

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

Code	Title	Hours
<b>Bachelor of Science, Major in Engineering Technology - Concentration in Safety Management</b>		
Core Curriculum ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/</a> )		
Component Area I (Communication)		6
Component Area II (Mathematics)		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)		4
<b>Degree Specific Requirements</b>		
CHEM 1411	General Chemistry I <sup>1</sup>	4
ENGL 3330	Intro to Technical Writing	3
MATH 3379	Statistical Mthods in Practice	3
MATH 1314	Pre Calculus Algebra <sup>2</sup>	3
MATH 1316	Plane Trigonometry <sup>2</sup>	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
<b>Major Core</b>		
ETDD 1361	Engineering Graphics	3
ETEC 1010	Engineering Foundations	1-2
ETEE 1340	Introduction to Circuits	3
<b>Major</b>		
ETDD 4380	Material Hand & Plant Layout	3
ETEC 3374 or ETEC 3367	Time And Motion Study Engineering Materials Techn	3
ETEC 4099	Engineering Innovation	3
ETEC 4384 or INED 4310	Supervisory Personnel Practice Occup. Human Relations in CTE	3
ETEC 4391	Work Base Mentorship (Six hours of internship)	6
ETSM 2310	Intro. to Occupational Safety	3
ETSM 3363	Safety Program Management	3
ETSM 3372	Occupational Safety Standards	3
ETSM 3386	Industrial Safety	3
ETSM 4377	Environmental Safety Mgmt	3
Approved Advanced Safety Management (ETSM) Electives		3
<b>Minor (required)</b>		
Minor		6
Minor (12 hours advanced)		12
Total Hours		120-121

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<sup>1</sup> CHEM 1411 satisfies the Core Curriculum requirement for Component Area III (Natural Sciences) and the Degree Specific requirement.

<sup>2</sup> 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.

**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 ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai</a> )		3 Component Area I ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai</a> )	3
Component Area IX ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix</a> )		3 Component Area VI ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi</a> )	3
ETDD 1361		3 Component Area IX ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix</a> )	1
ETEC 1010		1-2 MATH 1316 <sup>1</sup>	3
MATH 1314 <sup>1</sup>		3 Minor Course	3
		13-14	13

**Second Year**

Fall	Hours	Spring	Hours
Component Area IV ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiiv">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiiv</a> )		3 Component Area VII ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii</a> )	3
Component Area V ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav</a> )		3 Component Area VIII ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii</a> )	3
Component Area VI ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi</a> )		3 ENGL 3330	3
Minor Course		3 ETEE 1340	3
PHYS 1301 & PHYS 1101		4 PHYS 1302 & PHYS 1102	4
		16	16

**Third Year**

Fall	Hours	Spring	Hours
Component Area VII ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii</a> )		3 Component Area III ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii">http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii</a> )	4
CHEM 1411 <sup>2</sup>		4 ETEC 4384 or INED 4310	3
ETSM 2310		3 ETSM Advanced Elective	3
ETSM 3363		3 ETSM 3372	3
Minor Course (Advanced)		3 ETSM 3386	3
		16	16

**Fourth Year**

Fall	Hours	Spring	Hours
ETDD 4380		3 ETEC 3374 or 3367	3
ETSM 4377		3 ETEC 4099	3

MATH 3379	3 ETEC 4391	3
Minor Course (6 hours Advanced)	6 ETEC 4391	3
	Minor Course (Advanced)	3
	15	15

Total Hours: 120-121

<sup>1</sup> MATH 1316 (<http://catalog.shsu.edu/archives/2020-2021/search/?P=MATH%201316>) or MATH 1314 (<http://catalog.shsu.edu/archives/2020-2021/search/?P=MATH%201314>) or MATH 1420 (<http://catalog.shsu.edu/archives/2020-2021/search/?P=MATH%201420>) or MATH 1324 (<http://catalog.shsu.edu/archives/2020-2021/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/2020-2021/search/?P=MATH%201314>), MATH 1316 (<http://catalog.shsu.edu/archives/2020-2021/search/?P=MATH%201316>), or MATH 1324 (<http://catalog.shsu.edu/archives/2020-2021/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/2020-2021/search/?P=MATH%201420>), then take 3 hours in Component Area IX. Total hours must sum to 120.

<sup>2</sup> 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:

- Locate and interpret federal and state standards and regulations related to occupational safety.
- Distinguish professional, ethical, and social responsibilities.
- Obtain continuous learning skills through applied industry experiences, safety case studies, and past incident records.
- Demonstrate safety leadership skills, teamwork, and effective communication skills.
- Lead safety cultures and regulation compliance.