

**Transfer Agreement  
Between  
Oklahoma City Community College  
and  
University of Central Oklahoma**

**Effective Academic Year: 2011-2012**

**Associate in Science Degree in Engineering - Pre-Engineering  
and**

**Bachelor of Science in Engineering Physics- Mechanical Systems**

\_\_\_\_\_  
Dr. Sonya Williams, Director  
Department of Science

\_\_\_\_\_  
Dr. Baha Jassemnejad, Chair  
Department of Engineering and Physics

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mr. Max Simmons, Dean  
Science and Mathematics

\_\_\_\_\_  
Dr. John Barthell, Dean  
College of Mathematics and Science

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Dr. Felix Aquino  
Vice President for Academic Affairs

\_\_\_\_\_  
Dr. William Radke, Provost  
Vice President for Academic Affairs

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

## Transfer Agreement

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

University of Central Oklahoma: B. S. in Engineering Physics- Mechanical Systems  
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 1113 Economic Development of the U.S.  
ENGR 2002 Professional Development

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

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  
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.....60**

**Support Courses..... 6**

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

**Engineering Physics - Mechanical Systems .....53-54**

**Physics..... 6**

Required courses:

- PHY 3103 Modern Physics
- PHY 3883 Mathematical Physics I

**Engineering..... 39**

Required courses:

- ENGR 1112 Introduction to Engineering and Laboratory
- ENGR 2151 Strength of Materials Lab
- ENGR 2311 Electrical Science Laboratory
- ENGR 3203 Thermodynamics
- ENGR 3302 Engineering Statistics and Experimentation
- ENGR 3323 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 Electromechanical Systems and Applied  
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.....5-6**

Selected from the following:

- ENGR 3222 Digital logic Design and Laboratory
- ENGR 4103 Finite Element Analysis
- ENGR 4303 Control Systems
- \*ENGR 4313 Fluid Dynamics
- \*ENGR 4343 Biomechanics
- PHY 4163 Analytical Mechanics

**Elective to bring total UCO hours to 60.....0-1**

\*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 Fluid Dynamics or Biomechanics as one of the engineering electives. Students need three 5000-level courses as part of the accelerated program.

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

<b>Total hours at OCCC.....</b>	<b>67</b>
<b>Total hours at UCO.....</b>	<b>60</b>

**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 2011-2012 Undergraduate Catalog.