

Transfer Agreement

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

University of Central Oklahoma: B. S. in Engineering Physics- Mechanical Engineering
Major Code: 6244

Oklahoma City Community College

UCO requirement

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

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)
ENGR 2523 Dynamics
ENGR 2143 Strength of Materials(FA ENG)

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

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

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

PHY 2014 Physics for Scientist and Engineers I
and Lab
PHY 2114 Physics for Scientist and Engineers I
and Lab

ENGR 2033 Statics

*ENGR 1213 Engineering Computing and Laboratory
ENGR 2303 Electrical Science
ENGR 2043 Dynamics
ENGR 2143 Strength of Materials

Total 67 hours

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.....63
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 - Mechanical Systems.....57

Physics 3

Required courses:

- PHY 3883 Mathematical Physics I

Engineering 45

Required courses:

- ENGR 1112 Introduction to Engineering and Laboratory
- ENGR 2151 Strength of Materials Lab
- ENGR 2303 Electrical Science
- ENGR 2311 Electrical Science Laboratory
- ENGR 3203 Thermodynamics
- ENGR 3211 Thermal Engineering Laboratory
- ENGR 3303 Engineering Probability and Statistics
- #ENGR 3323 Signals and Systems
- ENGR 3331 Signals and Systems Laboratory
- #ENGR 3363 Mechanical Engineering Design
- #ENGR 3413 Materials Science
- #ENGR 3443 Fluid Mechanics
- #ENGR 3451 Fluid Mechanics Lab
- ENGR 3703 Computational Methods in Engineering
- #*ENGR 4123 Heat Transfer
- #ENGR 4141 Heat Transfer Lab
- #*ENGR 4533 Thermal Systems Design
- #*ENGR 4803 Mechatronics & Laboratory
- #ENGR 4882 Senior Engineering Design I
- #ENGR 4892 Senior Engineering Design II

Mathematics 3

Required course:

- MATH 3103 Differential Equations

Physics or Engineering Electives 6

Selected from the following:

- ENGR 3153 Machine Dynamics
- ENGR 3223 Digital Logic Design and Laboratory
- ENGR 4103 Finite Element Analysis
- ENGR 4153 Vibration
- ENGR 4203 Refrigeration and Air Conditioning
- ENGR 4303 Control Systems
- ENGR 4313 Fluid Dynamics
- BME 4343 Biomechanics
- PHY 4163 Analytical Mechanics

*Students in the Accelerated BS/MS program in Engineering Physics must enroll in the graduate level versions of this course.

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.