

## Transfer Agreement

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

University of Central Oklahoma: B. S. in Engineering Physics- Electrical Engineering  
Major Code: 6246

### 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 1415 Chemistry for Engineers **or**  
CHEM 1115 and 1215 Chemistry I and 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**

### 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 1315 Chemistry for Engineering and Lab  
(sub for CHEM 1315)  
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 and  
Laboratory  
ENGR 2303 Electrical Science

**To include additional course work required for the A.S. as presented in the OCCC Catalog.**

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

**To be taken at the University of Central Oklahoma.....64**  
**Support Courses.....6**

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

Students majoring in the Engineering Physics program 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 of high school physics **OR**
- PHY 1003 Introduction to Physics

**Engineering Physics - Electrical Systems.....58**

**Physics..... 6**

Required courses:

- PHY 3103 Modern Physics
- PHY 3883 Mathematical Physics I

**Engineering..... 46**

Required courses:

- ENGR 1112 Introduction to Engineering and Laboratory
- ENGR 2311 Electrical Science Laboratory
- #ENGR 3183 Electromagnetic Fields I
- ENGR 3223 Digital Logic Design and Laboratory
- ENGR 3303 Engineering Probability & Statistics
- #ENGR 3323 Signals and Systems
- ENGR 3331 Signals and Systems Laboratory
- ENGR 3403 Analog Electronics
- ENGR 3421 Analog Electronics Laboratory
- #ENGR 3413 Materials Science
- ENGR 3613 Microprocessors and Laboratory
- ENGR 3703 Computational Methods in Engineering
- ENGR 3803 Electrical Power Systems
- #\*ENGR 4323 Digital and Analog Communication
- #\*ENGR 4333 Digital Signal Processing
- ENGR 4351 Digital Signal Processing Laboratory
- #\*ENGR 4803 Mechatronics & Laboratory
- #ENGR 4882 Senior Engineering Design I
- #ENGR 4892 Senior Engineering Design II

**Mathematics ..... 3**

Required courses:

- MATH 3103 Differential Equations

**Engineering Electives..... 3**

Select from the following:

- \*ENGR 4183 Electromagnetic Fields II
- ENGR 4263 Engineering Optics
- ENGR 4303 Control Systems
- \*ENGR 4613 Photonics
- \*ENGR 4633 Solid State Devices

\*Students in the Accelerated BS/MS program in Engineering Physics must enroll in the graduate level versions of this course, and must choose the 5000 level of either Photonics, Electromagnetic Fields II or Solid State Devices as one of the engineering electives. Students need only three 5000-level courses as part of the accelerated program.

# Admission into Engineering and Physics Upper Division is required.

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

### **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.**

**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.**

#### **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.