

West Texas A&M University

Advising Services

Degree Checklist

2024-2025

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

Name: _____ WT ID: _____ Date: _____

Electrical Engineering B.S.	
College of Engineering (ECS-119) (651-5257)	
Degree: Bachelor of Science (B.S.) See the "Requirements for Baccalaureate Degrees" section of the Catalog.	
Major: Electrical Engineering	BS.ELEC.ENGR / PRE.ENGR
Major Code: 840	
University Core Curriculum Requirements (42 hours)	Semester Credit Hours
Core 10 - Communication (3 hours from ENGL options) • ENGL 1301 or ENGL 1311	3
Core 10 - Communication (3 hours from COMM options) • COMM 1315; COMM 1318; or COMM 1321	3
Core 20 - Mathematics (3 hours) • See Major-Specific University Core Requirements below	
Core 30 - Life and Physical Sciences (6 hours) • See Major-Specific University Core Requirements below	
Core 40 - Language, Philosophy and Culture (3 hours) • ANTH 2351; ENGL 2321; ENGL 2326; ENGL 2331; ENGL 2341; ENGL 2343; HIST 2311; HIST 2323; HIST 2372; MCOM 1307; PHIL 1301; PHIL 2374; SPAN 2311; SPAN 2312 [or an equivalent course (second year or intermediate level) in a foreign language]; SPAN 2313; SPAN 2315; or SPAN 2371	3
Core 50 - Creative Arts (3 hours) • ARTS 1301; ARTS 1303; ARTS 1304; DANC 2303; MUSI 1306; MUSI 1307; MUSI 1310; or THRE 1310	3
Core 60 - American History (6 hours) • HIST 1301; HIST 1302; HIST 2301; HIST 2381; or HIST 2382	3
Core 70 - Government / Political Science (6 hours) • POSC 2305 and POSC 2306	3
Core 80 - Social and Behavioral Sciences (3 hours) • AGBE 2317; COMM 2377; CRIJ 1301; ECON 2301; ECON 2302; GEOG 1302; PSYC 2301; or SOCI 1301	3
Core 90 - Component Area Option (6 hours or fewer; may depend on major requirements) • See Major-Specific University Core Requirements below	

Electrical Engineering Major Requirements (98 hours)			
***** C or better required in all courses in the Major Requirements *****			
***** C or better required in all prerequisites listed for College of Engineering courses required for EENG majors *****			
Major-Specific University Core Requirements (15 hours)			
The following courses are required for their specific Core areas <u>instead of</u> the courses listed above in the general University Core Curriculum.			
Core 20 - Mathematics (3 hours) <ul style="list-style-type: none"> MATH 2413 - Calculus I (Fourth hour will count towards Core 90.) 	3		
Core 30 - Life and Physical Sciences (6 hours) <ul style="list-style-type: none"> CHEM 1411, 1411L - Chemistry I PHYS 2425, 2425L – Calculus Physics I (Lab hours will count towards Core 90.) 	3		
Core 90 - Component Area Option (6 hours) <ul style="list-style-type: none"> ENGL 1302 – Academic Writing and Research or ENGL 2311 – Introduction to Professional and Technical Communication Lab hours from CHEM 1411 and PHYS 2425 and fourth hour from MATH 2413 	3		
	1	1	1
Engineering Core Requirements (15 hours)			
ENGR 1171 - Engineering Ethics	1		
ENGR 1301 - Fundamentals of Engineering	3		
ENGR 1375 - Principles of DC and AC Circuits	3		
ENGR 2350 - Introduction of Electronic Devices and Circuits	3		
ENGR 3202 - Fundamentals of Engineering Economics	2		
CS 1315 - Programming Fundamentals or CS 1337 - Programming Principles I	3		
Electrical Engineering Major 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	4		
MATH 3311 - Linear Algebra	3		
MATH 3340 - Calculus III	3		
MATH 3342 - Differential Equations I	3		
PHYS 2426 - Calculus Physics II	4		

MATH 4361 - Statistics for the Sciences or MATH 4362 - Introduction to Numerical Analysis or PHYS 3340 - Electricity and Magnetism I	3
Electrical Engineering Electives (6 hours)	
Six hours from: CIDM 3385 - Network Security and Data Communications CS 3372 - Net-Centric Computing EENG 4000-level course	6
General Elective (3 hours)	
One elective in CS, ENGR, ET, CENG, EENG, EVEG or MENG	3
Total hours required to complete degree: 125 hours Depending on transfer credits and other substitutions/waivers, student may need to take additional electives as needed to total a minimum of 125 hours or the minimum total hours required for this degree, of which at least 36 must be advanced (3000/4000 level) and earned at WTAMU.	
Admission Requirements for Pre-Engineering and Electrical Engineering All electrical engineering students must meet WTAMU admission standards as outlined in this catalog. Upon admission to the University, all students are eligible to engage in and complete the first two years of the Engineering Program. In the semester during which students complete the pre-engineering sequence (cited below), they may petition for admittance into the Electrical Engineering Program. Every student enrolled in upper level electrical engineering courses must first be admitted into the Electrical Engineering Program or receive special permission from the program director.	
Criteria for Admission into Electrical Engineering Program <ul style="list-style-type: none"> • Overall GPA of at least 2.25 • Completion of the pre-engineering sequence • Successful completion of the entrance interview with adviser 	
Pre-Engineering Sequence Major Code: 128 The pre-engineering sequence must be completed with a GPA of at least 2.75.	
MATH 2413 - Calculus I	4
MATH 2414 - Calculus II	4
PHYS 2425 - Calculus Physics I	4
PHYS 2426 - Calculus Physics II	4
ENGR 1301 - Fundamentals of Engineering	3
CS 1315 - Programming Fundamentals	3
ENGR 1375 - Principles of DC and AC Circuits	3
ENGR 2350 - Introduction of Electronic Devices and Circuits	3
Note: Students pursuing an electrical engineering degree who do not meet the aforementioned criteria are to be listed as pre-engineering (major code 128) students. Students must appeal to the major department for any exceptions to this requirement.	
Prerequisites: Some courses may require prerequisites. See the University Catalog for more information.	

Advising Notes

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. In addition, this document is used as an advising resource. For official information, please refer to the University Catalog.