Bachelor of Science in Civil Engineering
McLennan Community College
2+2 Transfer Guide

McLennan Community College & Angelo State University Transfer Plan for Civil Engineering, Associate of Science (A.S.) Bachelor of Science in Civil Engineering (B.S.C.E.)						
McLennan Community College Fall Semester Year 1		**sch**		**McLennan Community College Spring Semester Year 1**		**sch**
ENGR 1201 (Program Requirement)	Introduction to Engineering *will transfer as ASU's ENGR 1201*	2		ENGR 2304 (Program Requirement)	Programming for Engineers *will transfer as ASU's ENGR 2304*	3
ENGR 1304 (Program Requirement)	Engineering Graphics I *will transfer as ASU's ENGR 1304*	3		ENGR 1307 (Program Requirement)	Plane Surveying *will transfer as ASU's ENGR 1307*	3
MATH 2413 (Core 020N & Major Support Course)	Calculus I *will transfer as ASU's MATH 2413*	4		PHYS 2425 (Core 030N & Major Support Course)	University Physics I *will transfer as ASU's PHYS 2325* ***AND*** *PHYS 2125*	4
ENGL 1301 (Core 010N)	Composition I *will transfer as ASU's ENGL 1301*	3		MATH 2414 (Major Support Course)	Calculus II *will transfer as ASU's MATH 2414*	4
EDUC 1100 **OR** EDUC 1300[1] (Major Support Course)	Learning Frameworks *will transfer as ASU's USTD NENA (GS 1181)*	1 / 3		ENGL 2311 (Core 010N)	Technical & Business Writing *will transfer as ASU's ENGL 2311*	3
HIST 1301 (Core 060N)	United States History I *will transfer as ASU's HIST 1301*	3				
	TOTAL	**16 /18**			TOTAL	**17**
McLennan Community College Fall Semester Year 2		**sch**		**McLennan Community College Spring Semester Year 2**		**sch**
ENGR 2301 (Program Requirement)	Engineering Mechanics: Statics *will transfer as ASU's ENGR 2301*	3		ENGR 2302 (Program Requirement)	Engineering Mechanics: Dynamics *will transfer as ASU's ENGR 2302*	3
ENGR 2308 (Program Requirement)	Engineering Economics *will transfer as ASU's ENGR 2318*	3		ENGR 2332 (Program Requirement)	Mechanics of Materials *will transfer as ASU's ENGR 2332*	3
PHYS 2426 (Core 030N & Major Support Course)	University Physics II *will transfer as ASU's PHYS 2326* ***AND*** *PHYS 2126*	4		CHEM 1409 (Area B 090N & Major Support Course)	Chemistry for Engineers *will transfer as ASU's CHEM 1311* ***AND*** *1111*	4
MATH 2415[2] (Major Support Course)	Calculus III *will transfer as ASU's MATH NENA*	4		MATH 2320[3] (Major Support Course)	Differential Equations *will transfer as ASU's MATH NENA*	3

MATH 2318[3] (Major Support Course)	Linear Algebra *will transfer as ASU's MATH NENA*	3		SPCH 1315 (Area A 091)	Public Speaking *will transfer as ASU's COMM 1315*	3
	TOTAL	**17**			TOTAL	**16**
				TOTAL DEGREE HOURS		**66 / 68**

[1] MCC's EDUC 1100 or EDUC 1300 will transfer as ASU's USTD NENA and is approved to substitute ASU's GS 1181 (Freshman Seminar Course).

[2]MATH 2415 will transfer in as MATH NENA. MATH 2415 is approved to substitute MATH 3415 for the purpose of this agreement with the DLH Department of Engineering. If a student changes their major, the substitution will not apply to their new degree plan.

[3]MATH 2318 will transfer as MATH NENA and MATH 2320 will transfer as MATH NENA. Taking both MATH 2318 and MATH 2320 are approved to substitute ASU's MATH 3324. This is approved for the purpose of this agreement with the DLH Department of Engineering. If a student changes their major, the substitution will not apply to their new degree plan.

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ASU Fall Semester Year 1		**sch**		**ASU Spring Semester Year 1**		**sch**
CENG 3361 (Program Requirement)	Structural Analysis I	3		ENGR 3404 (Program Requirement)	Introduction to Fluid Mechanics	4
POLS 2305 (Core 070N)	Federal Government (Federal Constitution and Topics)	3		CENG 3341 (Program Requirement)	Geotechnical Engineering	3
BIOL 1306/1106, 1307/1107, 1308/1108, 1309/1109, **OR** GEOL 1303/1103[4] (Major Support Course)	Principles of Bio I/Lab, Principles of Bio II/Lab, Human Bio/Lab, Man and the Environment/Lab, **OR** Physical Geology/Lab	4		HIST 1302 (Core 060N)	History of the United States, 1865 to Present	3
ENGR 3331 (Program Requirement)	Engineering Materials	3		ENGR 3305 (Program Requirement)	Probability and Risk in Engineering	3
	TOTAL	**13**			TOTAL	**13**

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ASU Fall Semester Year 2		**sch**		**ASU Spring Semester Year 2**		**sch**
CENG 3311 (Program Requirement)	Introduction to Transportation Engineering	3		CENG 3352 (Program Requirement)	Hydrology and Hydraulics	3
Creative Arts (Core 050N)		3		ENGR 4201 (Program Requirement)	Professional Engineering Practice	2
CENG 3351 (Program Requirement)	Introduction to Environmental Engineering	3		Technical Elective (adv) (Program Requirement)		3
CENG/MATH/ Science Elective (adv) (Program Requirement)		3		Design Elective (adv) (Program Requirement)		3
				Social and Behavioral Sciences (Core 080N)		3
	TOTAL	**12**			TOTAL	**14**
ASU Fall Semester Year 3		**sch**				
CENG 4380 (Program Requirement)	Civil Engineering Senior Design	3				
Design Elective (adv) (Program Requirement)		3				
Language, Philosophy, and Culture (Core 040N)		3				
POLS 2306 (Core 070N)	Texas Government (Texas Constitution and Topics)	3				
	TOTAL	**12**				
				B.S.C.E. TOTAL DEGREE HOURS		**130 / 132**

[4]Or other core science course outside of chemistry and physics, with departmental approval.

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Civil Engineering Fundamentals

I. Overall GPA of at least 2.50.
II. Completion of the sequence below with a GPA of at least 2.50:
- Engineering 1201 – Introduction to Engineering
- Engineering 1304 – Engineering Graphics
- Engineering 1307 – Plane Surveying or Engineering 1308 - Introduction to Geomatics
- Engineering 2301* - Engineering Mechanics – Statics
- Engineering 2302* - Engineering Mechanics – Dynamics
- Mathematics 2413* - Calculus I
- Mathematics 2414*- Calculus II
- Physics 2325/2125* - Fundamentals of Physics I
- Physics 2326/2126* - Fundamentals of Physics II

III. Successful completion of the advancement exam.

*A grade of "C" or better is required for these courses.

Additional Notes

Please Note: This guide is for students to utilize as a reference of what courses they can take at each institution. It's possible for students to take these courses in a different sequence if they are coming in with prior credit or if there are changes to course offerings and degree plans. Therefore, it is encouraged for students to reach out to their academic advisor at each institution to discuss current course options and sequences.

If students do not take MATH 2318: Linear Algebra at MCC, students will then need to take either MATH 3301 or MATH 3324 at ASU. Students are encouraged to reach out to the Academic Advisor at ASU to determine the best course option to meet the MATH 3324 requirement.