

Bachelor of Science in  
 Mechanical Engineering  
 Western Texas College  
 Without Summer Semesters  
 2+2 Transfer Guide

Western Texas College & Angelo State University Transfer Plan for Bachelor of Science in Mechanical Engineering (B.S.M.E.) without Summer Semesters					
Western Texas College Fall Semester Year 1		sch	Western Texas College Spring Semester Year 1		sch
MATH 1314 <sup>1</sup> (Core 020N)		3	CHEM 1311 (Core 030N & Major Support Course)	Prerequisite Requirement: <i>MATH 1314</i>	3
ENGL 1301 (Core 010N)		3	CHEM 1111 (Major Support Course)	Prerequisite Requirement: <i>MATH 1314</i>	1
HIST 1301 (Core 060N)		3	MATH 1316 <sup>1</sup>	Prerequisite Requirement: <i>MATH 1314</i>	3
Social and Behavioral Sciences (Core 080N)		3	ENGL 1302 (Core 010N)	Prerequisite Requirement: <i>ENGL 1301</i>	3
Language, Philosophy, and Culture (Core 040N)		3	HIST 1302 (Core 060N)		3
Elective		1	SPCH 1315 (Area A 091)		3
	TOTAL	<b>16</b>		TOTAL	<b>16</b>
Western Texas College Fall Semester Year 2		sch	Western Texas College Spring Semester Year 2		sch
MATH 2413 (Cal I) (Area B 090N & Major Support Course)	Prerequisite Requirement: <i>MATH 1314 &amp; MATH 1316</i>	4	PHYS 2325 (Core 030N & Major Support Course)	Prerequisite Requirement: <i>MATH 2413</i>	3
MATH/Sci Elective <sup>2</sup> (Program Requirement)		4	PHYS 2125 (Major Support Course)	Prerequisite Requirement: <i>MATH 2413</i>	1
GOVT 2305 (Core 070N)		3	MATH 2414 (Cal II) (Major Support Course)	Prerequisite Requirement: <i>MATH 2413</i>	4
Creative Arts (Core 050N)		3	ENGR 2318	Prerequisite Requirement: <i>MATH 1314</i>	3



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Core 090 Course <sup>3</sup>		3	GOVT 2306 (Core 070N)		3
	TOTAL	<b>17</b>		TOTAL	<b>14</b>
			TOTAL CREDIT HOURS		<b>60<sup>4</sup></b>

Indicates course taken at ASU through co-enrollment.

<sup>1</sup>MATH 1314 and MATH 1316 are not required for the degree; however, the courses are prerequisites to enroll in MATH 2413. Student may be eligible to enroll directly in MATH 2413 if the student meets other qualifications set by WTC.

<sup>2</sup>WTC offers equivalent Biology courses to meet this requirement at ASU. ASU requires 3 credits of one of the following courses offered at WTC: BIOL 1306/1106 OR BIOL 1406; BIOL 1307/1107 OR BIOL 1407; BIOL 1408; OR BIOL 1409.

<sup>3</sup>WTC's catalog lists that students can take either MATH 1350, EDUC 1300, PSYC 1300, PHED 1301, PHED 1338, or SOCI 2340 to satisfy the 3 remaining hours for the Core 090 requirement. Either of these courses are approved to substitute ASU's GS 1181 (Freshman Seminar) requirement for the purpose of this agreement with the David L. Hirschfeld Department of Engineering.

<sup>4</sup>Total degree hours for WTC does not include the co-enrolled Engineering course. However, this course is included in the overall hours for ASU.

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ASU Fall Semester Year 1		sch	ASU Spring Semester Year 1		sch
ENGR 1201 (Program Requirement)		2	ENGR 2332 (Program Requirement)	Prerequisite Requirement: <i>ENGR 2301 &amp; MATH 2414</i>	3
MATH 3415 (Major Support Course)	Prerequisite Requirement: <i>MATH 2414</i>	4	ENGR 2302 (Program Requirement)	Prerequisite Requirement: <i>ENGR 2301</i>	3
ENGR 2301 (Program Requirement)	Prerequisite Requirement: <i>PHYS 2325/2125 &amp; MATH 2414</i>	3	ENGR 1304 (Program Requirement)	Prerequisite Requirement: <i>ENGR 1201</i>	3
PHYS 2326/2126 (Major Support Course)	Prerequisite Requirement: <i>Concurrent enrollment in, or credit for, Mathematics 2413 is required</i>	4	ENGR 3305 (Program Requirement)	Prerequisite Requirement: <i>MATH 2415 OR MATH 3415</i>	3
Programming Course: CS 1314 or CS 1336 (Program Requirement)		3	MATH 3324 (Major Support Course)	Prerequisite Requirement: <i>MATH 2414</i>	3
	TOTAL	<b>16</b>		TOTAL	<b>15</b>

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ASU Fall Semester Year 2		sch	ASU Spring Semester Year 2		sch
MENG 2311 (Program Requirement)	Prerequisite Requirement: <i>MATH 2414</i>	3	MENG 3351 (Program Requirement)	Prerequisite Requirement: <i>ENGR 2305, ENGR 3305 &amp; MATH 3324</i>	3
ENGR 3404 (Program Requirement)	Prerequisite Requirement: <i>ENGR 2302</i>	4	ENGR 4201 (Program Requirement)	Prerequisite Requirement: <i>Sr. Standing</i>	2
MENG 3441 (Program Requirement)	Prerequisite Requirement: <i>ENGR 2302 &amp; 3324</i>	4	MENG Technical Elective (Program Requirement)	Prerequisite Requirement: <i>Varies by Course</i>	3
ENGR 2305 (Program Requirement)	Prerequisite Requirement: <i>MATH 2413 &amp; PHYS 2326/2126</i>	3	MENG 3411 (Program Requirement)	Prerequisite Requirement: <i>MENG 2311; MATH 3324; completion, or concurrent enrollment in ENGR 3404</i>	4
			MENG 4279 (Program Requirement)	Prerequisite Requirement: <i>Sr. Standing</i>	2
	TOTAL	<b>14</b>		TOTAL	<b>14</b>
<b>ASU Fall Semester Year 3</b>		<b>sch</b>			
MENG Design Elective (Program Requirement)	Prerequisite Requirement: <i>Varies by Course</i>	3			
MENG Design Elective (Program Requirement)	Prerequisite Requirement: <i>Varies by Course</i>	3			
MENG 4380 (Program Requirement)	Prerequisite Requirement: <i>Sr. Standing</i>	3			
MENG Elective (Program Requirement)	Prerequisite Requirement: <i>Varies by Course</i>	3			
ENGR 3331 (Program Requirement)	Prerequisite Requirement: <i>CHEM 1311/1111 &amp; ENGR 2332</i>	3			
	TOTAL	<b>15</b>			
<b>B.S.M.E. TOTAL DEGREE HOURS</b>					<b>137<sup>5</sup></b>

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<sup>5</sup> Overall hours does include the hours from the co-enrolled Engineering course (ENGR 2318).

#### Mechanical 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 2301\* - Engineering Mechanics – Statics
  - Engineering 2302\* - Engineering Mechanics – Dynamics
  - Engineering 2305 – Electrical Circuits
  - 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

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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.

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Most co-enrolled courses through ASU are currently offered in-person at the ASU campus. Select ASU co-enrolled courses are offered online. It is encouraged for students to reach out to their academic advisor at each institution to discuss course options and sequences.