

WTAMU ADVISING SERVICES – 2025-2026 Curriculum Guide

Major: Electrical Engineering, B.S.

Major Code: 840

| Year 1: Fall | | Year 1: Spring | |
|--|-----------|--|-----------|
| ENGR 1301/1301L Fundamentals of Engineering (PEEN ²) | 3 | ENGR 1375/1375L Principles of DC & AC Circuits (PEEN ²) | 3 |
| CORE 10 (Communication) – ENGL 1301 or 1311 | 3 | MATH 2414 Calculus II (PEEN ²) | 4 |
| CORE 10 (Communication) ¹ | 3 | PHYS 2426 Calculus Physics II (PEEN ²) | 4 |
| CORE 20 (Mathematics) – MATH 2413 Calculus I (PEEN ²) | 4 | CS 1315 Programming Fundamentals or CS 1337/1337L Intro. to Object-Oriented Programming (PEEN ²) | 3 |
| CORE 30 (Life & Phys. Sci.) – PHYS 2425/2425L Calculus Physics I (PEEN ²) (4 th hour counts toward Core 90) | 4 | CORE 40 (Lang., Phil. & Culture) ¹ | 3 |
| Total: | 17 | Total: | 17 |
| Year 2: Fall | | Year 2: Spring | |
| ENGR 2350 Introduction of Electronic Devices & Circuits | 3 | EENG 2375 Signals and Systems I | 3 |
| EENG 2341 Linear Integrated Circuits & Applications | 3 | EENG 3340 Measurements and Instrumentation | 3 |
| MATH 3311 Linear Algebra | 3 | EENG 3360 Electric Machines | 3 |
| CORE 30 (Life & Phys. Sci.) – CHEM 1411/1411L Chemistry (4 th hour counts toward Core 90) | 4 | MATH 3340 Calculus III | 3 |
| CORE 90 (Component Area Option) – ENGL 1302, 1312 or 2311 | 3 | CORE 60 (American History) ¹ | 3 |
| Total: | 16 | Total: | 15 |
| Year 3: Fall | | Year 3: Spring | |
| EENG 3305 Digital Design Fundamentals | 3 | ENGR 1171 Engineering Ethics | 1 |
| EENG 3334 Circuits II | 3 | ENGR 3202 Fundamentals of Engineering Economics | 2 |
| EENG 3355 Control Systems | 3 | EENG 4371 Electric Power Devices | 3 |
| MATH 3342 Differential Equations I | 3 | Electrical Engineering Elective – Take 1 st of 2 courses from: CS 3372 Net-Centric Computing or CIDM 3385 Network Security & Data Comm. or EENG 4000-level course | 3 |
| CORE 50 (Creative Arts) ¹ | 3 | General Elective – Take one elective from CS, ENGR, ET, CENG, EENG, EVEG or MENG | 3 |
| Total: | 15 | CORE 70 (Govt./Political Sci.) – POSC 2305 | 3 |
| | | Total: | 15 |
| Year 4: Fall | | Year 4: Spring | |
| EENG 4370 Power System Analysis | 3 | ENGR 4380 Senior Design | 3 |
| EENG 4372 Power Electronics & Power Management | 3 | EENG 4373 Electric Drives | 3 |
| EENG 4374 Electrical & Electronics Circuits Design | 3 | Electrical Engineering Elective – Take 2 nd of 2 courses from: CS 3372 Net-Centric Computing or CIDM 3385 Network Security & Data Comm. or EENG 4000-level course | 3 |
| MATH 4361 Statistics for the Sciences or MATH 4362 Intro. to Numerical Analysis | 3 | CORE 70 (Govt./Political Sci.) – POSC 2306 | 3 |
| CORE 60 (American History) ¹ | 3 | CORE 80 (Soc. & Behav. Sci.) ¹ | 3 |
| Total: | 15 | 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 (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 entrance interview with a department adviser.

| Identified Marketable Skills | Top Three Local Employers or Industries/Professional Programs/Possible Career Opportunities |
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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.