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:**_____

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

Bachelor of Science Degree
BS.ELEC.ENGR (840)
BS.PRE.ENG.ELECT (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*, 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)		
ELECTRICAL ENGINEERING MAJOR REQUIREMENTS: 98 HOURS • **A grade of "C" or better must be earned in all courses required for major.** • **A grade of "C" or better is required for all prerequisites listed for ECSM courses required for Electrical Engineering majors.**			
UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦			
CORE 20 **MATH 2413*[3] Calculus I** **PEEN**	3		
CORE 30 CHEM 1411*, 1411L Chemistry I	3		
CORE 30 **PHYS 2425*, 2425L Calculus Physics I** **PEEN**	3		
CORE 90 ENGL 1302* Academic Writing and Research **OR** ENGL 2311* Intro. to Professional and Technical Comm.	3		
CORE 90 **MATH 2413[1]** **PEEN** CHEM 1411L[1], PHYS 2425L[1]	3		
ENGINEERING CORE REQUIREMENTS: 15 HOURS			
ENGR 1171* Engineering Ethics	1		
ENGR 1301*,1301L Fundamentals of Engineering **PEEN**	3		
ENGR 1375*, 1375L Princ. of DC and AC Circuits **PEEN**	3		
ENGR 2350* Electronic Devices & Circuits	3		
ENGR 3202* Fundamentals of Engineering Economics	2		
CS 1315* Programming Fundamentals OR **PEEN** CS 1337, 1337L Programming Principles I	3		

ELECTRICAL ENGINEERING REQUIREMENTS: 39 HOURS		
EENG 2341* Linear Integrated Circuits and Applications	3	
EENG 2375* Signals and Systems I	3	
EENG 3305 Digital Design Fundamentals	3	
EENG 3334* Circuits II	3	
EENG 3340* Measurement and Instrumentation	3	
EENG 3355* Control Systems	3	
EENG 3360* Electric Machines	3	
EENG 4370* Power System Analysis	3	
EENG 4371* Electric Power Devices	3	
EENG 4372* Power Electronics and Power Management	3	
EENG 4373* Electric Drives	3	
EENG 4374* Electrical and Electronics Circuits Design	3	
EENG 4380* Senior Design	3	
MATH AND SCIENCE REQUIREMENTS: 20 HOURS		
MATH 2414* Calculus II **PEEN**	4	
MATH 3311* Linear Algebra	3	
MATH 3340* Calculus III	3	
MATH 3342* Differential Equations I	3	
MATH 4361* Statistics for the Sciences **OR** MATH 4362* Introduction to Numerical Analysis	3	
PHYS 2426*, 2426L Calculus Physics II **PEEN**	4	
ELECTRICAL ENGINEERING ELECTIVES: 6 HOURS		
CIDM 3385 Network Security and Data Communications **OR** CS 3372 Net-Centric Computing	3	
EENG elective (4000-level)	3	
GENERAL ELECTIVES: 3 HOURS		
Take one elective in CS, ENGR, ET, CENG, EENG, EVEG or MENG.	3	
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE	**125**	

✍ **Electrical Engineering Program admission requirements (PEEN):** overall GPA of at least 2.25; completion of the pre-electrical 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 Electrical 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, 1375, and CS 1315.

* 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: Electrical Engineering, B.S.

BS.ELEC.ENGR (840)
BS.PRE.ENG.ELECT (128)

Year 1: Fall	
ENGR 1301/1301L Fundamentals of Engineering **(PEEN[2])**	3
CORE 10 (Communication) – ENGL 1301 or 1311	3
CORE 10 (Communication) – COMM 1315, 1318 or 1321	3
CORE 20 (Mathematics) – MATH 2413 Calculus I **(PEEN[2])**	4
CORE 30 (Life & Phys. Sci.) – PHYS 2425/2425L Calculus Physics I **(PEEN[2])** (4th hour counts toward Core 90)	4
Total:	17

Year 1: Spring	
ENGR 1375/1375L Principles of DC & AC Circuits **(PEEN[2])**	3
MATH 2414 Calculus II **(PEEN[2])**	4
PHYS 2426 Calculus Physics II **(PEEN[2])**	4
CS 1315 Programming Fundamentals **or** CS 1337/1337L Intro. to Object-Oriented Programming **(PEEN[2])**	3
CORE 40 (Lang., Phil. & Culture)[1]	3
Total:	17

Year 2: Fall	
ENGR 2350 Introduction of Electronic Devices & Circuits	3
EENG 2341 Linear Integrated Circuits & Applications	3
MATH 3311 Linear Algebra	3
CORE 30 (Life & Phys. Sci.) – CHEM 1411/1411L Chemistry (4th hour counts toward Core 90)	4
CORE 90 (Component Area Option) – ENGL 1302, 1312 or 2311	3
Total:	16

Year 2: Spring	
EENG 2375 Signals and Systems I	3
EENG 3340 Measurements and Instrumentation	3
EENG 3360 Electric Machines	3
MATH 3340 Calculus III	3
CORE 60 (American History)[1]	3
Total:	15

Year 3: Fall	
EENG 3305 Digital Design Fundamentals	3
EENG 3334 Circuits II	3
EENG 3355 Control Systems	3
MATH 3342 Differential Equations I	3
CORE 50 (Creative Arts)[1]	3
Total:	15

Year 3: Spring	
ENGR 1171 Engineering Ethics	1
ENGR 3202 Fundamentals of Engineering Economics	2
EENG 4371 Electric Power Devices	3
Electrical Engineering Elective – Take 1st of 2 courses from: CS 3372 Net-Centric Computing **or** CIDM 3385 Network Security & Data Comm. **or** EENG 4000-level course	3
General Elective – Take one elective from CS, ENGR, ET, CENG, EENG, EVEG or MENG	3
CORE 70 (Govt./Political Sci.) – POSC 2305	3
Total:	15

Year 4: Fall	
EENG 4370 Power System Analysis	3
EENG 4372 Power Electronics & Power Management	3
EENG 4374 Electrical & Electronics Circuits Design	3
MATH 4361 Statistics for the Sciences **or** MATH 4362 Intro. to Numerical Analysis	3
CORE 60 (American History)[1]	3
Total:	15

Year 4: Spring	
EENG 4380 Senior Design	3
EENG 4373 Electric Drives	3
Electrical Engineering Elective – Take 2nd of 2 courses from: CS 3372 Net-Centric Computing **or** CIDM 3385 Network Security & Data Comm. **or** EENG 4000-level course	3
CORE 70 (Govt./Political Sci.) – POSC 2306	3
CORE 80 (Soc. & Behav. Sci.)[1]	3
Total:	15

[1] **CORE:** Electrical 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] **(PEEN): Electrical Engineering Program admission requirements:** overall GPA of at least 2.25; completion of the pre-electrical 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 Electrical 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, 1375, and CS 1315.

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.

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.