



**Associate in Science in Mechanical Engineering (TCC) to  
Bachelor of Science in Civil Engineering (OSU)**

Available in Stillwater

Tulsa Community College (years 1 and 2) – 2022-23

**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)	
<b>Semester Credit Hours at TCC: 16</b>		

*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 sub for ENGR 1322	
ENGL 1213 – Composition II	ENGL 1213	
PHYS 2034 – Engineering Physics I	PHYS 2014 (LN)	
MATH 2124 – Calculus II	MATH 2153 (A) + 1 hour elective	
<b>Semester Credit Hours at TCC: 15</b>		

\*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.

**Year Two- Tulsa Community College**

*Fall*

TCC Equivalent or Substitute	OSU Requirement	✓
ENGR 2103 Statics	ENSC 2113	
Humanities (3 credit hours)	Humanities	
PHYS 2124 – Engineering Physics II	PHYS 2114 (LN)	
POLS 1113 – American Government	POLS 1113	
MATH 2613 – Differential Equations	MATH 2233	
<b>Semester Credit Hours at TCC: 16</b>		

*Spring*

TCC Equivalent or Substitute	OSU Requirement	✓
ENGR 2523 – Elementary Dynamics	ENSC 2123	
ENGR 2143 – Strength of Materials	ENSC 2143	
Humanities (3 credit hours)	Humanities	
MATH 2134 – Calculus III	MATH 2163 + 1 hour elective	
COMM 1113 – Public Speaking	SPCH 2713 (S)	
<b>Semester Credit Hours at TCC: 16</b>		

At, the I and D requirements are waived with the Associates in Science Degree

\*Transfer students will benefit significantly by taking ENSC 3233 (online) in the summer prior to their first fall semester at OSU.

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) – 2022-23

### Year Three – Oklahoma State University

*Fall*

OSU Requirement	✓
*ENSC 3233 – Fluid Mechanics (summer, online is best)	
CIVE 2041 – Civil & Environmental Engineering Seminar	
CIVE 2081 – Environmental Chemistry for Engineers	
CIVE 3413 – Structural Analysis	
CIVE 3714 – Introduction to Geotechnical Engineering	
ENSC 3231 – Fluids & Hydraulics Lab	
STAT 4033 – Engineering Statistics or STAT 4073 – Engineering Statistics with Design of Experiments	
<b>Semester Credit Hours at OSU: 16 (or 13 with 3 in summer)</b>	

*Spring*

OSU Requirement	✓
ENSC 2141 – Strength of Materials Lab	
CIVE 3523 – Reinforced Concrete Design	
CIVE 3614 – Engineering Surveying	
CIVE 3813 – Environmental Engineering Science	
CIVE 3833 – Applied Hydraulics	
CIVE 3843 – Hydrology I	
<b>Semester Credit Hours at OSU: 17</b>	

**\*Transfer students will benefit significantly by taking ENSC 3233 (online) in the summer prior to their first fall semester at OSU.**

**Action:** After semester five (first Fall 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](mailto:reversetransfer@tulsacc.edu) to complete this process. TCC will accept two Civil Engineering courses to complete the reverse transfer.

### Year Four – Oklahoma State University

*Fall*

OSU Requirement	✓
CIVE 3513 – Structural Steel Design	
CIVE 3633 – Transportation Engineering	
CIVE 4041 – Engineering Practice	
CIVE 4833 – Unit Operations in Environmental Engineering	
3 hours from Controlled Electives	
CIVE 3623 – Engineering Materials Laboratory	
<b>Semester Credit Hours at OSU: 16</b>	

*Spring*

OSU Requirement	✓
CIVE 4043 – Senior Design	
CIVE 4273 – Construction Engineering & Project Management	
IEM 3503 – Engineering Economic Analysis	
3 hours from Controlled Electives	
3 hours from Controlled Electives	
BIOL 1114 – Introductory Biology or GEOL 1114 – Physical Geology	
<b>Semester Credit Hours at OSU: 19</b>	

This plan is only one example of how a student may successfully complete degree requirements in four years. Students are responsible for completing the requirements as given in the official degree requirements sheet.

The TCC substitutions and equivalencies also apply to the Environmental option under Civil Engineering.

