11-10-21

Transfer Agreement

Rose State College: AS – Engineering Mechanical-Aerospace Option
And
University of Central Oklahoma: BS - Mechanical Engineering

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

RSC

An Associate in Science (AS) or Associate in Art (AA) degree from an accredited Oklahoma institution that includes the OSRHE minimum requirements will satisfy the UCO University Core.

See the program requirements for the associate degree on the RSC website.
Credited courses completed as part of the A.A. or A.S. that do not apply to the general education at RSC or the UCO major transfer to UCO as electives.

Hours required for the AS or AA degree/major at RSC 63

UCO

- Written and Oral Communication
- Quantitative Reasoning/Scientific Method with Lab
- Critical Inquiry and Aesthetic Analysis
- American Historical and Political Analysis
- Cultural and Language Analysis
- Social and Behavioral Analysis
- Life Skills

Remaining hours in UCO University Core.....0

PHIL 2303 Introduction to Ethics (HUM)	PHIL 1123 Contemporary Moral Problems
ECON 1103 Principles of Microeconomics	ECON 1103 Introduction to Economics
CHEM 1135 General College Chemistry I	CHEM 1103 General College Chemistry I CHEM 1112 General Chemistry I Rec/Lab
CHEM 1145 General College Chemistry II	CHEM 1223 General Chemistry II CHEM 1232 General Chemistry II Rec/Lab
MATH 2173 Intro to Ord Differential Equations	MATH 3103 Differential Equations
ENGR 2313 Engineering Thermodynamics	ENGR 2203 Thermodynamics
ENGR 2103 Statics	ENGR 2033 Statics
ENGR 2113 Dynamics	ENGR 2043 Dynamics
MATH 1914 Differential & Integral Calculus I and MATH 2924 Differential & Integral Calculus II and MATH 2934 Differential & Integral Calculus III	MATH 2313, 2323, 2333, and 2343 Calculus 1 through Calculus 4
PHYS 2401 General Physics Lab I and PHYS 2434 Physics I Engineering Science Majors	PHY 2014 Physics for Science/Engr. I and Lab
PHYS 2411 General Physics Lab II and (ES elective) PHYS 2444 Physics II for Engineering Science Majors	PHY 2114 Physics for Science/Engr. II and Lab

Total at Rose State College.....65

To be taken at the University of Central Oklahoma.....60

Support Courses.....3

~~PHIL 1123 Contemporary Moral Problems~~
~~ECON 1103 Introduction to Economics~~
FMKT 2323 Global Protocol and Diversity
(or Foreign Language)

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

~~*MATH 1533 Algebra for STEM AND~~
~~*MATH 1593 Plane Trigonometry~~
~~One year of high school physics OR~~
~~PHY 1003 Introduction to Physics~~

Courses with strikethrough have been taken at RSC.

Mechanical Engineering.....57

Physics 3
Required courses:
~~PHY 2014 Physics for Science and Engineering I and Lab~~
~~PHY 2114 Physics for Science and Engineering II and Lab~~
PHY 3883 Mathematical Physics I

Engineering 48
Required courses:
ENGR 1112 Introduction to Engineering and Laboratory
ENGR 1213 Engineering Computing and Laboratory
~~ENGR 2033 Statics~~
~~ENGR 2043 Dynamics~~
ENGR 2143 Strength of Materials
ENGR 2151 Strength of Materials Lab
~~ENGR 2203 Thermodynamics~~
ENGR 2303 Electrical Science
ENGR 2311 Electrical Science Laboratory
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 4862 ME Senior Engineering Design I
#ENGR 4892 Senior Engineering Design II

Mathematics 0
Required courses:

~~MATH 2313 Calculus 1~~
~~MATH 2323 Calculus 2~~
~~MATH 2333 Calculus 3~~
~~MATH 2343 Calculus 4~~
~~MATH 3103 Differential Equations~~

Chemistry 0
Required courses:
CHEM 1315 Chemistry for Engineering and Lab **OR**
~~CHEM 1103 General Chemistry I AND~~
~~CHEM 1112 General Chemistry I Recitation/Laboratory AND~~
~~CHEM 1223 General Chemistry II AND~~
~~CHEM 1232 General Chemistry II Recitation/Laboratory~~

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	Introduction to Computational Fluid Dynamics
BME	4343	Biomechanics
PHY	4163	Analytical Mechanics

Admission into Engineering and Physics Upper Division is required.

Total hours required for this major may exceed the minimum 124 credit hour institutional requirement and will vary according to course selection. It is recommended students complete high school algebra II, trigonometry, physics, and two years of a second language in high school.

Total hours remaining at UCO in this major and support courses 60
Minimum Hours required **(Minimum of 60 hours from UCO)** 124

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.