



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

TULSA COMMUNITY COLLEGE (years 1 and 2) – 2021-22

Year One – Tulsa Community College						
Fall Semester			Spring Semester			
TCC Equivalent or Substitute	OSU Requirement	✓	TCC Equivalent or Substitute	OSU Requirement	<b>✓</b>	
ENGR 1111 – Intro to Engineering	ENGR 1111		ENGR 1242 – Intro to Engineering Computer Programming	ENGR 1412		
*CHEM 1365 – General Chemistry	CHEM 1414 + 1		ENGR 1132 – Engineering Design	ENGR 1332 subs		
for Engineers	hour elective		w/CAD - Solidworks	for ENGR 1322		
ENGL 1113 – Composition I	ENGL 1113		ENGL 1213 – Composition II	ENGL 1213		
*MATH 2114 – Calculus I	MATH 2144		PHYS 2034 – Engineering Physics I	PHYS 2014		
HIST 1483 – Am Hist 1492 – Civil War or HIST 1493 – Am Hist Civil War - Pres	HIST 1483 (H) or HIST 1493 (DH)		MATH 2124 – Calculus II	MATH 2153 + 1 hour elective		
Semester Credit Hours at TCC: 16		Semester Credit Hours at TCC: 15				

<sup>\*</sup>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 Semester			Spring Semester			
TCC Equivalent or Substitute	OSU Requirement	✓	TCC Equivalent or Substitute	OSU Requirement	<b>✓</b>	
ENGR 2103 – Statics	ENSC 2113		ENGR 2523 – Elementary Dynamics	ENSC 2123		
Humanities (3 credit hours)	Humanities		ENGR 2143 – Strength of Materials	ENSC 2143		
PHYS 2124 – Engineering Physics II	PHYS 2114		Humanities (3 credit hours)	Humanities		
POLS 1113 – American Government	POLS 1113		MATH 2134 – Calculus III	MATH 2163 + 1 hour elective		
MATH 2613 – Differential Equations	MATH 2233		COMM 1113 – Public Speaking	SPCH 2713 (S)		
Semester Credit Hours at TCC: 16			Semester Credit Hours at TCC: 16			

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

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.





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

## OKLAHOMA STATE UNIVERSITY (years 3 and 4) - 2021-22

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Year Three – Oklahoma State University					
Fall Semester		Spring Semester			
OSU Requirement	<b>√</b>	OSU Requirement	✓		
*ENSC 3233 – Fluid Mechanics (summer, online is best)		ENSC 2141 – Strength of Materials Lab			
CIVE 2041 – Civil & Environmental Engineering Seminar		CIVE 3523 – Reinforced Concrete Design			
CIVE 2081 – Environmental Chemistry for Engineers		CIVE 3614 – Engineering Surveying			
CIVE 3413 – Structural Analysis		CIVE 3813 – Environmental Engineering Science			
CIVE 3714 – Introduction to Geotechnical Engineering		CIVE 3833 – Applied Hydraulics			
ENSC 3231 – Fluids & Hydraulics Lab		CIVE 3843 – Hydrology I			
STAT 4033 – Engineering Statistics or STAT 4073 –					
Engineering Statistics with Design of Experiments					
Semester Credit Hours at OSU: 16 (or 13 with 3 in summer)		Semester Credit Hours at OSU: 17			

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

<sup>\*\*</sup>Action: After semester five (first semester at OSU) students should complete a reverse transfer to earn their A.S. Mechanical Engineering from Tulsa Community College. Contact <a href="mailto:reversetransfer@tulsacc.edu">reversetransfer@tulsacc.edu</a> to complete this process. TCC will accept two Civil Engineering courses to complete the reverse transfer.

Year Four – Oklahoma State University					
Fall Semester		Spring Semester			
OSU Requirement	✓	OSU Requirement	<b>✓</b>		
CIVE 3513 – Structural Steel Design		CIVE 4043 – Senior Design			
CIVE 3633 – Transportation Engineering		CIVE 4273 – Construction Engineering & Project Management			
CIVE 4041 – Engineering Practice		IEM 3503 – Engineering Economic Analysis			
CIVE 4833 – Unit Operations in Environmental Engineering		3 hours from Controlled Electives			
3 hours from Controlled Electives		3 hours from Controlled Electives			
CIVE 3623 – Engineering Materials Laboratory		BIOL 1114 – Introductory Biology or GEOL 1114 – Physical Geology			
Semester Credit Hours at OSU: 16		Semester Credit Hours at OSU: 19			

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.

