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

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-engineering-technology/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Code	Title	Hours
Bachelor of Science, Major in Engineering Technology - Concentration in Environmental, Health, and Safety Management		
Core Curriculum		
Component Area I (Communication)		6
Component Area II (Mathematics) [1,2]		3
Component Area III (Life and Physical Science)		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) [2]		4
Degree Specific Requirements		
ENGL 3330	Introduction to Technical Writing	3
MATH 1314	Pre Calculus Algebra [1,2]	3
MATH 1316	Plane Trigonometry [1,2]	3
MATH 3379	Statistical Methods in Practice	3
PHYS 1301 & PHYS 1101	General Physics-Mechanics and Heat and General Physics Laboratory I	4
PHYS 1302 & PHYS 1102	General Physics-Sound, Light, Electricity, and Magnetism and General Physics Laboratory II	4
Major: Foundation		
ETDD 1361	Engineering Graphics	3
ETEC 1010	Engineering Foundations	1
ETEC 3374	Time And Motion Study	3
ETEC 4099	Engineering Innovation	1
ETEC 4384	Supervisory Personnel Practice	3
ETEC 4391	Work Base Mentorship (internship)	3
ETEC 4399	Senior Design II	3
ETEE 1340	Introduction to Circuits	3
ETSM 2310	Introduction to Occupational Safety	3
ETSM 3323	Construction Safety	3
ETSM 3363	Safety Program Management	3
ETSM 3371	Systems Safety & Risk Assessment	3
ETSM 3372	Occupational Safety Standards	3
ETSM 3380	Accident Investigation & Analysis	3
ETSM 3386	Industrial Safety	3
ETSM 4313	Industrial Hygiene	3
ETSM 4335	Human Factors & Ergonomics	3
ETSM 4345	Industrial Fire Safety	3
ETSM 4375	Safety Hazard Mitigation	3
ETSM 4377	Environmental Safety Management	3
ETSM 4379	Emergency Management & Planning	3

INED 4310	Occupational Human Relations in Career Technical Education	3
Total Hours		**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.

2 If taking MATH 1314, MATH 1316, or MATH 1324 to satisfy the Core Curriculum requirement for Component Area II, 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.

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[1]	3	Component Area I[1]	3
Component Area IX[2]	3	Component Area VI[4]	3
ETDD 1361	3	Component Area IX[2]	1
ETEC 1010	1	ETEE 1340	3
MATH 1314[2,3]	3	ETSM 2310	3
		MATH 1316[2,3]	3
	13		**16**

Second Year

Fall	Hours	Spring	Hours
Component Area IV	3	Component Area III	4
Component Area V	3	Component Area VII[5]	3
Component Area VI[4]	3	Component Area VIII	3
ETSM 3323	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[5]	3	Component Area III	4
ETSM 3363	3	ETEC 3374	3
ETSM 3386	3	ETSM 3371	3
INED 4310	3	ETSM 3372	3
MATH 3379	3	ETSM 4345	3
	15		**16**

Fourth Year

Fall	Hours	Spring	Hours
ETEC 4099	1	ETEC 4384	3
ETSM 3380	3	ETEC 4391	3
ETSM 4313	3	ETEC 4399	3
ETSM 4335	3	ETSM 4379	3
ETSM 4375	3		

ETSM 4377	3	
	16	**12**

Total Hours: 121

1 ENGL 1301 and ENGL 1302 satisfy the Core Curriculum requirement for Component Area I (Communication).
2 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.
3 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.
4 HIST 1301 and HIST 1302 satisfy the Core Curriculum requirement for Component Area VI (U.S. History).
5 POLS 2305 and POLS 2306 satisfy the Core Curriculum requirement for Component Area VII (Political Science/Government).

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.

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