

Transfer Agreement

Oklahoma City Community College: A.S. in Engineering
and

University of Central Oklahoma: B. S. in Biomedical Engineering (Pre-Med concentration A)

Major Code: 6220

Oklahoma City Community College Courses

ENGL 1113 English Composition I
ENGL 1213 English Composition II
COM 2213 Introduction to Public Speaking
HIST 1483 U.S. History to the Civil War **or**
HIST 1493 U.S. History since the Civil War
POLSC 1113 American Federal Government
HUM 2213 Humanity-Classical & Medieval **or**
HUM 2223 Humanities-Modern
ECON 1013 Introduction to Economics
ENGR 1113 Introduction to Engineering

BIO 1214 Biology I (Majors)
CHEM 1115 General College Chemistry I

CHEM 1215 General College Chemistry II

MATH 2104 Calculus and Analytic Geometry I
MATH 2214 Calculus and Analytic Geometry II
MATH 2314 Calculus and Analytic Geometry III

PHYS 2014 Engineering Physics I

PHYS 2114 Engineering Physics II

ENGR 2133 Rigid Body Mechanics or
ENGR 2243 Statics

CS 2363 C++ (FA Support)
ENGR 2613 Electrical Science (FA ENG)

Total 62-64 hours

To include additional course work as stated in the OCCC catalog.

***This course is a substitution for this program only.**

UCO requirement

ENG 1113 English Composition
ENG 1213 English Composition and Research
MCOM 1113 Fundamental of Speech
HIST 1483 History of U.S. to 1877 **or**
HIST 1493 History of U.S. since 1877
POL 1113 American National Government
HUM 2113 General Humanities Anc-Med **or**
HUM 2223 General Humanities Ren-Modern
ECON 1103 Introduction to Economics
Elective

BIO 1204 Biology I for Majors
CHEM 1103 General Chemistry I **and**
CHEM 1112 General Chemistry I - Recitation/Lab
CHEM 1223 General Chemistry II **and**
CHEM1232 General Chemistry II- Recitation/Lab

MATH 2313, 2323, 2333, 2343 Calculus 1 to 4

**The OCCC A.S. degree completes the UCO
University Core requirements.**

PHY 2014 Physics for Science and Engineering I
and Lab
PHY 2114 Physics for Science and Engineering II
and Lab

ENGR 2033 Statics

*ENGR 1213 Engineering Computing &Lab
ENGR 2303 Electrical Science

To be taken at the University of Central Oklahoma.....60-62
Support Courses.....6

- FMKT 2323 Global Protocol and Diversity
(or Foreign Language)
- PHIL 1123 Contemporary Moral Problems (See advisor for substitution.)

Students majoring in Biomedical Engineering are encouraged to complete the following courses in high school.

- One year of High School Algebra II and Trigonometry **OR**
- MATH 1513 College Algebra **AND**
- MATH 1593 Plane Trigonometry
- One year High School Physics **OR**
- PHY 1003 Introduction to Physics

	Major Requirements
Biomedical Engineering.....	55
Biology	7
Required courses:	
BIO 2203 Cell Biology	
BIO 2604 Human Physiology and Laboratory	
Engineering.....	39
Required courses:	
ENGR 1112 Introduction to Engineering and Laboratory	
BME 1311 Introduction to Biomedical Engineering	
ENGR 2311 Electrical Science Laboratory	
#BME 3043 Biomaterials	
BME 3113 Principles of Biomedical Engineering	
ENGR 3223 Digital Logic Design and Laboratory	
ENGR 3303 Engineering Probability and Statistics	
#ENGR 3323 Signals and Systems	
ENGR 3331 Signals and Systems Laboratory	
ENGR 3403 Analog Electronics	
ENGR 3421 Analog Electronics Laboratory	
#BME 4132 Biomedical Engineering Laboratory	
#BME 4223 Biomedical Imaging	
#BME 4233 Biomedical Instrumentation	
#BME 4343 Biomechanics	
#ENGR 4882 Senior Engineering Design I	
#ENGR 4892 Senior Engineering Design II	
Mathematics.....	3
Required courses:	
MATH 3103 Differential Equations	
Biomedical Engineering Elective.....	3
Any 3000/4000 level BME, PHY or ENGR course with the following exceptions: PHY 3014, 3044, 3054 or 3503.	
Complete following	3
Concentration A: (courses in preparation for Pre-Med fields)	
CHEM 3303 Organic Chemistry I	

The number of credits needed to meet degree requirements exceeds 124 hours and will vary according to course selection.

The following courses are strongly recommended electives:

- BME 4243 Modeling and Analysis of Biomedical Systems
- #ENGR 3443 Fluid Mechanics
- CHEM 3403 Biochemistry I
- CHEM 3323 Organic Chemistry II (for Concentration A)

Admission into Engineering and Physics Upper Division is required.

Minimum Grade Requirements

1. Average in (a) all college course work, and (b) course work at UCO,.....2.00
2. A minimum grade of “C” must be earned in all courses in the major to count toward meeting degree requirements.

For other regulations pertaining to graduation, see the UCO Undergraduate Catalog.

Academic year agreement implemented: 2016-17

Admission into Engineering and Physics Upper Division

Students seeking the B.S. in Biomedical Engineering, Engineering Physics – Electrical Engineering, Engineering Physics – Mechanical Engineering, and Engineering Physics – Physics are required to make formal application to the Chairperson of the Department of Engineering and Physics for admission into the upper division of each of these majors. Applications must be submitted to the Department of Engineering and Physics on or before the last Monday of January for Fall admission and the last Monday of August for Spring admission.

Upper division admission is open to students meeting Engineering and Physics upper division admission requirements. To be admitted into upper division, the student must have:

A minimum retention grade point average (GPA) of 2.00 in all course work completed by the time the student is formally admitted into upper division.

Completed 60 semester credit hours by the time the student is formally admitted into upper division.

Completed the following courses or their equivalent with a minimum grade of “C” by the time the student is formally admitted into upper division:

MATH	2313	Calculus 1
MATH	2323	Calculus 2
MATH	2333	Calculus 3
MATH	2343	Calculus 4
MATH	3103	Differential Equations (Recommended)
PHY	2014	Physics for Science & Engineering I & Lab
PHY	2114	Physics for Science & Engineering II & Lab
ENGR	1112	Introduction to Engineering & Lab
ENGR	1213	Engineering Computing & Lab
ENGR	2033	Statics
ENGR	2303	Electrical Science
ENGR	2311	Electrical Science Lab
ENGR	3303	Engineering Probability and Statistics (Recommended)
CHEM	1112	General Chemistry I Recitation/Lab AND (for Biomedical Engineering)
CHEM	1103	General Chemistry I OR (for Biomedical Engineering)
CHEM	1315	Chemistry for Engineering and Lab (for Engineering Physics-Electrical Systems, Mechanical Systems, and Physics)

Formal approval by the department Faculty Advisor and Department Chair is required for admission. Preference is given to University of Central Oklahoma students. The student may enroll in no more than nine (9) hours of 3000 and 4000 level courses in the major prior to admission into upper division unless they secure formal approval from the Department of Engineering and Physics.

Program-to-Program Transfer policies are available in the Introduction for Program-to-Program Agreements on the UCO website at the top of the list of agreements. Links to the agreements can be found on the Academic Affairs or Transfer Student Support web pages.