

**West Texas A&M University
Advising Services
Degree Checklist
2021-2022**

(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 119 651-5257**

CORE CURRICULUM COURSES: 42 HOURS ⬇		HRS	AC
Communication (10)			
ENGL 1301 Introduction to Academic Writing and Argumentation		3	
COMM 1315, 1318, or 1321		3	
Mathematics (20)			
See University Core Requirements below		(3)	
Life and Physical Sciences (30)			
See University Core Requirements below		(6)	
Language, Philosophy and Culture (40)			
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; MCOM 1307; PHIL 1301, 2374; SPAN 2311, 2312**/, 2313, 2315*, or 2371	Choose 1	3	
Creative Arts (50)			
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310	Choose 1	3	
American History (60)			
HIST 1301, 1302, 2301, 2381, 2382	Choose 2	6	
Government/Political Science (70)			
POSC 2305 and 2306		6	
Social and Behavioral Sciences (80)			
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; PSYC 2301; SOCI 1301	Choose 1	3	
Component Area Option (90)			
See University Core Requirements below		(6)	
MECHANICAL ENGINEERING MAJOR REQUIREMENTS: 95 HOURS			
• 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 MENG majors.			
UNIVERSITY CORE REQUIREMENTS: 15 HOURS ⬇			
CORE 20			
MATH 2413*[3] Calculus I	AC PME	3	
CORE 30			
PHYS 2425*[3] Calculus Physics I AND PHYS 2426*[3] Calculus Physics II	AC PME	6	
CORE 90			
ENGL 2311* Introduction to Professional and Technical Communication	AC	3	
CORE 90			
MATH 2413[1]; 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	AC
ENGR 1304 (125), 1304L Engineering Graphics		3	AC
ENGR 1375*, 1375L Principles of DC and AC Circuits		3	AC
ENGR 2301* Engineering Statics	PME	3	AC
ENGR 2302* Engineering Dynamics	PME	3	AC
ENGR 2332* Mechanics of Materials I		3	AC
ENGR 3202* Fundamentals of Engineering Economics		2	
ENGR 3305*, 3305L Modern Engineering Tools		3	
MENG 3320* Engineering Thermodynamics		3	

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

MENG 4304* Fundamentals of Fluid Mechanics		3	
MENG 4330* Mechanical Vibration & Control Theory		3	
MENG 4350* Advanced Mechanics and Design		3	
MENG 4352* Thermal-Fluid System Design		3	
MENG 4360* Heat Transfer		3	
MENG 4380* Mechanical Engineering Design		3	
CHEM 1411*, 1411L Chemistry I	AC	4	
CS 1315* Programming Fundamentals OR CS 1337, 1337L Intro. to Object-Oriented Prog.	AC PME	3	
ET 2371* 2371L Materials and Fabrication/Metals and Ceramics		3	
MATH 2414* Calculus II	AC PME	4	
MATH 3340* Calculus III	AC	3	
MATH 3342* Differential Equations I	AC	3	
MENG ELECTIVE		3	
MENG ELECTIVE		3	
Take two courses from:			
MATH 3311* Linear Algebra		6	
MATH 3343* Differential Equations II			
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			
CS, ENGR, ET, CENG, EVEG OR MENG ELECTIVE***		3	
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE		122	

⚡ **Mechanical Engineering Program admission requirements (PME):** overall GPA of at least 2.25; completion of the pre-engineering sequence (MATH 2413, 2414, PHYS 2425, 2426, ENGR 1301, 2301, 2302 and CS 1315 or 1337) with a GPA of at least 2.75; and successful completion of the entrance interview with a department adviser.

♦ 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.

* Indicates prerequisites—see catalog for more information.

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

*** Cannot repeat course content required elsewhere.

NOTE: 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.

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.



First Year					
Fall		Spring			
H o u r s 17	ENGR 1301	3	H o u r s 17	MATH 2414	4
	CORE 20-MATH 2413	4		CORE 30-LAB SCIENCE	4
	CORE 10-ENGL 1301	3		PHYS 2426/2426L	
	CORE 30-LAB SCIENCE	4		ENGR 1304	3
	PHYS 2425/2425L			ENGR 2301	3
	CORE 10-COMM	3		CORE 50-ARTS	3
				See Checklist for Options	

Second Year					
Fall		Spring			
H o u r s 16	CORE 60-HIST	3	H o u r s 15	ENGR 2332	3
	1301, 1302, 2301 or 2381			CORE 40	3
	CORE 90-ENGL	3		See Checklist for Options	
	ENGL 2311			CORE 60-HIST	3
	CHEM 1411/1411L	4		1301, 1302, 2301 or 2381	
	MATH 3342	3		CS 1315 OR 1337	3
ENGR 2302	3	ET 2371	3		

Third Year					
Fall		Spring			
H o u r s 15	MENG 4304	3	H o u r s 12	ENGR 1171	1
	MENG 3320	3		MENG 4360	3
	ENGR 3305	3		MENG 4350	3
	MATH 3340	3		ENGR 3202	2
	ENGR 1375	3		CORE 70-POSC	3
				2305 or 2306	

Fourth Year					
Fall		Spring			
H o u r s 15	CORE 70-POSC	3	H o u r s 15	MENG 4380	3
	2305 or 2306			MATH/PHYS ELECTIVE	3
	CORE 80	3		See Checklist for Options	
	MENG 4352	3		MENG 4330	3
	SPECIFIED ELECTIVE	3		MENG ELECTIVE	3
	See Checklist for Options			See Checklist for Options	
MATH/PHYS ELECTIVE	3	MENG ELECTIVE	3		
See Checklist for Options		See Checklist for Options			

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 45 hours. Students should always seek the advice of their academic adviser before scheduling classes.