Concepts/Effective Problem Solving II
1 Credit
Continuation of MGMT 2001. Basic quality concepts are addressed in this course. The course summarizes the primary quality principles of Deming, Covey, Joiner, and Goldratt and explains how these theories shape the quality culture of a business. The course also outlines basic problem solving concepts, the Plan, Do, Study, Act model and gives a seven step method of employing problem solving techniques. Lecture 1 hour. No Laboratory. Prerequisite: MGMT 2001

MGMT 2103 - Workforce Development Internship
3 Credits
Supervised work experience related to the student's chosen workforce development field of study. Designed to provide practical application of workforce development program content in the work environment. No Lecture. Laboratory 12 hours. Student must contact workforce development internship instructor and meet all requirements for internship participation including completion of 15 credit hours with a 2.0 GPA or higher, or instructor approval.

MGMT 2123 - Leadership Development
3 Credits
This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates reading from the humanities, experiential exercises, films and contemporary readings on leadership. Lecture 3 hours. No Laboratory.

MGMT 2201 - Management and Planning Tools
1 Credit
An integrated approach designed to help the manager become a better planner and implementer. The tools presented could include tree diagrams, matrix diagrams, activity network diagrams, affinity diagrams, interrelationship digraphs, prioritization matrices and process decision program charts. Lecture 1 hour.

MGMT 2213 - Coaching/Performance Management
1 Credit
Students will have the opportunity to develop knowledge and skills required by frontline supervisors and managers in diagnosing performance and training issues, designing and implementing a variety of coaching strategies and conducting training follow-up and performance evaluations. Lecture 3 hours.

MGMT 2303 - Management Internship III
3 Credits
Supervised employment in the student's chosen field of management. Intended to provide practical experience for students preparing for a career in management. No Lecture. Laboratory 12 hours. Prerequisites: MGMT 1363, MGMT 1373, concurrent enrollment in MGMT 2323, and instructor approval.

MGMT 2323 - Organizational Behavior
3 Credits
A study of the behavioral sciences and their application to human relations and productivity. Includes such topics as motivation, leadership, participative management, group dynamics, communication, organizational change, and group processes as related to team building and total quality management. Lecture 3 hours. No Laboratory. Prerequisite: MGMT 1353, MGMT 1373 or instructor approval.

MGMT 2343 - Management Internship IV
3 Credits
Supervised employment in the student's chosen field of management. Intended to provide practical experience for students preparing for a career in management. No Lecture. Laboratory 12 hours. Prerequisites: MGMT 2303, MGMT 2323, concurrent enrollment in MGMT 2353, and instructor approval.

MGMT 2353 - Business Policy
3 Credits
A study of management activities utilizing comprehensive case problems. Emphasis is on the integration of management functions in the process of planning objectives, establishing policies, and determining strategic plans of action. Lecture 3 hours. No Laboratory. Prerequisite: MGMT 1353, MGMT 1373, MGMT 2323, or instructor approval.

MGMT 2363 - Principles of Management
3 Credits
Introduction to the basic theory and principles of management. Emphasis is on the functions of management, planning, organizing, staffing, directing, and controlling. A survey approach to current trends in management and possible future developments in organization and administration. Lecture 3 hours. No Laboratory.

MGMT 2403 - Critical Thinking for Results
3 Credits
Study of managerial critical thinking skills with application in pre-problem solving, purposeful position taking, and methodology to take in information with proper precision, breadth, and depth. Students will learn to persevere intellectually to meet both short and long term business goals. Lecture 3 hours. No Laboratory.

MGMT 2413 - Global Management
3 Credits
The study of managing individuals from various cultures with different perceptions of both current and potential customers. Designed to examine international labor relations, political and socioeconomic forces. Emphasis is on international managerial cases. Lecture 3 hours. No Laboratory.

MGMT 2423 - Entrepreneurship Management
3 Credits
Study of managerial skills necessary for being a successful business owner. Students will learn the types of managerial skills necessary and appropriate with business start up, business growth, and business maturity. Students will be given management practicums to learn which managerial skills they possess, which need development and which to obtain in proper business operation. Lecture 3 hours. No Laboratory

MGMT 2990 - Selected Topics in Management
1-4 Credits
The study and/or analysis of a selected topic in Management. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

MARKETING

MKTG 1313 - Sales and Negotiations
3 Credits
A multi-pronged approach, focused on the development and growth of the salesperson through a study of self-motivation, business communication, and the development of sales presentations and closing strategies, with special emphasis on developing negotiation skills. Lecture 3 hours. No Laboratory.

MKTG 1333 - Fashion Innovation and Marketing
3 Credits
Course emphasizes the process of fashion innovation, variables of fashion affecting production and distribution of consumer goods, and development of present structure in the fashion industry. Lecture 3 hours. No Laboratory.

MKTG 1371 - Introduction to Customer Service
1 Credit
An introductory background and orientation on career opportunities in the customer service industry. Professional work skills, positive work ethics, understanding company diversity, enhancing communications, problem solving, and an overview of world geography are included. Lecture 1 hour. No Laboratory.

MKTG 1381 - Marketing on the Internet
1 Credit
A hands-on course that teaches students to apply marketing concepts as they visit quality Internet sites. Students will be taught how to access the Internet and will gain familiarity with the Internet as a marketing resource tool. Lecture and Laboratory 1 hour.

MKTG 1393 - Web Design and Marketing
3 Credits
An introduction to Web site creation and marketing as it relates to E-Commerce business. Topics may include market research, usability issues, and design guidelines which include marketing approaches such as importance of logos, psychology of color, product promotion and cost factors. Students will develop and test a Web site using popular Web development software. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203. Recommended MKTG 2423.

MKTG 1403 - Marketing Internship I
3 Credits
Supervised employment in the student's chosen field of marketing. Intended to provide practical experience for students preparing for a career in marketing. No lecture. Laboratory 15 hours. Requires instructor approval.

MKTG 1423 - Marketing Internship II
3 Credits
Supervised employment in the student's chosen field of marketing. Intended to provide practical experience for students preparing for a career in marketing. No lecture. Laboratory 15 hours. Requires instructor approval.

MKTG 1433 - Marketing Internship III
3 Credits
Supervised employment in the student's chosen field of marketing. Intended to provide practical experience for students preparing for a career in marketing. No lecture. Laboratory 15 hours. Requires instructor approval.

MKTG 1443 - Electronic Commerce
3 Credits
This course will examine the foundation, operation and implications of the Internet economy. Course content may include topics such as Internet technologies, privacy, security, online market mechanisms, interaction with customers, electronic publishing, electronic shopping, knowledge-based products, pricing in the Internet economy, database issues, online auctions and e-marketplaces, intellectual property, policies, ethics for the Internet economy, emerging technologies and an outlook for the new economy. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSCI 1203 or instructor approval.

MKTG 2343 - Customer Service
3 Credits
This course provides students with the basic concepts and current trends in the customer service industry. Special areas of emphasis include problem solving, development of a customer service strategy, creating customer service systems, coping with challenging customers, customer retention and measuring satisfaction. Lecture 3 hours. No Laboratory.

MKTG 2363 - Consumer Behavior
3 Credits
The study of the consumer decision-making process including the effects of psychology and sociology. Course is taught from the perspective of those involved with or interested in selling, advertising, and retailing. Lecture 3 hours. No Laboratory. Prerequisite: MKTG 2423 or instructor approval.

MKTG 2393 - Advertising and Promotion Management
3 Credits
Emphasizing the selection of media sources and coordination of advertising and promotion as a part of the marketing mix. The student will learn how to prepare and manage an advertising and promotion campaign. Lecture 3 hours. No Laboratory. Prerequisite: MKTG 2423 or instructor approval.

MKTG 2423 - Principles of Marketing
3 Credits
A study of the marketing mix, including product, price, promotion and distribution and the influence of political, competitive, social, and technological environments on the marketing mix. The course also includes a review of marketing research and consumer behavior. Lecture 3 hours. No Laboratory.

MKTG 2433 - Product Development
3 Credits
Course emphasizes the stages of product development, acquiring raw materials and products, design elements, production processes, pricing strategies, promotional tools, and distribution elements. A focus will be placed on principles related to merchandising, display, and retail practices. Lecture 3 hours. No Laboratory.

MKTG 2813 - International Marketing
3 Credits
Dealing with the problems and opportunities of marketing in an international environment. Includes representation, licensing, credit, export and import requirements, and governmental regulations. Lecture 3 hours. No Laboratory. Prerequisite: MKTG 2423 or instructor approval.

MKTG 2990 - Selected Topics in Marketing
1-4 Credits
The study and/or analysis of a selected topic in Marketing. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

MATHEMATICS

MATH 0003 - Basic Mathematics
3 Credits
A study of the fundamental operations of whole numbers, fractions, and decimals, including a study of percents, measurement, interest. Lecture 3 hours. No Laboratory.

MATH 0013 - Beginning Algebra
3 Credits
A course for students who need to review their basic algebra background. Included within this course are signed numbers, positive and negative exponents, order of operations, conversions in fractions, decimals and percents, algebraic expressions, factoring, polynomials, slope, graphing, linear equations and inequalities, and applications. Equivalent to one year of high school algebra. Prerequisite: Appropriate Placement score or a grade of "C" or better in MATH 0003. Lecture 3 hours.
No Laboratory.

MATH 0055 - Basic Mathematics and Beginning Algebra
5 Credits
A combination of MATH 0003 and MATH 0013. A course for students who need to review their basic mathematics and basic algebra skills. Included in this course are operations with whole numbers, fractions, decimals, and percents, signed numbers, exponents, algebraic expressions, factoring, algebraic fractions, linear equations and inequalities, and graphing. Equivalent to one year of high school algebra. Lecture 5 hours. No Laboratory.

MATH 0090 - Selected Topics in Mathematics
1-5 Credits
Selected topics in mathematics that do not require students to have a prerequisite basic math or algebra background. Courses in math that are specially designed for companies, institutions, or private organizations and are not dependent upon prerequisite math courses. Lecture 1-3 hours. No Laboratory.

MATH 0105 - Beginning and Intermediate Algebra
5 Credits
A combination of MATH 0013 and MATH 0123 and equivalent to two years of high school algebra. A course for students who need to review their algebra background or need to satisfy a high school deficiency. Included within this course are signed numbers, negative and fractional exponents, algebraic expressions, factoring, algebraic fractions, functions, domain and range, linear equations and inequalities, absolute value equations and inequalities, systems of linear equations, graphing, irrational numbers, radicals, complex numbers, quadratic and higher degree equations, applications, and variation. Prerequisite: Appropriate placement score or a grade of "C" or better in MATH 0003. Lecture 5 hours. No Laboratory.

MATH 0113 - Geometry
3 Credits
A course for students that need to review their basic geometry. Included within this course are formal proofs, lines, angles, parallel and perpendicular lines, triangles, polygons, circles, three-dimensional geometry, computational geometry and constructions. Lecture 3 hours. No Laboratory. Prerequisite: One year of high school algebra and appropriate placement score or a grade of "C" or better in MATH 0013.

MATH 0123 - Intermediate Algebra
3 Credits
An extension of MATH 0013 for students that need to review their algebra background or need to satisfy a high school deficiency. Included within this course are absolute value equations and inequalities, algebraic fractions, irrational numbers, scientific notation, negative and fractional exponents, roots and radicals, complex numbers, domain and range, quadratic equations, variation, parallel and perpendicular lines, graphing, systems of equations and applications. Lecture 3 hours. No Laboratory. Prerequisite: One year of high school algebra and appropriate placement score or a grade of "C" or better in either MATH 0013 or MATH 0055, or their equivalent.

MATH 0803 - Math Skills for the Deaf and Hard of Hearing
1-3 Credits
Designed to assist students who are deaf and hard of hearing in developing math skills necessary to proceed through a planned college curriculum. Course selections will include operations in addition, subtraction, multiplication, division, and fractions. Lecture 3 hours. No Laboratory.

MATH 0822 - Consumer Math for the Deaf and Hard of Hearing
1-3 Credits
This course is designed for students who are deaf and hard of hearing to practice using math in everyday situations such as employment, business transactions, transportation, and basic budgeting. Lecture 2 hours. No Laboratory.

MATH 1454 - Technical Mathematics
4 Credits
A course designed for technical-occupational students in pursuit of a degree in technical education. Topics to be included are fundamental concepts of basic mathematics, algebra, right-triangle trigonometry, functions and graphs, factoring and algebraic functions, systems of linear equations, quadratic equations, exponents and radicals, exponents and logarithms, trigonometric functions, complex numbers, and oblique triangles and vectors. Lecture 4 hours. No Laboratory. Prerequisite: One year of high school algebra and geometry and appropriate placement score or MATH 0013 with a grade of "C" or better, or the equivalent.

MATH 1473 - Mathematics for Critical Thinking (A)
3 Credits
Topics in algebra, set theory, logic, graph theory, geometry, probability, statistics, and computer programming. Other topics as time allows. Lecture 3 hours. No Laboratory. Prerequisites: Two years of high school algebra and appropriate placement or ACT score, or completion of MATH 0123 or MATH 0105 with a grade of "C" or better, or their equivalent.

MATH 1483 - Mathematics Functions and Their Uses (A)
3 Credits
This course focuses on the analysis of functions and their graphs from the viewpoint of rates of change. Linear, polynomial exponential, logarithmic, and other function models will be studied, with applications to the natural sciences, business, social sciences, and agriculture. Lecture 3 hours. No Laboratory. Prerequisites: Two years of high school algebra and appropriate placement or ACT score, or MATH 0123 or MATH 0105 with a grade of "C" or better, or their equivalent.

MATH 1513 - College Algebra (A)
3 Credits
A continuation of MATH 0123 or MATH 0105, including relations and functions, graphing using transformations, algebra of functions, conic sections, polynomial and rational functions, systems of equations, matrices, exponential and logarithmic functions, binomial theorem, sequences and series, and applications. Lecture 3 hours. No Laboratory. Prerequisites: Two years of high school algebra and appropriate placement or ACT score, or MATH 0123 or MATH 0105 with a grade of "C" or better, or their equivalent.

MATH 1613 - Plane Trigonometry (A)
3 Credits
This course consists of trigonometric functions, degree and radian measure, solutions of right and oblique triangles, the unit circle, graphs of circular functions and the inverse functions, identities, inverse trigonometric functions and equation, complex numbers, and polar coordinates. Lecture 3 hours. No Laboratory. Prerequisite: MATH 1513 with a grade of "C" or better, or concurrent enrollment.

MATH 1715 - College Algebra and Trigonometry (A)
5 Credits
A course composed of topics from college algebra and trigonometry involving a strong emphasis on graphing and functions. The course consists of quadratic relations, functions, inverse functions, systems of equations, matrices and determinants, theory of equations, complex numbers, logarithmic and exponential functions, probability, the binomial theorem, sequences, trigonometric functions, trigonometric identities, polar coordinates, solutions of triangles and vectors. Lecture 5 hours. No Laboratory. Prerequisites: Two years of high school algebra and appropriate placement or ACT score, or MATH 0123 or MATH 0105 with a grade of "C" or better, or their equivalent.

MATH 2114 - Analytic Geometry and Calculus I (A)
4 Credits
Introduction to analytic geometry, limits, derivatives (including trigonometry), differentials, anti-derivatives, integrals, and applications of derivatives and integrals. Lecture 4 hours. No Laboratory. Prerequisites: A grade of "C" or better in MATH 1513 and MATH 1613, or MATH 1715.

MATH 2124 - Analytic Geometry and Calculus II (A)
4 Credits
A continuation of MATH 2114 involving calculus of additional transcendental functions, techniques of integration, improper integrals, sequences and series Taylor's formula, and conic sections. Lecture 4 hours. No Laboratory. Prerequisite: MATH 2114 with a grade of "C" or better.

MATH 2134 - Analytic Geometry and Calculus III
4 Credits
A continuation of MATH 2124, including polar coordinates, analytic geometry in 3-space, parametric equations, vectors in 2-space and 3- space, and multi-variant differential and integral calculus. Lecture 4 hours. No Laboratory. Prerequisite: MATH 2124 with a grade of "C" or better.

MATH 2193 - Elementary Statistics
3 Credits
An introduction to basic statistical terminology, organization of data, measures of central tendency and dispersion, review of combinations, permutations, and probability, binomial and normal distributions, hypothesis testing, and a variety of other statistical techniques. Lecture 3 hours. No Laboratory. Prerequisite: A grade of "C" or better in MATH 1513 or MATH 1454 or MATH 1473 or MATH 1483.

MATH 2423 - Mathematics Concepts for Educators
3 Credits
A course designed to provide the foundations for teaching arithmetic and geometry on the elementary level. Origins of numerals, number bases, systems of whole numbers, integers, rational numbers, real numbers, and intuitive geometry are some of the topics included in the course. The course also focuses on current issues in mathematics education and research as well as the use of microcomputers in mathematics education. Lecture 3 hours. No Laboratory. Prerequisite: MATH 0123 with a grade of "C" or better.

MATH 2513 - Finite Mathematics
3 Credits
A survey course in mathematics designed for business and economic students, involving set theory, logic probability, matrices, vectors, linear programming, game theory, and mathematics of finance and accounting. Lecture 3 hours. No Laboratory. Prerequisite: MATH 1513 with a grade of "C" or better.

MATH 2523 - Calculus for Business, Life, and Social Sciences
3 Credits
An introduction to differential and integral calculus with applications in the fields of business, and the life and social sciences. Lecture 3 hours. No Laboratory. Prerequisite: A grade of "C" or better in MATH 1513 or MATH 1483 or MATH 2513.

MATH 2533 - Using Multimedia Environments for Research and Test Analysis in the Social Sciences
3 Credits
This course will acquaint educators with powerful statistical multimedia environments for the purpose of test analysis and/or conducting research in education, psychology, and the social sciences. Some previous experience with statistics, research, testing and/or evaluation theory is helpful for the course. Participants will explore hands-on multimedia applications in testing and research. Lecture 3 hours. Laboratory 1 hour. Prerequisite: A grade of "C" or better in MATH 2193 and CSCI 1011.

MATH 2553 - Geometry and Measurement
3 Credits
This course provides a modeling and hands-on approach to geometry concepts for elementary teachers. Topics include perimeter, area, volume, mass, English and metric systems, time, temperature, vocabulary, polygons, polyhedrons, shapes, constructions, transformations, tessellation, and trigonometry. Prerequisite: A grade of "C" or better in MATH 1473 or MATH 1513 or MATH 1483 or their equivalent. Lecture 3 hours. No Laboratory.

MATH 2593 - Applied Statistical Analysis
3 Credits
This course extends the number of concepts that are included in MATH 2193 (Elementary Statistics) by providing advanced statistical types of analysis and methodologies. Emphasis in the course will be on applying advanced statistical techniques to specific application areas such as social science, business, and medical fields. Research techniques, field work, and computer analyses will be the tools involved in conducting the statistical applications in the course. Lecture 3 hours. Laboratory 1 hour. Prerequisite: MATH 2193 with a grade of "C" or better or instructor approval.

MATH 2613 - Elementary Differential Equations
3 Credits
Solutions and applications of first order ordinary differential equations by symbolic and numerical methods. Solutions and applications of second order linear equations. Series solutions, Laplace transforms, and higher order equations with constant coefficients and an introduction to systems of differential equations. Lecture 3 hours. No Laboratory. Prerequisite: MATH 2134 with a grade of "C" or better.

MATH 2653 - Discrete Mathematics
3 Credits
Set theory proof techniques, logic, mathematical induction, Boolean Algebra and lattices, equivalence relations and partitions, functions, algorithm analysis, principles of counting and probability, statistics, recurrence relations, mathematical modeling, matrix algebra, trees, graphs and graph theory. Lecture 3 hours. No Laboratory. Prerequisite: MATH 2114 with a grade of "C" or better.

MATH 2990 - Selected Topics in Mathematics
1-4 Credits
The study and/or analysis of a selected topic in Mathematics. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

MEDICAL ASSISTANT

MDAS 1315 - Clinical Procedures
5 Credits
This course provides instruction in clinical exam room procedures employed by the medical assistant. Topics include asepsis, infection control, disposal of biohazardous material, sterilization/maintenance of instruments and equipment, patient screening, chart documentation, vital signs, preparation/maintenance of treatment areas, assisting with exams and procedures including minor office surgery, restocking of supplies, patient education and nutrition, immunizations, prescriptions, dosage calculation, and preparation and administration of medication. Lecture 3 hours. Laboratory 4 hours. Prerequisites: ALDH 1323, BIOL 1314, CSCI 2013 or concurrent enrollment and program director approval.

MDAS 1343 - Medical Office Concepts and Applications
3 Credits
A study of the administrative procedures necessary in the management of the medical office in reference to professionalism, communication skills, human behavior, legal concepts, medical ethics, coping skills for patients & employees, patient diversity, community resources, public relations, receptionist skills, telephone etiquette, appointment scheduling, correspondence, mail processing and medical records management. The course will also include computer terminology, medical office software and applications. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ALDH 1323, BIOL 1314, CSCI 2013 and program director approval.

MDAS 2234 - Common Diseases and Treatments
4 Credits
A study of common diseases, diagnostic tests, procedures, treatments, and medication options by body system. Medications (generic, brand-name, and over-the-counter) will be discussed and linked to diseases they are most commonly prescribed to treat. The most common side effects, contraindications, and adverse reactions of medications will be studied. Lecture 4 hours. No Laboratory. Prerequisites: ALDH 1323, BIOL 1314, CSCI 2013 and program director approval.

MDAS 2243 - Medical Office Finance and Management
3 Credits
A course that presents the administrative procedures involved with patient billing, collections, bookkeeping, banking, petty cash, accounts receivable, accounts payable, inventory of supplies, marketing, statistical reports, payroll, medical office supervision, teamwork, office policies and procedures, human resource management, interviewing, resume and cover letter preparation, job search techniques. Computer and manual applications will be presented. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ALDH 1323, BIOL 1314, and CSCI 2013 or concurrent enrollment and program director approval.

MDAS 2333 - Medical Assistant Externship
3 Credits
Supervised practical experience without remuneration (pay) in an ambulatory medical facility or physician's office. Laboratory 10 hours. Prerequisites: Successful completion of medical assistant certificate course requirements and program director approval.

MDAS 2346 - Clinical Laboratory Procedures
6 Credits
This course provides instruction in basic clinical laboratory techniques employed by the medical assistant. Topics include laboratory safety, OSHA & CLIA regulations, quality control, collection and processing of specimens, and the performance of selective tests including urinalysis, hematology, blood chemistries, and microbiological and serological testing. The principles and performance of EKGs, spirometry, vision and hearing testing are also included. Medical emergencies and principles and techniques of phlebotomy will be reviewed. Lecture 3 hours. Laboratory 6 hours. Prerequisites: ALDH 1323, BIOL 1314, CSCI 2013, MDAS 1315, and program director approval.

MDAS 2393 - Medical Coding & Insurance Billing for the Physician Office
3 Credits
A study of ICD-9-CM and CPT/HCPCS coding systems and guidelines used in the application of these codes to the CMS 1500 claim form or for medical reporting purposes in the physician's office or clinic setting. A review of third party payer reimbursement methodologies and HIPPA guidelines will be provided. CMS 1500 claims for Medicare, Medicaid, Blue Cross Blue Shield, Commercial, TRICARE and CHAMPVA, Worker's compensation and Disability Income Insurance claims will be prepared. Medical documentation, paper claim submission, electronic claims transmission, receiving and posting payments, office and insurance collections strategies, claim tracing, denials, appeals, and managed care will be presented. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ALDH 1323, BIOL 1314, CSCI 2013 and program director approval.

MDAS 2990 - Selected Topics in Medical Assisting
1-4 Credits
The study and/or analysis of a selected topic in Medical Assisting. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

MEDICAL LABORATORY TECHNOLOGY

MDLT 1203 - Phlebotomy
3 Credits
This course will cover the basic concepts and skills needed to prepare an individual to become a phlebotomist. Lecture 2 hours. Laboratory 2.5 hours. Requires MLT/Phlebotomy Program Director approval.

MDLT 1212 - Introduction to Medical Laboratory Technology and Specimen Processing
2 Credits
This introductory course will emphasize basic laboratory skills and procedures in urinalysis, hematology, chemistry, microbiology, immunology, and blood bank. Lecture 1 hours. Laboratory 2 hours.

MDLT 1222 - Phlebotomy Clinical
2 Credits
Students will be assigned to clinical laboratories for practical phlebotomy experiences. No Lecture. Laboratory 4* hours. *Actual number of clinical lab hours is 10 hours per week for ten weeks. This clinical includes observation and laboratory procedures. Prerequisites: concurrent enrollment in MDLT 1203, and MDLT 1212 and of MLT Program Director approval.

MDLT 2305 - Basic Hematology
5 Credits
Introduction to study of the cellular components of human blood. Emphasis on blood cell counting, hemoglobin, hematocrit, and reticulocyte determinations. Lecture 4 hours. Laboratory 4 hours. Prerequisite: Grade of "C" or better in MDLT 1203, MDLT 1222 and acceptance into the MLT program.

MDLT 2344 - Clinical Chemistry I
4 Credits
This course will cover the basic theories of routine clinical chemistry procedures, including instrumentation. Emphasis will be placed on theory, clinical applications, and procedures. A brief review of laboratory mathematics will be included. Lecture 3 hours. Laboratory 4 hours. Prerequisites: Grade of "C" or better in MDLT 1203, MDLT 1222, and acceptance into the MLT program.

MDLT 2365 - Clinical Chemistry II
5 Credits
Continuation of MDLT 2344. Lecture 3 hours. Laboratory 4 hours. Prerequisites: Grade of "C" or better in MDLT 2305, MDLT 2344, MDLT 2426.

MDLT 2395 - Clinical Microbiology
5 Credits
This course will have primary emphasis on pathogenic microorganisms, their identification, and related disease processes. Laboratory will stress the identification of these from a clinical viewpoint. Lecture 3 hours. Laboratory 4 hours. Prerequisites: Grade of "C" or better in MDLT 2305, MDLT 2344, MDLT 2426.

MDLT 2426 - Urinalysis, Immunology and Blood Bank
6 Credits
This course will include a study of laboratory procedures for chemical and sediment in urine as well as immunological determinations, blood typing and cross-matching. Lecture 4 hours. Laboratory 4 hours. Prerequisites: MDLT 1203, MDLT 1222, and acceptance into the MLT Program.

MDLT 2434 - Clinical Practicum I
4 Credits
Students will be assigned to clinical laboratories for practical experiences in various procedures and techniques. No Lecture. Laboratory 8 hours. Actual number of clinical lab hours is 40 hours per week for eight weeks. This clinical includes observation and laboratory procedures. Prerequisites: Completion of all Medical Laboratory courses with a grade of "C" or above.

MDLT 2465 - Clinical Practicum II
5 Credits
This is a continuation of Clinical Practice I. Emphasis will be placed on clinical application and laboratory procedures. No Lecture. Laboratory 10 hours. Actual number of clinical lab hours is 40 hours per week for eight weeks. This clinical includes observation and laboratory procedures. Prerequisite: Completion of MDLT 2434 with a grade of "C" or above.

MDLT 2990 - Selected Topics in Medical Laboratory Technology
1-4 Credits
The study and/or analysis of a selected topic in Medical Laboratory Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

MEDICAL RECORDS
(See Health Information Technology Program and Course Descriptions)

MEDICAL TRANSCRIPTION

MDTR 2303 - Medical Transcription I
3 Credits
A course designed to provide skills and applications for producing an accurate medical report from dictated and written material using a medical specialty approach. A brief overview of the profession and the ethical/legal responsibilities in medical transcription will be discussed. Emphasis will be on direct application transcribing dictated medical reports, spelling, abbreviations and use of reference materials. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ALDH1323, CSCI 2013, ENGL 1083 or concurrent enrollment and program director approval.

MDTR 2313 - Medical Transcription II
3 Credits
This course is a continuation of Medical Transcription I. A specialty approach will be used in transcribing dictated materials. The course will include proofreading and editing exercises, spelling, abbreviations, and transcribing tips. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ALDH 1323, BIOL 1314, CSCI 2013, ENGL 1083, MDTR 2303, program director approval.

MDTR 2373 - Medical Transcription III
3 Credits
This course is a continuation of Medical transcription II, using the medical specialty approach. Current articles on medications, sound-alikes, look-alikes, eponyms, and new medical terms will be addressed. Emphasis will be on accuracy and production times. Lecture 2 hour. Laboratory 2 hours. Prerequisites: Completion of all courses in the medical transcription certificate program, with the exception of the externship course.

MDTR 2433 - Medical Transcription Externship
3 Credits
Supervised practical experience without remuneration (pay) in a medical transcription department of a hospital, a physician's office or a transcription service. Laboratory 8 hours. Prerequisites: Successful completion of all medical transcription certificate course requirements.

MUSIC

MUSC 1002 - Fundamentals of Music
2 Credits
A course that places particular emphasis on the basic skills of reading and writing music. It assumes no prior knowledge of music. Lecture 2 hours. No Laboratory. Music majors must take this course or pass a theory proficiency test before taking MUSC 1013.

MUSC 1013 - Music Theory I
3 Credits
Development and cultivation of musicianship skills, especially in the areas of tonal and rhythmic perception and articulation. Presentation of the essentials of music; classification of triads and seventh chords and their inversions; introduction to analysis and part writing. Lecture 3 hours. No Laboratory. Prerequisite: MUS 1002 or pass proficiency exam. Corequisites: Concurrent enrollment in Class Piano or Private Piano and MUSC 1062 for music majors. Piano corequisite may be waived by demonstration of proficiency.

MUSC 1023 - Music Theory II
3 Credits
Continuation of MUSC 1013. Continued work in analysis, part-writing and harmonization with diatonic triads and seventh chords and their inversions. Introduction to modulation and dominant secondary and secondary leading tone chords. Introduction to binary and ternary forms. Lecture 3 hours. No Laboratory. Prerequisite: MUSC 1013 and MUSC 1062 or instructor approval. Corequisite: Concurrent enrollment in Class Piano or Private Piano and MUSC 1072, for music majors. Piano corequisite may be waived by demonstration of piano proficiency.

MUSC 1053 - Recording Studio Techniques I
3 Credits
Designed to introduce students to the basic principles, techniques, and tools commonly used in modern sound recording. Open to anyone with an interest in sound or music. Lecture 2 hours. Laboratory 2 hours.

MUSC 1062 - Aural Theory I
2 Credits
Development of aural skills related to sight-singing, rhythmic and melodic dictation, and keyboard harmony, using examples from the common practice period. Required for music majors. Open to non-music majors with approval of instructor. Taken concurrently with MUS1013 for music majors. Lecture 2 hours. No Laboratory. Prerequisite: MUSC 1002 or instructor approval.

MUSC 1072 - Aural Theory II
2 Credits
Development of aural skills related to sight-singing, rhythmic and melodic dictation, and keyboard harmony, using examples from the common practice period. Required for music majors. Taken concurrently with MUSC 1023 for music majors. Lecture 2 hours. No Laboratory. Prerequisite: MUSC 1013 and MUSC 1062 or instructor approval.

MUSC 1113 - Music Appreciation (H)
3 Credits
A concise survey of the basic elements of music and their application in the music literature of Western civilization, particularly the Baroque era to the present. Relevant cultural influences upon the music of each era are observed. Lecture 3 hours. No Laboratory.

MUSC 1142 - Computer Music Techniques I
2 Credits
This course is designed to develop computer music skills and comprehension of MIDI with the use of Sibelius music composition software. It is designed to be a lab class. Requires intermediate computer skills. Lecture 1 hour. Laboratory 2 hours. Prerequisite: MUSC 1013.

MUSC 1153 - American Popular Music (H)
3 Credits
This course is a survey of the history and development of the various styles of popular music that have originated in the United States since the middle of the 19th century. Emphasis is on understanding the basic elements of popular music, song types, and the technological, ethnic, culrural, social, and political forces that have shaped the various types of popular music. Students will be exposed to a wide variety of musical styles from minstrel song, to Tin Pan Alley, the blues, Jazz, Rock, Country, R&B, to the most recent developments of the 21st century. No previous musical experience necessary. Lecture 3 hours. No Laboratory.

MUSC 1171 - Beginning Guitar
1 Credit
Beginning Guitar is designed for beginning students who are not majoring in music. At the end of the semester students should expect to understand both written music and specialized system for writing guitar music called tablature. Basic chords in the first position, called open chords, will be used in simple song accompaniments. Students must provide their own instruments in good working condition. Acoustic guitars are preferred but not required. Amplifiers will not be provided. Lecture 1 hour. No Laboratory.

MUSC 1181 - Percussion Class
1 Credit
This percussion methods/techniques class provides students an opportunity to develop beginning level performance skills on the major instruments of the percussion family, as well as an introduction to accessories, Latin percussion, and drum set. The course addresses methods for teaching percussion while providing an environment for students to learn how to diagnose common performance problems associated with percussion instruments and a variety of suggestions for solutions. Other topics to be covered include: equipment maintenance and repairs, suggestions for method books and repertoire, and organizational materials to maintain student's focus in a band class setting. Lecture 1 hour. No Laboratory.

MUSC 1190 - Private Lessons for Non-Majors
1-2 Credits
Private piano, voice and instrumental lessons are designed to help non-music majors improve their technique, sight reading skills and basic musicianship skills. An additional laboratory fee is required. Requires instructor approval.

1 credit hour private music instruction requires a weekly 30-minute lesson; 1.5 hours minimum weekly practice recommended. No Lecture. Laboratory 2 hours.

2 credit hours private music instruction requires a weekly 1-hour lesson; 3 hours minimum weekly practice recommended. No Lecture. Laboratory 4 hours.

Private Piano	1-2 Credits
Private Organ	1-2 Credits
Private Voice	1-2 Credits
Private Guitar	1-2 Credits
Private Violin	1-2 Credits
Private Viola	1-2 Credits
Private Cello	1-2 Credits
Private Bass	1-2 Credits
Private Flute	1-2 Credits
Private Oboe	1-2 Credits
Private Clarinet	1-2 Credits
Private Saxophone	1-2 Credits
Private Electric Bass Guitar	1-2 Credits
Private Trumpet	1-2 Credits
Private Horn	1-2 Credits
Private Trombone	1-2 Credits
Private Tuba	1-2 Credits
Private Bassoon	1-2 Credits
Private Harp	1-2 Credits
Private Percussion	1-2 Credits

MUSC 1200 to 1490 - Private Music Lessons
1-2 Credits
Private piano, voice and instrumental lessons are designed for music majors to improve their technique, sight reading skills and intermediate to advanced musicianship skills. Technique, literature, number of performances and practice hours are appropriate for college freshman level. An additional laboratory fee is required. Prerequisite: Requires instructor approval.

1 credit hour private music instruction requires a weekly 30-minute lesson; 1.5 hours minimum weekly practice recommended. Designed for the music major on a secondary instrument. Placement for non-majors with instructor approval. No Lecture. Laboratory 2 hours.

2 credit hours private music instruction requires a weekly 1-hour lesson; 3 hours minimum weekly practice recommended. Designed for the music major on their primary instrument. Performance examination (jury) will be required to proceed to sophomore level instruction. No Lecture. Laboratory 4 hours.

1200 - Private Piano
1210 - Private Organ
1240 - Private Voice
1250 - Private Guitar
1310 - Private Violin
1320 - Private Viola
1330 - Private Cello
1340 - Private Bass
1350 - Private Flute
1360 - Private Oboe
1370 - Private Clarinet
1380 - Private Saxophone
1390 - Private Electric Bass Guitar
1410 - Private Trumpet
1420 - Private Horn
1430 - Private Trombone
1440 - Private Tuba
1450 - Private Bassoon
1460 - Private Harp
1490 - Private Percussion

MUSC 1512 - Voice Class
2 Credits
A course teaching the principles of breathing, voice production, tone control, enunciation, and phrasing. Two group lessons per week. Lecture 1 hour. Laboratory 2 hours.

MUSC 1541 - Orchestra
1 Credit
Study and performance of concert literature for full orchestra. No lecture. Laboratory 3 hours. Prerequisite: Enrollment by audition.

MUSC 1551 - Concert Choir
1 Credit
A mixed choral ensemble that performs a wide variety of choral literature suitable for an advanced choir. Performances may include Madrigal programs, participation in state and local choral festivals, and combined choir performances with the Signature Symphony at TCC. No Lecture. Laboratory 3 hours.

MUSC 1562 - Musical Theatre
2 Credits
A course designed to develop the musical and theatrical talents of students who either are interested in a degree in Musical Theatre or simply want to broaden their individual experiences on the stage. Course work consists of learning, blocking and presenting scenes from the major genres in musical theatre. Historical and cultural perspective on individual works will be included in abbreviated lecture form. Requires voice, dance and/or theatre experience. No Lecture. Laboratory 4 hours.

MUSC 1612 - Class Piano I
2 Credits
The electronic piano lab offers individualized as well as class instruction in learning and/or improving techniques in playing the piano. Lecture 1 hour. Laboratory 2 hours.

MUSC 1622 - Class Piano II
2 Credits
Continuation of Class Piano I. Lecture 1 hour. Laboratory 2 hours. Prerequisite: MUSC 1612 or instructor approval.

MUSC 1632 - Class Piano III
2 Credits
Continuation of Class Piano II. Lecture 1 hour. Laboratory 2 hours. Prerequisite: MUSC 1622 or instructor approval.

MUSC 1642 - Class Piano IV
2 Credits
Continuation of Class Piano III. Lecture 1 hour. Laboratory 2 hours. Prerequisite: MUSC 1632 or instructor approval.

MUSC 1651 - Concert Band
1 Credit
Study and performance of concert literature for the wind band. No lecture. Laboratory 3 hours. Prerequisite: Enrollment by audition.

MUSC 1661 - Jazz Band
1 Credit
This course is designed to develop fundamental techniques in the artistry of jazz in an ensemble setting from swing to big band. This class incorporates many styles in the jazz idiom including improvisation. No Lecture. Laboratory 3 hours. Prerequisite: Enrollment by audition.

MUSC 1711 - Brass Ensemble
1 Credit
This course is designed to give students the experience of rehearsing and performing in a brass chamber ensemble. Students will be exposed to brass ensemble repertoire and experience a collaborative approach to problem solving. Students must be able to read music and have intermediate musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1721 - Woodwind Ensemble
1 Credit
This course is designed to give students the experience of rehearsing and performing in a woodwind chamber ensemble. Students will be exposed to woodwind ensemble repertoire and experience a collaborative approach to problem solving. Students must be able to read music and have intermediate musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1731 - Guitar Ensemble
1 Credit
This course is designed to give students the experience of rehearsing and performing in a guitar chamber ensemble. Students will be exposed to guitar ensemble repertoire and experience a collaborative approach to problem solving. Students must be able to read music and have intermediate musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1761 - String Ensemble
1 Credit
This course is designed to give students the experience of rehearsing and performing in a string chamber ensemble. Students will be exposed to string ensemble repertoire and experience a collaborative approach to problem solving. Students must be able to read music and have intermediate musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1771 - Percussion Ensemble
1 Credit
This course is designed to give students the experience of rehearsing and performing in a percussion chamber ensemble. Students will be exposed to percussion ensemble repertoire from many different cultures and experience a collaborative approach to problem solving. Students must be able to read music and have intermediate musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1781 - Chamber Ensemble
1 Credit
This course is designed to give students the experience of rehearsing and performing in a chamber ensemble. Students will be exposed to chamber ensemble repertoire and experience a collaborative approach to problem solving. Students must be able to read music and have intermediate musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1791 - Jazz Combo
1 Credit
This course is designed to give students the experience of rehearsing and performing in a jazz combo. Students will be exposed to jazz combo repertoire and experience a collaborative approach to problem solving. Students must be able to read music and have advanced musicianship experience on their instrument. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition or instructor approval.

MUSC 1801 - Jazz Lab
1 Credit
An instrumental performance ensemble that explores and performs jazz conception and structure with emphasis on individual improvisational technique. No Lecture. Laboratory 3 hours. Requires instructor approval.

MUSC 2013 - Music Theory III
3 Credits
Analysis, part-writing, and harmonization, including chromatic harmonies and modulation. Introduction to fugue, sonata form, rondo form, and variation technique. Lecture 3 hours. No Laboratory. Prerequisite: MUSC 1023 and MUSC 1072 or instructor approval. Corequisite: MUSC 2062 for music majors. Concurrent enrollment in Class Piano or Private Piano is required unless waived by demonstration of piano proficiency.

MUSC 2023 - Music Theory IV
3 Credits
A continuation of MUSC 2013. Introduction to extended harmonies and 20th century techniques. Lecture 3 hours. No Laboratory. Prerequisite: MUSC 2013 and MUSC 2062 or instructor approval. Corequisite: MUSC 2072 for music majors. Concurrent enrollment in Class Piano or Private Piano is required unless waived by demonstration of piano proficiency.

MUSC 2062 - Aural Theory III
2 Credits
Development of aural skills related to sight-singing, rhythmic and melodic dictation, and keyboard harmony, using examples from the common practice period. Required for music majors. Taken concurrently with MUSC 2013 for music majors. Lecture 2 hours. No Laboratory. Prerequisite: MUSC 1023 and MUSC 1072 or instructor approval.

MUSC 2072 - Aural Theory IV
2 Credits
Development of aural skills related to sight-singing, rhythmic and melodic dictation, and keyboard harmony, using examples from the common practice period. Required for all music majors. Taken concurrently with MUSC 2023 for music majors. Lecture 2 hours. No Laboratory. Prerequisite: MUSC 2013 and MUSC 2062 or instructor approval.

MUSC 2133 - Introduction to the History and Literature of Music
3 Credits
A detailed, one semester introductory study of the major music historical periods and representative works from the Middle Ages through the 20th Century. Emphasis on developing research, listening, and analytical techniques in preparation for undergraduate level music history survey courses. Required of all music majors; non-music majors admitted by permission. Lecture 3 hours. No Laboratory. Prerequisite: MUSC 1013 or instructor approval.

MUSC 2161 - Cello Choir
1 Credit
Open to beginning, intermediate and advanced cello players. No audition required. The choir rehearses and performs many styles of music, from the Renaissance, Baroque, Classical, Romantic and Contemporary eras. No Lecture. Laboratory 3 hours.

MUSC 2181 - Show Choir
1 Credit
A mixed choral ensemble designed to present vocal jazz standards as well as popular show tunes. Usually one to two formal concerts are presented a semester which may include presentation with the TCC Signature Symphony. Some musical numbers may be staged and/or choreographed. No Lecture. Laboratory 2 hours. Prerequisite: Enrollment by audition. Concurrent enrollment in MUSC 1551 is required.

MUSC 2200 and 2240 - Private Piano and Voice Lessons
1-2 Credits
Technique, literature, number of performances and practice hours are appropriate for college sophomore level. An additional laboratory fee is required. Prerequisite: Requires instructor approval.

1 credit hour private music instruction requires a weekly 30-minute lesson; 1.5 hours minimum weekly practice recommended. Designed for the music major on a secondary instrument. No Lecture. Laboratory 2 hours.

2 credit private music instruction requires a weekly 1-hour lesson; 3 hours minimum weekly practice recommended. Designed for the music major on their primary instrument. Performance examination (jury) will be required. No Lecture. Laboratory 4 hours.

MUSC 2223 - Recording Studio Techniques II
3 Credits
Designed to provide students with hands on digital editing, mixing, and mastering experience with the ProTools system. Lecture 2 hours. Laboratory 2 hours. Prerequisite: MUSC 1053 or instructor approval.

MUSC 2333 - Music Internship
3 Credits
Students work in a qualifying occupational setting where they receive practical training and experience toward their occupational objectives. No lecture Laboratory 6 hours. Requires instructor approval.

MUSC 2990 - Selected Topics in Music
1-4 Credits
The study and/or analysis of a selected topic in Music. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

NANOTECHNOLOGY
(See Electronics Technology)

NANT 1463 - Composite Materials
3 Credits
This course explores the properties and the processes of manufacturing used with today's modern composite materials. Typical processes used in the Tulsa area will be reviewed along with site visits. Lecture 2 hours. Laboratory 2 hours.

NANT 2632 - Introduction to Nanotechnology
2 Credits
This course is designed to help the student develop an understanding of the fundamental concepts behind nano and micro technology. Topics include fabrication, clean-rooms, microscopy, lithograph, and materials used in the building of silicon devices. Other areas of study will focus on where and how this new technology is used. Classroom demonstration will be used. Lecture 2 hours. No Laboratory. Prerequisite: ELET 1212.

NANT 2643 - Nanoelectronics
3 Credits
Nanoelectronics covers the processes of developing micro and no scale electronics devices. The student will be introduced to carbon nanotubes, MEMS, memory, self-assembly, top-down and bottom-up techniques. Students will also be taken through the steps in building a micro-chip and how it applies to nano-structures. Equipment topics will include wet and dry etch, lithograph, deposition, evaporators, and vacuum systems. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET/NANT 2632 or instructor approval.

NANT 2653 - Nanoscience
3 Credits
Nanoscience explores the many possibilities for which nanostructures can and are being used. The study will include nanotube and nanopartical application in medicine, drug delivery and detection. Microscopy will include the scanning tunneling, atomic force and optical microscopes. Material and chemical make-up of micro and nano-structures will be introduced. Lecture 2 hours. Laboratory 2 hours. Prerequisite: ELET/NANT 2632 or instructor approval.

NATIVE AMERICAN STUDIES
(See Liberal Arts)

NAMS 1013 - Cherokee Language
3 Credits
The first course in a sequence designed to facilitate the acquisition of the language skills necessary to communicate effectively in Cherokee. Areas of linguistic consideration will include, but not be limited to, reading and writing the modern syllabary, vocabulary building, sentence construction, pronunciation, and basic conversational expression-assessed both orally and in writing. Students will also become acquainted with various aspects of Cherokee culture, particularly oral traditions. Lecture 3 hours. No Laboratory.

NAMS 1023 - Cherokee Language II
3 Credits
The second course in a sequence designed to facilitate the acquisition of the language skills necessary to communicate effectively in Cherokee. Areas of linguistic consideration will include, but not be limited to, reading/writing/typing the modern syllabary, vocabulary building, sentence construction, basic composition, translation, pronunciation, and basic conversational expression-assessed both orally and in writing. Students will continue to become acquainted with various aspects of Cherokee culture, particularly oral traditions. Lecture 3 hours. No Laboratory. Prerequisite: NAMS 1013 or instructor approval.

NAMS 1113 - Muscogee Creek Language I
3 Credits
The first course in a sequence designed to facilitate the acquisition of the language skills necessary to communicate effectively in Muscogee. Areas of linguistic consideration will include, but not be limited to reading and writing transliterated texts, vocabulary building, sentence construction, pronunciation, and basic conversational expression –assessed both orally and in writing. Students will also become acquainted with various aspects of Creek culture, particularly oral traditions. Lecture 3 hours. No Laboratory.

NAMS 1123 - Muscogee Creek Language II
3 Credits
The second course in a sequence designed to facilitate the acquisition of the language skills necessary to communicate effectively in Muscogee. Areas of linguistic consideration will include, but not be limited to reading/writing/typing transliterated texts, vocabulary building, sentence construction, basic composition, translation, pronunciation, and basic conversational expression - assessed both orally and in writing. Students will continue to become acquainted with various aspects of Creek culture, particularly oral traditions. Lecture 3 hours. No Laboratory.

NAMS 1213 - Osage Language I
3 Credits
The first course in a sequence designed to facilitate the acquisition of the language skills necessary to communicate effectively in Osage. Areas of linguistic consideration will include, but not be limited to reading and writing transliterated texts, vocabulary building, sentence construction, pronunciation, and basic conversational expression –assessed both orally and in writing. Students will also become acquainted with various aspects of Osage culture, particularly oral traditions. Lecture 3 hours. No Laboratory.

NAMS 2013 - Images of Indians in American Culture
3 Credits
An examination of the images of "Indians" found in American culture, specifically art and literature, old-time radio, TV, film-even advertising and sports- leading to a critique of the persistence of stereotypes in contemporary social and political discourse. Lecture 3 hours. No laboratory.

NAMS 2113 - Native American Cultures (H)
3 Credits
An interdisciplinary survey designed to strengthen students' appreciation of the rich Native American cultural heritages. Areas of consideration may include history, philosophy, religion/spirituality, cosmology, science, politics, literature, drama, film, story-telling, music, dance, painting, sculpture, crafts, and architecture, among others. Lecture 3 hours. No Laboratory.

NAMS 2123 - Cherokee Culture
3 Credits
An interdisciplinary study of Cherokee Culture, emphasizing Cherokee perspectives. Areas of consideration may include history, philosophy, religion/spirituality, cosmology, science, politics, literature, drama, film, story-telling, music, dance, painting, sculpture, crafts, and architecture, among others. Lecture 3 hours. No Laboratory.

NAMS 2133 - Muscogee Creek Culture
3 Credits
An interdisciplinary study of Muscogee Creek Culture, emphasizing Creek perspectives. Areas of consideration may include history, philosophy, religion/spirituality, cosmology, science, politics, literature, drama, film, story-telling, music, dance, painting, sculpture, crafts, and architecture, among others. Lecture 3 hours. No Laboratory.

NAMS 2143 - Osage Culture
3 Credits
An interdisciplinary study of Osage Culture, emphasizing Osage perspectives. Areas of consideration may include history, philosophy, religion/spirituality, cosmology, science, politics, literature, drama, film, story-telling, music, dance, painting, sculpture, crafts, and architecture, among others. Lecture 3 hours. No Laboratory.

NAMS 2213 - Native American Spiritualities
3 Credits
An introduction to Native American spiritualities through the consideration of oral traditions, literatures, and ceremonial practices. Areas of consideration may include the customs, traditions, music, songs, and dances related to Stomp Dancing, the Seven Rites of the Lakota, the Native American Church, and Native American Christianity, among others. Lecture 3 hours. No Laboratory.

NAMS 2223 - Native American Philosophies
3 Credits
A study of Native American philosophies as expressed in indigenous languages, social and ceremonial practices, story-telling traditions, oratory, literature, and art. Areas of emphasis may include epistemology, metaphysics, ethics, and aesthetics. Lecture 3 hours. No Laboratory.

NAMS 2313 - Native American Literatures, Drama, and Film
3 Credits
A study of the development of Native American traditional and contemporary oral and literary expressions through an examination of story-telling, non-fiction, fiction, poetry, drama and film. Lecture 3 hours. No Laboratory.

NAMS 2343 - Native American History
3 Credits
An introduction to the cultures, experiences, and conflicts of Native Americans from pre-history to the present. Lecture 3 hours. No Laboratory.

NAMS 2513 - Native American Law
3 Credits
A historical analysis of the complex pattern of federal, state, and tribal laws that have affected Native Americans as individuals and as tribes. Areas of exploration may include federal treaties, federal policies, state compacts, and the principle of sovereignty. Lecture 3 hours. No Laboratory.

NAMS 2613 - Native American Art
3 Credits
An introductory survey designed to cultivate a fundamental understanding of the diverse traditions of Native American arts. Areas of consideration may include, but not be limited to, painting and sculpture, pottery, basket-weaving, and crafts. Lecture 3 hours. No Laboratory.

NAMS 2990 - Selected Topics in Native American Studies
1-4 Credits
The study and/or analysis of a selected topic in Native American Studies. May be repeated with a different topic. Must have Native American Studies instructor approval for enrollment. Lecture 1-4 hours. No Laboratory.

NUMERICAL CONTROL/MACHINIST TECHNOLOGY

NCMT 1212 - Introduction to Machining
2 Credits
Basic course in theory and operation of metal working machine tools and standard shop practices with special emphasis on shop safety. Exploration into the fundamentals of turning, milling, broaching and sawing, and the abilities of conventional machine tools. Practice in the use and care of engine lathes, milling machines, drilling machines, and power saws, as well as bench work assembly, precision measurement, and the characteristics of metallic materials. Lecture 1 hour. Laboratory 2 hours.

NURSING

NURS 1013 - Critical Thinking and Decision Making in Nursing
3 Credits
This course is designed to introduce students to the concept of "critical thinking" in nursing. Students' thinking processes will be stimulated and they will learn to analyze situations/problems in a manner that will expand and enhance their assessment and problem-solving skills. The course is open to all RNs, LPNs, pre-nursing and enrolled nursing students. Lecture 3 hours. No laboratory.

NURS 1103 - Beginning Nursing Process
3 Credits
This course is designed to introduce students to therapeutic communication skills, problem-solving techniques and critical thinking along with the steps of the nursing process. Assessment data collection, documentation skills and application of the nursing process will be introduced and utilized to resolve problems occurring on a day-to-day basis and in a clinical setting. Lecture 3 hours. No Laboratory. Prerequisites: LPN, student should have been admitted to an RN program, or instructor approval.

NURS 1133 - Long Term Care Nursing Assistant (LTCNA) Level 1
3 Credits
This five (5)-week course is designed to teach basic nursing skills to individuals who wish to work or are working with adults and their caregivers in a variety of community-based acute and long term care settings. Students are required to enroll in the CNA Level II course which is part of the CNA Career Ladder progression proposed by the state of Oklahoma Continuum of Care Task Force. Students who successfully complete the course are eligible to take the state certification exam to become a Long Term Care Nursing Assistant (LTC-NA). Lecture 2 hours. Laboratory 9.6 hours (average over 5 weeks). Prerequisites: Admission to CNA Career Ladder Program and enrollment in NURS 1142.

NURS 1142 - Certified Nursing Assistant Level 2 (CNA II)
2 Credits
This 32 hour, eight-week program consists of advanced education in the nine core competencies recommended by the Oklahoma Certified Nurse Aide Career Ladder: teamwork and cooperation, quality of life, dementia care, aging and illness, spirituality and dying, communication, safety, nutrition, and importance of the family and other caregivers. Upon completion of this program, students will receive a certificate of completion for the CNA II course. Lecture 2 hours. No Laboratory. Prerequisite: NURS 1133 or CNA certificate or equivalent.

NURS 1154 - Certified Nursing Assistant Level 3 (CNA III)
4 Credits
The CNA Level III is the final step of the TCC Certified Nursing Assistant Career Ladder program. This course provides vertical and horizontal mobility for certified nursing assistants in the care of older adults and individuals with Alzheimer's disease or other related dementias and their caregivers. Students receive innovative classroom teaching strategies and "hands on" training in the clinical setting from experienced gerontologic nurses in a variety of community-based acute and long term care settings. Upon completion of this course, the graduate will be awarded the Geriatric Technician certification. Lecture 2 hours. Laboratory 12 hours (average per 8 weeks). Prerequisites: NURS 1142 and CNA certification or equivalent.

NURS 1206 - Patient Care Technician
6 Credits
This course is designed to provide collaborative learning experiences to develop clinical skills that will be used in the role of the Advanced Unlicensed Assistant/Patient Care Technician (PCT). The PCT functions under the direction of the licensed nurse. Students successfully completing the course will be eligible to take the State Certification Exam of the Oklahoma Board of Nursing to become certified as an Advanced Unlicensed Assistant. Components of the class include didactic, laboratory, and clinical experience in an acute care setting. Laboratory 18 hours (8 week course at 36 hours per week). Prerequisite: Admission to the program.

NURS 1216 - Geriatric Technician
6 Credits
This course is designed to provide collaborative learning experiences that develop advanced skills which will be utilized in the care of older adults in a variety of long-term care settings. Students will receive specialized training in the care of individuals with Alzheimer's disease and other related disorders with an emphasis on the physical, social, and psychological aspects of providing care to older adults. Upon completion of the course, graduates will receive a certificate of achievement and will be prepared as a valuable member of the health care team in delivering quality care to older adults in the community. Applicants must have a current Long-Term Care Nurse Assistant (LTC-NA) certificate. The Geriatric Technician works under the direction of licensed nurses. Students must complete the Geriatric Technician course with a grade of "C" or higher which includes satisfactory demonstration of required skills. Lecture 4 hours. Laboratory 6 hours/ week (8-week course - Lecture 8 hours. Laboratory 12 hours/week). Prerequisites: Current LTC-NA certificate; admission to the Geriatric Technician Program.

NURS 1393 - LPN Bridge
3 Credits
The change process is applied to facilitate the LPN student's transition into the Associate Degree Nursing roles. Communication theory, the nursing process, and competencies are applied in the classroom and clinical settings. Current issues and perspectives as related to accountability, values, ethics, and business are explored. Lecture 2 hours. 3 hours clinical. Prerequisite: Meet criteria for admission to LPN Advanced Placement Option. Corequisite: BIOL2164.

NURS 1401 - Nursing Issues and Perspectives I
1 Credit
Through the lens of professional accountability, students first examine nursing from a historical perspective, then consider issues that affect today's nurse. Discussion and writing centers on values, standards, legal/ethical concerns, and the scope of practice of the Associate Degree Nurse. Lecture 1 hour. No Laboratory. Prerequisite: Admission to the Nursing Program. Corequisite: NURS 1446.

NURS 1421 - Nursing Issues and Perspectives II
1 Credit
Students discuss the values and ethics that influence practice trends and issues related to health-care across the continuum. Lecture 1 hour. No Laboratory. Prerequisite: NURS 1401. Corequisite: NURS 1457.

NURS 1431 - Introduction to Pharmacology and Dosage Calculations
1 Credit
This course introduces the beginning nursing student to the concepts of pharmacology and dosage calculations. An overview of drug actions and resources will be presented. Over-the-counter (OTC) medications and poisons will be discussed. The impact of aging and cultural practices on pharmacotherapy will be explored. The student will apply principles of dosage calculation. Lecture 1 hour. No Laboratory. Prerequisites: Admission to the Nursing Program, CHEM 1114, BIOL 2134, Corequisites: NURS 1401, NURS 1446, BIOL 2154.

NURS 1446 - Foundations of Nursing Practice
6 Credits
This course introduces students to the care of the client as an individual, with a focus on the older adult. Primary emphasis is on health promotion and maintenance within a human needs framework. Students employ principles of professional and therapeutic communication in class and in the clinical setting. Pharmacologic principles and interventions are applied to clients experiencing common, chronic conditions. With a focus on the nurse as a provider of care, students establish nurse-client relationships, and begin to apply the nursing process utilizing evidence-based practice. Basic skills competencies, including medication administration and a comprehensive assessment, are performed on clients in the long-term care setting. Lecture 3.75 hours. Laboratory 6.75 (average) hours. Prerequisites: CNA/PCT/GT certification or approved sub, admission to Nursing Program, PSYC 1113, BIOL 1224, BIOL 2134, CHEM 1114, ENGL 1113. Co-requisites: NURS 1401, NURS 1431, BIOL 2154, ENGL 1213.

NURS 1457 - Nursing of Adults with Major Health Disruptions
7 Credits
The focus of this course is the acquisition of nursing theory and skills required to provide nursing care for adult clients who are experiencing common acute and chronic health alterations. In a variety of acute care and community environments, students integrate theory with practice as they perform system specific assessments, teach clients and families, and manage health alterations using evidenced-based nursing interventions and complex psychomotor skills competencies. In the acute care setting students are introduced to interdisciplinary teams. Group process and collaboration is emphasized in the community practicum experience. Lecture 3 hours. Laboratory 12 hours per week (average). Prerequisites: NURS 1446, NURS 1401, NURS 1431, BIOL 2154, ENGL 1213. Corerequisites: NURS 1421, BIOL 2164, PSYC 2023.

NURS 2303 - Pharmacology
3 Credits
This course expands on the principles of clinical pharmacology and therapeutics. Content will include physiology of drug effect, drug classification uses in common disorders, and current issues related to drugs. Emphasis is placed on accuracy and accountability in drug management. This course, if taken along with NURS 2403 (Dosage Calculations) will meet the TCC Registered Nurse Program requirements for the required course 1431. Lecture 3 hours. No Laboratory. Prerequisite: BIOL 2154.

NURS 2403 - Dosage Calculations for Nurses
3 Credits
This course is designed to assist persons preparing to administer medications with mathematical instruction for calculating dosages. Course content includes review of fractions, decimals, Roman numerals, ratio proportions, introduction of medication symbols, and related abbreviations; interpretation of physician orders and medication labels; conversion of household, apothecary and metric equivalents, and dosage calculation formulas. This course, if taken along with NURS 2303 (pharmacology) will meet the TCC Registered Nurse Program requirements for the required course NURS 1431. Lecture 3 hours. No Laboratory.

NURS 2423 - Nursing of the Childbearing Family
3 Credits
The focus of this course is on the nursing care of mothers and newborns during the childbearing transition. Students practice the roles of manager of care, provider of care, and member within the discipline of healthcare during clinical experiences. The concepts of transition, growth and development, and health promotion are applied to the childbearing family in a variety of acute care and community environments. Lecture 1.75 hours. Laboratory 7.5 (average for 8 week class) hours. Prerequisites: NURS 1457, NURS 1421, BIOL 2164, PSYC 2023. Corequisites: NURS 2453, NURS 2433, and POLS 1113.

NURS 2433 - Nursing Care of Children and Their Families
3 Credits
The course focuses on the nursing care of children and their families utilizing the nursing process. While implementing the role of provider of care and member of the healthcare team, students practice complex competencies and implement communication strategies specific to children and their families. Growth and development, health promotion, and health problems of children are emphasized in a variety of community and acute care environments. Lecture 2.2 hours. Laboratory 5 (average per 8 week clinical rotation) hours. Prerequisites: NURS 1457, NURS 1421, BIOL 2164, PSYC 2023. Corequistes: NURS 2453, NURS 2423, and POLS 1113.

NURS 2453 - Nursing Promotion for Quality of Life
3 Credits
The focus of this course is the care of individuals who are experiencing changes in their quality of life and fluctuation in levels of health. Nursing theory and skills related to the specific needs of clients with long-term physical disabilities and terminal illnesses are presented. In a variety of rehabilitation and community-based settings, students collaborate with other healthcare professionals to plan and implement nursing care that assists clients and their families in the promotion and maintenance of health and end-of-life challenges. Lecture 1.5 hour. Laboratory 4.5 hours (average per 8 week clinical rotation). Prerequisites: NURS 1457, NURS 1421, BIOL 2164, PSYC 2023. Corequisites: NURS 2423, NURS 2433, and POLS 1113.

NURS 2512 - Psychiatric/Mental Health Nursing
2 Credits
The focus of this course is on the nursing care of clients with acute and chronic mental health disruptions across the lifespan. While practicing the roles of provider of care, manager of care, and member within the discipline of healthcare, students implement specific interventions modeled on psychiatric standards. Psychosocial interventions, neurobiological interventions, health promotion, restoration, and interdisciplinary team function are emphasized in a variety of acute care and community environments. Lecture 0.5 hours. Laboratory 9 (average for 8 week class) hours. Prerequisites: NURS 2423, NURS 2433, and NURS 2453. Corequisites: NURS 2543, NURS 2564, HIS 1483 or HIS 1493.

NURS 2543 - Transition to Novice Nurse
3 Credits
This course is designed to facilitate the transition of the student to become a novice nurse. Students develop nursing leadership and manager of care skills while collaborating with other health professionals in the delivery of care. Clinical emphasis is on providing and managing care for a group of clients. Lecture 1.5 hours. Laboratory 4.5 hours per week. Prerequisites: NURS 2423. NURS 2433, NURS 2543, POLS 1113. Corequisites: NURS 2564, NURS 2512, HIS 1483 or 1493.

NURS 2564 - Advanced Medical-Surgical Nursing
4 Credits
This is the final course in Medical-Surgical nursing. Clinical and didactic emphasis is on care for adults with acute, complex, multi-system disorders. The role of nursing in disasters is introduced. Lecture 2 hours. Laboratory 6 hours. Prerequisites: NURS 2423, NURS 2433, NURS 2453, POLS 1113. Corequisites: NURS 2543, NURS 2512, HIS 1483 or 1493.

NURS 2765 - Clinical Nursing I
5 Credits
The focus of this course is on practical application and understanding of basic psychomotor, cognitive, and affective nursing skills. Emphasis is on implementation of therapeutic interventions with clients throughout the lifespan, with attention to health promotion, disease prevention and health maintenance in various settings Lecture 2 hours. Laboratory 9.2 hours (average). Prerequisite: Admission to OU/TCC CBSN Nursing program.

NURS 2774 - Human Experience in Health
4 Credits
The focus is on providing a theoretical basis for concepts of health promotion, disease prevention and health maintenance to individuals across the lifespan. Biological, psychosocial, cultural, environmental concepts are addressed with attention to health promotion, and development determinants of health. Lecture 4 hours. No Laboratory. Prerequisite: Admission to OU/TCC CBSN Nursing program.

NURS 2783 - Health Assessment
3 Credits
This theory lab course is an introduction to basic concepts of health assessment of individuals across the lifespan. The student will be prepared for basic assessment of individuals in the community and clients in stable condition in health care facilities. Lecture 2 hours. Laboratory 3 hours. Prerequisite: Admission to OU/TCC CBSN Nursing program.

NURS 2792 - Introduction to Philosophy & Logic of Nursing
2 Credits
This course is an introduction to core concepts inherent to the University of Oklahoma College of Nursing Baccalaureate Nursing curriculum. Students will operationalize the concepts in simulated exercises and begin to develop a philosophy and approach to the practice of nursing. Lecture 2 hours. No Laboratory. Prerequisite: Admission to OU/TCC CBSN Nursing program.

NURS 2865 - Clinical Nursing 2
5 Credits
The focus of this course is on the nursing care of individuals with biopsychosocial conditions within the context of their family and social structure. Clinical experiences will be in a variety of settings. No Lecture. Laboratory 15 hours. Prerequisites: NURS 2765, NURS 2774, NURS 2783, NURS 2792.

NURS 2874 - Human Experiences an Acute & Chronic Illness 1
4 Credits
This course provides a theoretical basis for selected acute and chronic illnesses across the lifespan. The focus is on the use of critical thinking to develop rationale for nursing care of individuals with selected pathophysiologic conditions. Lecture 4 hours. No Laboratory. Prerequisites: NURS 2765, NURS 2774, NURS 2783. NURS 2792.

NURS 2883 - Family Focused Nursing
4 Credits
A theoretical course providing a basis for the health promotion, health maintenance, and health restoration of families. Emphasis is on nursing care relating to the family building childbearing process, common reproductive health conditions, and health concerns affecting infants. Lecture: 3 hours. No Laboratory. Prerequisites: NURS 2765, NURS 2774, NURS 2783, NURS 2792.

NURS 2892 - Human Experiences of disAblities
2 Credits
This theory course focuses on nursing care of individuals and families experiencing biopsychosocial and behavioral changes associated with disabilities. Critical thinking will be used to develop rationale for nursing care across the lifespan that maximizes restoration and healthy adaptation to these lifestyle alterations. Lecture 2 hours. No Laboratory. Prerequisites: NURS 2765, NURS 2774, NURS 2783, NURS 2792.

NURS 2902 - Pharmacology in Nursing
2 Credits
This theory course focuses on the nurse's responsibilities involved in the administration of drugs and the monitoring and evaluation of clients receiving prescribed and or over the counter medications. The general principles of drug activities are explored using a prototype drug for each class. Accurate dosage calculation is required. Lecture 2 hours. No Laboratory. Prerequisites: NURS 2765, NURS 2774, NURS 2783, NURS 2792.

NURS 2990 - Selected Topics in Nursing
1-4 Credits
The study and/or analysis of a selected topic in Nursing. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

OCCUPATIONAL THERAPY ASSISTANT

OCTA 1203 - Introduction to Occupational Therapy
3 Credits
Overview of the profession with emphasis on its history, philosophy, and organization. Explores the role of occupational therapy personnel in various disability areas. Lecture 3 hours. No Laboratory. Open to non-majors.

OCTA 1293 - Introduction to Occupational Therapy II
3 Credits
Fundamentals of OT practice including: OT process, multicultural, and familial issues and factors, uniform terminology, written and verbal communication skills, self-awareness, ethics, values, and documentation. Lecture 3 hours. No Laboratory. Prerequisites: program director's permission.

OCTA 1303 - Clinical Conditions, Terminology, and Skills
3 Credits
This course serves as an introduction to conditions commonly referred to and treated by occupational therapy practitioners. In addition students will gain knowledge in medical terminology and competence in patient care skills. Lecture 2 hours. Laboratory 3 hours. Prerequisite: program director's permission

OCTA 1352 - Neuroanatomy and Physiology for OTAs
2 Credits
A comprehensive review of both structure and function of the nervous system and its functional relevance to the practice of Occupational Therapy. Lecture 2 hours. No Laboratory. Prerequisites: BIOL 1314 and program director approval.

OCTA 1363 - Applied Anatomy for OTAs
3 Credits
A supplementary study of structure and function as it relates to the practice of occupational therapy. Kinesiology, musculoskeletal circulatory and nervous systems are emphasized. Lecture 2 hours. Laboratory 3 hours. Prerequisites: BIOL 1314 and program director approval.

OCTA 1403 - Therapeutic Media
3 Credits
Theory and practice of selected activities used in occupational therapy to promote patient function. Includes: concepts of activity analysis, instruction of individuals and groups, problem solving, therapeutic applications, and laboratory and equipment maintenance. Various frames of reference used in occupational therapy will be applied. Lecture 2 hours. Laboratory 3 hours. Requires program director approval.

OCTA 1443 - Psychosocial Theory and Practice
3 Credits
Theory and application of occupational therapy in the evaluation and treatment of psychosocial dysfunction. Emphasis on the developmental continuum and major frames of reference for practice currently in use. Group dynamics and process. Psychosocial issues in other practice areas. Observation of treatment methods in various local settings. Lecture 2 hours. Laboratory 3 hours. Requires program director approval.

OCTA 1483 - Physical Disabilities
3 Credits
Occupational therapy treatment techniques. Methods and adaptive equipment used with physically disabled. Observation of treatment methods under the supervision of practicing clinicians at various local clinical settings. Lecture 2 hours. Laboratory 3 hours. Requires program director approval.

OCTA 1502 - Fieldwork I
2 Credits
Supervised work experience including observation and application of occupational therapy services. No Lecture. Laboratory: 40 hours per semester. Prerequisites: All previous OCTA coursework with grade of "C" or better, and instructor permission.

OCTA 2203 - Therapeutic Adaptations
3 Credits
Theory and practice of therapeutic adaptations. Practical alterations to equipment, environment, and basic techniques, including mobility, orthotics, and electronics. Advanced activity analysis, therapeutic application, and resource development in this continuation of OCTA 1403. Lecture 2 hours. Laboratory 3 hours. Requires program director approval.

OCTA 2233 - Developmental Disabilities Therapy and Practice
3 Credits
Theory and application of occupational therapy services for people with developmental disabilities. Emphasis will be on occupational therapy services provided from birth through school age and young adulthood. Frames of reference such as neurodevelopment treatment, sensory integration, developmental, and motor learning theory will be introduced and practiced. Students will develop treatment plans that take into account permeance areas, performance context, and performance components. Students will learn to give standardized assessments, and gain familiarity with the overall assessment process. Trends in special education and transition services will be explored. Lecture 2 hours. Laboratory 3 hours. Requires program director approval.

OCTA 2263 - Current Trends in Occupational Therapy
3 Credits
Selected readings and discussion of trends in current practice are offered. General topics include adult development and aging and activity programming. Community applied clinical practice is included. Lecture 2 hours. Laboratory 3 hours. Requires program director approval.

OCTA 2356 - Fieldwork IIA
6 Credits
Provides practice experience under the supervision of qualified Occupational Therapists in affiliated healthcare facilities. No Lecture. Laboratory: 40 hours per week for 8 weeks. Prerequisites: Completed all OCTA coursework with grade of "C" or better, and instructor approval. Fieldwork requirements must be completed within 18 months of didactic coursework.

OCTA 2376 - Fieldwork IIB
6 Credits
Provides practice experience under the supervision of qualified Occupational Therapists in affiliated healthcare facilities. No Lecture. Laboratory: 40 hours per week for 8 weeks. Prerequisites: Completed all OCTA coursework with grade of "C" or better, and instructor approval. Fieldwork requirements must be completed within 18 months of didactic coursework.

OCTA 2493 - Advanced Therapeutic Handling Techniques
3 Credits
Developmental processes provide a framework in determining strategies to reduce tone and improve motor control in neurologically impaired individuals. This course is a continuation of therapeutic exercise with theory and application in the areas of proprioceptive neuromuscular techniques, neurodevelopmental techniques, and other movement modifications. Lecture 3 hours. No Laboratory. Prerequisites: Concurrent enrollment in PHTA 2384 or OCTA 1483 and OCTA 2233; graduate of a PTA/PT program or OTAVOT program; or instructor approval.

OCTA 2990 - Selected Topics in Occupational Therapy Assistant
1-4 Credits
The study and/or analysis of a selected topic in Occupational Therapy Assistant. May be repeated with a different subject. Lecture 1-4 hours. No Laboratory.

PARALEGAL

Students are required to earn a "C" or better in all PLGL courses for graduation.

PLGL 1213 - Introduction to the Legal System
3 Credits
History and overview of the legal system, the role of the paralegal, legal ethics, unauthorized practice, the rules of professional conduct, importance of communications, judgment and analytical ability, terminology, sources, and works of the law. Lecture 3 hours. No Laboratory. Requires admission to the program.

PLGL 1313 - Civil Procedure I
3 Credits
A summary course of methods of pre-trial procedures, including interviewing, investigation, formal and informal discovery, and additional litigation support technology. Oklahoma and federal procedural rules will be covered. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1213 or instructor approval.

PLGL 2303 - Civil Procedure II
3 Credits
Analysis of civil procedure and instruction in preparation of documents used in lawsuits, covering pre- and post-trial matters evidentiary problems, and assistance during trials. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1213 and PLGL 1313, or instructor approval.

PLGL 2333 - Introduction to Legal Research and Writing
3 Credits
Study of legal research and bibliography, research problems, legal drafting, and writing. Students will perform legal research and prepare memoranda. Lecture 1 hour. Laboratory 4 hours. Prerequisites: PLGL 1113 and PLGL 1213 or instructor approval.

PLGL 2343 - Advanced Legal Research and Writing
3 Credits
Advanced course in research and writing techniques, analysis, and strategies. Emphasis is on development of legal argument, format, and use of legal citations. Competency in WESTLAW, LEXIS, and the Internet as research tools will be achieved. Lecture 2 hours. Laboratory 2 hours. Prerequisites: ENGL 1113, ENGL 1213 and PLGL 2333.

PLGL 2353 - Contracts
3 Credits
A study of the law of contracts as it applies to the legal assistant. Drafting of contracts. Lecture 3 hours. No Laboratory. Prerequisite: PLG1313 or instructor approval.

PLGL 2363 - Real Property Law
3 Credits
Study of general and Oklahoma law of real property. Drafting of documents for common real estate transactions. Also, various legal suits associated with real property. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2373 - Computers in the Law
3 Credits
A beginning class covering the use of computer applications in legal organizations designed to introduce the use of computer software and hardware; word processing; databases; timekeeping and billing; docket control; case management; litigation support; computer-assisted research; courthouse-related applications; and specialized legal software. Lecture 2 hours. Laboratory 2 hours. Prerequisite: CSC1203 or instructor approval.

PLGL 2403 - Principles of Family Law
3 Credits
Topics include divorce, separation, custody, adoption, change of name, guardianship, support, and settlement agreements. Study of District Court procedures. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2413 - Law Office Systems and Procedure
3 Credits
Law office organization and theories of management; create systems; timekeeping and billing; law office equipment; preparation of forms and checklists; docket control; personnel problems; self-management; computer usage for management word processing, litigation support, and accounting. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1213 or instructor approval.

PLGL 2423 - Corporations, Partnerships & LLCs
3 Credits
A study of the formation and operation of proprietorships, partnerships, corporations, and other business operations, including a survey of the fundamental principles of law applicable to each. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2433 - Bankruptcy
3 Credits
A study of the Bankruptcy Code and Rules of Procedure; the study and preparation of appropriate pleadings and schedules. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2443 - Probate, Administration of Estates, and Trusts
3 Credits
The fundamental principles of the law of wills and trusts, including simple will and trust forms; the organization and jurisdiction of an Oklahoma probate court; the administration of estates in Oklahoma probate court; practice in documentation. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2453 - Administrative Law
3 Credits
History and functions of administrative agencies, constitutional standards applied to agency operation, rulemaking by agencies, agency decision making and the scope of judicial review of agency decisions, and the manner of pursuing a claim through various federal and Oklahoma administrative agencies. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2463 - Labor and Employment Law
3 Credits
Designed specifically for paralegals, with coverage of the National Labor Relations Act (labor union-management relations), employment discrimination laws, wrongful discharge, wage/hour laws, safety and health laws pertaining to the workplace, employment contracts, unemployment statutes. Emphasis will be given to research sources commonly used by labor attorneys. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2473 - Torts and Insurance Law
3 Credits
Coverage of both tort law and insurance law, and the overlap of the two. Torts coverage includes intentional torts, negligence and product liability, together with related legal doctrines and defenses. Insurance coverage includes insurable interests relating to the various torts, subrogation of the insured to the insurer, and various claims procedures. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2483 - Native American Law
3 Credits
A historical analysis of the complex pattern of federal, state, and tribal laws that have affected Native Americans as individuals and as tribes. Areas of exploration may include federal treaties, federal policies, state compacts, and the principle of sovereignty. Practical application skills included. Lecture 3 hours. No Laboratory.

PLGL 2493 - Criminal Law for Paralegals
3 Credits
This course for paralegals includes both substantive and procedural criminal law, and the constitutional requirements pertaining to each. Lecture 3 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2502 - Medical Record Analysis for Paralegals
2 Credits
Basic medical terminology as contained in the medical record, analyzing the medical record in a litigation context, and creating a summary for the attorney's use in evaluating the case, both from a plaintiff's and defense standpoint. Lecture 2 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2601 - Workers' Compensation for Paralegals
1 Credit
An overview of the Oklahoma Workers' Compensation law, both substantive and procedural, including representation of the claimant and the respondent before the Workers' Compensation Court. Lecture 1 hour. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PLGL 2613 - Social Security Administration
1 Credit
Overview of the Social Security Administration Agency. Topics include the law affecting disibility payments as well as supplement income programs. Legal ethics involved in client representations will be covered. Lecture 3 hours. No Laboratory. Requires admission to the program and PLGL 1213.

PLGL 2621 - Elder Law
1 Credit
Students will be introduced to topics in the law affecting older persons. Such topics as financial and estate planning, health care, personal planning and protection, and consumer protection will be covered in the course. Lecture 1 hour. No Laboratory. Prerequisites: PLGL 1213, PLGL 1313, and PLGL 2333.

PLGL 2802 - Internship
2 Credits
A practicum course intended to provide the student with work experience as a legal assistant under the supervision of a practicing attorney. While the work experience will vary from internship to internship, legal ethics will be emphasized for all by a screening examination. No Lecture. Laboratory 8 hours per week. Prerequisites: PLGL 1313, PLGL 2333, and PLGL 2413 or instructor approval.

PLGL 2813 - Internship
3 Credits
A practicum course intended to provide the student with work experience as a legal assistant under the supervision of a practicing attorney. While the work experience will vary from internship to internship, legal ethics will be emphasized for all by a screening examination. No Lecture. Laboratory 12 hours per week. Prerequisites: PLGL 1313, PLGL 2333, and PLGL 2413 or instructor approval.

PLGL 2990 - Selected Legal Topics
1-4 Credits
A study of varying legal topics (substantive, procedural, or skill-oriented) of current interest to paralegals. Lecture 1-4 hours. No Laboratory. Prerequisite: PLGL 1313 or instructor approval.

PATIENT CARE TECHNICIAN
(See Nursing Program and Course Descriptions)

PHARMACY TECHNOLOGY

PHMT 1318 - Pharmacy Technician I
8 Credits
A study of the technical tasks, duties and responsibilities of a pharmacy technician with emphasis on professional conduct, ethics, job overview, department layouts, work areas, aseptic and sterile techniques, mathematical calculations, medical terminology, drug nomenclature, dosage forms, patient information and profile systems, third party payers, receiving and filling prescriptions, quality assurance and control, parenterals, assisting with processing health insurance forms and computer data processing. Lecture 8 hours. No Laboratory. Must have a grade of "C" or better to pass the course. Requires admission to the Pharmacy Technology Program.

PHMT 1414 - Pharmacy Technician Practicum I
4 Credits
Introduction to the practical work site application for the technical tasks, duties, and responsibilities of a pharmacy technician. These may include communication skills, customer services and relations, professionalism and ethics, pharmacy law and rules, security and safety rules, record keeping, preparing, packaging and distributing medications, IV admixtures, quality assurance drug compounding, financial issues organization and duties of pharmacy environments. Lecture 3 hours. Laboratory 2 hours. Must have a grade of "C" or better to pass the course. Requires admission to the Pharmacy Technology Program.

PHMT 1524 - Preceptorship I
4 Credits
Introduction to the practical work site application for the technical tasks, duties and responsibilities of a pharmacy technician and preparation for the National Pharmacy Technician Certification Examination. Work site skills may include basic biopharmaeceutics, factors affecting drug activity, drug routes and formulations, prescription processing, parenterals and IV admixtures, drug compounding, inventory management, financial issues, organization and duties of institutional pharmacies, and other environments. Lecture 3 hours. Laboratory 2 hours. Must have a grade of "C" or better to pass the course. Prerequisite: Admission to Pharmacy Technology Program and concurrent enrollment in PHMT 1318, PHMT 1414 or approval of instructor.

PHMT 2990 - Selected Topics in Pharmacology Technology
1-4 Credits
The study and/or analysis of a selected topic in Pharmacy Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

PHILOSOPHY

PHIL 1113 - Introduction to Philosophy (H)
3 Credits
A survey course designed to acquaint the student with some of the fundamental problems in philosophy and with methods used to deal with them. Some principal views, both ancient and modern, are examined as possible solutions. Recommended for second semester freshmen. Lecture 3 hours. No Laboratory.

PHIL 1133 - Philosophy in Literature (H)
3 Credits
The analysis and relationship of ideas in literature (poems, plays, novels, and short stories) to philosophical themes. Course content to vary from semester to semester. Lecture 3 hours. No Laboratory.

PHIL 1143 - Introduction to Ethics: Business Issues (H)
3 Credits
An introductory level course in ethics, focusing on the types of situations that pose ethical problems in business. An attempt will be made to help the student develop an ethical framework which will allow the student to address ethical issues in the business world. Lecture 3 hours. No Laboratory.

PHIL 1213 - Religions of the World: The Eastern Tradition (H,I)
3 Credits
A survey of the Oriental religious heritage of India, Japan, China, and others. Some of the specific religions examined are Hinduism Buddhism, Taoism, Confucianism, Shintoism, Jainism, and Sikhism. Lecture 3 hours. No Laboratory.

PHIL 1223 - Religions of the World: The Western Tradition (H)
3 Credits
A survey of the Western religious heritage. Christianity, Judaism, Islam, Greek mythology, and others will be studied. Lecture 3 hours. No Laboratory.

PHIL 2113 - Logic
3 Credits
A first course in logic using the study of language, semantics, deductive reasoning, the scientific method, and other processes of clear and precise thinking. Lecture 3 hours. No Laboratory.

PHIL 2133 - Introduction to Ethical Thinking (H)
3 Credits
An examination of moral and social problems from the philosophical perspective, including: responsibility to one's self and to society, moral and social values, and conflicts of values. Classical as well as current topics will be discussed. Lecture 3 hours. No Laboratory.

PHIL 2143 - Introduction to Social and Political Philosophy (H)
3 Credits
A survey of major philosophical theories concerning political and social organization, and discussion of such topics as the rights of humans, natural law, social contract, legitimate and illegitimate use of political force, and philosophical views of the "ideal society." Lecture 3 hours. No Laboratory.

PHIL 2153 - Medical Ethics (H)
3 Credits
An introductory level course in ethics with special emphasis on issues that arise in the allied medical professions. Such topics as abortion, birth defects, euthanasia, medical experimentation, and confidentiality will be discussed from the ethical perspective. Lecture 3 hours. No Laboratory.

PHIL 2163 - Introduction to the History and Philosophy of Science (H)
3 Credits
An introductory survey of the development of Western science, and some of the philosophical issues involved in this development. The development of the scientific method will be examined, as will the effect that this method has had on man's perception of himself and the world around him. Lecture 3 hours. No Laboratory.

PHIL 2173 - Introduction to the Philosophy of Religion
3 Credits
An introductory discussion in topics such as the existence of God, the problem of evil, the possibility and nature of religious knowledge, immortality, and the role of reason, faith, and authority in religion. Lecture 3 hours. No Laboratory.

PHIL 2203 - Symbolic Logic
3 Credits
A study of symbolic logic as a method of analyzing propositions and arguments. Applications in science and other areas will be studied. Lecture 3 hours. No Laboratory.

PHIL 2990 - Selected Topics in Philosophy
1-4 Credits
The study and/or analysis of a selected topic in Philosophy. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

PHLEBOTOMY
(See Medical Laboratory Technology Program and Course Descriptions)

PHYSICAL EDUCATION

PHED 1002 - Physical Education Activity
2 Credits
Participation in selected physical education activity events organized and conducted by Tulsa Community College, including, but not limited to, intramural activity sports. Lecture 1 hour. Laboratory 2 hours.

PHED 1022 - Folk Dance
2 Credits
A course which centers on the major national folk dances from around the world. Emphasis is placed on reproducing the style and attitude which characterizes the nations from which the dances originate. Lecture 1 hour. Laboratory 2 hours.

PHED 1032 - Advanced Folk
2 Credits
A course which centers on the complex and difficult folk dances from around the world. Emphasis is placed on reproducing the style and attitude which characterizes the nations from which the dances originate. Lecture 1 hour. Laboratory 2 hours. Requires instructor approval.

PHED 1042 - Modern Dance for Fitness
2 Credits
An activity course for students who want to achieve or retain physical fitness through dance. Develops flexibility, strength, endurance, and self-expression. Lecture 1 hour. Laboratory 2 hours.

PHED 1062 - Ballet for Fitness
2 Credits
An activity course for students who want to achieve or retain physical fitness through ballet. Develops flexibility, strength, endurance, and self- expression. No Pointe (toe) work. Lecture 1 hour. Laboratory 2 hours.

PHED 1072 - Intermediate Ballet Technique
2 Credits
Continuation of PHED 1062. Beginning Pointe work will be introduced. Continuing emphasis on graceful movement with additional emphasis on technique. The development of appreciation of dance as an art form. Lecture 1 hour. Laboratory 2 hours. Prerequisite: Two semesters of PHED 1062 or instructor approval.

PHED 1082 - Advanced Ballet Technique
2 Credits
Continuation of PHED 1072 with strong emphasis on Pointe work for women and elevation for men. Stage presence, pantomime, and the art of pas de deux will be developed. Lecture 1 hour. Laboratory 2 hours. Prerequisite: Two semesters of PHED 1072 or instructor approval.

PHED 1092 - Karate
2 Credits
An introduction of the basics of modern day American karate. Learn punches, kicks, blocks, throws, jointlocks, pressure points, falls, rolls, forms, musical weapons, open hand forms, and mind development. Lecture 1 hour. Laboratory 2 hours.

PHED 1113 - Personal, School and Community Health
3 Credits
A study in health for individuals and the community as to identification of various diseases, means of transmission, and prevention. Lecture 3 hours. No Laboratory.

PHED 1143 - Foundations of Physical Education
3 Credits
Designed for professional orientation in physical education, health and recreation. Brief history, philosophy and modern trends of physical education, teacher qualification, vocational opportunities, expected competencies and skill testing comprise the contents of the course. For students majoring in Physical Education. Lecture 3 hours. No Laboratory.

PHED 1192 - Handball/Racquetball
2 Credits
Lecture 1 hour. (Requires 2 hours per week laboratory.)

PHED 1202 - Bowling I
2 Credits
Students will be required to pay for shoe rental and number of games bowled. Lecture 1 hour. Laboratory 2 hours.

PHED 1232 - Swimming I
2 Credits
Students may be required to pay for swim time. Lecture 1 hour. Laboratory 2 hours.

PHED 1242 - Ballroom Dance
2 Credits
Lecture 1 hour. Laboratory 2 hours.

PHED 1252 - Weight Training I
2 Credits
This course is designed for men and women who wish knowledge and understanding of weight lifting as it applies to the conditioning, toning, and strengthening of the body. Students will learn how the body and certain muscle groups react to moderate exercise and workouts. Lab exercise will include workouts utilizing various types of weight training equipment. Lecture 1 hour. Laboratory 2 hours.

PHED 1262 - Body Mechanics
2 Credits
The course consists of aerobic exercise routines, fitness testing, and assigned readings. Exercise includes a warm-up period; stretching; arm, leg, abdominal, and aerobic routines; and a cool down period. Routines are challenging, yet basic, adding benefits of improved flexibility, balance, agility, and cardiovascular fitness. Lecture 1 hour. Laboratory 2 hours.

PHED 1282 - Tennis I
2 Credits
Footwork and eye to hand coordination skills required for forehand, backhand, volley, service, and overhead smash competency. Rules, scoring, and court etiquette for singles and doubles. Lecture 1 hour. Laboratory 2 hours.

PHED 1292 - Golf I
2 Credits
Students will be required to pay for green fees. Lecture 1 hour. (Laboratory 2 hours.

PHED 1302 - Jogging
2 Credits
Basic skills for the beginner in acquiring knowledge and understanding of jogging, walking, running, and exercise, and the role these play for a healthier body. The session consists of warm-up exercises, walking/ jogging, and cool-off exercises. Lecture 1 hour. Laboratory 2 hours.

PHED 1322 - Beginning Ice Skating
2 Credits
Basic skills for the beginning skater. Student will be required to pay for skate rental and ice time. Lecture 1 hour. Laboratory 2 hours.

PHED 1341 - Introduction to Rock Climbing
1 Credit
This class will teach the basic techniques of safety and climbing. Knots: rewoven figure eight, figure eight on a bight, bowline, double fisherman, clove hitch, square. Proper sizing of harness. Belay and Rappel technique. Discussion on the history of climbing in the U.S. and an overview of climbing styles (lead, top rope, aid, alpine). Rating systems both U.S. and European. Climbing techniques: flagging, cantilevers, cross-thru, high steps, back steps, drop knees, stemming, etc. No Lecture. Laboratory 2 hours.

PHED 1352 - Irish Folk Dance
2 Credits
This course is an introduction to step dancing and contemporary Irish dance. Timing, posture and technique will be areas of concentration. Lecture 1 hour. Laboratory 2 hours.

PHED 1362 - Badminton I
2 Credits
Footwork and eye to hand coordination skills required for forehand, backhand, volley, and service. Rules, scoring, and court etiquette for singles and doubles. Lecture 1 hour. Laboratory 2 hours.

PHED 1401 - Introduction to Physical Education Activity
1 Credit
Participation in selected physical fitness activities. Laboratory 2 hours.

PHED 1412 - Yoga
2 Credits
Physical exercise with techniques that integrate the mind, body and spiritual awareness. Lecture 1 hour. Laboratory 2 hours.

PHED 1422 - Women on Weights
2 Credits
Weight training and weight conditioning designed especially for women. Lecture 1 hour. Laboratory 2 hours.

PHED 1501 - Fencing I
1 Credit
A course that centers on the basic skills and movements of fencing. No Lecture. Laboratory 2 hours.

PHED 1552 - Bicycling for Fitness
2 Credits
Basic skills for the beginner in acquiring knowledge and understanding of bicycling, both mountain and road, and the role these play for a healthier body. The sessions consist of warm-up, bicycling, and cool off exercises. Lecture 1 hour. Laboratory 2 hours.

PHED 1622 - Water Safety Instruction
2 Credits
Students may be required to pay for swim time. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1642 or instructor approval.

PHED 1632 - Aerobics
2 Credits
An exercise program of choreographed routines involving continuous rhythmic activity designed for the beginner. Each session consists of a warm up, routines designed for muscle tone and flexibility, an aerobic section, and a cool down with stretching. Lecture 1 hour. Laboratory 2 hours.

PHED 1642 - Life Guarding
2 Credits
Students may be required to pay for swim time. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 2232 or instructor approval.

PHED 1652 - Cardio Kickboxing
2 Credits
Exercise designed to condition the body for maximum health and fitness by movement involving punching and kicking. Lecture 1 hour. Laboratory 2 hours.

PHED 2011 - Intermediate Rock Climbing
1 Credit
A continuation of PHED 1341. This class will teach advanced techniques of safety and climbing. No Lecture. Laboratory 2 hours.

PHED 2042 - Women on Weights II
2 Credits
This advanced level course is a continuation of PHED 1422 and includes topics such as muscle development, nutrition, assessment of body composition, fitness level testing, cardiovascular activity and weight training essential to increased body strength, muscle tone and loss of body fat. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1422 or permission of the instructor.

PHED 2051 - Fencing II
1 Credit
This is a continuation of PHED 1501. No Lecture. Laboratory 2 hours. Prerequisite: PHED 1501 or instructor approval.

PHED 2092 - Bicycling for Fitness II
2 Credits
This is a continuation of PHED 1552. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1552 or instructor approval.

PHED 2111 - Professional Careers in Nutritional Sciences
1 Credit
Career opportunities in dietetics and food and nutrition. Roles and responsibilities of nutritional sciences professionals. Routes to professional memberships and current issues in professionalism. Lecture 1 hour. No Laboratory.

PHED 2142 - Karate II
2 Credits
This is a continuation of PHED 1092. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1092 or instructor approval.

PHED 2192 - Handball/Racquetball II
2 Credits
Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1192 or instructor approval.

PHED 2202 - Bowling II
2 Credits
Students will be required to pay for shoe rental and number of games bowled. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1202 or instructor approval.

PHED 2212 - First Aid
2 Credits
The standard first aid course of the American Red Cross with special emphasis on resuscitation, control of bleeding and shock, poisons, choking, and transportation of injured persons. Training in emergency care of most acute illnesses and/or accidents included. CPR certification will be through American Heart Association and/or American Red Cross. Lecture 2 hours. No Laboratory.

PHED 2232 - Swimming II
2 Credits
Students may be required to pay for swim time. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1232 or instructor approval

PHED 2252 - Weight Training II
2 Credits
This course is a continuation of PHED 1252. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1252 or instructor approval.

PHED 2263 - Principles in Health Education and Health Promotion
3 Credits
Introduction to the field of health education and health promotion focusing on health principles, theories, career opportunities and a field experience. Lecture 3 hours. No Laboratory.

PHED 2282 - Tennis II
2 Credits
A continuation of PHED 1282 with focus on improving skills, using tennis strategy, and encourages both doubles and singles tournament play. Lecture 1 hour. Laboratory 2 hours. Prerequisites: PHED 1282 or instructor approval.

PHED 2292 - Golf II
2 Credits
Students will be required to pay for green fees. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 1292 or instructor approval.

PHED 2302 - Substance Abuse I
2 Credits
A general survey course designed for awareness of drug use and abuse in our society. Topics covered are trends in drug education various aspects of treatment, drugs on the job, smoking, properties of alcohol, stimulants, depressants, narcotics, psychedelics, and marijuana. Lecture 2 hours. No Laboratory.

PHED 2312 - Body Conditioning
2 Credits
A course which develops the body for physical fitness, muscle toning, muscle strengthening and assistance in controlling excessive weight and maintaining correct body posture. Lecture 1 hour. Laboratory 2 hours.

PHED 2322 - Walking for Fitness
2 Credits
This course is designed for those wanting to start a cardiovascular fitness program by walking. Students will meet three times over the class semester with the instructor and the group. Students will keep and submit weekly logs to the instructor. Lecture 1 hour. Laboratory 2 hours.

PHED 2332 - Jogging for Fitness
2 Credits
This course is designed for those wanting to become more cardiovascular fit. Students should have been walking vigorously for six weeks or have completed the walking class (PHED 2322). Students will meet three times over the class semester with the instructor and the group. Students will keep and submit weekly logs to the instructor. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 2322 or instructor approval.

PHED 2342 - Recreation Therapy/Rope Course Training
2 Credits
Certified low sequencing of icebreakers, warm-ups, and initiative for low challenge course elements. Trained in belaying, repelling, high set-ups, rescues, and all technical aspects of running a high challenge course. Lecture 2 hours. No Laboratory. (Miscellaneous fees may be required.)

PHED 2363 - Recreation Therapy/Outdoor Adventure
3 Credits
Field based course to understand origins and components of involvement in outdoor pursuits. Numerous skills applied to various outdoor settings. Lecture 3 hours. No Laboratory. (Miscellaneous fees may be required.)

PHED 2412 - Body Conditioning II
2 Credits
This is a continuation of PHED 2312. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 2312 or instructor approval.

PHED 2422 - Walking for Fitness II
2 Credits
This course is a continuation of PHED 2322. Lecture 1 hour. Laboratory 2 hours. Prerequisite: PHED 2322.

PHED 2432 - Jogging for Fitness II
2 Credits
This is a continuation of PHED 2332. Lecture 1 hour. Prerequisite: PHED 2332 or instructor approval.

PHED 2513 - Introduction to Leisure Services
3 Credits
The nature, scope and significance of leisure and recreation. Delivery systems for leisure services, major program areas and the interrelationship of special agencies and institutions serving the recreation needs of society. Lecture 3 hours. No Laboratory.

PHED 2533 - Introduction to Therapeutic Recreation 3 Credits
Theory and application of therapeutic recreation with emphasis on types of illnesses and disabilities, delivery systems, programming and services. Lecture 3 hours. No Laboratory.

PHED 2603 - Total Wellness 3 Credits
Overview of individual, inter-personal, and socio-cultural issues that have an impact on health. Behavioral decision making, social relations, cultural diversity and environmental sensitivity. Lecture 3 hours. No Laboratory.

PHED 2623 - Fitness Assessment and Programming
3 Credits
Introduces fitness testing and exercise prescription for apparently healthy individuals and special populations. Covers cardiovascular fitness, muscular strength and endurance, flexibility, nutrition, body compositions, reassessment, exercise compliance and testing procedures. Further exploration with group assessments, individual and group exercise plans and progressions, and recreational program planning. Lecture 2 hours. Laboratory 3 hours. Prerequisites: BIOL 2154 and PHED 1113 or PHED 2603 and PHED 2263, PHED 2653, or current enrollment.

PHED 2653 - Applied Anatomy and Kinesiology
3 Credits
Anatomical study of structure and function of musculoskeletal systems. Common anatomical injuries and diseases will be presented with each joint structure. Lecture 3 hours. No Laboratory.

PHED 2662 - Care and Prevention of Athletic Injuries
2 Credits
This is an introductory course in sports medicine. Topics covered will include anatomy, physiology, injury evaluation, recognition, treatment and prevention. Acute problems will be discussed. Lecture 2 hours. No laboratory.

PHED 2772 - Health and Human Performance Internship
2 Credits
This course is designed to give students field experience through a supervised work experience with an appropriate agency. This experience should relate to the student's area of concentration. In addition to the hours of on-site work experience, students will meet weekly in a lecture/discussion to discuss and analyze their experiences and concerns. Lecture 1 hour. Laboratory 8 hours per week. Prerequisites: BIOL 1383, PHED 2263, PHED 2623 or can be concurrent enrollment, PHED 2653, PHED 1113 or PHED 2603, and current First Aid/CPR Certification.

PHED 2990 - Selected Topics in Physical Education
1-4 Credits
The study and/or analysis of a selected topic in Physical Education. May be repeated with a different topic. Lecture 14 hours. No Laboratory.

PHYSICAL SCIENCE

PHSC 0123 - Basic Physical Science
3 Credits
This course is designed to provide a laboratory based science for students who have not met the lab science requirements for state college admissions standards. The primary objective is to provide knowledge of the basic principles and concepts of physics and chemistry involving physical and chemical properties and phases of matter, acids and bases, heat, motion, electricity, magnetism, and light. Lecture 2 hours. Laboratory 2 hours.

PHSC 1114 - General Physical Science (L,N)
4 Credits
A study of the basic principles and concepts of physics and nuclear science, chemistry, astronomy, meteorology, and geology. The course relates these basic sciences to man's physical world at an introductory level, and is intended primarily for the non-science major. Lecture 3 hours. Laboratory 2 hours. Prerequisite: One year of high school algebra, or MATH 0013 or equivalent.

PHSC 2111 - Science Projects I: Project Wild
1 Credit
Project Wild is an exciting wildlife curriculum that helps teachers and youth leaders teach math, science, social studies, art, language, and P.E. This is a supplementary, interdisciplinary, easy-to-use, hands-on program that develops skills in creative problem solving, critical thinking, evaluation, and research. Miscellaneous expenses may be incurred. Lecture 1 hour. No Laboratory.

PHSC 2121 - Science Projects II: Project Learning tree
1 Credit
PLT is a K-12 conservation education program that uses the forest as a "window" to the natural world, helping young people gain an awareness and knowledge of the world around them as well as their place in it. This is a supplementary, interdisciplinary, easy-to-use, hands-on program that develops skills in creative problem solving, critical thinking, evaluation and research. The course guides offer many new ideas for current and previous participants. Miscellaneous expenses may be incurred. Lecture 1 hour. No Laboratory.

PHSC 2131 - Science Projects III: Project Wet
1 Credit
Project WET is an interdisciplinary water education program intended to supplement a school's existing curriculum. The goal of Project WET is to facilitate and promote awareness, appreciation, knowledge and stewardship of water resources. This course provides activities that are ready to be used. Miscellaneous expenses may be incurred. Lecture 1 hour. No Laboratory.

PHSC 2141 Project Flying Wild
1 Credit
Developed by the Council for Environmental Education, this course focuses on bird migration and related habitat issues. This course is an interdisciplinary, hands-on program that develops skills in creative problem solving, critical thinking, research skills and service learning. The course provides standards-based learning opportunities to engage students. Some course components are taught outdoors. Lecture 1 hour. No Laboratory.

PHSC 2151 The Nature of Science
1 Credit
This course will introduce students to an approach to "doing" science by using the scientific method. This scientific inquiry method will be used to examine problems from several different areas of science including: biology, physics, chemistry, astronomy, and geology. Lecture 1 hour. No Laboratory.

PHSC 2990 - Selected Topics in Physical Science
1-4 Credits
The study and/or analysis of a selected topic in Physical Science. May be repeated with a different topic. Lecture 14 hours. No Laboratory.

PHYSICAL THERAPIST ASSISTANT

PHTA 1203 - Anatomy and Physiology for PTAs
3 Credits
A supplementary study of the human body's structure and function as these relate to the practice of physical therapy. Emphasis will be placed on musculoskeletal, circulatory, and nervous systems. Lecture 2 hours. Laboratory 3 hours. Prerequisite: Admission to the PTA program.

PHTA 1231 - Clinical Practice I
1 Credit
An orientation and observation of physical therapy services, including treatment preparation and assistance to the physical therapist, supervised application of selected basic treatment skills, and introduction to medical documentation. No Lecture. Laboratory 40 hours over a one (1) week time frame. Prerequisites: All previous PTA coursework with a grade of "C" or better, or instructor approval.

PHTA 1242 - Human Growth and Development
2 Credits
Study and application of current theories regarding human growth in social, cognitive, behavioral and motoric domains as related to the practice of physical therapy. Lecture 2 hours. No Laboratory. Requires admission to the PTA program.

PHTA 1303 - Introduction to Physical Therapy
3 Credits
History, philosophy, ethics, settings, and trends in physical therapy. Delineation of roles of the health care team, and of physical therapy personnel, with interpersonal skills needed to function as a health care provider and team member. Principles and procedures of basic patient care skills and documentation. Lecture 2 hours. Laboratory 3 hours. Requires admission to the PTA Program,

PHTA 1363 - Kinesiology for PTAs
3 Credits
A study of anatomical structures and movement as related to physical therapy procedures. The basic principles of the relationship between joint motion and mechanical action. Application of principles with emphasis on the analysis and bio-mechanics of all human motion. For PTA students. Lecture 2 hours. Laboratory 2 hours. Prerequisites: All previous PTA coursework with a grade of "C" or better or instructor approval.

PHTA 1383 - Pathophysiology for PTAs
3 Credits
A study of selected disease and injuries as they relate to clinical conditions seen in the practice of physical therapy. Lecture 3 hours. No Laboratory. Prerequisite: All previous PTA coursework with a "C" or better or instructor approval.

PHTA 1392 - Clinical Procedures I
2 Credits
Principles and techniques of basic physical therapy interventions, with emphasis on physiological changes and effects in commonly seen diagnosis and in response to treatment. Laboratory practice with emphasis on positioning and manual skills. Lecture 1 hour. Laboratory 3 hours.

PHTA 2113 - Rehabilitation
3 Credits
A study of principles of functional training as they apply to a variety of diagnoses seen in Physical Therapy. Theory and therapeutic techniques involving gait, functional mobility, assistive devices, and the progression of rehabilitation. Lecture 2 hours. Laboratory 3 hours. Prerequisites: All previous PTA coursework with a grade of "C" or instructor approval.

PHTA 2332 - Clinical Practice II
2 Credits
A supervised clinical experience; two concurrent weeks of full time clinical education exposure including observations and applications of physical therapy services. In addition, a weekly group discussion of selected topics, in a colloquium format. Lecture 1 hour. Laboratory 80 hours over a two week time frame. Prerequisites: All previous PTA coursework with a "C" or better, or instructor approval.

PHTA 2343 - Clinical Procedures II
3 Credits
Theory, physiology, and application of heat, cold, light, water, electricity, and mechanical compression/distraction in therapeutic treatment of tissues. Overview of medical physics. Lecture 2 hours. Laboratory 3 hours. Prerequisites: All previous PTA coursework with a grade of "C" or better or instructor approval.

PHTA 2373 - Therapeutic Exercise I
3 Credits
General and specific exercises for conditions commonly referred to physical therapy. Principles involved in the theory and practical applications of specific therapeutic exercise and mechanical appliances. Lecture 2 hours. Laboratory 3 hours. Prerequisites: All previous PTA coursework with a grade of "C" or better or instructor approval.

PHTA 2383 - Therapeutic Exercise II
3 Credits
Continuation of Therapeutic Exercise I and additional theory and application of exercise techniques, with emphasis on treatment of long-term disabilities. Lecture 2 hours. Laboratory 3 hours. Prerequisites: All previous PTA course work with a grade of "C" or better or instructor approval.

PHTA 2432 - Clinical Practice III
2 Credits
A supervised clinical experience; two concurrent weeks of full time clinical education exposure including observations and applications of physical therapy services. In addition, a weekly group discussion of selected topics, in a colloquium format. Lecture 1 hour. Laboratory 80 hours over a two week time frame. Prerequisite: All previous PTA coursework with a grade of "C" or better or instructor approval.

PHTA 2442 - Psychosocial Aspects in Physical Therapy
2 Credits
A survey course explaining the psychological and sociologic effects of disabilities, including the impact of culture and economics with regard to the patient, family, and society. The student will also participate in 8 hours of community service used to promote awareness of social responsibility, citizenship and advocacy. Lecture 2 hours.

PHTA 2486 - Clinical Practice IV
6 Credits
Supervised application of physical therapy procedures in the treatment of patients at a variety of selected physical therapy clinics. Successful completion of this course with a grade of "C" or better is required for graduation from the PTA program. No Lecture. Laboratory 40 hours per week for 12 weeks. Prerequisites: Completion of all PTA courses with a grade of "C" or better, or instructor approval.

PHTA 2493 - Advanced Therapeutic Handling Techniques
3 Credits
Development processes provide a framework in determining strategies to reduce tone and improve motor control in neurologically impaired individuals. This course is a continuation of therapeutic exercise with theory and application in the areas of proprioceptive neuromuscular techniques, neurodevelopmental techniques, and other movement modifications. Lecture 3 hours. No Laboratory. Prerequisites: Concurrent enrollment in PHTA 2383 or OCTA 1483 and OCTA 2233 graduate of a PTA/ PT program or OCTA/ OT program; or instructor approval.

PHTA 2522 - Special Studies in Clinical Practice
2 Credits
Advanced study and application of physical therapy practices in a selected topic determined by the student and faculty in the areas of geriatrics, orthopedics, pediatric-neuro or acute care. Lecture 1 hour. Laboratory 2 hours. Prerequisites: All previous PTA coursework with a grade of "C" or better or instructor approval.

PHTA 2543 - Neuroscience
3 Credits
A comprehensive review of the anatomy and physiology of the nervous system, with emphasis on the functional relationship between the nervous system and the musculoskeletal system. Basic review of the pathology of neurological disorders frequently encountered in the practice of physical therapy. Lecture 3 hours. No Laboratory. Prerequisites: All previous PTA coursework with a grade of "C" or above or permission of the instructor.

PHTA 2551 - Pharmacology for PTAs
1 Credit
General pharmacologic concepts for the physical therapist assistant student who has no background in pharmacology. The therapeutic effects, side effects, and clinical applications to physical therapy are stressed for drugs affecting the major systems of the body. Lecture 1 hour. No Laboratory. Prerequisites: All previous PTA coursework with a grade "C" or better or instructor approval.

PHTA 2990 - Selected Topics in Physical Therapy
1-4 Credits
The study and/or analysis of a selected topic in Physical Therapy. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory. Prerequisites: PHTA 1203, BIO 1314, and PTA 1303 with a grade of "C" or better.

PHYSICS

PHYS 1003 - Introduction to Physics
3 Credits
A course designed to prepare science and science-related majors for physics sequences starting from PHYS 1114 and PHYS 2034. Includes the fundamentals of mechanics, electricity and magnetism, wave motion, and light. Emphasizes problem-solving and appropriate formatting for working and presenting problems. Proficiency in Beginning Algebra required. Lecture 3 hours. No Laboratory.

PHYS 1014 - Conceptual Physics (L)
4 Credits
An introductory physics course intended for non-science majors. The general ideas of both Newtonian and Einsteinian physics will be discussed in relation to current philosophical and social topics. Emphasis will be put on the scientific method of investigation and on distinguishing science from pseudo-science. Not recommended for students who intend to do major work in mathematics or science. Lecture 3 hours. Laboratory 2 hours.

PHYS 1114 - General Physics I (L)
4 Credits
Physics for liberal arts students. Study of the principles of elementary physics involving mechanics, heat, fluids, waves, and sound. Lecture 3 hours. Laboratory 3 hours. Prerequisite: MATH 1513 or MATH 1454 or equivalent, or instructor approval.

PHYS 1214 - General Physics II (L)
4 Credits
A continuation of PHYS 1114 involving electricity, magnetism, light, and modern physics. Lecture 3 hours. Laboratory 3 hours. Prerequisite: PHYS 1114.

PHYS 2034 - Engineering Physics I (L)
4 Credits
Physics for engineering and science students. Principles of mechanics, thermodynamics, and wave motion based on the calculus development. Lecture 3 hours. Laboratory 3 hours. Prerequisite: MATH 2114.

PHYS 2124 - Engineering Physics II (L)
4 Credits
Physics for engineering and science students. A continuation of PHYS 2034 dealing with magnetism, electricity, and light. Lecture 3 hours. Laboratory 3 hours. Prerequisites: PHYS 2034 and MATH 2124.

PHYS 2990 - Selected Topics in Physics
1-4 Credits
The study and/or analysis of a selected topic in Physics. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

POLITICAL SCIENCE

POLS 1113 - American Federal Government
3 Credits
A study of the principles, structure, processes, and functions of the United States federal government. Lecture 3 hours. No Laboratory.

POLS 2013 - Introduction to Comparative Governments (S)
3 Credits
A comparison of basic structures and functions of European governments; i.e., Great Britain, France, Germany, and Russia, a survey of their value systems and political institutions. Lecture 3 hours. No Laboratory. Prerequisite: POLS 1113.

POLS 2023 - Introduction to American Politics
3 Credits
The course will explore the role of partisan politics within the American political system. Emphasis will be placed on elections, political parties, the presidency, and Congress. Lecture 3 hours. No Laboratory. Prerequisite: POLS 1113.

POLS 2033 - Introduction to Political Thought
3 Credits
A description and analysis of the development of American political thought from early American and European philosophies to contemporary theorists. Lecture 3 hours. No Laboratory. Prerequisite: POLS 1113.

POLS 2043 - Introduction to City Government
3 Credits
City government and politics; organization, structure, functions and administrative problems of the City of Tulsa; charter of the City of Tulsa; legislative function of the city council and administrative function of the mayor; fiscal and administrative systems. Lecture 3 hours. No Laboratory. Prerequisite: POLS 1113

POLS 2103 - Introduction to State and Local Government
3 Credits
General features of state constitutions, powers of governor, state legislative structure and processes, state judicial systems, and structure and form of municipal and county governments - with emphasis on Oklahoma governmental and political structure. Lecture 3 hours. No Laboratory. Prerequisite: POLS 1113 and sophomore standing, or instructor approval.

POLS 2133 - Introduction to Public Administration
3 Credits
Principles of public administration and the significance of administration in the modern state. Analysis of administrative theory, organization, and problems. A study of public relations, fiscal, personnel, and administrative responsibilities. Lecture 3 hours. No Laboratory. Prerequisite: POLS 1113 and sophomore standing, or instructor approval.

POLS 2153 - Introduction to the Constitution and Judicial Process
3 Credits
A history and interpretation of the federal constitution and judicial system, with a summary of the leading constitutional decisions by the courts. Lecture 3 hours. No Laboratory. Prerequisites: POLS 1113 and sophomore standing, or instructor approval.

POLS 2203 - Introduction to International Relations
3 Credits
A survey of relations among nations; peace and peace-keeping; conflict and conflict resolution; basic concepts, theories and realities of national power, foreign policy, and international interactions. Lecture 3 hours. No Laboratory. Prerequisites: POLS 1113 and sophomore standing.

POLS 2893 - Government Internship
3 Credits
Selected students will be assigned to work in governmental offices in the Tulsa area. Interns will accomplish specified learning and performance objectives. Each intern will analyze the major functions of the office and compare the practical experience with current governmental theories in a term paper. The internship may be repeated for up to six hours credit. No Lecture. Laboratory 12 hours. Prerequisites: POLS 1113 or concurrent enrollment, and selection by Intern Coordinator.

POLS 2990 - Selected Topics in Political Science
1-4 Credits
The study and/or analysis of a selected topic in Political Science. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

PORTUGUESE

PORT 1103 - Portuguese I
3 Credits
A beginning course in understanding, speaking, reading, and writing Portuguese. The first in a sequence of two related course sections. See PORT 1213. Lecture 3 hours. Self-paced laboratory may be required.

PORT 1213 - Portuguese II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Portuguese. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: PORT 1103 or approval of instructor.

PORT 2990 - Selected Topics in Portuguese
1-4 Credits
The study and/or analysis of a selected topic in Portuguese. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

PROCESS TECHNOLOGY

PRCT 1123 - Introduction to Process Technology
3 Credits
Introduction to process operations in the petrochemical industry including: operator roles, responsibilities and expectations; plant terminology; safety and environmental responsibilities; applied organic and inorganic chemistry; applied physics; plant equipment, utility systems; product handling; flow diagrams; general process overviews; basics of process control; and plan organizations. This course will expose students to an overview of the Process Technology certificate/degree program, including the mental and physical requirements of the Process Technician career. Plant tours will be conducted. Lecture 3 hours. No Laboratory.

PRCT 1133 - Safety, Health & Work Practices
3 Credits
Introduction to occupational safety, health and environmental practices and associated equipment including: safety mindset and attitude; personal safety equipment; general safety policies and procedures; hazards communications; HAZWOPER/ emergency response; first aid and CPR; industrial hygiene; exposure monitoring; and environmental compliance. This course will give students an overview of various governmental regulations mandated by OSHA, EPA, SARA, RCRA, DOT, NFPA, etc. Lecture 3 hours. No Laboratory.

PRCT 2024 - Process Tech I (Equipment)
4 Credits
This course involves the fundamental and operating considerations of Process Equipment such as: valves and piping; pumps and compressors; generators; turbines; motors; lubrication systems; heat exchangers; furnaces and boilers; towers; drums; separators; and reactors. This course will examine thermodynamic and hydraulic aspects, as well as the mechanical characteristics of plant equipment. Lecture 3 hours. Laboratory 1 hour. Prerequisite: PRCT 1123.

PRCT 2034 - Industrial Instrumentation
4 Credits
This course is designed to introduce the student to a simple pneumatic control loop. Specifically, the student will be introduced to pressure, temperature, level and flow transmitters and the various transducers used in the detection of changes in process variables; pneumatic controllers, valve positioners, control valve types, pneumatic relays and the null-balance system are also included as part of the control loop. Lecture 4 hours. No Laboratory. Prerequisite: PRCT 1123.

PRCT 2134 - Process Tech II (Systems)
4 Credits
A familiarization with the general types of processes found in the chemical and refining industry including: distillation and fractionation; reaction; absorption; adsorption; extraction; stripping; cracking; reforming; alkylation; delayed coking; hydroprocessing; and sulfur recovery. This course also includes an explanation of product blending and water treatment, as well as steam and electrical power generation. Lecture 4 hours. Laboratory 1 hour. Prerequisite: PRCT 2024.

PRCT 2224 - Process Tech III (Operations)
4 Credits
This course will concentrate on the duties, responsibilities and expectations of the Process Operator with emphasis on understanding and adherence to procedures associated with start-up, shutdown, normal and temporary plant operations. Equipment monitoring, preventative maintenance, training and response to abnormal and emergency operating conditions are stressed as they apply to the work crew and operations team. Students will receive a "sense of reality" regarding the career of a Process Technician, including tips on adjusting to shift work, diversity in the workplace and communicating with the work team and customers. Lecture 4 hours. Laboratory 1 hour. Prerequisite: PRCT 1123, PRCT 2024 and PRCT 2134.

PRCT 2243 - Principles of Quality
3 Credits
The history of quality will be explored from Deming's theories to current applications in today's petrochemical industry. Internal and external customer/supplier relationships of a business which affect the qualitative aspects of quality and the statistical methods, which affect the quantitative aspects of measuring quality, will be stressed throughout this course. Students will be exposed to the benefits of continuous improvement and quality work as they pertain to developing a high performance work team. Lecture 3 hours. No Laboratory. Prerequisite: MATH 1454.

PRCT 2324 - Process Troubleshooting
4 Credits
This course utilizes heat, mass and energy balances and operating data to identify and correct process abnormalities using techniques such as "cause and effect" and "root cause" analysis. Students will acquire and develop troubleshooting techniques associated with petrochemical processes through group exercises in a work team environment. Lecture 4 hours. Laboratory 1 hour. Prerequisite: PRCT 2224

PSYCHOLOGY

PSYC 1023 - Psychology of Personal Adjustment
3 Credits
A course designed to acquaint the student with some of the principles of psychology which will assist in understanding his or her own behavior and that of others. Five major topic areas are covered: personality theories, adjustment, stress, abnormal behavior, and therapy methods. Lecture 3 hours. No Laboratory.

PSYC 1113 - Introduction to Psychology (S)
3 Credits
A survey of the major areas of study in psychology such as: motivation, learning, physiology, personality theories and treatment social psychology, psychological disorders, perception, memory, and cognition thought. Lecture 3 hours. No Laboratory.

PSYC 1313 - Human Relations (S)
3 Credits
An experiential course involving the direct application of psychological principles to human relations problems. Special emphasis will be placed on group dynamics and personal adjustment factors as related to communication, decision making, and problem solving in human interchanges. Lecture 3 hours. No Laboratory.

PSYC 2023 - Developmental Psychology
3 Credits
A theoretical and research based psychology course that covers social, emotional, physical and cognitive aspects of human development throughout the life-span. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2053 - Social Psychology
3 Credits
A study of the psychological basis of social interaction and change that covers the following topics: conformity, social influence, social cognition, prosocial behavior, prejudice, group processes, interpersonal attraction, and aggression. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2123 - Leadership Development (S)
3 Credits
This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates reading from the humanities, experiential exercises, films and contemporary readings on leadership. Lecture 3 hours. No Laboratory.

PSYC 2130 - Crisis Intervention and Experience
1-3 Credits
The study of crisis intervention including models of responding, counseling techniques and community resources. Crisis intervention specialization areas include mental illness, substance abuse, suicide, homelessness, grief, and violence. Course includes lecture plus a supervised practicum in an approved social services agency. Lecture 1 hour. Laboratory 1-4 hours. Prerequisite: PSYC 1113 or SOCI 1113.

PSYC 2143 - Guided Activities in Service Learning
3 Credits
Service learning combines community service with classroom instruction, focusing on critical, reflective thinking, as well as personal and civic responsibility. This course is a directed study at self-selected sites within the Tulsa community. Within the context of field experiences, students are offered a reciprocal opportunity to develop skills and acquire knowledge while providing service and assistance to the community. Lecture/ Experiential-based learning 3 hours. No Laboratory.

PSYC 2193 - Personality Theories
3 Credits
A psychology course examining personality processes and the various theoretical approaches to the study of personality such as: psychodynamic, behavioral, phenomenological, trait, and social learning theories. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2203 - Mind and Behavior
3 Credits
This course covers the cognitive basis of human behavior. It will focus on the study of recent research on the functions of the human brain, the development of the mind, and how our developing understanding of brain/behavior interactions might be used to solve human problems. The television series The Mind accompanies the texts. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or permission of the instructor.

PSYC 2213 - Brain and Behavior
3 Credits
This course covers both the biological basis of human behavior (including the nervous system, homeostasis, biological clocks, etc.) and the psychological consequences of the biology of our species (feelings, learning and memory, thinking and consciousness, the malfunctioning brain, etc.). The course also includes speculation on future developments in brain research. Lecture 3 hours. No Laboratory. Prerequisite: BIOL 1114 or BIOL 1224 and PSYC 1113. Cross listed as BIOL 2213.

PSYC 2223 - Behavioral Statistics
3 Credits
Application of descriptive and inferential analyses of data are major topics. Specific topics that are covered (but not limited to) are: central tendency, dispersion, the standard normal distribution, correlation, regression, probability theory, single-sample analyses, two-sample analyses, ANOVA and its variations, and a variety of nonparametric analyses, The student will be using the most current computer software available as a basis for these analyses. Lecture 3 hours. No Laboratory. Prerequisites: MATH 1513 or instructor approval, and PSYC 1113 or SOCI 1113.

PSYC 2313 - Psychology and Law (S)
3 Credits
Consideration of the integration of psychology as a component of the law serves as a basis for the course. Attention will be paid to issues common to both psychology and the law. Students will investigate mental illness and legal issues which commonly occur as a result of mental illness. Insanity, legal competency, competency to stand trial, guardianship, as well as incarceration and its psychological results, and other pertinent topics are explored. Lecture 3 hours. No Laboratory.

PSYC 2323 - Conflict Resolution
3 Credits
An experiential course aimed at the application of the principles of human relations to interpersonal conflicts. Emphasis will be placed on the nature of conflict and integrative methods of conflict resolution through third-party intervention. Specific areas of conflict commonly encountered in work and social situations (e.g., stress, sexism, racism, ageism) will be examined. Lecture 3 hours. No Laboratory.

PSYC 2423 - Introduction to Abnormal Psychology
3 Credits
A psychology class exploring the major categories of mental disorders, including their causes and treatment. Lecture 3 hours. No laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2523 - Child Psychology
3 Credits
Child psychology is the systematic investigation of the psychological processes of childhood. The course surveys normal childhood from a theoretical and empirical base including the cognitive, social, emotional, and physical changes from conception to late childhood. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 and PSYC 2023 or permission of the instructor.

PSYC 2533 - Adolescent Psychology
3 Credits
Adolescent psychology is the systematic investigation of the psychological processes of adolescence. The course surveys normal adolescence from a theoretical and empirical base including the cognitive, social, emotional, and physical changes from youth into pre-adulthood. Lecture 3 hours. No Laboratory. Prerequisite: 1113 and PSYC 2023 or permission of the instructor.

PSYC 2613 - Adult Psychology
3 Credits
Adult psychology is the systematic investigation of the psychological processes of the adult years with an emphasis on the social emotional and cognitive changes which occur after adolescence. Lecture 3 hours. No laboratory. Prerequisites: PSYC 1113 and PSYC 2023 or instructor approval.

PSYC 2633 - Industrial and Organizational Psychology (S)
3 Credits
Applications of the principles of psychology to the problems of business and industry will be explored. Special attention will be given to the areas of communication, motivation, job satisfaction, personnel selection, placement, and training. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2713 - Aging and Behavior (S)
3 Credits
In the later adult years, we recognize age related sequential changes. These are physiological, psychological, and sociological. This course attempts to describe these changes, with an emphasis on optimal and satisfactory adaptations to them by the individual and by society. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2813 - Human Sexuality (S)
3 Credits
Human sexuality is presented as an ever-varying constant of the entire life span. Human sexuality involves biological, sociological, psychological, and behavioral components influenced by feelings, attitudes, and social institutions which make sexuality a unique experience. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

PSYC 2990 - Selected Topics in Psychology
1-4 Credits
The study and/or analysis of a selected topic in Psychology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory. Prerequisite: PSYC 1113 or instructor approval.

QUALITY CONTROL TECHNOLOGY

QCTT 1223 - Blueprint Reading
3 Credits
For students enrolled in Quality Control studies. Study includes principles of geometric dimensioning and tolerancing applied to hands-on interpretation of engineering drawings and manufactured components. Principles of standard drawing views, isometric and projected views and dimensional layouts. Students will utilize their knowledge of fractional and decimal mathematics to determine part geometrics. Lecture 3 hours. No Laboratory.

QCTT 1313 - Introduction to Quality Control
3 Credits
A survey of the fundamental concepts by which the quality of goods and services is evaluated and improved. The student will develop a basic understanding of the definitions, principles, and objectives of the quality field. Lecture 3 hours. No Laboratory.

QCTT 1443 - Geometric Dimensioning & Tolerancing
3 Credits
An in depth study of dimensional tolerancing as identified in the American National Standards Institute, ANSI Y 14.5 specification. This course will explore the meaning of symbols used in the International Standard, their application and the processes necessary to achieve the specified geometry, as well as common practices used in Engineering drawings and practical limits and challenges in the manufacturing environment. Lecture 3 hours. No Laboratory. Prerequisite: NCMT/QCTT 1223 or any DRFT class.

QCTT 2153 - Lean, Six Sigma, Quality Systems
3 Credits
An introduction to the history, evolution and practice of advanced manufacturing and quality systems, including Lean Manufacturing, Kiazen, 5-S, Kanban, Toyota Production System and Six Sigma. Exploration into the theory and tools behind today's most advanced business philosophies. Lecture 3 hours. No Laboratory.

QCTT 2333 - Inspection Principles
3 Credits
Study of inspection techniques and requirements for receiving, in-process, and final inspection. Emphasis on quality planning and improvement of inspection and inspector efficiency, in both job-shop and mass production environments. Study will include reporting of vendor surveillance, quality characteristics, non-conformance, and costs. Lecture 3 hours. No Laboratory. Prerequisite: QCTT 1313.

QCTT 2343 - Statistical Process Control
3 Credits
Study of statistical methods used in quality, lean manufacturing, and six-sigma. Specific topics include sampling, probability, analysis of data, capability studies and control charts. This is a hands-on course that is spreadsheet based with minimum math and theory. Lecture 3 hours. No Laboratory. Prerequisites: MATH 1454 and QCTT 1313.

QCTT 2363 - Quality Standards and Specifications
3 Credits
Introduction to codes and industry standards, with emphasis on interpretation through understanding of formats and organization of standards. Study will include methods for review of procedures and specifications. Lecture 3 hours. No Laboratory. Prerequisite: QCTT 1313.

QCTT 2373 - Quality Costs, Surveys and Audits
3 Credits
A study of identifying and assigning the true costs of quality comprises the first one-third of the course. The remainder of the course involves defining, discussing and practicing principles of surveying and auditing of quality procedures and systems. Lecture 3 hours. No Laboratory. Prerequisite: QCTT 1313.

QCTT 2413 - ISO 9000/2000
3 Credits
A study of the system of customer driven International Standards that can apply to Engineering, Manufacturing, and Service Companies. This course includes an in-depth probe into the full meaning and intent of the standards, as well as the implementation methods to achieve compliance and certification to ISO 9001, 9002, or 9003. It approaches the standards through auditing methods, which will provide the student with the knowledge to review procedures for compliance with standards. Lecture 3 hours. No laboratory.

QCTT 2990 - Selected Topics in Quality Control Technology
1-4 Credits
The study and/or analysis of a selected topic in Quality Control Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

RADIOGRAPHY

RADT 1201 - Introduction to Radiographic Clinical Education
1 Credit
This course enables potential Radiography students to become familiar with clinical education centers available to TCC students, and to observe duties performed by radiographers. Student will choose four separate clinical sites to visit. No lecture. Laboratory 16 hours.

RADT 1212 - Introduction to Radiography
2 Credits
An introductory course designed to acquaint the student to the field of medical radiography. Topics include patient care, ethics, radiation protection, positioning terminology, chest and abdomen radiography, and film critique. Lecture 2 hours. No Laboratory. Requires admission to the program or instructor approval.

RADT 1224 - Radiographic Clinical Education I
4 Credits
A clinical experience course to familiarize the student with the hospital and the radiology department. Experience will concentrate on office procedures, film filing, darkroom, routine positioning, and film critique. No Lecture. Laboratory 32 hours. Prerequisite: Admission to the program.

RADT 1313 - Radiographic Anatomy and Positioning I
3 Credits
Topics covered in this course include upper and lower extremities, complete spine, bony thorax, mammography, terminology, and film critique. Lecture 2 hours. Laboratory 3 hours. Prerequisites: RADT 1212 and RADT 1224.

RADT 1324 - Radiographic Clinical Education II
4 Credits
A continuation of clinical experience to develop positioning and technique skills related to routine and fluoroscopic exams. Film critique also will be covered. No Lecture. Laboratory 16 hours. Prerequisites: RADT 1212, RADT 1224, and concurrent enrollment in RADT 1313 and RADT 1372.

RADT 1333 - Radiographic Anatomy and Positioning II
3 Credits
Topics covered in this course include digestive, urinary, biliary, and reproductive systems, skulls, and pediatrics. Related terminology and film critique. Lecture 2 hours. Laboratory 3 hours. Prerequisites: BIOL 1314 with a grade of "C" or better, RADT 1313, RADT 1324, and RADT 1372.

RADT 1344 - Radiographic Clinical Education III
4 Credits
A continuation of clinical experience to develop positioning and technique skills related to routine and fluoroscopic exams. Pediatric patient care will be developed. Film critique also will be covered. No Lecture. Laboratory 16 hours. Prerequisites: RADT 1313, RADT 1372, RADT 1324, and concurrent enrollment in RADT 1333 and RADT 1382.

RADT 1372 - Radiographic Technique
2 Credits
An introductory course on radiographic exposure factors including radiation protection, films, screens, and film processing. Lecture 1 hour. Laboratory 2 hours. Prerequisites: RADT 1212, RADT 1224, and concurrent enrollment in RADT 1313.

RADT 1382 - Advanced Radiographic Technique
2 Credits
An in-depth study of radiographic exposure factors and radiographic quality assurance. Lecture 1 hour. Laboratory 2 hours. Prerequisites: RADT 1313, RADT 1372, RT1324, and concurrent enrollment in RT1333.

RADT 2301 - Radiographic Seminar
1 Credit
A study of tomography, image intensification, trauma radiography, portable radiography, and surgical procedures. Lecture 1 hour. No Laboratory. Prerequisites: RADT 1333, RADT 1344, and RADT 1382.

RADT 2314 - Radiographic Clinical Education IV
4 Credits
A continuation of clinical education in all areas of the radiology department including surgery. Film critique also will be covered. No Lecture. Laboratory 32 hours. Prerequisites: RADT 1333, RADT 1344, RADT 1382, and concurrent enrollment in RADT 2301.

RADT 2323 - Radiographic Special Procedures
3 Credits
An introductory course on special procedures, digital imaging and related equipment. Other topics include CT, MRI, cross sectional anatomy and registry review. Lecture 2 hours. Laboratory 2 hours. Prerequisites: RADT 2301, RADT 2314, CSCI 1203 or equivalent, and concurrent enrollment in RADT 2343.

RADT 2336 - Radiographic Clinical Education V
6 Credits
A continuation of clinical education in all areas of the radiology department including special procedures, CT, and MRI. Film critique will be covered. No Lecture. Laboratory 24 hours. Prerequisites: RADT 2301, RADT 2314, and concurrent enrollment in RADT 2343 and 2383.

RADT 2343 - Radiographic Biology and Pathology
3 Credits
A study of radiation biology, radiographic pathology, and departmental administration. Lecture 2 hours. Laboratory 2 hours. Prerequisites: RADT 2301, RADT 2314, and concurrent enrollment in RADT 2385.

RADT 2356 - Radiographic Clinical Education VI
6 Credits
The final course of clinical education in all areas of the radiology department. Clinical rotations will be structured to the students' areas of need. Film critique will be covered. No Lecture. Laboratory 24 hours. Prerequisites: RADT 2343, RADT 2336, RADT 2383, and concurrent enrollment in RADT 2323.

RADT 2383 - Radiographic Physics
3 Credits
Topics covered include units of measurement, mechanics, structure of matter, electrostatics, magnetism, electrodynamics electromagnetism, rectification, x-ray tube, x-ray circuits, and equipment. Lecture 3 hours. No Laboratory. Prerequisites: MATH 0123 or equivalent, RADT 2301, RADT 2314, and concurrent enrollment in RADT 2343.

RADT 2990 - Selected Topics In Radiologic Technology
1-4 Credits
The study and/or analysis of a selected topic in Radiologic Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

RELIGIOUS STUDIES

RELG 1113 - Introduction to Religious Studies (H)
3 Credits
An introductory study of the major materials and methods for the systematic examination of the roles and functions of religion in human life. Examples of religion drawn from ancient and modern times, Western and Eastern traditions, and ritual and ethical behaviors are explored. Comparative, phenomenological, historical, literary, philosophical, and theological methods are used. Lecture 3 hours. No Laboratory.

RELG 1213 - Religions of the World: The Eastern Tradition (I)
3 Credits
A survey of Oriental religious heritage of India, Japan, China, and others. Some of the specific religions examined are Hinduism, Buddhism, Taoism, Confucianism, Shintoism, Jainism, and Sikhism. Lecture 3 hours. No Laboratory.

RELG 1223 - Religions of the World: The Western Tradition (H)
3 Credits
A survey of Western religious heritage. Christianity, Judaism, Islam, Greek mythology, and others will be studied. Lecture 3 hours. No Laboratory.

RELG 2113 - Old Testament (H)
3 Credits
English translation of the Hebrew Scriptures (Christian Old Testament) with emphasis upon historical background, critical analysis, and theological interpretations. In addition, it will be shown how themes from these scriptures have been used in various forms of literature. Lecture 3 hours. No Laboratory.

RELG 2123 - New Testament (H)
3 Credits
The writings of the New Testament in their historical contexts. Emphasis on interpreting selected New Testament passages and how these readings have affected subsequent forms of literature. Lecture 3 hours. No Laboratory.

RELG 2173 - Religion and Society (H)
3 Credits
An introductory social scientific survey of religion viewed from the psychological, sociological, and anthropological perspectives. Patterns in the internal development of religious groups, as well as the relationships between religion and other social and cultural institutions will be examined. Lecture 3 hours. No Laboratory.

RELG 2233 - Religion in America (H)
3 Credits
A survey of the varieties of religious expression in America. The course includes an examination of various Protestant, Catholic and Jewish experiences in America, as well as the impact of Native-American, African-American, Hispanic, and Asian religions on American history and culture. The phenomenon of new cults and spiritualities will also be explored. Lecture 3 hours. No Laboratory.

RELG 2243 - Christian Ethics and Social Thought (H)
3 Credits
An examination of moral and social problems from the Christian perspective and discussion of practical applications in areas such as human rights, abortion, peace, justice, poverty, euthanasia, and the like. Lecture 3 hours. No Laboratory.

RELG 2313 - Religion in Film (H)
3 Credits
An analysis of the treatment of religion in general, of particular religions, and of religious themes, ideas, and issues in popular film. The emphasis and films will vary from semester to semester. Lecture 3 hours. No Laboratory.

RELG 2330 - Field Studies in Religion
1-3 Credits
This course is designed to provide students with on-site experiences of different religious expressions. The course includes lectures and readings to prepare students for the on-site experience and discussion and written field reports to evaluate the on-site experience. May be repeated with different on-site experiences for up to nine hours credit. Requires instructor approval.

RELG 2990 - Selected Topics in Religious Studies
1-4 Credits
The study and/or analysis of a selected topic in Religious Studies. May be repeated with a different topic. Lecture 1-4 hours No Laboratory.

RESPIRATORY CARE

(Students are required to earn a "C" or better in Respiratory Care courses in order to graduate.)

RESP 1213 - Neonatal and Pediatric Respiratory Care
3 Credits
A study of the respiratory care of neonatal and pediatric patients, including the etiology, and pathophysiology of neonatal and pediatric respiratory disorders as well as the respiratory care procedures used in the management of these patients. Lecture 3 hours. No Laboratory. Prerequisites: RESP 1233, RESP 1353, and RESP 1313.

RESP 1233 - Applied Sciences for Respiratory Care
3 Credits
This course introduces the concepts and principles of basic mathematics, chemistry, physics, and microbiology as they apply to the practice of respiratory therapy. Lecture 3 hours. No Laboratory. Prerequisites: Admission to the Respiratory Care Program, and concurrent enrollment in RESP 1313.

RESP 1242 - Respiratory Care Patient Assessment
2 Credits
This course is designed to introduce the fundamentals of assessing the respiratory care patient. Topics to be covered include patient communication, assessment of vital signs, physical examination of the patient, clinical laboratory studies, assessment of chest x-rays, sleep studies and pulmonary function test. Lecture 2 hours. No Laboratory. Prerequisites: Admission to the Respiratory Care Program, concurrent enrollment in RESP 1353 or instructor approval.

RESP 1251 - Physician/Therapist Interaction
1 Credit
This course is designed to improve communication skills with the physician through direct interaction. Students will present case reports to class which will be evaluated and critiqued by the physician. Lecture 1 hour. No Laboratory. Requires admission to the Respiratory Care Program.

RESP 1313 - Respiratory Care Techniques and Theory I
3 Credits
The fundamentals of respiratory care will be covered including various oxygen delivery equipment, oxygen cylinders, humidity and aerosol therapy, equipment cleaning techniques and patient assessment techniques. Lecture 3 hours. No Laboratory. Prerequisites: Admission to the program and concurrent enrollment in RESP 1511.

RESP 1353 - Cardiopulmonary Anatomy and Physiology
3 Credits
A comprehensive study of the structures and functions of the respiratory and cardiovascular systems. The principle in which cardiopulmonary physiology is integrated with renal function and acid-base balance are introduced. Lecture 3 hours. No Laboratory. Prerequisites: Admission to the program and concurrent enrollment in RESP 1233, RESP 1242, RESP 1313, RESP 1511 or instructor approval.

RESP 1403 - Respiratory Care Techniques and Theory II
3 Credits
A study of oxygen therapy and oxygen administering devices. IPPB therapy, chest physiotherapy, the therapeutic use of gas mixtures, and airway management. Clinical time will deal with observing and performing the procedures learned. Lecture 3 hours. No Laboratory. Prerequisites: RESP 1242, RESP 1313, RESP 1511 with a grade of "C" or better.

RESP 1413 - Clinical I
3 Credits
Introduction to practical clinical application of oxygen therapy, humidity and aerosol therapy, patient assessment, airway management, hyperinflation therapies and pulmonary function studies under supervision. No Lecture. Laboratory 24 hours to include Clinical Skills Lab. Prerequisites: RESP 1233, RESP 1313, RESP 1353, RESP 1511 and concurrent enrollment in RESP 1403.

RESP 1443 - Respiratory Care Pathophysiology
3 Credits
This course provides a detailed study of primary and secondary cardiopulmonary disorders and disease states. Etiology, pathophysiology, clinical and functional manifestations and current treatment/management strategies will be covered in detail. Lecture 3 hours. No Laboratory. Prerequisites: RESP 1233, RESP 1242, RESP 1313, RESP 1353 with a grade of "C" or better.

RESP 1511- Clinical Procedures Laboratory
1 Credit
Introduction to the theory and application of selected respiratory care procedures. No lecture. Laboratory 2 hours. Prerequisites: Admission to the Respiratory Care Program and concurrent enrollment in RESP 1313.

RESP 1522 - Introduction to Mechanical Ventilation
2 Credits
This course introduces the theory and practice of mechanical ventilation as well as an overview of mechanical and physiological concepts. Topics covered include indications for mechanical ventilation, current types of ventilators, and general principles of ventilator management. Lecture 2 hours. No Laboratory. Prerequisites: RESP 1233, RESP 1313 and RESP 1353.

RESP 2103 - Clinical II
3 Credits
This course is a continuation of practical clinical application of therapies previously presented with an introduction to the intensive care unit and pulmonary function laboratory under supervision. In addition this course will include the Clinical Skills laboratory. No Lecture. Laboratory 24 hours. Prerequisites: RESP 1403, RESP 1413, RESP 1443, and RESP 2352 with a grade of "C" or better.

RESP 2203 - Clinical III
3 Credits
Continuation of practical clinical application of the critical respiratory care patient in the ICU with emphasis on ventilator management. Emphasis will also be placed on the respiratory care management of patients in the home and rehabilitation setting with the student rotating through both a rehab hospital and a respiratory home care company. No Lecture. Laboratory 24 hours. Prerequisites: RESP 2103, and concurrent enrollment in RESP 2323 and RESP 2391.

RESP 2323 - Advanced Topics in Mechanical Ventilation
3 Credits
This course is a continuation of RESP 1522. Topics covered include hazards and complications of mechanical ventilation. Monitoring of mechanically ventilated patients, ventilator troubleshooting, invasive vs. non-invasive ventilation and novel modes of ventilation. Lecture 3 hours. No Laboratory. Prerequisite: RESP 1522.

RESP 2352 - Respiratory Care Pharmacology
2 Credits
This course includes an introduction to the total scope of pharmacology, the general classifications, uses, and responses to drugs, with a detailed presentation of drugs specific to respiratory care. Lecture 2 hours. No Laboratory. Prerequisites: RESP 1353 and RESP 1313 with a grade of "C" or better in each course.

RESP 2391 - Respiratory Care Case Management
1 Credit
A study of intensive respiratory care management using clinical patient assessment and intervention techniques. Students select patients on clinical rotations, conduct a case study and present the report orally to the class. Lecture 1 hour. No Laboratory. Prerequisites: RESP 1353, RESP 1443, RESP 1403.

RESP 2413 - Clinical IV
3 Credits
This course is a continuation of respiratory care management of the critical respiratory patient in the ICU with emphasis on hemodynamic monitoring and ventilator management. In addition, the students will experience respiratory care management of critically ill newborns and infants through rotations in the neonatal intensive care unit. No Lecture. Laboratory 24 hours. Prerequisites: RESP 2203, RESP 2323 and concurrent enrollment in RESP 1213, and RESP 2493.

RESP 2452 - NBRC Review
2 Credits
This course is designed to review all didactics and clinical materials relative to the discipline of respiratory care and prepare students for the National Board for Respiratory Care (NBRC) CRT and RRT examinations. Computerized practice exams will be utilized during the review. The NBRC, CRT, and RRT Self-Assessment examinations will be administered during this course. Lecture 2 hours. No Laboratory. Prerequisites: All previous respiratory care courses.

RESP 2493 - Respiratory Critical Care
3 Credits
A study of cardiopulmonary critical care procedures. Covers diverse topics such as: intensive care patient monitoring procedures, cardiopulmonary resuscitation, invasive pulmonary techniques, transport of the critically ill patient and hyperbaric respiratory care. Lecture 3 hours. No Laboratory. Prerequisites: RESP 2203, RESP 2323, and RESP 2563.

RESP 2563 - Cardiopulmonary Diagnostics
3 Credits
A study of advanced laboratory and clinical diagnostic procedures, including arterial blood gases, electrodes and quality control, hemodynamic calculations, non-invasive monitoring techniques, and advanced pulmonary function studies. Lecture 1 hour. Laboratory 2 hours. Prerequisites: RESP 1233, RESP 1353, and RESP 1443 with a grade of "C" or better.

RESP 2990 - Selected Topics in Respiratory Therapy
1-4 Credits
The study and/or analysis of a selected topic in Respiratory Care. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

ROBOTICS AND AUTOMATION TECHNOLOGY

(See Electronics Technology Program Course Descriptions)

RUSSIAN

RUSS 1001 - Russian for Communication I
1 Credit
A companion course to RUSS 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with RUSS 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: RUSS 1103 or approval of instructor.

RUSS 1031 - Russian Pronunciation
1 Credit
A beginning course in Russian with special emphasis on pronunciation. Lecture 1 hour. Self paced laboratory may be required. Prerequisite: RUSS 1103 or approval of instructor.

RUSS 1061 - Russian for Biblical Study
1 Credit
Introduction to Russian with special emphasis on vocabulary/structure for Bible study. Lecture 1 hour. Self-paced laboratory may be required.

RUSS 1103 - Russian I
3 Credits
A beginning course in understanding, speaking, reading, and writing Russian. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required.

RUSS 1201 - Russian for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Conducted in Russian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: RUSS 1103 or approval of instructor.

RUSS 1213 - Russian II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Russian. The second in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: RUSS 1103 or approval of instructor.

RUSS 1301 - Russian for Communication III
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Russian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: RUSS 1213 or approval of instructor.

RUSS 1313 - Russian III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Russian. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: RUSS 1213 or approval of instructor.

RUSS 1401 - Russian for Communication IV
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Russian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: RUSS 1313 or approval of instructor.

RUSS 1413 - Russian IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Russian. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: RUSS 1313 or approval of instructor.

RUSS 2033 - Russian Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Russian societies. Conducted in English. Lecture 3 hours. Self-paced laboratory may be required.

RUSS 2041 - Russian - Introduction to the Arts
1 Credit
An introduction to the Russian arts with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day Russian activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

RUSS 2071 - Russian History and Geography Introduction
1 Credit
A survey of Russian history and geography as it relates to modern day Russian societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

RUSS 2113 - Intermediate Russian I
3 Credits
An intermediate course in understanding, speaking, reading, and writing Russian. Taught in Russian. Lecture 3 hours. No Laboratory. Prerequisite: RUSS 1413 or approval of instructor.

RUSS 2121 - Intermediate Russian Communication
1 Credit
Practice in speaking Russian at the Intermediate level covering a wide range of subjects; i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in Russian. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: Russian 1413 or approval of instructor.

RUSS 2143 - Russian Civilization and Culture
3 Credits
Conversations and readings concerning Russian culture and civilization. Conducted in Russian. Lecture 3 hours. No Laboratory. Prerequisite: RUSS 2113 or approval of instructor.

RUSS 2213 - Intermediate Russian II
3 Credits
An intermediate course in understanding, speaking, reading, and writing Russian. Taught in Russian. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: RUSS 1413 or approval of instructor.

RUSS 2320 - International Work and/or Study Seminar
1-3 Credits
Practicum with an international firm and/or study abroad. Focus on application and enhancement of language skills (oral and written forms). Lecture and/or laboratory equivalent. Prerequisite: Approval of Dean of Global Education and Associate Dean before enrollment and in advance of work/ study abroad experience.

RUSS 2413 - Russian Translating
3 Credits
Translating skills course with focus on translating the written language of Russian to English with some English to Russian. Lecture 3 hours. Self- paced laboratory may be required. Prerequisite: RUSS 1413 or approval of instructor.

RUSS 2421 - Russian Culture Comparisons
1 Credit
Focus on the cultural aspects of the people of Russia. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

RUSS 2523 - Intermediate Russian Grammar and Composition
3 Credits
This course includes a thorough review of syntax and grammar and the development of composition skills. Conducted in Russian and English. Lecture 3 hours. Self-paced lab may be required. Prerequisite: RUSS 2213 or 18 hours of Russian or instructor approval.

RUSS 2990 - Selected Topics in Russian
1-4 Credits
The study and/or analysis of a selected topic in Russian. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

SIGN LANGUAGE
(See Interpreter Education Curriculum and Course Descriptions)

SMALL BUSINESS MANAGEMENT / ENTREPRENEURSHIP
(See Business Program and Business Course Descriptions)

SOCIAL WORK
(See Human Services Course Descriptions)

SOCIOLOGY

SOCI 0613 - Deaf Studies for the Deaf and Hard of Hearing
3 Credits
This course is designed for deaf and hard of hearing students. Course content will include units on Deaf Heritage, Deaf Culture, American Sign Language, identity, education, and social changes in our society that affect today's deaf and hard of hearing individuals. Lecture 3 hours. No Laboratory.

SOCI 1073 - Human Service Techniques
3 Credits
A supervised field experience for volunteers in the public school systems. Lecture 1 hour. Laboratory 4 hours. Prerequisite: Acceptance as volunteer in participating public school system.

SOCI 1113 - Introduction to Sociology (S)
3 Credits
This is a general survey of the field of Sociology. The course examines the basic concepts, theories and perspectives in sociology. Topics include the nature of society and the foundations of social life, along with such specialized areas as groups, culture, social class, social institutions and social change. Sociological concepts are used to help students to understand the social influences in everyday life. Lecture 3 hours. No Laboratory.

SOCI 1130 - Crisis Intervention and Experience
1-3 Credits
The study of crisis intervention including models of responding, counseling techniques and community resources. Crisis intervention specialization areas include mental illness, substance abuse, suicide, homelessness, grief, and violence. Course includes lecture plus a supervised practicum in an approved social services agency. Lecture 1 hour. Laboratory 1-4 hours. Prerequisite: PSYC 1113 or SOCI 1113.

SOCI 2013 - Marriage and Family (S)
3 Credits
Historical background of the family as a social institution and analysis of marriage and family, with special emphasis on contemporary American marriage and family. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113 or instructor approval.

SOCI 2043 - Juvenile Delinquency
3 Credits
A study of the nature, extent, and cause of juvenile delinquency. Primary emphasis is placed on the role of social and environmental factors in the origin of these activities. Also included are an examination of the nature of law as it pertains to delinquent behavior, both historically and in contemporary society, and the role of police, courts, and juvenile institutions in relation to these behaviors. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113.

SOCI 2053 - Social Psychology
3 Credits
A study of the psychological basis of social interaction and change that covers the following topics: conformity, social influence, social cognition, prosocial behavior, prejudice, group processes, interpersonal attraction, and aggression. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113.

SOCI 2113 - Social Problems in America
3 Credits
A systematic analysis of some of the major social problems of contemporary America. Lecture 3 hours. No Laboratory.

SOCI 2123 - Introduction to Cultural Anthropology
3 Credits
An introduction to the peoples of the world with emphasis upon nonliterate cultures. The course is designed to demonstrate the interrelationships of ethnology to anthropology and the social sciences, and to survey the various culture areas and culture types of the world. Lecture 3 hours. No Laboratory.

SOCI 2133 - Introduction to Deviant Behavior (S)
3 Credits
Description, analysis, and comparison of forms and sources of deviant behavior. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113 or PSYC 1113 or instructor approval.

SOCI 2143 - Minorities in America (S) (D)
3 Credits
An examination of the nature of inequality, the causes and consequences of prejudice and discrimination, and the varying patterns of majority-minority interactions in society. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113 or instructor approval.

SOCI 2173 - Religion and Society (S)
3 Credits
An introductory social scientific survey of religion viewed from the psychological, sociological, and anthropological perspectives. Patterns in the internal development of religious groups, as well as the relationships between religion and other social and cultural institutions will be examined. Lecture 3 hours. No Laboratory.

SOCI 2223 - Behavioral Statistics (S)
3 Credits
Application of descriptive and inferential analyses of data are major topics. Specific topics that are covered (but not limited to) are: central tendency, dispersion, the standard normal distribution, correlation, regression, probability theory, single-sample analyses, two-sample analyses, ANOVA and its variations, and a variety of nonparametric analyses. The student will be using the most current software available as a basis for these analyses. Lecture 3 hours. No Laboratory. Prerequisite: MATH 1513, and SOCI 1113 or instructor approval.

SOCI 2243 - Introduction to Social Work
3 Credits
Survey of the field of social work, introducing the major methods and representative agencies of social work. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113.

SOCI 2713 - Aging and Behavior (S)
3 Credits
In the later adult years, we recognize age related sequential changes. These are physiological, psychological, and sociological. This course attempts to describe these changes with an emphasis on optimal and satisfactory adaptations to them by the individual and by society. Lecture 3 hours. No Laboratory. Prerequisite: SOCI 1113 or instructor approval.

SOCI 2813 - Human Sexuality
3 Credits
Human sexuality is presented as an ever-varying constant of the entire life span. Human sexuality involves biological, sociological, psychological, and behavioral components influenced by feelings, attitudes, and social institutions which make sexuality a unique experience. Lecture 3 hours. No Laboratory. Prerequisite: PSYC 1113 or SOCI 1113.

SOCI 2990 - Selected Topics in Sociology
1-4 Credits
The study and/or analysis of a selected topic in Sociology. May be repeated with a different topic. Lecture 14 hours. No Laboratory.

SPANISH

SPAN 1001- Spanish for Communication
1 Credit
A companion course to SPAN 1103 with emphasis on speaking and comprehension skills. Recommended that it be taken simultaneously with SPAN 1103 or after. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: SPAN 1103 or approval of instructor.

SPAN 1031 - Spanish Pronunciation
1 Credit
A beginning course in Spanish with special emphasis on pronunciation and the oral skills. May be taken simultaneously with SPAN 1103. Lecture 1 hour. No Laboratory. Prerequisite: SPAN 1103 or approval of Instructor.

SPAN 1061- Spanish for Biblical Study
1 Credit
Introduction to Spanish with special emphasis on vocabulary/structure for Bible study. Lecture 1 hour. Self-paced laboratory may be required.

SPAN 1103 - Spanish I
3 Credits
A beginning course in understanding, speaking, reading, and writing Spanish. The first in a sequence of related courses. Lecture 3 hours. Self-paced laboratory is required.

SPAN 1201 - Spanish for Communication II
1 Credit
Continued instruction in basic language concepts and beginning conversational skills. Conducted in Spanish. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: SPAN 1103 or approval of instructor.

SPAN 1213 - Spanish II
3 Credits
Continued instruction in understanding, speaking, reading, and writing Spanish. The second in a sequence of related courses. Lecture 3 hours. Self-paced laboratory is required. Prerequisite: SPAN 1103 or approval of instructor.

SPAN 1301 - Spanish for Communication III
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Spanish. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: SPAN 1213 or approval of instructor.

SPAN 1313 - Spanish III
3 Credits
Continued instruction in understanding, speaking, reading, and writing Spanish. The third in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: SPAN 1213 or approval of instructor.

SPAN 1401- Spanish for Communication IV
1 Credit
Continued instruction to develop oral fluency and conversational skills. Conducted in Spanish. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: SPAN 1313 or approval of instructor.

SPAN 1413 - Spanish IV
3 Credits
Continued instruction in understanding, speaking, reading, and writing Spanish. The fourth in a sequence of related courses. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: SPAN 1313 or approval of instructor.

SPAN 2033 - Spanish Literature in Translation
3 Credits
Readings of literary works in translation selected to increase the student's knowledge of Hispanic societies. Conducted in English. Lecture 3 hours. Self-paced laboratory may be required.

SPAN 2041 - Spanish - Introduction to the Arts
1 Credit
An introduction to the arts of Spanish-speaking countries with an attempt to develop an aesthetic awareness and an understanding of the role that the arts play in modern day Spanish activities. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

SPAN 2071 - Spanish-Mexican History and Geography Introduction
1 Credit
A survey of Mexican history and geography as it relates to modern day Mexican societies and language with an awareness of the relationship between the physical, political, and linguistic regions. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required.

SPAN 2113 - Intermediate Spanish I
3 Credits
An intermediate course in understanding, speaking, reading, and writing Spanish. Taught in Spanish. Lecture 3 hours. No Laboratory. Prerequisite: SPAN 1413 or approval of instructor.

SPAN 2121 - Intermediate Spanish Communication
1 Credit
Practice in speaking Spanish at the intermediate level covering a wide range of subjects; i.e., everyday language, intermediate literature samples, other publications, and current events. Conducted in Spanish. Lecture 1 hour. Self-paced laboratory may be required. Prerequisite: SPAN 2113 or approval of instructor.

SPAN 2143 - Latin American Civilization and Culture
3 Credits
Conversations and readings concerning Hispanic culture and civilization. Conducted in Spanish. Lecture 3 hours. No Laboratory. Prerequisite: SPAN 2113 or approval of instructor.

SPAN 2213 - Intermediate Spanish II
3 Credits
An intermediate course in understanding, speaking, reading, and writing Spanish. Taught in Spanish. Lecture 3 hours. No Laboratory. Prerequisite: SPAN 1413 or approval of instructor.

SPAN 2263 - Intermediate Spanish Literature
3 Credits
Development of reading skills in the target language using intermediate level literary texts. Conducted in Spanish. Lecture 3 hours. No Laboratory. Prerequisite: SPAN 2113 or approval of instructor.

SPAN 2320 - International Work and/or Study Seminar
1-3 Credits
Practicum with an international firm and/or study abroad. Focus on application and enhancement of language skills (oral and written forms). Lecture and/or laboratory equivalent. Prerequisite: Permission of Dean of Global Education and Associate Dean before enrollment and in advance of work/ study abroad experience.

SPAN 2330 - Spanish International Seminar and/or Field Studies
1-3 Credits
This course is designed to provide an on-site experience in the selected Spanish speaking country. Includes lectures, readings, oral interactions, and written reports. All or a portion of instruction and activities are conducted at the international site. Focus on language (oral and written forms) and culture development. Prerequisite: Permission of Dean of Global Education and Associate Dean before enrollment and in advance of in-country experience.

SPAN 2413 - Translating Spanish to English
3 Credits
This is a translating skills course with focus on translating the written language of Spanish to English. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: SPAN 2113 or proficiency certification.

SPAN 2421 - Spanish Culture Comparisons
1 Credit
Focus on the cultural aspects of the Hispanic people. Includes a comparison with the American culture as well as other culture groups. Conducted in English. Lecture 1 hour. Self-paced laboratory may be required. No Prerequisite.

SPAN 2443 - Interpreting Spanish to English
3 Credits
Student will be given opportunities to develop oral interpreting skills for escort, consecutive, simultaneous and court interpreting. Participants need to have advanced fluency in English and Spanish. Prerequisite: SPAN 2113 or certification of skill level through TCC proficiency Certification exam. Lecture 3 hours No laboratory.

SPAN 2453 - Interpreting English to Spanish
3 Credits
Students will be given opportunities to develop oral interpreting skills for escort, consecutive, simultaneous and court interpreting. Participants need to have advanced fluency in Spanish. Prerequisite: SPAN 2213 or certification of skill level through TCC Proficiency Certification exam. Lecture 3 hours. No laboratory.

SPAN 2463 - Courtroom Interpreting Skills Introduction
3 Credits
An aid to developing interpreting skills, this course will address consecutive, simultaneous and sight interpretation. It will also cover the interpreter's role in and out of court and include an on-site visit to a courtroom. Lecture 3 hours. On-site lab required. Prerequisite: Oral fluency in English and native/near-native fluency in Spanish, SPAN 2443 & SPAN 2453 or equivalent or instructor approval.

SPAN 2473 - Medical Interpreting Skills Introduction
3 Credits
This course will address the attitudinal differences between the Latino and Anglo-American cultures and how the affect health care decisions. It will increase vocabulary needed to interpret for Spanish-speaking patients by using vocabulary related to illness and symptoms, necessary medical language, and cultural cues. Lecture 3 hours. On-site lab required. Prerequisite: Oral fluency in English and native/near-native fluency in Spanish, SPAN 2443 & SPAN 2453 or equivalent or instructor approval.

SPAN 2523 - Intermediate Spanish Grammar and Composition
3 Credits
This course includes a thorough review of syntax and grammar and the development of composition skills. Conducted in Spanish and English. Lecture 3 hours. Self-paced lab may be required. Prerequisite: SPAN 2113 or 18 hours of Spanish or proficiency certification.

SPAN 2533 - Advanced Spanish Conversation
3 Credits
This course is intended for students who have studied Spanish structure through the intermediate level and have gained a basic oral fluency and proficiency. Class activities will focus on acquiring sufficient speaking skills to interact with native speakers and the use of Spanish as the main language of communication without the aid of an interpreter. Conducted in Spanish. Lecture 3 hours. Self-paced lab may be required. Prerequisite SPAN 2213 or 18 hours of Spanish.

SPAN 2543 - Translating English to Spanish
3 Credits
This is a translating skills course with focus on translating the written language of English to Spanish. Lecture 3 hours. Self-paced laboratory may be required. Prerequisite: SPAN 2113 or proficiency certification.

SPAN 2660 - Spanish Service Learning
1-3 Credits
This course is designed for active participation in community-based organizations that require the use of Spanish with clients. Students will have the opportunity to encounter real-life experiences that will afford them opportunities to expand their knowledge and develop critical thinking and problem solving skills. The intention of this approach is to place an emphasis on diversity and pluralism that lends itself to student empowerment by developing camaraderie among students, faculty, and the community. The Service Learning experience will be reflected in written class assignments for journals and compositions. Conducted in Spanish and English. Lecture 1-3 hours. No Laboratory. Prerequisite: instructor approval.

SPAN 2773 - Spanish for Native Speakers
3 Credits
This course addresses cultural misconceptions or confusion concerning cross-cultural leaning which may not portray either culture accurately or misrepresent and oversimplify interactions. Special emphasis is given to writing and reading and to certain grammatical structures that tend to present difficulties to native speakers. Lecture 3 hours. Self-paced laboratory may be required.

SPAN 2990 - Selected Topics in Spanish
1-4 Credits
The study and/or analysis of a selected topic in Spanish. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

SPEECH

SPCH 1013 - Fundamentals of Listening
3 Credits
This course is designed to teach fundamental listening techniques and to improve listening skills through a combination of lecture and practical experiences. Actual listening situations will be provided which center on listening experiences commonly encountered in business professions, educational fields, and numerous occupational areas. Lecture 3 hours. No Laboratory.

SPCH 1113 - Speech Communication I
3 Credits
An introductory course in oral communication, emphasis is on improving applied communication skills. Special attention is given to critical thinking skills and the anatomy of the communication process: audience analysis, research, organization, logic, ethical use of evidence, delivery, and listening. Required for B.A. and B.S. degrees in most professional majors; i.e. Business, Law, Education, Medical, English. Lecture 3 hours. No Laboratory.

SPCH 1151 - Effective Communications
1 Credit
This course is designed to study the principles and the theories of communication in one-on-one and group settings. Emphasis will be on increasing student awareness of verbal and nonverbal communication behavior. Focus will be directed toward establishing improved communication skills. Lecture 1 hour. No Laboratory.

SPCH 2053 - Intercultural Communication
(H,I) 3 Credits
An introductory course in intercultural communication: the study of communication among people from different cultures. Emphasis is on increasing students' understanding of cultural theories of communication and of cultural issues that affect communication effectiveness especially in educational and business contexts. Lecture 3 hours. No Laboratory.

SPCH 2073 - Oral Interpretation
3 Credits
A beginning course in oral performance of dramatic literature including selection, analysis, rehearsal, and performance of poetry, prose, and drama. Lecture 3 hours. No Laboratory.

SPCH 2093 - Business and Professional Speech
3 Credits
A study of the principles and theory of business and professional communication. Specific emphasis will be given to the organization of business presentations, sales and persuasive presentations, small group organizational presentations, interviewing strategies, specialty speeches, and concepts of parliamentary procedure. Lecture 3 hours. No Laboratory. Prerequisite: SPCH 1113 or instructor approval.

SPCH 2103 - Interpersonal Communication
3 Credits
A study of the principles and theories of communication in dyadic (one-to-one) and human interactive situations. Emphasis will be on increasing student awareness of verbal and nonverbal communication behavior. Focus will be directed toward improving interpersonal communication skills. Lecture 3 hours. No Laboratory. SPCH 2103 may not be taken in lieu of SPCH 1113.

SPCH 2203 - Phonetics
3 Credits
The analysis and description of speech at the segmental and suprasegmental levels. Development of students' perceptual and analytic skills in speech sound production. Practice using the International Phonetic Alphabet (IPA) for broad and narrow transcription. Overview of the speech production mechanism and process. Lecture 3 hours. Requires sophomore standing or instructor approval.

SPCH 2313 - Voice and Diction I
3 Credits
A study of the human voice process by which speech sounds are produced and articulated. Course is designed to improve voice and articulation through a program of exercises and study, to include preliminary examination of the I.P.A., improvement of voice usage, regionalism, and diction. Lecture 3 hours. No Laboratory.

SPCH 2323 - Voice and Diction II
3 Credits
A continuing study of the human voice process by which speech sounds are produced and articulated. The student will demonstrate a working knowledge of the phonetic alphabet as it applies to well-spoken English. This works to strengthen the students' use of standard stage speech and is appropriate training for other professional speakers. Also the student will learn to apply phonetics to the creation of accurate stage dialects. Lecture 3 hours. No Laboratory. Prerequisite SPCH/ THEA 2313 or permission of the instructor.

SPCH 2333 - Forensics
3 Credits
The class focuses on forensic techniques including facial and vocal expression, characterization, and script analysis. Participation includes preparation, practice, and class performance. Students will perform various individual events including oral interpretation events (dramatic and humorous interpretation, interpretation of prose and poetry, and duo interpretation) and platform speaking events (persuasive and informative speaking, impromptu and extemporaneous speaking, after dinner speaking, communication analysis and debate). This is available for credit to both majors and non-majors. SPCH 2333 may not be taken in lieu of SPCH 1113. Lecture 3 hours. No Laboratory.

SPCH 2343 - Forensics Performance Competition
3 Credits
This course includes preparation, practice, and travel to intercollegiate forensic tournaments. Students will compete in various individual events including platform speaking events (persuasive and informative speaking, impromptu and extemporaneous speaking, after dinner speaking, and communication analysis), and oral interpretation events (dramatic and humorous interpretation, interpretation of prose and poetry, duo interpretation and debate). The TCC Forensic Team will travel to regional competition throughout the year. This is available for credit to both majors and non-majors. SPCH 2343 may not be taken in lieu of SPCH 1113. Lecture 3 hours. No Laboratory.

SPCH 2351 - Forensics Competition Practicum
1 Credit
May be repeated; maximum credit six hours. This class is open to all students who will be competing with the forensic team. This class will develop performance materials (speeches, interpretive cuttings and debate) for use in speech contests. Practice sessions with critiques of performances are given. SPCH 2351 may not be taken in lieu of SPCH 1113. Lecture 1 hour. No Laboratory.

SPCH 2990 - Selected Topics in Speech
1-4 Credits
The study and/or analysis of a selected topic in Speech. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

STAGE PRODUCTION TECHNOLOGY
(See Theatre)

SURGICAL TECHNOLOGY

SRGT 1102 - Surgical Technology Orientation
2 Credits
This course serves as an orientation to the program's philosophy, rules, and regulations. Students should be able to identify and implement basic and workplace safety concepts, and occupational hazards. Lecture 2 hours. No Laboratory.

SRGT 1112 - Surgical Technology Introduction
2 Credits
This course provides orientations to the operating room environment, specialized equipment and furniture, and is an introduction to the professional responsibilities of the surgical technology profession. The essentials of medical legal aspects, ethical conduct and interpersonal communication skills are studied. Lecture 2 hours. No Laboratory

SRGT 1124 - Surgical Case Management
4 Credits
This course is an introduction to the specialized supplies and equipment that are an integral part of the surgical environment. Students are required to perform all lab skills at one-hundred percent (100%) proficiency. Lecture 2 hours. Laboratory 8 hours. Prerequisite: SRGT 1112.

SRGT 1211 - Medical Terminology
1 Credit
An introduction to the foundations of medical terminology including root words, suffixes, prefixes, word elements, and word terminals. Emphasis is placed on correct pronunciation and spelling. Lecture 1 hour. No Laboratory.

SRGT 1222 - Microbiology and Wound Healing
2 Credits
Provides a background in microbiology enabling the student to achieve a better appreciation of the relationship between micro-organisms and the maintenance of health and/or prevention of disease. The course of study includes a general introduction to microbiology, the infectious process, body defenses against disease and wound healing. Lecture 2 hours. No Laboratory. Prerequisite: SRT1211.

SRGT 1324 - Anatomy and Physiology
4 Credits
This course is designed to present concepts from the biological sciences of human body structure and function. Microbiology and the physical science of chemistry are also introduced. Vocabulary included in the content of the course is designed to provide an opportunity for students to understand and use medical terminology. Lecture 4 hours. Prerequisite: SRGT 1222.

SRGT 1333 - Aseptic Technique and Skills
3 Credits
This course is an introduction to the principles and practices of aseptic technique, scrubbing, gowning, gloving, sterilization and disinfection. Students are required to perform all lab skills at one-hundred percent (100%) proficiency. Lecture 2 hours. Laboratory 2 hours. Prerequisite: SRGT 1324.

SRGT 1341 - Surgical Technology Clinical Practicum I
1 Credit
Provides clinical observation experience in the surgical environment. Emphasis is on major surgical procedures. Professional practice insurance required. Laboratory 4 hours. Prerequisites: SRGT 2313 and SRGT 1124.

SRGT 2221 - Surgical Pharmacology
1 Credit
This course familiarizes the student with the various drugs used in surgery and the mode of administration. The student should also attain an understanding of basic anesthesia equipment, drugs, and methods, in order to function effectively in the surgical setting, and to efficiently assist the anesthesia personnel if required. Lecture 1 hour. Prerequisite: SRGT 1324

SRGT 2312 - Surgical Patient Care and Skills
2 Credits
This course provides the student with an awareness of the total needs of the surgical patient (physical, emotional, social, spiritual). It enables the student to develop an understanding of the preoperative preparation, techniques used to safely transport patients, the mechanics of positioning, prepping and draping the patient for surgery, proper care of surgical specimens, as well as, the responsibilities of the surgical personnel in providing this care. Students are required to perform all lab skills at one-hundred percent (100%) proficiency. Lecture 1 hour. Laboratory 4 hours. Prerequisite: SRGT 1333.

SRGT 2323 - Surgical Procedures I
3 Credits
Introduction to operative routine. Included is the study of special instruments and equipment necessary to provide optimum intraoperative care. Also provided is a basic understanding of the diagnosis, common complications, operative pathology, and regional anatomy. Lecture 3 hours. No Laboratory. Prerequisite: SRGT 2221.

SRGT 2332 - Surgical Technology Clinical Practicum II
2 Credits
Provides clinical experience in the surgical environment. The student assumes more responsibility as the first scrub person, handling instruments, supplies, and equipment necessary during a surgical procedure. Emphasis is on major surgical procedures. Professional practice insurance required. Clinical Laboratory 8 hours. Prerequisite: SRGT 1341

SRGT 2434 - Surgical Procedures II
4 Credits
A continuous study of operative procedures for surgical specialties. Included is the study of special instruments and equipment necessary to provide optimum intraoperative care. Also provided is a basic understanding of the diagnosis, common complications, operative pathology, and regional anatomy. Lecture 4 hours. No Laboratory. Prerequisite: SRGT 2323.

SRGT 2442 - Surgical Technology Clinical Practicum III
2 Credits
Provides advanced clinical experience in the surgical environment. The student assumes more responsibility, handling instruments, supplies, and equipment necessary during a surgical procedure. Emphasis is on major surgical procedures. Professional practice insurance required. Clinical Laboratory 8 hours. Prerequisite: SRGT 2332.

SURVEYING TECHNOLOGY
(See Civil Engineering Technology program)

SURV 1324 - Surveying I
4 Credits
Course covers fundamental concepts of survey techniques and uses of surveying equipment. Includes basic mathematical concepts, field notes, distance measuring, traversing and traverse computations, construction surveys, leveling and use of the level, and horizontal and vertical angle measurement with calculations. GPS is introduced. Students complete field exercises with basic surveying equipment. Lecture 3 hours. Laboratory 2 hours. Prerequisites: MATH 1454 or MATH 1715 or MATH 1513 and MATH 1613.

SURV 2262 - Professional ENGR/SURV Ethics
2 Credits
This course covers an introduction to contemporary ethics and provides an overview of professional issues dealing with responsibility and professionalism. It delves into everyday problems encountered by professional land surveyors and engineers. Lecture 2 hours. No Laboratory.

SURV 2334 - Surveying II
4 Credits
Classes and laboratories include use of total station, GPS and data collector instruments. Measurements and calculations are performed in the study of boundary surveys, route locations, topographic surveys, layout and calculations of simple compound, vertical, reverse, parabolic, spiral curves, astronomical observations, and earth work volumes. Lecture 3 hours. Laboratory 2 hours. Prerequisite: SURV 1324 or equivalent.

SURV 2344 - Introduction to Geographic Information Systems
4 Credits
An introductory course designed to acquaint students with the theory and uses of Geographic Information Systems to capture, store, query, and analyze data referenced to a location on the Earth's surface. Topics include history and applications, map projections, coordinate systems, data sources, structures, and models, along with methods of data acquisition, management, manipulation, analysis, and visualization. The lab component will provide students hands-on experiences with ArcGIS software. Lecture 3 hours. Laboratory 3 hours.

SURV 2363 - Land Law I
3 Credits
Classes study history of land surveying and law development as it applies to Oklahoma. It includes legal boundaries, title to the land, public land surveys, and general principles for subdivisions of a section. Lecture 3 hours. No Laboratory. Prerequisite: None.

SURV 2373 - Land Law II
3 Credits
This is an intensive study of the basic principles of land, boundary agreement, boundaries adjacent to bodies of water, environmentally sensitive areas, highway and street right-of-ways, and deeds. Discussion includes both Oklahoma and Federal law applications. Lecture 3 hours. No Laboratory. Prerequisite: SURV 2363.

SURV 2393 - Surveying Exam Topics
3 Credits
This course is designed to cover topics from the Fundamental of Surveying (FS) examination that are not included in other surveying courses. These topics may include geographic information systems, advanced survey computations, photo/image data acquisition and reduction and other topics from the FS examination. Lecture 3 hours. No Laboratory. Prerequisite: Completion of, or concurrent enrollment in, SURV 2334 and SURV 2373.

SURV 2990 - Selected Topics of Surveying Technology
1-4 Credits
The study and/or analysis of a selected topic in Surveying Technology. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

TEACHER ASSISTANT
(See Child Development Program and Course Descriptions)

TEACHING

TCHG 2990 - Selected Topics in Education
1-4 Credits
The study and/or analysis of a selected topic in education. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

THEATRE

THEA 1033 - Stagecraft I
3 Credits
A study of the technical skills and practical application of techniques in the constructing, painting, handling, and lighting of scenery. Student may be required to lift 50 lbs, work with power tools and climb ladders. Lecture 2 hours. Laboratory 2 hours.

THEA 1043 - Stagecraft II
3 Credits
Exploration of the technical aspects of play production with emphasis on individual projects in design and construction. Student is required to lift 50 lbs, work with power tools and climb ladders. Lecture 2 hours. Laboratory 2 hours. Prerequisite: THEA 1033 and THEA 1093 or instructor approval.

THEA 1053 - Acting I
3 Credits
This course establishes the fundamentals of stage acting by exploring the three tools of the actor that include imagination, voice and body. Course work includes theory, methodology, terminology, character analysis, and presentation of scenes and monologues. Students are required to participate in outside homework assignments, including production activities in the theatre department. Lecture 3 hours. No Laboratory.

THEA 1061 - Tulsa Community College Community Theatre
1 Credit
The rehearsal and performance of a theatre production. May be repeated. Participation is open to TCC students and any member of the community. No Lecture. No Laboratory.

THEA 1073 - Entertainment Electrical Fundamentals
3 Credits
This course provides the foundations of electrical theory including atomic theory, resistors, safety, basic AC circuits, single and three phase circuits. Students will be required to participate in outside projects. Lecture 3 hours. Self-paced Laboratory.

THEA 1081 - Theatre Practice I
1 Credit
This course is a freshman level practical experience for each component of the departmental season in performance or production. Course may be repeated. Participation is required for majors and open to all students. No Lecture. Laboratory 3 hours.

THE1093 - Introduction to Theatre (H)
3 Credits
A survey of theatre history, literature, and practices from the Greek period to the contemporary, relating the relevance of the theatre as a social force in and a reflection of the human conditions since ancient times. Students will be required to participate in outside homework assignments that include production activities in the theatre department. Lecture 3 hours. Laboratory TBA.

THEA 1113 - Theatre Graphics
3 Credits
From conception to three dimensions, students develop the modes of visual communication through this introduction to drafting, rendering, and model building skills. Lecture 3 hours. No Laboratory.

THEA 1123 - Introduction to Sound Reinforcement
3 Credits
This course is an introduction to the application of the principles of stage sound. Training in the use and maintenance of sound equipment, recording/editing sound effects tapes and training in electronic sound reinforcement. Student must be able to lift 50+ lbs. Lecture 2 hours. Laboratory 2 hours.

THEA 1133 - Costume Techniques I
3 Credits
This course is a study of costume construction techniques. The course will cover proper measuring skills, various construction techniques, and understanding of fabrics, costume cutting skills, and dyeing. Additional Laboratory fee is required. Lecture 2 hours. Laboratory 2 hours.

THEA 1143 - Introduction to Rigging and Fly Systems
3 Credits
An introduction to rigging for the entertainment industry. Training for the use of counter-weight systems, hemp systems, and simple rigging. This course will emphasize safety and will examine OSHA, ESTA, LATSE and USITT standards and regulations. Student must be able to lift 50+ lbs, climb a straight ladder 66' to the grid and not have a fear of heights. Lecture 2 hours. Laboratory 2 hours.

THEA 1163 - Welding I
3 Credits
This course covers the basics of metal and welding techniques for the entertainment industry. Student must be able to lift 50+lbs and work with power tools and welders.Lecture 3 hours. Self-Paced Laboratory. Prerequisite: THEA 1033.

THEA 1240 - Private Acting
1-2 Credits
Student works one-on-one with an acting coach to help improve basic acting techniques including character analysis, movement and vocal interpretations in classes, auditions or performances. An additional laboratory fee is required. Requires instructor approval.

1 credit hour private acting instruction requires a weekly 30-minute lesson on average; 1.5 hours minimum weekly work with material in preparation for lessons recommended. No Lecture. Laboratory 2 hours.

2 credit hours private acting instruction requires a weekly 1-hour lesson on average; 3 hours minimum weekly work with material in preparation for lessons recommended. No lecture. Laboratory 4 hours.

THEA 1343 - Stage Movement I
3 Credits
This course offers a beginning study of the physical component of acting and is designed to give the actor an understanding of the use of the body as an expressive instrument through development of flexibility, strength, and coordination. Explore an integration of breath work, body awareness, and imagination in relation to the physical self, neutral alignment, physical creativity, and relaxation. Lecture 3 hours. Laboratory 1 hour.

THEA 1353 - Stage Movement II
3 Credits
This course strengthens the basic skills developed in Stage Movement I as it relates to the process of acting through independent work, consideration of environmental factors, and relating to others. The focus concentrates on creating a character, physicalizing text and establishing an awareness of kinesthetic movement patterns. Lecture 3 hours. Laboratory 1 hour. Prerequisite: THEA 1093 and THEA 1343 or instructor approval.

THEA 1411 - Musical Theatre Dance for Performance I
1 Credit
Introduction to the art of Musical Theatre dance. This course is designed to complement a theatre program or enhance other degree disciplines. Coursework consists of Musical Theatre dance terminology, Musical Theatre dance steps, rehearsed choreography, and an introduction to important people in Musical Theatre dance history. An end of semester performance is required. Lecture 1 hour. Laboratory 1 hour.

THEA 1421 - Ballet for Performance I
1 Credit
Introduction to the art of Ballet dance. This course is designed to complement a theatre program or enhance other degree disciplines. Coursework consists of Ballet terminology, proper body alignment, execution of Ballet steps, rehearsed choreography, and an introduction to important people in Ballet history. An end of semester performance is required. Lecture 1 hour. Laboratory 1 hour.

THEA 1431 - Jazz Dance and Movement for Performance I
1 Credit
Introduction to the art of Jazz dance. This course is designed to complement a theatre program or enhance other degree disciplines. Coursework consists of Jazz terminology, execution of Jazz steps, rehearsed choreography, and an introduction to important people in Jazz dance history. An end of semester performance is required. Lecture 1 hour. Laboratory 1 hour.

THEA 1441 - Modern Dance for Performance I
1 Credit
Introduction to the art of Modern dance. This course is designed to complement a theatre program or enhance other degree disciplines. Coursework consists of Modern dance terminology, execution of Modern dance steps, rehearsed choreography, and an introduction to important people in Modern dance history. An end of semester performance is required. Lecture 1 hour. Laboratory 1 hour.

THEA 1562 - Musical Theatre
2 Credits
A course designed to develop the music and theatric talents of students who either are interested in a degree in Musical Theatre or simply want to broaden their individual experiences on the stage. Course work consists of learning, blocking and presenting scenes from the major genres in musical theatre. Historical and cultural perspectives on individual works will be included in abbreviated lecture form. Prerequisite: Requires voice, dance and/or theatre experience. No Lecture. Laboratory 4 hours.

THEA 2013 - Make-Up I
3 Credits
Study of principles and techniques of make-up, and practice application. Lecture 3 hours. No Laboratory.

THEA 2043 - Costume History
3 Credits
This course informs the student of the historical aspects of costuming in society and how this costuming can be used on the stage. Additional Laboratory fee is required. Lecture 3 hours. No Laboratory. Prerequisite: THEA 1093 or instructor approval.

THEA 2053 - Acting II
3 Credits
This course builds on the basic skills developed in Acting I and further hones the students' dexterity in applying specific techniques to the acting craft. Students are required to participate in outside homework assignments including production activities in the theatre department. This course may be repeated; maximum credit 9 hours. Lecture 3 hours. No Laboratory. Prerequisite: THEA 1053 and THEA 1093 or instructor approval.

THEA 2063 - Fundamentals of Stage Lighting
3 Credits
This course provides students with a fundamental approach to stage lighting, experience in handling lighting equipment, and theories of lighting as they apply to the stage production. Student must be able to lift 50+ lbs., climb ladders and not have a fear of heights. Lecture 2 hours. Laboratory 2 hours.

THEA 2073 - Introduction to Production Design
3 Credits
This course informs the student of the three design areas in theatre production and the basic theories behind the design techniques. Use of lecture and practical lab work. Lecture 3 hours. Self-Paced Laboratory.

THEA 2081 - Theatre Practice II
1 Credit
This course is a sophomore level practical experience for each component of the departmental season in performance or production. Course may be repeated. Participation is required for majors and open to all students. No Lecture. Laboratory 3 hours.

THEA 2093 - Make-Up II
3 Credits
The most effective method of creating most three-dimensional make-up additions for the artist or actor is the use of molded prosthetic pieces. After developing your skills in Theatre Make-Up I and the use of the same Corson text, delve deeper into the art of facial molds, special effects, and prosthetic make-up for television and stage. Lecture 3 hours. No Laboratory. Prerequisites: THEA 1093 and THEA 2013 or instructor approval.

THEA 2123 - Theatrical Health and Safety
3 Credits
This course addresses the unique health and safety problems that entertainment technicians face every day. Paints, makeup, pigment, dyes, plastics, solvents, woodworking, and other potential hazards will be discussed to inform the student how to work safely in this environment. Lecture 3 hours. No Laboratory. Prerequisite: THEA 1033.

THEA 2133 - Advanced Lighting for the Stage
3 Credits
This course is a continuation of Fundamentals of Stage Lighting. It will examine control and instrumentation of intelligent lighting systems and will place more emphasis on design. Work outside of class on productions is required. Qualified students will be given design assignments. Student must be able to lift 50+ lbs., climb ladders and not have a fear of heights. Additional Laboratory fee is required. Lecture 2 hours. Laboratory 2 hours. Prerequisite: THEA 1093 and THEA 2063 or instructor approval.

THEA 2143 - Costume Techniques II
3 Credits
This course will cover the costuming process from patterning to the completion of a wearable period costume complete with footwear, headgear and accessories. An additional laboratory fee is required. Lecture 2 hours. Laboratory 2 hours. Prerequisite: THEA 1133 or pass a sewing skills proficiency test.

THEA 2153 - Advanced Sound Reinforcement
3 Credits
This course covers power requirements, fly systems, sight line fundamentals, special effects, monitor systems, stage wiring, and other "tricks of the trade." Student must be able to lift 50+lbs. Additional Laboratory fee is required. Lecture 2 hours. Laboratory 2 hours. Prerequisite: THEA 1093 and THEA 1123 or instructor approval.

THEA 2163 - Welding II
3 Credits
This course is a continuation of Welding I with more individualized projects and further exploration of materials. Student must be able to lift 50+ lbs. and work with power tools. Lecture 3 hours. Self-paced Laboratory. Prerequisites: THEA 1033 and THEA 1163.

THEA 2173 - Arena Rigging
3 Credits
A continuation of rigging, counter weight systems, and hemp systems. This course will also examine chain motor systems and wire rope winch systems with an emphasis on safety. This course will also take a look at flying people with an eye to the ESTA report. As in the first course OSHA, LATSE, ESTA, and USITT standards will be taught. Student must be able to lift 75+lbs., climb straight ladders 66' to grid and not have a fear of heights. Lecture 2 hours. Laboratory 2 hours. Prerequisite: THEA 1143.

THEA 2213 - Summer Theatre
3 Credits
Workshop in all areas of theatrical production. Emphasis on acting, stagecraft, lighting, make-up, and publicity. Participation in TCC Community Theatre production may be required. Lecture 3 hours. No Laboratory.

THEA 2233 - Entertainment Computer-Aided Design
3 Credits
Basic introduction to computer-aided design drafting. Hands-on experience to include basic mechanical drafting terminology and techniques. An introduction to user specific third party software as related to drafting and designing of scenery for productions. Additional Laboratory fee is required. Lecture 2 hours. Laboratory 2 hours. Prerequisite: THEA 1093 and 1113 or instructor approval.

THEA 2253 - Stage Management
3 Credits
Emphasis on interpersonal skills in people management through the rehearsal and performance process and theatre decorum including union regulations for professional and artistic insight into the role of stage manager. Lecture 3 hours. No laboratory. Prerequisite: THEA 1093 or instructor approval.

THEA 2273 - Stage Production Technology Internship
3 Credits
Students work in a qualifying occupational setting where they receive practical training and experience toward their occupational objectives. Laboratory 6 hours. No lecture. Requires instructor approval.

THEA 2313 - Voice and Diction I
3 Credits
This course develops the actors voice for effective communication and performing for the stage through an awareness of inner space, alignment, breath, resonance, articulation, expressive intonation, awareness of General American Dialect, and a beginning look at Phonetics and the IPA (International Phonetic Alphabet). Lecture 3 hours. Laboratory 1 hour.

THEA 2323 - Voice and Diction II
3 Credits
This course expands on the basic skills developed in Voice and Diction I to develop the actor's voice for effective communication in performing for the stage, creating a character while vocalizing the text, and a continued understanding of Phonetics and the IPA (International Phonetic Alphabet). Lecture 3 hours. Laboratory 1 hour. Prerequisite: THEA 1093 and THEA 2313 or instructor approval.

THEA 2333 - Improvisation for the Theatre
3 Credits
This course is designed to prepare students for using improvisational techniques in rehearsal and performance. We will explore the nature of intuition (intuitive knowledge) by freeing ourselves of all preconceptions, interpretations and assumptions relating to human behavior. Lecture 3 hours. No Laboratory.

THEA 2343 - Introduction to Costume Design
3 Credits
Basic theories, techniques, and procedures of costume design for stage, film, and television. Practical training in college productions. Additional Laboratory fee is required. Lecture 3 hours. No Laboratory.

THEA 2453 - Creative Writing: Scriptwriting I
3 Credits
This course teaches screenplay writing techniques. Attention is given to subject and character development. Students learn the basic components of plot development, scene building and screenplay formats. Lecture 3 hours. No Laboratory.

THEA 2463 - Creative Writing: Scriptwriting II
3 Credits
Advanced studies in concepts and techniques of scriptwriting, working toward completion of a work written specifically for a public reading by TCC acting students. Students receive individual attention as they conceive and develop their work, with an emphasis on characters, plot, theme and language. Lecture 3 hours. No Laboratory. Prerequisite: THEA 2453 or ENGL 2453.

THEA 2990 - Selected Topics in Theatre
1-4 Credits
The study and/or analysis of a selected topic in Theatre. May be repeated with a different topic. Lecture 1-4 hours. No Laboratory.

VETERINARY TECHNOLOGY

VETT 1125 - Veterinary Anatomy and Physiology
5 Credits
A comparative, systems approach to the study of mammalian life processes and the related body structures. Includes gross and microscopic study of selected organ systems from the cat, dog, horse and cow. Dissections are performed on fixed and fresh specimens. Examination of normal and abnormal structures histologically and pathologically. Emphasis will be placed on the use of applied anatomy and physiology. Includes a systematic study of word parts and their combinations to form terms used in veterinary medical practice. Lecture 4 hours. Laboratory 3 hours. Prerequisite: Admission to VT program or permission of Coordinator.

VETT 1132 - Introduction to Veterinary Technology
2 Credits
An introduction to the profession and practice of veterinary technology. The role of the technician within a veterinary health care team, professional opportunities, organizations and continuing education for graduate technicians. Economics, ethics, regulatory organizations, and laws governing technicians. Humane care practices, sanitation and prevention of zoonosis, animal behavior, pet loss-grief issues, and client relations. Lecture 2 hours. No laboratory.

VETT 1161 - Clinical Calculations for VT
1 Credit
An introduction to common calculations needed for veterinary nursing. Use of metric system and conversion of units, Apotecaries' equivalents and vocabulary. Preparation of solutions: strengths, procedures, and computations. Drug administration: calculating and measuring dosages and fluid rates. Lecture 1 hour. No Laboratory.

VETT 1183 - Principles of Small Animal Care
3 Credits
An introduction to management, husbandry, and basic veterinary care for small animal species, emphasizing the dog and cat. A survey of signs and treatments of commonly encountered diseases. Principles of basic dietary requirements, sanitation, handling and housing procedures. Techniques in restraint, taking of vital signs, administering medications, grooming and sample collection for basic laboratory tests. Additionally, each student will rotate sanitation and nursing care for resident Program animals. Lecture 2 hours. Laboratory 3 hours. Prerequisite: Admission to VT program or permission of Coordinator.

VETT 1193 - Principles of Large Animal Care
3 Credits
An introduction to the management, husbandry, and basic veterinary care for large animal species; including the horse, cow, pig, sheep, and goat. Principles of basic dietary requirements, sanitation, handling and housing of large animals. Techniques in restraint, taking of vital signs, administering medications, grooming and sample collection for basic laboratory tests. Additionally, each student will rotate sanitation and nursing care for resident Program animals. Lecture 2 hours. Laboratory 3 hours. Prerequisites: Admission to the VT Program or permission of Coordinator.

VETT 1223 - Veterinary Hospital Technology I
3 Credits
Anesthesiology is the emphasis of this course with intensive study and application of a wide range of anesthetics; including commonly used injectable and inhalant protocols. Surgical preparation and assistance, patient monitoring, postoperative procedures, parenteral fluid administration, blood transfusion, and many other nursing techniques will be practiced. Additionally each student will rotate sanitation and nursing care for resident Program animals. Lecture 2 hours. Laboratory 4 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 1234 - Clinical Pathology I
4 Credits
Introduction to laboratory procedures which will include: parasitology emphasis, fecal analysis, urinalysis, and hematology, including blood cell counts and blood cell identification. Lecture 3 hours. Laboratory 3 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 1263 - Veterinary Office and Computer Skills
3 Credits
Office management principles and procedures relevant to veterinary medicine are surveyed. Includes practical interpersonal communication and customer relations skills, professional correspondence, appointment scheduling, financial record keeping, and the orientation to and application of veterinary practice management software. Legal and ethical considerations regarding medical records and office organization are introduced. Hands-on microcomputer training will be provided. Lecture 2 hours. Laboratory 2 hours. Requires admission to VT program or Coordinator approval.

VETT 2126 - Practicum: Animal Clinics and Nursing
6 Credits
Practical veterinary technical skills development in an approved work site. Students must work a total of 384 hours directly under the supervision of a licensed veterinarian while applying skills acquired from previous academic preparation. The student, employer, and program coordinator will develop a written competency-based learning plan with specific learning objectives. Laboratory 24 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 2224 - Microbiology and Sanitation
4 Credits
Introduction to microorganisms. Consideration will be given primarily to pathogenic microorganisms related to veterinary medicine; including bacteria, viruses, fungi, and protozoa. Emphasis will be placed on sanitation, disinfectants, aseptic technique, sterilization techniques, zoonosis, and related public health concerns. Lecture 3 hours. Laboratory 3 hours. Prerequisite: All prior VT courses with a grade of "C" or better.

VETT 2234 - Clinical Pathology II
4 Credits
Continuation of VETT 1234 laboratory procedures which will include blood chemistry analysis, cytology, specialized blood testing techniques, as well as a review of parasitology, urinalysis, and hematology. Lecture 3 hours. Laboratory 3 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 2254 - Laboratory, Wild, and Exotic Animal Technology
4 Credits
Techniques required to assist the veterinarian in the care and treatment of laboratory animals, birds, exotic, and wild animals. Restraint and handling, identification, blood collection, medication, anesthesia, and specimen collection. Supervisory skills for laboratory animal research are covered. Additionally, each student will rotate sanitation and nursing care for resident Program animals. Lecture 3 hours. Laboratory 3 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 2313 - Veterinary Hospital Technology II
3 Credits
Administration of anesthetics, surgical assisting, and continued practice of techniques in radiology, bandaging, casting, intravenous and urinary catheterization, surgical preparations, postoperative procedures, as well as application of many other common nursing techniques will be practiced. Additionally, each student will rotate sanitation and nursing care for resident program animals. Lecture 2 hours. Laboratory 4 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 2333 - Veterinary Pharmacology
3 Credits
Basic principles of drug therapy in the veterinary practice are studied. Coverage of the major classes of drugs, drug interactions, delivery routes, dosage calculations, dispensary protocols and inventory control. Lecture 3 hours. No Laboratory. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 2352 - Radiology, Ultrasound and Diagnostic Imaging
2 Credits
Intensive study and practice in medical diagnostic imaging techniques. Includes radiographic exposure techniques, film processing, contrast radiography, and ultrasonography. Lecture 1 hour. Laboratory 3 hours. Prerequisites: All VT courses with a grade of "C" or better.

VETT 2364 - Large Animal Technology
4 Credits
Techniques required to assist the large animal or mixed practice veterinarian. Studies and applications will include the use of the horse, cow, pig, sheep, and goat. Practice of restraint, sampling techniques, anesthesiology, radiology, medication administration, and other nursing techniques. Additionally, each student will rotate sanitation and nursing care for resident Program animals. Lecture 2 hours. Laboratory 6 hours. Prerequisites: All prior VT courses with a grade of "C" or better.

VETT 2382 - Board Review for Veterinary Technicians
2 Credits
This course is designed to prepare veterinary technology students and graduate technicians for the National Veterinary Technician Examination (NVTE) and the Oklahoma State Veterinary Technician Examination. Lecture 2 hours. No Laboratory.

Tulsa Community College

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Campus Police
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International Language Center
.....MC 430A, Telephone: 918-595-7068

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Microcomputer Lab
.....MP 200, Telephone: 918-595-7146

Nursing Services
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Reading Lab
.....MC 536, Telephone: 918-595-7214

Science and Mathematics
.....MC 620, Telephone: 918-595-7334

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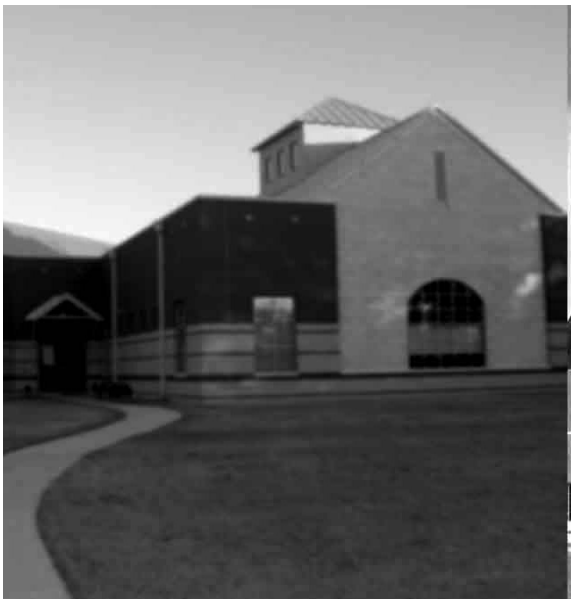

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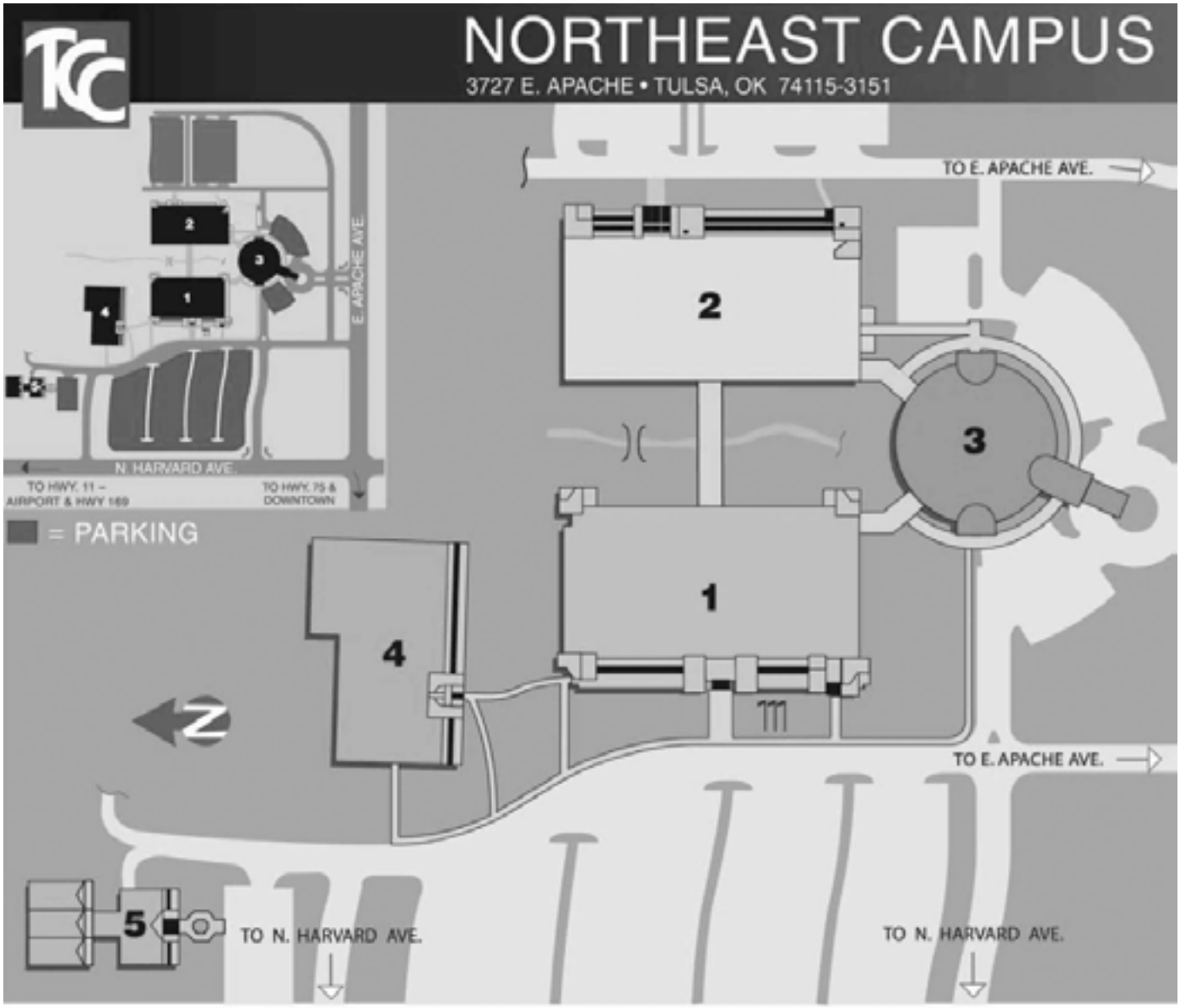
- Counseling and Testing
  - Advisement
  - Assessment
  - disAbled Student Resource Center
  - New Student Intake
- Bursar Services
- Distance Learning
- LRC
- Financial Aid and Scholarships

2. Alfred M. Philips Health Sciences Center
- Auditorium
- Dental Hygiene Clinic

3. Student Union
- Campus Cafe/Vending Services
- Campus Store
- Fitness/Wellness Center
- Student Activities Office



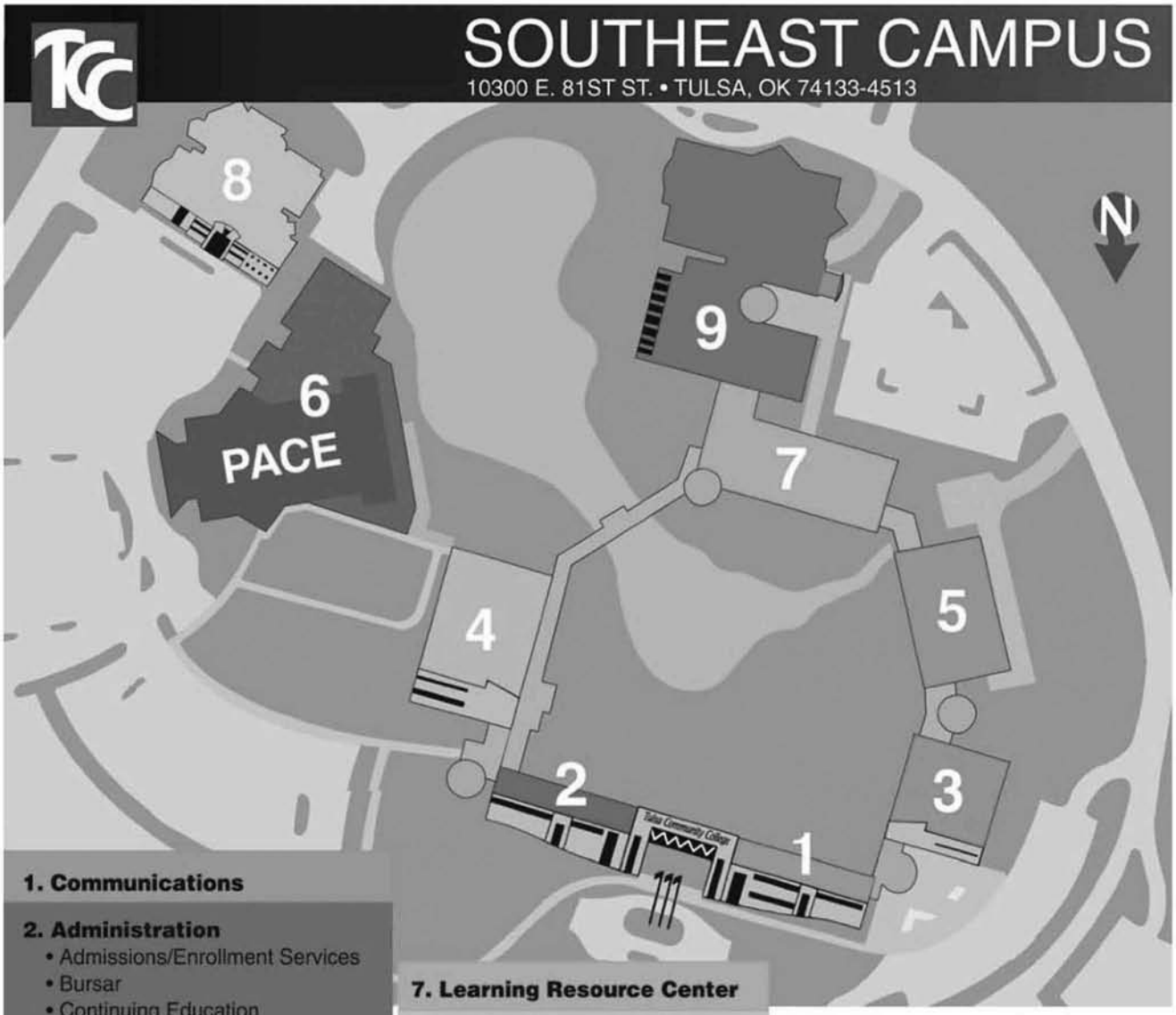
1. Main Academic Building
- Campus Police
- Learning Resource Center
- EMERGE Office
- Assessment/Testing Services
- Division Offices
- Board Room
- Seminar Center
- Large Auditorium
- Continuing Education
- Resource Center for the Deaf and Hard of Hearing
- Tulsa Achieves

2. Student Union
- Dean of Student Services
- Campus Store
- Bursar's Office
- Welcome Center/Admissions & Enrollment Services
- Career Services/ Academic Advisement
- International Student Services
- Financial Aid
- Campus Cafe
- Small Auditorium
- Multicultural Language Center
- Student Activities/Fitness Center

3. Enterprise Building
- Provost Office
- FACET Center/Computer Lab
- Academic & Campus Services/ Part-Time Instructor Support

4. Technology Building
- Nanotechnology Lab
- Manufacturing
- Engineering
- Electronics
- Drafting

5. Green Country Horticulture Center
- Greenhouse
- Classrooms



1. Communications

2. Administration
- Admissions/Enrollment Services
- Bursar
- Continuing Education
- Counseling/Advisement
- Financial Aid and Scholarships
- Academic and Campus Services
- Financial Aid and Scholarships

3. Educational Opportunity Center (TRIO)

4. Business/Liberal Arts
- Computer Lab

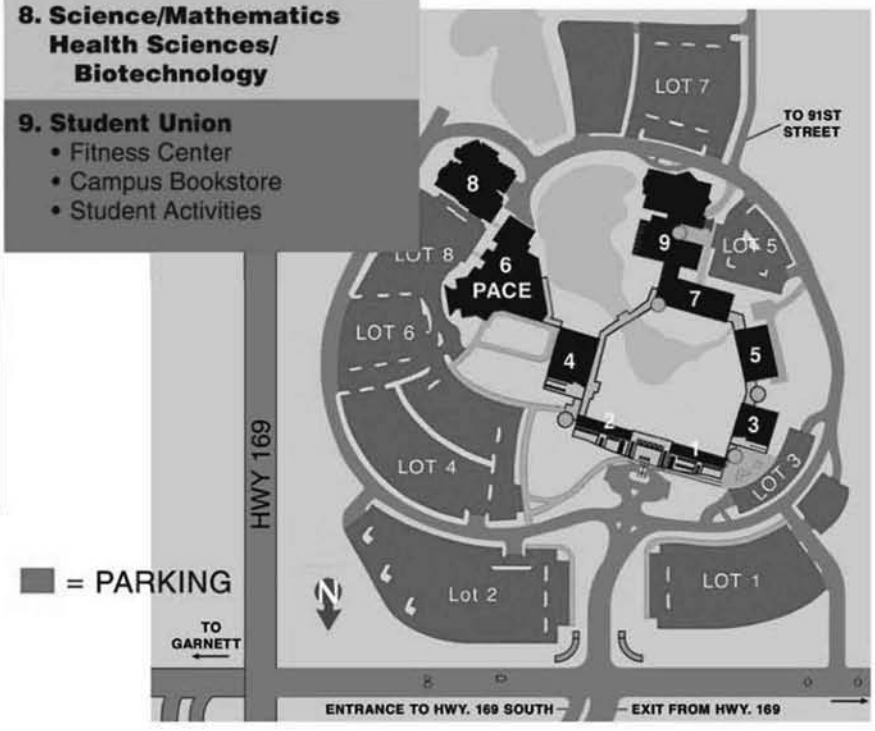
5. Physical Plant

6. PACE (VanTrease Performing Arts Center for Education)
- Music
- Theatre

7. Learning Resource Center

8. Science/Mathematics Health Sciences/ Biotechnology

9. Student Union
- Fitness Center
- Campus Bookstore
- Student Activities



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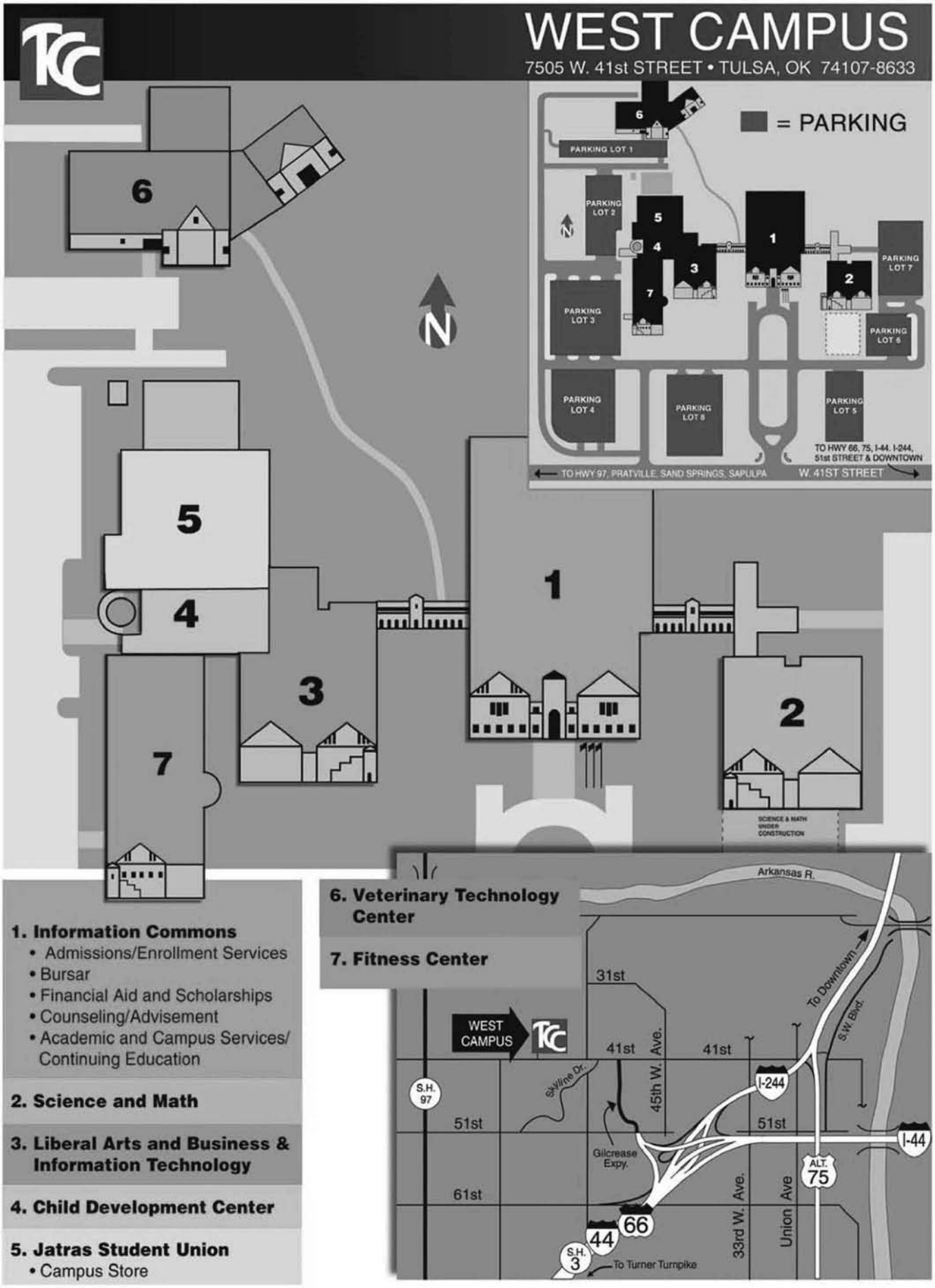
WEST CAMPUS
7505 W. 41st STREET • TULSA, OK 74107-8633
= PARKING
PARKING LOT 1
PARKING LOT 2
PARKING LOT 3
PARKING LOT 4
PARKING LOT 5
PARKING LOT 6
PARKING LOT 7
PARKING LOT 8
TO HWY 66, 75, I-44, I-244, 51st STREET & DOWNTOWN
TO HWY 97, PRATVILLE, SAND SPRINGS, SAPULPA
W. 41ST STREET
SCIENCE & MATH UNDER CONSTRUCTION
1. Information Commons
• Admissions/Enrollment Services
• Bursar
• Financial Aid and Scholarships
• Counseling/Advisement
• Academic and Campus Services/ Continuing Education
2. Science and Math
3. Liberal Arts and Business & Information Technology
4. Child Development Center
5. Jatras Student Union
• Campus Store
6. Veterinary Technology Center
7. Fitness Center
Arkansas R.
31st
41st
51st
61st
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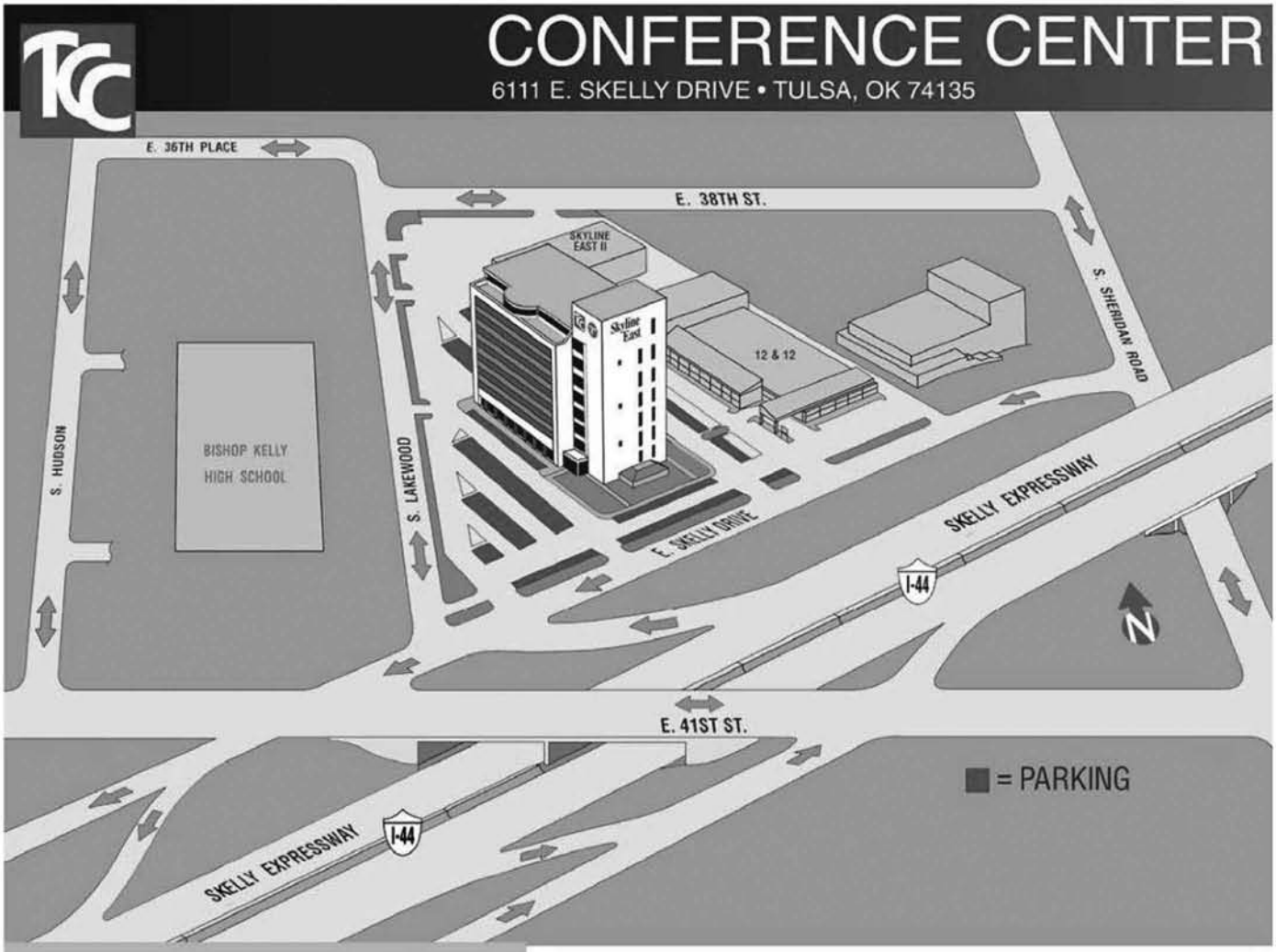
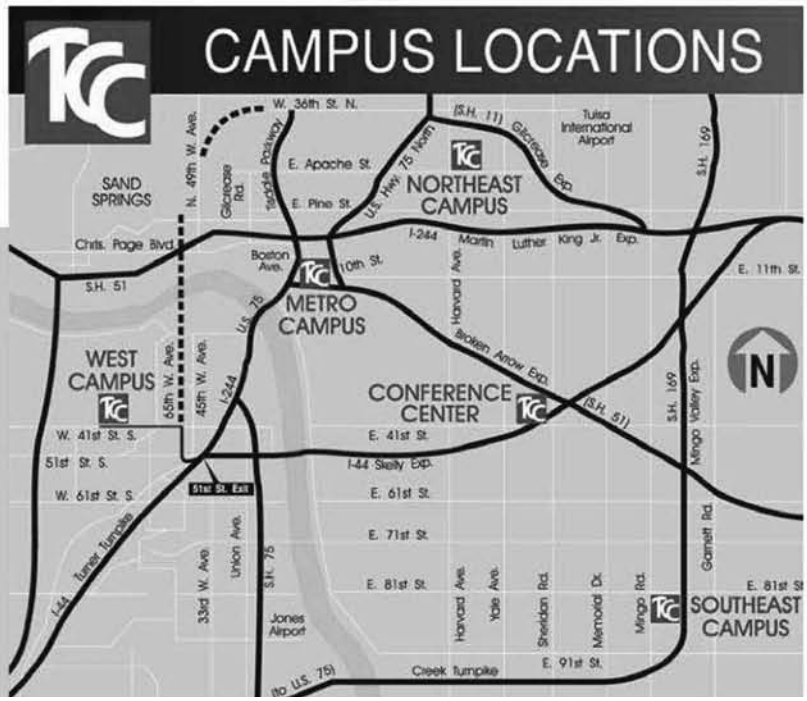
S.H. 97
Skyline Dr.
45th W. Ave.
Gilcrease Expy.
To Downtown
S.W. Blvd.
I-244
I-44
ALT. 75
66
44
S.H. 3
To Turner Turnpike
33rd W. Ave.
Union Ave



1. Corporate Learning Center – 2nd Floor
Continuing Education

2. Human Resources – 5th Floor

3. The Eighth Floor* – 8th Floor
*Technology Learning Center for Teachers



Metro Campus
909 S. Boston
Tulsa, OK 74119

Northeast Campus
3727 E. Apache
Tulsa, OK 74115

Southeast Campus
10300 E. 81st St. S.
Tulsa, OK 74133

West Campus
7505 W. 41st St.
Tulsa, OK 74107

Conference Center
6111 E. Skelly Dr.
Tulsa, OK 74135

Tulsa Community College

TOUCH-TONE
918-595-7373

TCC HOMEPAGE
www.tulsacc.edu

TULSA COMMUNITY COLLEGE
Admissions/Enrollment Services
Metro Campus
909 S. Boston
Tulsa, Oklahoma 74119
Phone: 918-595-7226
FAX: 918-595-7347

TULSA COMMUNITY COLLEGE
Admissions/Enrollment Services
Northeast Campus
3727 E. Apache Street
Tulsa, Oklahoma 74115
Phone: 918-595-7526
FAX: 918-595-7594

TULSA COMMUNITY COLLEGE
Admissions/Enrollment Services
Southeast Campus
10300 East 81st Street South
Tulsa, Oklahoma 74133
Phone: 918-595-7726
FAX: 918-595-7748

TULSA COMMUNITY COLLEGE
Admissions/Enrollment Services
West Campus
7505 West 41st Street
Tulsa, Oklahoma 74107
Phone: 918-595-8126
FAX: 918-595-8130

APPLICATION PROCEDURES

APPLICATION INSTRUCTIONS

1. Provide ALL information requested on the application. (Your Social Security Number is used for Tulsa Community College identification of records only and will not be released, unless required by law, without your permission). A student ID will be assigned once your application is entered in the TCC system. When you log-in to the student web you will recieve a message displaying your new login ID. Please make note of your SID and change your pin at the same time or you may get your SID by showing a photo ID in any Admissions/Enrollment Services Office. Some major programs may require special admissions or an additional application*.

2. FEE NOTICE - A $20 one-time non-refundable application processing fee will be added to your first semester's tuition and fee statement. (When mailing, DO NOT submit any money with your application)*.

3. Apply on-line, by mail, in person, or via the TCC homepage: **www.tulsacc.edu.** Click on Student Web. You may also print the TCC application from TCC homepage & mail or fax to a Admissions/Enrollment Services Office on any campus. See phone, faxes and addresses listed above.

4. First-time college students are encouraged to participate in the student orientation program and be assessed for placement in courses.

INFORMATION REQUESTS
For college information or class schedules contact Student Recruitment Services, call 918-595-7834 or email **srecruitment@tulsacc.edu**. Schedules and catalogs are available at the Tulsa City-County libraries and Tulsa Community College campuses or see **www.tulsacc.edu**.

INTERNATIONAL STUDENTS
Complete the Tulsa Community College application as well as the International application packet. Mail to the address indicated in the packet. The TOEFL exam is required for those for whom English is a second language. Contact the International Student Services Office, 3727 East Apache, Tulsa, OK 74115-3151, (918) 595-7478 or view **www.tulsacc.edu/iss.**

FINANCIAL AID
For forms or more information about TCC scholarships, tuition waivers, or financial assistance, contact any TCC campus Financial Aid and Scholarship Office, e-mail **faid@tulsacc.edu** or visit the website at **www.tulsacc.edu/finaid/**. Students seeking financial aid must use their Social Security Number.

ADVISEMENT/ COUNSELING
Advisement Centers are located on each campus to assist students with assessment, college orientation, program curriculums, course content, transfer credit, advanced standing credit, planning a course schedule, placement testing, career guidance, and disabilities support services.

ADMISSIONS OPTIONS

Find the category that identifies you. Provide credentials prior to enrollment. Have credentials mailed directly from the high school, college or testing center to any TCC Campus Admissions/Enrollment Services Office. Degree seeking students meet the federal ability to benefit criteria.

HIGH SCHOOL GRADUATES/GED GRADUATES— Provide an official high school transcript with graduation date (and/or passing GED scores - high school class must have graduated). Students 20 years of age or less, submit ACT, SAT or CPT test scores.

HOME STUDY/UNACCREDITED HIGH SCHOOL GRADUATES
Provide credentials and meet same criteria as high school graduates. Degree seeking peer high school class must have graduated. (ACT required)

COLLEGE TRANSFER OR COLLEGE GRADUATE (Associate or higher) -
Provide an official transcript from each college or university previously attended.

ADULTS Non-High School Graduates - Degree seeking adults whose high school class has graduated may be admitted to the college on a provisional basis and must demonstrate an ability-to-benefit from a program at TCC. College placement test (CPT) is required.

NON-DEGREE STUDENTS - Students who wish to enroll without intending to pursue a degree may enroll without transcripts. Students' peer high school class must have graduated and student must meet proficiency requirements. (a student may earn no more than 9 credit hours under this classification. A 9 hrs, non-degree form is required prior to enrollment.)

CONCURRENT HIGH SCHOOL -ACE- High School Juniors or Seniors - Provide high school transcript, ACT (using Oklahoma norms) and Concurrent Enrollment Form with appropriate signatures each semester of attendance. Contact the Admissions/Enrollment Services Office on the campus you plan to attend to apply and to enroll. Students eligible for concurrent enrollment are eligible for the ACE waiver.

SENIOR CITIZEN FEE WAIVER - Fee waivers are available for Oklahoma residents, ages 65 or older, who wish to audit a course. Enrollment in this category is contingent on space available the day class begins.

OTHER SPECIAL ADMISSION OPTIONS - Opportunity Admissions (academically accelerated young person), International Students, Students for Whom English is a Second Language, should contact the Admissions/Enrollment Services Office on any campus for specific admission criteria.

* *Omission or falsification of information on the application is grounds for rejection of the application and/or disciplinary action of an enrolled student.*

All credentials submitted in support of this application become and remain the property of TCC.

MyTCC Check it regularly for important school dates, reminders and messages from the faculty. Go to *mytcc.tulsacc.edu* or go to TCC Homepage and click on link for MyTCC.

www.tulsacc.edu

Application for Admission

www.tulsacc.edu

Before Mailing: Please be sure you have: (1) answered all questions completely (2) signed and dated this application
(3) verified your social security number (4) ordered official copy of your transcript(s) reflecting credits completed to date

1. Semester and Year of Entry ☐ Spring _____ ☐ Summer _____ ☐ Fall _____

2. Social Security Number _____
Provide Social Security Number initially - students will be assigned a college identification number.

3. Student's Full Legal Name _____
Last First Middle

4. Current Address
All TCC correspondence prior to the beginning of classes will be mailed here.
_____
Street City State Zip
Years at this address _____ Years in Oklahoma _____ County _____ Years in Country _____

5. Current Phone _____ e-mail address _____
Area Code Number

6. Student's Date of Birth _____ Place of Birth _____
Month Day Year City State Country

7. Gender ☐ Male ☐ Female

8. Race / Ethnic Background
☐ Caucasian (0) ☐ African American (1) ☐ Asian Pacific (2) ☐ *Native American (3) ☐ Hispanic (4)
☐ Other (5) ☐ Native Hawaiian / Pacific Islander (6)
*Tribal Affiliation _____ Derived from: ☐ Mother ☐ Father ☐ Both

9. Citizenship / Residency
Are you an Oklahoma resident? ☐ Yes ☐ No If yes, list the Oklahoma County _____
If no, list state of residence _____
Are you on active military duty, or the dependent of someone on active duty, assigned to the state of Oklahoma? ☐ Yes ☐ No
Are you a citizen of the United States? ☐ Yes ☐ No If no, are you a Permanent Resident? ☐ Yes ☐ No
If yes, please include a photocopy of your Permanent Resident (Green Card) both front and back. (Original will be required)
Country of birth _____
Is English your native language? ☐ Yes ☐ No If no, native language _____

10. International Applicants
(applications on visas or requesting an F-1 student visa)
Current Visa Type _____ Country of Citizenship _____
Is English your native language? ☐ Yes ☐ No If no, what is your native language _____
If no, have you taken the Test of English as a Foreign Language (TOEFL) ? ☐ Yes ☐ No
Please go to www.tulsacc.edu/iss for more information and to download the International Student Application. Or you may call the International Student Servcies Office at 918-595-7478

11. Educational Goal
Which college major do you plan to pursue? Indicate below desired college major or area of interest.
Major Name _____
My objective while attending Tulsa Community College is to:
☐ Complete a certificate program ☐ Complete an associate degree ☐ Not seeking a certificate or degree
TCC receives federal funding for services to students with the following special characteristics. Please check all that apply.
☐ I will receive financial aid based on need ☐ I am a foster child ☐ I am a single parent with dependent children/child
☐ I am a displaced homemaker ☐ I have a documented physical, learning or mental disability ☐ I have limited English proficiency
Are you planning to receive financial aid ☐ Yes ☐ No If yes, a major must be declared and transcripts provided.
Did either of your parents attend college? ☐ Mother ☐ Father ☐ Both ☐ Neither
Did either of your parents complete a four-year college degree? ☐ Mother ☐ Father ☐ Both ☐ Neither

12. All Applicants - Please fill out all information pertaining to your high school and /or career/vo-tech as completely as possible.

HIGH SCHOOL _____ DATE ATTENDED _____
From - To
CITY _____ STATE _____

CAREER / VO-TECH _____ DATE ATTENDED _____
From - To
CITY _____ STATE _____ PROGRAM ☐ ADULT ☐ HIGH SCHOOL

Are you a high school graduate? ☐ Yes ☐ No Actual or expected date of high school graduation _____

If no, do you have a GED? ☐ Yes ☐ No If yes, date awarded _____ (Please submit a copy of your GED score report.)
Mo. Yr.

(OVER)

13. Have you taken the ACT? ☐ Yes ☐ No If yes, when? _____ (Mo. Yr.) Were scores sent to TCC? Yes ☐ No ☐

Have you taken the SAT? ☐ Yes ☐ No If yes, when? _____ (Mo. Yr.) Were scores sent to TCC? Yes ☐ No ☐

13. Have you taken the ACT? ☐ Yes ☐ No If yes, when? _____ Were scores sent to TCC ☐ Yes ☐ No

Have you taken the SAT? ☐ Yes ☐ No If yes, when? _____ Were scores sent to TCC ☐ Yes ☐ No

14. COLLEGE INFORMATION

List below all colleges attended or currently attending. You must submit official transcripts from EACH college attended, even if no credit was earned at the institution. If readmission, please indicate semester of last enrollment.

LIST ALL COLLEGES PREVIOUSLY ATTENDED IN ORDER OF MOST RECENT TO FIRST

College	Location (City/State)	Attended From	Attended To	GPA	DEGREE RECEIVED (Yes or No)

15. Employment

Employer: _____ ☐ Full time ☐ Part time

Employer Adress _____ (City State Zip)

Work phone: _____ (Area Code Number) Work email: _____

16. Expelled, Suspension or convicted of a felony

Have you ever been suspended or expelled from any college or university? ☐ Yes ☐ No

Have you ever been convicted of a felony ? ☐ Yes ☐ No

If yes, for either write a description of the circumstances and attach. Include full legal name and SSN.

17. Next of Kin/ Emergency Contact

☐ Mr. ☐ Mrs. _____ (Last First Middle Relationship)

_____ (Street City State Zip)

_____ (Area Code Number)

REQUIRED SIGNATURE (All Applicants) BY MY SIGNATURE BELOW, I:

1. Understand that withholding information requested or giving false information may make me ineligible for admission to, or continuation in, Tulsa Community College.

2. Authorize any high school, university or college I have attended to furnish enrollment and/or grade information as may be requested by TCC. TCC is authorized to provide TCC enrollment or grades as requested by another school or college.

3. If currently enrolled in high school or college, will furnish the College with final transcripts within two weeks of the end of the semester. Failure to do so may result in difficulty with academic advising, a delay in admission decision, financial aid packaging, and, if provisionally admitted, an enrollment hold.

4. Promise to fulfill all financial obligations to the institution which I may incur and will comply with all Board of Regents and institutional policies or standards.

ALL CREDENTIALS SUBMITTED IN SUPPORT OF THIS APPLICATION BECOME AND REMAIN THE PROPERTY OF TULSA COMMUNITY COLLEGE.

_____ SIGNATURE _____ PRINT NAME HERE _____ DATE

Please review your application carefully to make sure all information is complete. An incomplete application will result in a delay of our admission decision. Return completed form to the "Attention" of any Admission/Enrollment Services Office. See campus addresses on back of catalog.

Now available online everywhere!

TED

TCC Educational Database

Meet TED --Your new go-to guy at TCC.
Who's TED? He's the guru behind the TCC Educational Database.

Here's what TED can do for you:

- Go to TED to view the class schedule
- Go to TED to enroll
- Go to TED to check your financial aid status
- Go to TED to pay your bursar account
- Go to TED to view your transcript

TED only asks for one thing in return -- you gotta type a capital T before your CWID:

T12345678

Like This

It's all about "T" when it comes to TED!

www.tulsacc.edu/TED

Notes

Notes

Office	Metro	Northeast	Southeast	West
Admissions/Enrollment (Phone)	595-7226	595-7526	595-7726	595-8126
Admissions/Enrollment (Fax)	595-7347	595-7594	595-7748	595-8130
TouchTone Services	595-7373	595-7373	595-7373	595-7373
Financial Aid (Phone)	595-7155	595-8420	595-7700	595-8029
Financial Aid (Fax)	595-7366	595-8423	595-7782	595-8054
Advisement/Counseling:	595-7151	595-7451	595-7651	595-8176
Bursar	595-7136	595-7435	595-7635	595-8021
Campus Store (Bookstore)	595-7027	595-7425	595-7625	595-8026
Continuing Education		595-7566	595-7766	
Distance Learning	595-7143			
TDD-TYY	595-7434			
TCC at OSU	595-8432			
Honors Office	595-7378			

TCC Outreach Center	595-2020	2201 S. Garnett
TCC Recruitment Services	595-7834	6111 E. Skelly Drive, Suite 400