

Bachelor of Science in Engineering Technology

Degree Requirements

Candidates for the Bachelor of Science must meet the following requirements.

- 1. Hours Required for the Degree:** Completion of a minimum of 131 total semester hours; 42 must be advanced.
- 2. General University Requirements:** See “General Degree Requirements” in the Academics section of this catalog.
- 3. College of Arts and Sciences Core Curriculum:** Minimum 61 hours (includes requirements of University Core Curriculum). See “Arts and Sciences Core Curriculum” in the College of Arts and Sciences section of this catalog for specific core requirements and list of approved courses. See four-year plan for exact hours and modifications.
- 4. Major Requirements:** 63-69 hours from one of five concentrations chosen with the advice of an academic adviser within the department.
- 5. Minor Requirements:** The above major integrates the traditional major and minor requirements. No additional hours required for a minor.
- 6. Electives:** Elective courses within each concentration must be approved by the student’s academic adviser.
- 7. Other Course Requirements:** MATH 1650, 1710 and 1720. Students registering for fall or spring semester must register for mathematics until the requirement has been satisfied, unless approved by the department chair.
- 8. Other Requirements:** PHYS 1710/1730 and 2220/2240 and CHEM 1420/1440 (with departmental approval) must be taken to satisfy the laboratory science requirement of the Arts and Sciences Core.

The English requirement is met by the following courses: ENGL 1310, 2700, 2210 and 2220.

A 2.5 GPA is required for engineering technology courses in the area of concentration.

DRED (Traffic Safety) courses may not be used to satisfy any portion of a degree in the College of Arts and Sciences.

Nuclear Technology (NUET)

The nuclear technology concentration is designed to provide a breadth of training for the operators and related technical personnel at the Texas Utilities Electric (TUE) Comanche Peak Steam Electric Station. The program has a strong foundation in mathematics and science and adds nuclear principles ranging from materials science to reactor design. Courses in fluid mechanics, thermodynamics, electrical circuit theory, electric power generation and automatic control systems augment the curriculum. The program enhances the reactor operator training provided by TUE by stressing the fundamentals of underlying physical and engineering principles behind many plant operating procedures.

BS in Engineering Technology

Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment.

BS in Engineering Technology Concentration in Nuclear Technology

FRESHMAN YEAR

FALL	HOURS
CSCI 1110, Program Development	3
ENGL 1310, College Writing I	3
HIST 2610, United States History to 1865 ¹²	3
MATH 1650, Pre-Calculus ⁴	5
PSCI 1040, American Government	<u>3</u>
Total	17

FRESHMAN YEAR

SPRING	HOURS
CHEM 1420, General Chemistry	3
CHEM 1440, General Chemistry Laboratory	1
ECON 1110, Principles of Macroeconomics	3
ENGL 2210, World Literature I	3
MATH 1710, Calculus I	4
HIST 2620, United States History Since 1865 ¹²	<u>3</u>
Total	17

SOPHOMORE YEAR

FALL	HOURS
ENGL 2220, World Literature II	3
GNET 1030, Technological Systems ¹⁴	3
MATH 1720, Calculus II	3
MFET 4190, Quality Assurance ³⁵	3
PSCI 1050, American Government	<u>3</u>
Total	15

SOPHOMORE YEAR

SPRING	HOURS
CNET 2220, Statics	3
COMM 2040, Public Speaking	3
ENGL 2700, Technical Writing	3
MATH 1780, Introduction to Statistical Analysis	3
PHYS 1710, Mechanics	3
PHYS 1730, Laboratory in Mechanics	<u>1</u>
Total	16

JUNIOR YEAR

FALL	HOURS
CNET 3420, Industrial Materials Testing	3
ELET 3960, Network Analysis	3
NUET 3910, Principles of Nuclear Technology	3
PHYS 2220, Electricity and Magnetism	3
PHYS 2240, Laboratory in Wave Motion, Electricity, Magnetism and Optics	1
Wellness ¹¹	<u>2-3</u>
Total	15-16

JUNIOR YEAR

SPRING	HOURS
ELET 3970, Electronic Devices and Controls	4
MEET 3950, Thermodynamics and Heat Transfer	3
NUET 3920, Nuclear Instrumentation and Measurement	4
PHYS 3010, Modern Physics	3
PHYS 3030, Laboratory in Modern Physics	1
Understanding of Ideas and Values ^{16, 19}	<u>3</u>
Total	18

SENIOR YEAR

FALL	HOURS
ELET 4950, Automatic Control System	4
MFET 3940, Fluid Mechanics Applications	3
NUET 3930, Radiation Biology and Safety	4
PHYS 4050, Nuclear Reactor Theory	3
NUET Option ³⁶	<u>3</u>
Total	17

SENIOR YEAR

SPRING	HOURS
ELET 4940, Electrical Power Generation and Transmission	3
NUET 4930, Reactor Engineering Design and Operation	4
NUET 4990, Senior Design Project	2
NUET Option ³⁶	4
Visual and Performing Arts ^{7, 16}	<u>3</u>
Total	16

*Note: Some courses may require prerequisites not listed.
See Arts and Sciences footnotes.*