



Bachelor of Science in Mechanical Engineering Houston Community College 2+2 Transfer Guide



Houston Community College & Angelo State University Transfer Plan for Engineering Science- Mechanical Engineering, A.S. Bachelor of Science in Mechanical Engineering (B.S.M.E.)					
Houston Community College Fall Semester Year 1		sch	Houston Community College Spring Semester Year 1		sch
ENGR 1201 (Program Requirement)	Introduction to Engineering <i>will transfer as ASU's ENGR 1201</i>	2	ENGR 1304 (Program Requirement)	Engineering Graphics I <i>will transfer as ASU's ENGR 1304</i>	3
ENGL 1301 (Core 010N)	Composition I <i>will transfer as ASU's ENGL 1301</i>	3	ENGL 2311 (Core 010N)	Technical & Business Writing <i>will transfer as ASU's ENGL 2311</i>	3
HIST 1301 (Core 060N)	United States History I <i>will transfer as ASU's HIST 1301</i>	3	MATH 2414 (Major Support Course)	Calculus II <i>will transfer as ASU's MATH 2414</i>	4
MATH 2413 (Core 020N & Major Support Course)	Calculus I <i>will transfer as ASU's MATH 2413</i>	4	PHYS 2325 (Core 030N & Major Support Course)	University Physics I (Lecture) <i>will transfer as ASU's PHYS 2325</i>	3
CHEM 1311/1111 (Area B 090N & Major Support Course)	General Chemistry I (Lecture & Lab) <i>will transfer as ASU's CHEM 1311/1111</i>	4	PHYS 2125 (Core 030N & Major Support Course)	University Physics I (Lab) <i>will transfer as ASU's PHYS 2125</i>	1
			ENGR 2304 (Program Requirement)	Programming for Engineers <i>will transfer as ASU's ENGR 2304</i>	3
	TOTAL	16		TOTAL	17
Houston Community College Fall Semester Year 2		sch	Houston Community College Spring Semester Year 2		sch
ENGR 2301 (Program Requirement)	Engineering Mechanics-Statics <i>will transfer as ASU's ENGR 2301</i>	3	ENGR 2305 (Program Requirement)	Electrical Circuits I (Lecture) <i>will transfer as ASU's ENGR 2305</i>	3
MATH 2415 ¹ (Major Support Course)	Calculus III <i>will transfer as ASU's MATH CENA</i>	4	ENGR 2105 ² (Major Support Course)	Electrical Circuits I (Lab) <i>will transfer as ASU's ENGR NENA</i>	1
GOVT 2305 (Core 070N)	Federal Government <i>will transfer as ASU's POLS 2305</i>	3	ENGR 2302 (Program Requirement)	Engineering Mechanics-Dynamics <i>will transfer as ASU's ENGR 2302</i>	3
PHYS 2326 (Core 030N & Major Support Course)	University Physics II (Lecture) <i>will transfer as ASU's PHYS 2326</i>	3	MATH 2320 ³ (Major Support Course)	Differential Equations <i>will transfer as ASU's MATH CENA</i>	3
PHYS 2126 (Core 030N & Major Support Course)	University Physics II (Lab) <i>will transfer as ASU's PHYS 2126</i>	1	ECON 2301 OR ECON 2302 (Core 080N)	Principles of Macroeconomics OR Principles of Microeconomics <i>will transfer as ASU's ECON 2301 OR</i>	3



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				<i>ECON 2302 (Social & Behavioral Sciences)</i>	
	TOTAL	14		TOTAL	13
			TOTAL DEGREE HOURS		60

¹MATH 2415 will transfer as MATH CENA. MATH 2415 is approved to substitute MATH 3415 for the purpose of this agreement with the David L. Hirschfeld Department of Engineering. If a student changes their major, the substitution will not apply to their new degree plan.

²ENGR 2105 will transfer as ENGR NENA. ENGR 2105 is approved to substitute ASU's GS 1181 Freshman Seminar course for the purpose of this agreement with David L. Hirschfeld Department of Engineering. If a student changes their major, the substitution will not apply to their new degree plan.

³MATH 2320 will transfer as MATH CENA. Students will then have the option to a) take MATH 3301 at ASU or b) take MATH 3324 at ASU. Please note, taking both, MATH 2320 and MATH 3301 are approved to substitute ASU's MATH 3324 for the purpose of this agreement with the David L. Hirschfeld Department of Engineering. If a student changes their major, the substitution will not apply to their new degree plan.

Houston Community College & Angelo State University Transfer Plan for Engineering Science- Mechanical Engineering Field of Study, A.S. Bachelor of Science in Mechanical Engineering (B.S.M.E.)					
ASU Fall Semester Year 1		sch	ASU Spring Semester Year 1		sch
COMM 1315 <i>(Area A 091)</i>	Public Speaking	3	ENGR 2318 <i>(Program Requirement)</i>	Sustainable Development Principles	3
Creative Arts <i>(Core 050N)</i>		3	ENGR 2332 <i>(Program Requirement)</i>	Mechanics of Materials	3
MATH 3301 OR MATH 3324 <i>(Major Support Course)</i>	Linear Algebra OR Applied Math for Engineering	3	ENGR 3305 <i>(Program Requirement)</i>	Probability and Risk in Engineering	3
ENGR 3404 <i>(Program Requirement)</i>	Introduction to Fluid Mechanics	4	MENG 3351 <i>(Program Requirement)</i>	Measurement and Instrumentation	3
HIST 1302 <i>(Core 060N)</i>	History of the United States, 1865 to Present	3	POLS 2306 <i>(Core 070N)</i>	Texas Government (Texas Constitution and Topics)	3
	TOTAL	16		TOTAL	15
ASU Fall Semester Year 2		sch	ASU Spring Semester Year 2		sch
MENG 2311 <i>(Program Requirement)</i>	Engineering Thermodynamics	3	MENG Elective		3



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			(Program Requirement)		
MENG 3441 (Program Requirement)	Mechanisms and Dynamics of Machines	4	MENG 4279 (Program Requirement)	Mechanical Engineering Senior Design I	2
ENGR 3331 (Program Requirement)	Engineering Materials	3	MENG Design Elective (Program Requirement)		3
Mathematics/ Science Elective (Program Requirement)		3	MENG 3411 (Program Requirement)	Heat Transfer	4
			ENGR 4201 (Program Requirement)	Professional Engineering Practice	2
	TOTAL	13		TOTAL	14
ASU Fall Semester Year 3		sch			
Language, Philosophy & Culture (Core 040N)		3			
MENG 4380 (Program Requirement)	Mechanical Engineering Senior Design II	3			
MENG Design Elective (Program Requirement)		3			
MENG Technical Elective (Program Requirement)		3			
	TOTAL	12			
			B.S.M.E TOTAL DEGREE HOURS		130



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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

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.