

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 3379	Statistical Mthods in Practice	3
MATH 1314	Pre Calculus Algebra ¹	3
MATH 1316	Plane Trigonometry ¹	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 Core		
ETDD 1361	Engineering Graphics	3
ETEC 1010	Engineering Foundations	1-2
ETEE 1340	Introduction to Circuits	3
Major		
ETEC 3374 or ETEC 4384	Time And Motion Study Supervisory Personnel Practice	3
ETEC 4391	Work Base Mentorship (Six hours of internship)	6
ETEC 4399	Senior Design	3
ETSM 3363	Safety Program Management	3
ETSM 3371	Safety Risk Assessment & Mgmt	3
ETSM 3372	Occupational Safety Standards	3
ETSM 3386	Industrial Safety	3
ETSM 4313	Industrial Hygiene	3
ETSM 4377	Environmental Safety Mgmt	3
Approved Advanced Safety Management (ETSM) Electives		6
Minor. Required		
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.

Note: 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
ETDD 1361		3 Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	1
ETEC 1010		1-2 ETEE 1340	3
MATH 1314 ¹		3 MATH 1316 ¹	3
		Minor Course	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/#componentareaiv)		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 ²	4
Minor Course		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 4384 or 3374	3
ETSM 3386		3 ETSM 3371	3
MATH 3379		3 ETSM 3372	3
Minor Course (Advanced)		3 ETSM Advanced Elective	3
		15	16

Fourth Year

Fall	Hours	Spring	Hours
ETEC 4399		3 ETEC 4391	3
ETSM 4313		3 ETEC 4391	3
ETSM 4377		3 Minor Courses (Advanced)	6
Minor Course (6 hours Advanced)		3	

ETSM Advanced Elective	3	
	15	12

Total Hours: 120-121

- ¹ MATH 1316 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201316>) or MATH 1314 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201314>) or MATH 1420 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201420>) or MATH 1324 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201324>) satisfies the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific requirement. If taking MATH 1314 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201314>), MATH 1316 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201316>), or MATH 1324 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201324>) to satisfy the Component Area II requirement, then take 4 hours in Component Area IX. If taking MATH 1420 (<http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201420>), 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 (Natural Sciences) and the Degree Specific requirement.

Note: 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