

## Transfer Agreement

Oklahoma City Community College: AS - Engineering  
And

University of Central Oklahoma: BS - Mechanical Engineering - Mechanical Engineering

To comply with this agreement, students must complete the associate's degree with the major listed above and include the specific courses listed below.

**Courses listed here are required for the agreement. Credited courses completed as part of the AA or AS that do not apply to the general education at OCCC or the UCO major transfer to UCO as electives.**

### OCCC

- General Education requirements
- \*PHIL 1213 Introduction to Ethics
- CHEM 1415 Chemistry for Engineers
- ENGR 2243 Statics
- ENGR 2523 Dynamics
- ENGR 2143 Strength of Materials
- ENGR 2613 Electrical Science
- \*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

### UCO

- University Core completed with AA or AS
- PHIL 1123 Contemporary Moral Problems
- CHEM 1315 Chemistry for Engineering and Lab
- ENGR 2033 Statics
- ENGR 2043 Dynamics
- ENGR 2143 Strength of Materials
- ENGR 2303 Electrical Science
- MATH 2313, 2323, 2333, and 2343 Calculus 1 through Calculus 4
- PHY 2014 Physics for Science/Eng I and Lab
- PHY 2114 Physics for Science/Eng II and Lab

\* In General Education Courses section of degree at OCCC

**This degree requires additional course work, including the general education, as stated in the OCCC Catalog. Other OCCC courses may or may not apply to the UCO major. That specific information can be found on the UCO website under the Online Transfer Guides.**

**Total at Oklahoma City Community College.....61-64**

**To be taken at the University of Central Oklahoma.....60-63**

**(May be taken at OCCC.) This signifies that a UCO course requirement can be met with the equivalent OCCC course (found on the UCO website). To take this course at OCCC, the student should confirm that it will fit into the associate's degree without exceeding the requirements. A minimum of 60 hours must be taken at a baccalaureate granting institution, so exceeding 64 credit hours at the community college means the student will exceed the minimum of 124 credit hour total. A minimum of 40 hours of 3/4000 level courses are required for the baccalaureate. Courses from community colleges are 1/2000 level.**

Support Courses ..... 6

- ECON 1103 Introduction to Economics (**May be taken at OCCC.**)
- FMKT 2323 Global Protocol and Diversity  
(or Foreign Language) (**May be taken at OCCC.**)

*Successful completion of the courses listed in the above table satisfies the requirement for the following Support Courses.*

- \*MATH 1533 Algebra for STEM AND (**May be taken at OCCC.**)
- \*MATH 1593 Plane Trigonometry (**May be taken at OCCC.**)
- One year of high school physics OR
- PHY 1003 Introduction to Physics (**May be taken at OCCC.**)

**Mechanical Engineering.....57**

Physics ..... 3

Required courses:

- PHY 3883 Mathematical Physics I

Engineering..... 45

Required courses:

- ENGR 1112 Introduction to Engineering and Laboratory
- ENGR 1213 Engineering and Computing and Laboratory
- ENGR 2151 Strength of Materials Lab
- 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

Guided Physics or Engineering Electives..... 6

Selected from the following:

- ENGR 3153 Machine Dynamics
- ENGR 3223 Digital Logic Design and Laboratory
- ENGR 3803 Electrical Power Systems
- 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.

Minimum Hours required ..... 127\*

\*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.

Students must meet all bachelor degree requirements at UCO to include minimums of:

- 40 hours of upper division coursework
- 30 hours in residence at UCO
- 15 of the last 30 hours must be taken in residence at UCO
- 60 hours from baccalaureate granting institutions

**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.