West Texas A&M University
Advising Services
Degree Checklist
2019-2020

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

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

Mechanical Engineering (see ✍ note below)
School of Engineering, Computer Science and Mathematics
ECS Building, Room 119 651-5257

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

CORE CURRICULUM COURSES: 42 HOURS ♦	HRS		
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 1303, ARTS 1304; DANC 2303; MUSI 1306, MUSI 1307, MUSI 1310; or THRE 1310 **Choose 1**	3		
American History (60)			
HIST 1301, 1302, 2301, 2381 **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 **PME**	3		
CORE 30 **PHYS 2425*[3] Calculus Physics I AND** **PHYS 2426*[3] Calculus Physics II** **PME**	6		
CORE 90 ENGL 2311* Introduction to Professional and Technical Communication	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		
ENGR 1304 *(125),* 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*, 3305L Modern Engineering Tools	3		
MENG 3320* Engineering Thermodynamics	3		
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	4		
CS 1315* Programming Fundamentals OR **CS 1337, 1337L Intro. to Object-Oriented Prog.** **PME**	3		
ET 2371* 2371L Materials and Fabrication/Metals and Ceramics	3		
MATH 2414* Calculus II **PME**	4		
MATH 3340* Calculus III	3		
MATH 3342* Differential Equations I	3		
MENG ELECTIVE	3		
MENG ELECTIVE	3		
Take two courses from: MATH 3311* Linear Algebra 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	6		
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 39 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU; 30 of the final 36 hours counted toward the degree must be earned at WTAMU. A maximum of six semester hours in religion (RELI) and a maximum of six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

NOTE: This is NOT a degree plan. After completing 30 hours, students are encouraged to request an official degree plan by using the online Degree Plan Request form. The dean's office of the School of Engineering, Computer Science and Mathematics, located in the Engineering and Computer Science Building, Room 119 (or call 806-651-5257), can answer questions about the degree plan. Students who have completed 45 hours will not be allowed to progress without requesting a degree plan.

Advising Services

Mechanical Engineering

Engineering and Computer Science
Bachelor of Science Degree
BS.MECH.ENGR

2019 - 2020 Curriculum Guide

ECS 119 651-5257

Degree Plan Total Hours: 122

Major Code: 129

First Year

Fall		Hours	Spring	
ENGR 1301	3		MATH 2414	4
CORE 20-MATH 2413	4		CORE 30-LAB SCIENCE	4
			PHYS 2426/2426L	
CORE 10-ENGL 1301	3		ENGR 1304	3
CORE 30-LAB SCIENCE	4	17	ENGR 2301	3
PHYS 2425/2425L				
CORE 10-COMM	3		CORE 50-ARTS	3
1315, 1318 or 1321			See Checklist for Options	

Second Year

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

Third Year

Fall		Hours	Spring	
MENG 4304	3		ENGR 1171	1
MENG 3320	3		MENG 4360	3
ENGR 3305	3		MENG 4350	3
MATH 3340	3	12	ENGR 3202	2
ENGR 1375	3		CORE 70-POSC	3
			2305 or 2306	

Fourth Year

Fall		Hours	Spring	
CORE 70-POSC	3		MENG 4380	3
2305 or 2306				
CORE 80	3		MATH/PHYS ELECTIVE	3
See Checklist for Options			See Checklist for Options	
MENG 4352	3		MENG 4330	3
SPECIFIED ELECTIVE	3	15	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.

6/4/19