

**West Texas A&M University  
Advising Services  
Degree Checklist  
2020-2021**

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

NAME: \_\_\_\_\_ WT ID: \_\_\_\_\_ DATE: \_\_\_\_\_

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

CORE CURRICULUM COURSES: 42 HOURS ♦		HRS
<b>Communication (10)</b>		
ENGL 1301 Introduction to Academic Writing and Argumentation		3
COMM 1315, 1318, or 1321		3
<b>Mathematics (20)</b>		
See University Core Requirements below		(3)
<b>Life and Physical Sciences (30)</b>		
See University Core Requirements below		(6)
<b>Language, Philosophy and Culture (40)</b>		
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
<b>Creative Arts (50)</b>		
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310	Choose 1	3
<b>American History (60)</b>		
HIST 1301, 1302, 2301, 2381	Choose 2	6
<b>Government/Political Science (70)</b>		
POSC 2305 and 2306		6
<b>Social and Behavioral Sciences (80)</b>		
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; PSYC 2301; SOCI 1301	Choose 1	3
<b>Component Area Option (90)</b>		
See University Core Requirements below		(6)
<b>ELECTRICAL ENGINEERING MAJOR REQUIREMENTS: 92 HOURS</b>		
<ul style="list-style-type: none"> <li>• A grade of "C" or better must be earned in all courses required for major.</li> <li>• A grade of "C" or better is required for all prerequisites listed for ECSM courses required for EENG majors.</li> </ul>		
<b>UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦</b>		
<b>CORE 20</b> MATH 2413*[3] Calculus I	PEEN	3
<b>CORE 30</b> CHEM 1411*, 1411L Chemistry I		3
<b>CORE 30</b> PHYS 2425*[3] Calculus Physics I	PEEN	3
<b>CORE 90</b> ENGL 2311* Introduction to Professional and Technical Communication		3
<b>CORE 90</b> MATH 2413[1]; CHEM 1411L[1], PHYS 2425L[1]	PEEN	3
<b>ENGINEERING CORE CURRICULUM: 15 HOURS</b>		
ENGR 1171* Engineering Ethics		1
ENGR 1301*, 1301L Fundamentals of Engineering	PEEN	3
ENGR 1375*, 1375L Principles of DC & AC Circuits	PEEN	3
ENGR 2350* Intro. of Electronic Devices & Circuits	PEEN	3
ENGR 3202* Fundamentals of Engineering Economics		2
CS 1315* Programming Fundamentals	PEEN	3
<b>MAJOR REQUIREMENTS: 39 HOURS</b>		
EENG 2341* Linear Integrated Circuits and Applications		3
EENG 2375* Signals and Systems I		3
EENG 3305* Digital Design Fundamentals		3

**Bachelor of Science Degree**  
**BS.EENG (840)**  
**Pre-Engineering: PRE.ENGR (128) (see ⚡ below)**

EENG 3334* Circuits II		3
EENG 3340* Electronics I		3
EENG 3355* Control Systems		3
EENG 3360* Electromechanical Systems		3
EENG 4370* Electrical Power Devices		3
EENG 4371* Power System Analysis		3
EENG 4372* Power Electronics and Power Management		3
EENG 4373* Electrical Machinery		3
EENG 4374* Electrical and Electronics Circuits Design		3
EENG 4380* Senior Design		3
<b>MATH AND SCIENCE REQUIREMENTS: 20 HOURS</b>		
PHYS 2426*, PHYS 2426L Calculus Physics II	PEEN	4
MATH 2414* Calculus II	PEEN	4
MATH 3340* Calculus III		3
MATH 3342* Differential Equations I		3
MATH 3311* Linear Algebra		3
PHYS 3340* Electricity and Magnetism I		3
<b>ELECTRICAL ENGINEERING ELECTIVES: 6 HOURS</b>		
Take six hours from:		
EENG 3341* Electromagnetic Fields and Waves	6	
EENG 3352* Properties of Electronic Materials		
EENG 3354* VLSI Design		
EENG 3375* Signals and Systems II		
EENG 4363* Electrical Power Plants		
<b>GENERAL ELECTIVE: 3 HOURS</b>		
Take one elective in CS, ENGR, ET, CENG, EENG, EVEG or MENG.		3
<b>MINIMUM HOURS REQUIRED TO COMPLETE DEGREE</b>		<b>125</b>

⚡ **Electrical Engineering Program admission requirements (PEEN):** overall GPA of at least 2.25; completion of the pre-engineering sequence (MATH 2413, 2414, PHYS 2425, 2426, ENGR 1301, CS 1315, ENGR 1375, ENGR 2350) 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 must request an official degree plan (using the online [Degree Plan Request](#) form) in order to progress. Students who have questions about their degree plan should contact the office of the dean of the College of Engineering, located in the Engineering and Computer Science Building, Room 119 (or call 806-651-5257).**

# WTAMU ADVISING SERVICES

## 2020-2021 Curriculum Guide

**Major:** Electrical Engineering, B.S.

**Major Code:** 840

First Year <b>Boldface type indicates major requirements.</b>			
Fall		Spring	
CORE 10(1) - ENGL 1301	3	ENGR 1375	3
ENGR 1301	3	CS 1315	3
CORE 30(1) - PHYS 2425	3	CORE 30(2) PHYS 2426	3
CORE 90 - PHYS 2425L	1	CORE 90 - PHYS 2426L	1
CORE - See checklist for options <small>(see also Note 1 below)</small>	3	CORE - See checklist for options	3
CORE 20 - MATH 2413	4	MATH 2414	4
<b>Semester Hours</b>	<b>17</b>	<b>Semester Hours</b>	<b>17</b>

Second Year			
Fall		Spring	
MATH 3311	3	EENG 2375	3
MATH 3340	3	EENG 3305	3
CHEM 1411/1411L	4	EENG 3334	3
CORE 90 - ENGL 2311 <small>(required for major)</small>	3	MATH 3342	3
ENGR 2350	3	CORE - See checklist for options <small>(see also Note 1 below)</small>	3
<b>Semester Hours</b>	<b>16</b>	<b>Semester Hours</b>	<b>16</b>

Third Year			
Fall		Spring	
EENG 3360	3	EENG 4371	3
EENG 3340	3	ENGR 3202	2
EENG 3355	3	ENGR 1171	1
EENG 2341	3	EENG 4372	3
CORE - See checklist for options	3	<b>Electrical Engineering Elective</b>	3
		EENG 4363 <small>(see checklist or Note 2 below)</small>	
		CORE - See checklist for options	3
<b>Semester Hours</b>	<b>15</b>	<b>Semester Hours</b>	<b>15</b>

Fourth Year			
Fall		Spring	
EENG 4370	3	EENG 4373	3
EENG 4374	3	ENGR 4380	3
PHYS 3340	3	<b>Electrical Engineering Elective</b>	3
ECS Elective	3	EENG 3354 <small>(see checklist or Note 2 below)</small>	
CORE - See checklist for options <small>(see also Note 1 below)</small>	3	CORE - See checklist for options	3
		<small>(see also Note 1 below)</small>	
		CORE - See checklist for options	3
		<small>(see also Note 1 below)</small>	
<b>Semester Hours</b>	<b>15</b>	<b>Semester Hours</b>	<b>15</b>

### Degree Total Hours 120

**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.

#### Identified Marketable Skills:

#### Top 3 Local Employers or Industries/Professional Programs/Possible Career Opportunities

#### Prerequisites/Important Sequences/Other degree Notes:

**Note 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 checklist). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

**Note 2 - Electrical Engineering Electives:** Take six hours from EENG 3341, 3352, 3354, 3375, and 4363.