WTAMU ADVISING SERVICES – 2025-2026 Curriculum Guide

Major: Mechanical Engineering, B.S. **Major Code: 129**

Year 1: Fall	
ENGR 1301/1301L Fundamentals of Engineering **(PME[2])**	3
CORE 10 (Communication) – ENGL 1301 or 1311	3
CORE 10 (Communication)[1]	3
CORE 20 (Mathematics) – MATH 2413 Calculus I **(PME[2])** (4th hour counts toward Core 90)	4
CORE 30 (Life & Phys. Sci.) – PHYS 2425/2425L Calculus Physics I **(PME[2])** (4th hour counts toward Core 90)	4
Total:	17

Year 1: Spring	
ENGR 1304/1304L Engineering Graphics	3
ENGR 2301 Engineering Statics **(PME[2])**	3
MATH 2414 Calculus II **(PME[2])**	4
CORE 30 (Life & Phys. Sci.) – PHYS 2426/2426L Calculus Physics II **(PME[2])** (4th hour counts toward Core 90)	4
CORE 40 (Lang., Phil. & Culture)[1]	3
Total:	17

Year 2: Fall	
ENGR 2302 Engineering Dynamics **(PME[2])**	3
MATH 3342 Differential Equations I	3
CHEM 1411/1411L Chemistry I	4
CORE 50 (Creative Arts)[1]	3
CORE 90 (Component Area Option) – ENGL 1302, 1312 or 2311	3
Total:	16

Year 2: Spring	
ENGR 2332 Mechanics of Materials	3
ENGR 3305 Modern Engineering Tools	3
ENGR 3371/3371L Materials & Fabrication/Metals & Ceramics	3
CS 1315 Programming Fundamentals or CS 1337/1337L Introduction to Object-Oriented Programming **(PME[2])**	3
CORE 60 (American History)[1]	3
Total:	15

Year 3: Fall	
ENGR 1375/1375L Principles of DC & AC Circuits	3
MENG 3304 Fundamentals of Fluid Mechanics	3
MENG 3320 Engineering Thermodynamics	3
MATH 3340 Calculus III	3
CORE 60 (American History)[1]	3
Total:	15

Year 3: Spring	
ENGR 1171 Engineering Ethics	1
ENGR 3202 Fundamentals of Engineering Economics	2
MENG 4330 Mechanical Vibration & Control Theory	3
MENG 4350 Advanced Mechanics & Design	3
MENG 4360 Heat Transfer	3
CORE 70 (Govt./Political Sci.) – POSC 2305	3
Total:	15

Year 4: Fall	
MENG 4352 Thermal-Fluid System Design	3
MENG Elective	3
CS, ENGR, ET, CENG, EVEG or MENG Elective	3
MATH/PHYS Elective – Take 1st of 2 courses from MATH 3311, 3343, 4340, 4341, 4361, 4362, PHYS 3310, 4310, 4330	3
CORE 70 (Govt./Political Sci.) – POSC 2306	3
Total:	15

Year 4: Spring	
MENG 4380 Mechanical Engineering Design (Senior Design)	3
MENG Elective	3
MATH/PHYS Elective – Take 2nd of 2 courses from MATH 3311, 3343, 4340, 4341, 4361, 4362, PHYS 3310, 4310, 4330	3
CORE 80 (Soc. & Behav. Sci.)[1]	3
Total:	12

[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 (MATH 2413, 2414, PHYS 2425, 2426, CS 1315 or 1337, ENGR 1301, 2301, and 2302) with a GPA of at least 2.75; and successful completion of entrance interview with a department adviser.

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

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.