



Associate of Science in Engineering Science (ASES) to Bachelor of Science in Mechanical Engineering (BSME) Academic Map ASU

Student Name _____

SWTX ID# _____

SWTX Email _____@SWTJC.EDU

Advisor _____

By checking this box, you agree to allow Southwest Texas College (SWTX) to share your directory information with Angelo State University (ASU) for the purpose of tracking and transfer assistance that is part of the SWTX/ASU Memorandum of Understanding. SWTX and ASU will not share this information with any third party members.

Student's Signature _____ Date _____

SWTX Fall Semester Year 1		sch	SWTX Spring Semester Year 1		sch
EDUC 1300	Learning Framework ¹	3	ENGR 1304	Engineering Graphics	3
ENGL 1301	Composition I	3	ENGL 1302	Composition II	3
MATH 2413	Calculus I	4	MATH 2414	Calculus II	4
CHEM 1311	General Chemistry I	3	PHYS 2325	University Physics I	3
CHEM 1111	General Chemistry I Lab	1	PHYS 2125	University Physics I Lab	1
ENGR 1201	Introduction to Engineering	2	GOVT 2306	Texas Government	3
		16			17
SWTX Fall Semester Year 2		sch	SWTX Spring Semester Year 2		sch
ENGR 2304	Programming for Engineers	3	ENGR 2305	Circuit Analysis I	3
ENGR 2301	Engineering Mechanics - Statics	3	ENGR 2105	Circuits Analysis I Lab	1
MATH 2415	Calculus III ²	4	MATH 2320	Differential Equations ³	3
PHYS 2326	University Physics II	3	ENGR 2302	Engineering Mechanics - Dynamics	3
PHYS 2126	University Physics II Lab	1	ECON 2301	Principles of Macroeconomics	3
		14	HIST 1301	U. History I	3
					16
Core Courses: SWTX 28 sch + ASU 15 sch = 43 sch			ASES SWTX Total 63 sch		

¹ EDUC 1300 required of all first time in college students. EDUC 1300 does not count toward degree requirements at SWTX. EDUC 1300 will transfer as ASU's USTD NENA and is approved to substitute ASU's GS 1181 (Freshman Seminar (ASU course requirement)) for the purpose of this agreement with the David L. Hirschfeld Department of Engineering.

² MATH 2415 will transfer in as MATH NENA. MATH 2415 is approved to substitute MATH 3415 for the David L. Hirschfeld Department of Engineering programs. This substitution is only applicable to this program and this agreement.

³ MATH 2320 will transfer as MATH NENA. 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 David L. Hirschfeld Department of Engineering programs. This substitution is only applicable to this program and this agreement.

ASU Fall Semester Year 1			ASU Spring Semester Year 1		
COMM 1315	Public Speaking	3	ENGR 3305	Probability and Risk in Engineering	3
	Creative Arts	3	ENGR 2318	Sustainable Development Principles	3
MATH 3301 OR MATH 3324	Linear Algebra OR Applied Mathematics for Engineering	3	ENGR 2332	Mechanics of Materials	3
MENG 2311	Engineering Thermodynamics	3	POLS 2305	Federal Government (Federal Constitution and Topics)	3
			HIST 1302	U. S. History II	3
		12			15
ASU Fall Semester Year 2		sch	ASU Spring Semester Year 2		sch
ENGR 3404	Introduction to Fluid Mechanics	4	MENG 3411	Heat Transfer	4
MENG 3441	Mechanisms and Dynamics of Machines	4	MENG 4279	Mechanical Engineering Senior Design I	2
ENGR 3331	Engineering Materials	3	ENGR 4201	Professional Engineering Practice	2
Mathematics/ Science Elective		3	MENG Technical Elective		3
			MENG 3351	Measurement and Instrumentation	3
		14			14
ASU Fall Semester Year 3		sch			
MENG Design Elective		3			

MENG 4380		3			
MENG Design Elective		3			
Language, Philosophy & Culture		3			
MENG Elective		3			
		15			
Total SWTX 63 + ASU 70= 133 sch					Complete Total sch 133

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.

This transfer guide is active under the 2024-2025 and 2025-2026 Catalogs at ASU, students utilizing this transfer guide shall have full acceptance of academic credits earned at SWTX.

Revised: April **5, 2024** by: R. Davis (SWTX) & M. Hernandez (ASU)