

BACHELOR OF SCIENCE, MAJOR IN ENGINEERING TECHNOLOGY - CONCENTRATION IN SAFETY MANAGEMENT

| Code | Title | Hours |
|---|--|----------------|
| Bachelor of Science, Major in Engineering Technology - Concentration in Safety Management | | |
| Core Curriculum (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/) | | |
| Component Area I (Communication) | | 6 |
| Component Area II (Mathematics) ¹ | | 3 |
| Component Area III (Life and Physical Science) ² | | 8 |
| Component Area IV (Language, Philosophy, and Culture) | | 3 |
| Component Area V (Creative Arts) | | 3 |
| Component Area VI (U.S. History) | | 6 |
| Component Area VII (Political Science/Government) | | 6 |
| Component Area VIII (Social and Behavioral Sciences) | | 3 |
| Component Area IX (Component Area Option) ¹ | | 4 |
| Degree Specific Requirements | | |
| CHEM 1411 | General Chemistry I ² | 4 |
| ENGL 3330 | Intro to Technical Writing | 3 |
| MATH 1314 | Pre Calculus Algebra ¹ | 3 |
| MATH 1316 | Plane Trigonometry ¹ | 3 |
| MATH 3379 | Statistical Methods in Practice | 3 |
| PHYS 1301 & PHYS 1101 | General Phy-Mechanics & Heat and General Physics Laboratory I | 4 |
| PHYS 1302 & PHYS 1102 | Gen Phy-Snd,Lght, Elec, & Mag and General Physics Laboratory II | 4 |
| Major: Foundation | | |
| ETEC 1010 | Engineering Foundations | 1-2 |
| ETEC 3374 | Time And Motion Study | 3 |
| ETEC 4384 | Supervisory Personnel Practice | 3 |
| ETDD 1361 | Engineering Graphics | 3 |
| ETEE 1340 | Introduction to Circuits | 3 |
| ETSM 3363 | Safety Program Management | 3 |
| ETSM 3371 | Systems Safety & Risk Assessment | 3 |
| ETSM 3372 | Occupational Safety Standards | 3 |
| ETSM 3386 | Industrial Safety | 3 |
| ETSM 4313 | Industrial Hygiene | 3 |
| ETSM 4335 | Human Factors & Ergonomics | 3 |
| ETSM 4345 | Industrial Fire Safety | 3 |
| ETSM 4377 | Environmental Safety Mgmt | 3 |
| ETEC 4399 | Senior Design | 3 |
| ETEC 4391 | Work Base Mentorship (internship) | 3 |
| Minor: Required ³ | | |
| Minor | | 6 |
| Minor (12 hours advanced) | | 12 |
| Total Hours | | 120-121 |

¹ MATH 1316 or MATH 1314 or MATH 1420 or MATH 1324 satisfies the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific requirement. If taking MATH 1314, MATH 1316, or MATH 1324 to satisfy the Component Area II requirement, then take 4 hours in Component Area IX. If taking MATH 1420, then take 3 hours in Component Area IX. Total hours must sum to 120.

² CHEM 1411 satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science) and the Degree Specific requirement.

³ All minors can be paired with this degree program.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

Students should use elective and/or minor hours to satisfy the 42 advanced hour requirement.

First Year

| Fall | Hours | Spring | Hours |
|---|-------|---|-----------|
| Component Area I (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai) | | 3 Component Area I (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai) | 3 |
| Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix) | | 3 Component Area VI (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi) | 3 |
| ETEC 1010 | | 1-2 Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix) | 1 |
| ETDD 1361 | | 3 ETEE 1340 | 3 |
| MATH 1314 ¹ | | 3 MATH 1316 ¹ | 3 |
| | | Minor ² | 3 |
| | | 13-14 | 16 |

Second Year

| Fall | Hours | Spring | Hours |
|---|-------|---|-----------|
| Component Area IV (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiiv) | | 3 Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii) | 3 |
| Component Area V (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav) | | 3 Component Area VIII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii) | 3 |
| Component Area VI (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi) | | 3 CHEM 1411 ³ | 4 |
| Minor ² | | 3 ENGL 3330 | 3 |
| PHYS 1301 & PHYS 1101 | | 4 PHYS 1302 & PHYS 1102 | 4 |
| | | 16 | 17 |

Third Year

| Fall | Hours | Spring | Hours |
|--|-------|--|-------|
| Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii) | | 3 Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii) | 4 |
| ETSM 3363 | | 3 ETEC 3374 | 3 |
| ETSM 3386 | | 3 ETSM 3371 | 3 |
| MATH 3379 | | 3 ETSM 3372 | 3 |

| | | | |
|-----------------------------|--------------|-------------------------------|--------------|
| Minor Advanced ² | | 3 ETSM 4345 | 3 |
| | | 15 | 16 |
| Fourth Year | | | |
| Fall | Hours | Spring | Hours |
| ETEC 4399 | | 3 ETEC 4391 | 3 |
| ETSM 4313 | | 3 ETEC 4384 | 3 |
| ETSM 4335 | | 3 Minor Advanced ² | 6 |
| ETSM 4377 | | 3 | |
| Minor Advanced ² | | 3 | |
| | | 15 | 12 |

Total Hours: 120-121

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² All minors can be paired with this degree program.

³ CHEM 1411 satisfies the Core Curriculum requirement for Component Area III (Natural Sciences) and the Degree Specific requirement.

Notes

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Students must earn a 2.0 minimum SHSU GPA in all coursework.

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The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Engineering Technology - Concentration in Safety Management is designed to provide graduates with the following marketable skills:

- Apply concepts of safety and risk management to prioritize resources, reduce costs and minimize occupational hazards.
- Anticipate, recognize, evaluate, and control hazardous conditions that affect workers, properties and/or work environments.
- Demonstrate safety leadership skills, teamwork, and effective communication skills.
- Identify and apply applicable safety standards, regulations, and codes in industrial settings.
- Apply engineering technology and strategies to resolve issues of ethics and social responsibility.
- Integrate professional, ethical, and social responsibilities as a professional in the field.
- Obtain continuous learning skills through applied industry experiences, safety case studies, and past incident records