



**Associate in Science in Mechanical Engineering (TCC) to
Bachelor of Science in Mechanical Engineering (OSU)**
Available in Stillwater and Tulsa

Tulsa Community College (years 1 and 2) – 2023-24

Year One – Tulsa Community College

Fall

TCC Equivalent or Substitute	OSU Requirement	✓
ENGR 1111 – Intro to Engineering	ENGR 1111	
*CHEM 1365 – General Chemistry for Engineers	CHEM 1414 (LN) + 1 hour elective	
ENGL 1113 – Composition I	ENGL 1113	
*MATH 2114 – Calculus I	MATH 2144 (A)	
HIST 1483 – Am Hist 1492 – Civil War or HIST 1493 – Am Hist Civil War - Pres	HIST 1483 (H) or HIST 1493 (DH)	
Semester Credit Hours at TCC: 16		

Spring

TCC Equivalent or Substitute	OSU Requirement	✓
ENGR 1242 – Intro to Engineering Computer Programming	ENGR 1412	
ENGR 1132 – Engineering Design w/CAD - Solidworks	ENGR 1332	
ENGL 1213 – Composition II	ENGL 1213	
PHYS 2034 – Engineering Physics I	PHYS 2014 (LN)	
MATH 2124 – Calculus II	MATH 2153 (A) + 1 hour elective	
Semester Credit Hours at TCC: 15		

*Students must have completed MATH 1513 and MATH 1613 or MATH 1715 or have demonstrated math competencies at the pre-calculus level through test scores prior to the first semester to complete this degree within two years/within the number of hours listed in the agreement. See an academic advisor to learn more about Math placement testing.

** Students must complete 60 hours from a '4 year' school in order to meet all bachelor degree requirements. Students without any 4-year credits (AP, CLEP or University credit) will want to reverse transfer Humanities requirements to TCC from OSU to ensure the '60 hours from a 4-year school' rule is met. The BSME only has 49 hours upper division requirements. The (S), (I) and (D) requirements are waived with completion of the AS degree.

Year Two- Tulsa Community College

Fall

TCC Equivalent or Substitute	OSU Requirement	✓
ENGR 2103 Engineering Statics	ENSC 2113	
ENGR 2213 Thermodynamics	ENSC 2213	
PHYS 2124 – Engineering Physics II	PHYS 2114 (LN)	
POLS 1113 – American Federal Government	POLS 1113	
MATH 2613 – Differential Equations	MATH 2233	
Semester Credit Hours at TCC: 16		

Spring

TCC Equivalent or Substitute	OSU Requirement	✓
ENGR 2523 – Elementary Dynamics	ENSC 2123	
ENGR 2143 – Strength of Materials	ENSC 2143	
ENGR 2613 Intro Electrical Science	ENSC 2613	
MATH 2134 – Calculus III	MATH 2163 + 1 hour elective	
COMM 1113 General Education Required Elective	SPCH 2713 (S)	
Semester Credit Hours at TCC: 16		

Before transferring to OSU, have the TCC Registrar send an official transcript to the OSU Admissions Office with any degrees earned noted on the transcript. If you have not completed the requirements for an associate degree, talk with your OSU Academic Advisor about Reverse Transfer options to use OSU coursework to complete your TCC associate degree.

Oklahoma State University (years 3 and 4) – 2023-24

Year Three – Oklahoma State University

Fall

OSU Requirement	✓
MAE 3333 – Fundamental Fluid Dynamics	✓
MAE 3153 Introduction to MAE Design	✓
MAE 3013 – Engineering Analysis	✓
#ENGR 2421 Engineering Data Acquisition Controls Lab and two from the following labs: ENSC 2141 Strength of Materials Lab ENSC 2411 Electrical Science Lab ENSC 2611 Electrical Fabrication Lab ENSC 3231 Fluids and Hydraulics Lab ENSC 3311 Materials Science Lab and ENSC 3431 Thermodynamics and Heat Transfer Lab	✓
3 Hrs Humanities (with I or D) @ OSU**	✓
Semester Credit Hours at OSU: 15	

Spring

OSU Requirement	✓
MAE 3233 – Heat Transfer	✓
MAE 3724 – Dynamic Systems Analysis & Controls	✓
MAE 3403 – Computer Methods	✓
ENSC 3313 – Material Science	✓
3 Hrs Humanities (with I or D) @ OSU**	✓
Semester Credit Hours at OSU: 16	

Action: After semester six (first Spring semester at OSU-Tulsa) students should complete a reverse transfer to earn their A.S. Mechanical Engineering from Tulsa Community College. Contact reversetransfer@tulsacc.edu to complete this process.

Year Four – Oklahoma State University

Fall

OSU Requirement	✓
MAE 3324 – Mechanical Design I	✓
MAE 3524 – Thermal Fluids Design	✓
3 Hrs Technical Elective (Varies)	✓
3 Hrs MAE Elective (Varies)	✓
IEM 3503 – Engineering Economics	✓
Semester Credit Hours at OSU: 17	

Spring

OSU Requirement	✓
MAE CAT I Elective (3 Hrs)	✓
MAE CAT II Elective (4 Hrs)	✓
3 Hrs MAE Elective (Varies)	✓
3 Hrs from Natural Science course options	✓
Semester Credit Hours at OSU: 13	

Work with an advisor to determine timing of the Lab courses to coincide with appropriate courses.

** Students must complete 60 hours from a '4 year' school in order to meet all bachelor degree requirements. Students without any 4-year credits (AP, CLEP or University credit) will want to reverse transfer Humanities requirements to TCC from OSU to ensure the '60 hours from a 4-year school' rule is met. The BSME only has 49 hours upper division requirements. The (S), (I) and (D) requirements are waived with completion of the AS degree.

This plan is only one example of how a student may successfully complete degree requirements in four years. Course rotations may vary between the Stillwater and Tulsa campuses. Students are responsible for completing the requirements as given in the official degree requirements sheet.