

WTAMU ADVISING SERVICES – 2024-2025 Curriculum Guide

Major: Mechanical Engineering, B.S.

Major Code: 129

Year 1: Fall		Year 1: Spring	
CORE 10 (Communication) – ENGL 1301 or 1311	3	ENGR 2301 Engineering Statics (PME ²)	3
CORE – See checklist for options ¹	3	ENGR 1304/1304L Engineering Graphics	3
CORE 20 (Mathematics) – MATH 2413 Calculus I (PME ²) - 4 th hour counts towards Core 90	4	CORE 30 (Life & Phys. Sci.) – PHYS 2426/2426L (PME ²) - 4 th hour counts towards Core 90	4
CORE 30 (Life & Phys. Sci.) – PHYS 2425/2425L (PME ²) - 4 th hour counts towards Core 90	4	MATH 2414 Calculus II (PME ²)	4
ENGR 1301/1301L Fundamentals of Engineering (PME ²)	3	CORE – See checklist for options ¹	3
Total:	17	Total:	17
Year 2: Fall		Year 2: Spring	
ENGR 2302 Engineering Dynamics (PME ²)	3	CS 1315 Programming Fundamentals or CS 1337/1337L Programming Principles I (PME ²)	3
CORE 90 (Component Area Option) – ENGL 1302, 1312, or 2311	3	ENGR 2332 Mechanics of Materials	3
CHEM 1411/1411L Chemistry I	4	ET 2371/2371L Materials & Fabrication/Metals & Ceramics	3
MATH 3342 Differential Equations I	3	ENGR 3305 Modern Engineering Tools	3
CORE – See checklist for options ¹	3	CORE – See checklist for options ¹	3
Total:	16	Total:	15
Year 3: Fall		Year 3: Spring	
MENG 3304 Fundamentals of Fluid Mechanics	3	ENGR 1171 Engineering Ethics	1
MENG 3320 Engineering Thermodynamics	3	MENG 4360 Heat Transfer	3
MATH 3340 Calculus III	3	MENG 4350 Advanced Mechanics and Design	3
ENGR 1375/1375L Principles of DC & AC Circuits	3	ENGR 3202 Fundamentals of Engineering Economics	2
Core - See checklist for options	3	MENG 4330 Mechanical Vibration & Control Theory	3
Total:	15	CORE – See checklist for options	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 1 st 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 – See checklist for options ¹	3
CORE – See checklist for options ¹	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). 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-civil 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.

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.

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- 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.

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