

West Texas A&M University
Advising Services
Degree Checklist
2026-2027

(For assistance completing this form, contact Advising Services at 806-651-5300)

NAME: _____ **WT ID:** _____ **DATE:** _____

Mechanical Engineering (see ⚡ note below)
College of Engineering
ECS Building, Room 119 (806) 651-5257

Bachelor of Science Degree
BS.MECH.ENGR (129)
BS.PRE.ENGR.MECH (128)

CORE CURRICULUM COURSES: 42 HOURS		HRS
Communication (Core 10)		
ENGL 1301 Intro. To Academic Writing & Argumentation OR ENGL 1311 Writing About Ideas	3	
COMM 1315, 1318, or 1321	3	
Mathematics (Core 20)		
See University Core Requirements below	(3)	
Life and Physical Sciences (Core 30)		
See University Core Requirements below	(6)	
Language, Philosophy and Culture (Core 40)		
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; MCOM 1307; PHIL 1301, 2374; SPAN 2311*, 2312**/2313*, 2315*, 2315*, or 2371 Choose 1	3	
Creative Arts (Core 50)		
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 Choose 1	3	
American History (Core 60)		
HIST 1301, 1302, 2381, 2382, 2301 Choose 2	6	
Government/Political Science (Core 70)		
POSC 2305 and 2306	6	
Social and Behavioral Sciences (Core 80)		
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; GEOG 1302; PSYC 2301; SOCI 1301 Choose 1	3	
Component Area Option (Core 90)		
See University Core Requirements below	(6)	
MECHANICAL ENGINEERING MAJOR REQUIREMENTS: 95 HOURS		
<ul style="list-style-type: none"> • A grade of "C" or better must be earned in all courses required for major. • A grade of "C" or better is mandatory for all prerequisites listed for ECSM courses required for Civil Engineering majors. 		
UNIVERSITY CORE REQUIREMENTS: 15 HOURS ⬇		
CORE 20 MATH 2413*[3] Calculus I PME	3	
CORE 30 PHYS 2425*, 2425L Calculus Physics I PHYS 2426*, 2426L Calculus Physics II PME	6	
CORE 90 ENGL 1302* Academic Writing and Research OR ENGL 2311* Intro. to Professional and Technical Comm.	3	
CORE 90 MATH 2413[1] PME PHYS 2425L[1], PHYS 2426L[1]	3	
MECHANICAL ENGINEERING REQUIREMENTS: 80 HOURS		
ENGR 1171* Engineering Ethics	1	
ENGR 1301*, 1301L Fundamentals of Engineering PME	3	
ENGR 1304, 1304L Engineering Graphics	3	
ENGR 1375*, 1375L Principles of DC and AC Circuits	3	
ENGR 2301* Engineering Statics PME	3	
ENGR 2302* Engineering Dynamics PME	3	
ENGR 2332* Mechanics of Materials I	3	
ENGR 3202* Fundamentals of Engineering Economics	2	
ENGR 3305* Modern Engineering Tools	3	
ENGR 3371*, 3371L Materials & Fabric./Metals & Ceramics	3	

MENG 3304*, 3304L Fundamentals of Fluid Mechanics	3	
MENG 3320* Engineering Thermodynamics	3	
MENG 4330* Mechanical Vibration & Control Theory	3	
MENG 4350*, 4350L Advanced Mechanics and Design	3	
MENG 4352* Thermal-Fluid System Design	3	
MENG 4360*, 4360L Heat Transfer	3	
MENG 4380*, 4380L Mechanical Engineering Design	3	
CS 1315* Programming Fundamentals OR CS 1337, 1337L Programming Principles I PME	3	
MATH 2414* Calculus II PME	4	
MATH 3340* Calculus III	3	
MATH 3342* Differential Equations I	3	
CHEM 1411*, 1411L Chemistry I	4	
MENG ELECTIVE	3	
MENG ELECTIVE	3	
CS, ENGR, ET, CENG, EVEG or MENG ELECTIVE	3	
Take two courses from:		
MATH 3311* Linear Algebra	6	
MATH 4340* Complex Variables I		
MATH 4341* Advanced Calculus		
MATH 4361* Statistics for the Sciences		
MATH 4362* Introduction to Numerical Analysis		
PHYS 3310* Modern Physics I		
PHYS 4310* Modern Physics II		
PHYS 4330* Optics		
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE	122	

⚡ Mechanical Engineering Program admission requirements (PME): overall GPA of at least 2.25; completion of the pre-mechanical engineering sequence with a GPA of at least 2.75; and successful completion of entrance interview with a department adviser.

The pre-engineering sequence for the Mechanical Engineering Program includes required math prerequisites, if not completed during high school or by ACT/SAT scores (MATH 1314 or 1324 and MATH 1316 or 2412), and also MATH 2413, 2414, PHYS 2425, 2426, ENGR 1301, 2301, 2302, and CS 1315 or 1337.

* Indicates prerequisites—see catalog for more information.

** Or an equivalent course (second year, second semester) in a foreign language.

NOTE: This is NOT a degree plan. All undergraduate students must request an official degree plan from their academic dean's office by the time they have completed 30 credit hours.

WTAMU ADVISING SERVICES – 2026-2027 Curriculum Guide

Major: Mechanical Engineering, B.S.

**BS.MECH.ENGR (129)
BS.PRE.ENGR.MECH (128)**

Year 1: Fall		Year 1: Spring	
ENGR 1301/1301L Fundamentals of Engineering (PME ²)	3	ENGR 1304/1304L Engineering Graphics	3
CORE 10 (Communication) – ENGL 1301 or 1311	3	ENGR 2301 Engineering Statics (PME ²)	3
CORE 10 (Communication) – COMM 1315, 1318 or 1321	3	MATH 2414 Calculus II (PME ²)	4
CORE 20 (Mathematics) – MATH 2413 Calculus I (PME ²) (4 th hour counts toward Core 90)	4	CORE 30 (Life & Phys. Sci.) – PHYS 2426/2426L Calculus Physics II (PME ²) (4 th hour counts toward Core 90)	4
CORE 30 (Life & Phys. Sci.) – PHYS 2425/2425L Calculus Physics I (PME ²) (4 th hour counts toward Core 90)	4	CORE 40 (Lang., Phil. & Culture) ¹	3
Total:	17	Total:	17
Year 2: Fall		Year 2: Spring	
ENGR 2302 Engineering Dynamics (PME ²)	3	ENGR 2332 Mechanics of Materials I	3
MATH 3342 Differential Equations I	3	ENGR 3305 Modern Engineering Tools	3
CHEM 1411/1411L Chemistry I	4	ENGR 3371/3371L Materials & Fabrication/Metals & Ceramics	3
CORE 50 (Creative Arts) ¹	3	CS 1315 Programming Fundamentals or CS 1337/1337L Introduction to Object-Oriented Programming (PME ²)	3
CORE 90 (Component Area Option) – ENGL 1302, 1312 or 2311	3	CORE 60 (American History) ¹	3
Total:	16	Total:	15
Year 3: Fall		Year 3: Spring	
ENGR 1375/1375L Principles of DC & AC Circuits	3	ENGR 1171 Engineering Ethics	1
MENG 3304 Fundamentals of Fluid Mechanics	3	ENGR 3202 Fundamentals of Engineering Economics	2
MENG 3320 Engineering Thermodynamics	3	MENG 4330 Mechanical Vibration & Control Theory	3
MATH 3340 Calculus III	3	MENG 4350 Advanced Mechanics & Design	3
CORE 60 (American History) ¹	3	MENG 4360 Heat Transfer	3
Total:	15	CORE 70 (Govt./Political Sci.) – POSC 2305	3
		Total:	15
Year 4: Fall		Year 4: Spring	
MENG 4352 Thermal-Fluid System Design	3	MENG 4380 Mechanical Engineering Design (Senior Design)	3
MENG Elective	3	MENG Elective	3
CS, ENGR, ET, CENG, EVEG or MENG Elective	3	MATH/PHYS Elective – Take 2 nd of 2 courses from MATH 3311, 3343, 4340, 4341, 4361, 4362, PHYS 3310, 4310, 4330	3
MATH/PHYS Elective – Take 1 st of 2 courses from MATH 3311, 3343, 4340, 4341, 4361, 4362, PHYS 3310, 4310, 4330	3	CORE 80 (Soc. & Behav. Sci.) ¹	3
CORE 70 (Govt./Political Sci.) – POSC 2306	3	Total:	12
Total:	15		

¹ **CORE:** Mechanical Engineering majors are required to take specific courses for Core 20, Core 30, and Core 90. For all other categories, they may select from any available options (see degree checklist for options). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

² **(PME): Mechanical Engineering Program admission requirements:** overall GPA of at least 2.25; completion of the pre-mechanical engineering sequence with a GPA of at least 2.75; and successful completion of entrance interview with a department adviser. The pre-engineering sequence for the Mechanical Engineering Program includes required math prerequisites, if not completed during high school or by ACT/SAT scores (MATH 1314 or 1324 and MATH 1316 or 2412), and also MATH 2413, 2414, PHYS 2425, 2426, ENGR 1301, 2301, 2302, and CS 1315 or 1337.

Identified Marketable Skills	Top Three Local Employers or Industries/Professional Programs/Possible Career Opportunities
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Additional notes:

- The core curriculum must total exactly 42 hours; excess hours must be moved to the major as an elective or a major requirement and stay within the 120-hour requirement or approved total submitted to the Coordinating Board for degree requirements. Some majors specify particular courses to meet core curriculum requirements when options are available.

- At least 36 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU. A maximum of six semester hours in religion (RELI) and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

DISCLAIMER: This curriculum guide should be used in conjunction with the corresponding degree checklist for general planning purposes only. The degree checklist (later a student's official degree plan) should be referred to as the comprehensive list of all courses required for the degree. An official degree plan is required after completing 30 hours. Students should always seek the advice of their academic adviser before scheduling classes.