BACHELOR OF SCIENCE, MAJOR IN MECHANICAL ENGINEERING TECHNOLOGY

Additional information: Reference the (https://www.shsu.edu/programs/bachelor-of-science-in-mechanical-engineering-technology/)Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-mechanical-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 Mechanical Engineering Technology		
Core Curriculum (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communications)		6
Component Area II (Mathematics) [1]		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) [1]		4
Degree Specific Requirements		
COSC 1436	Programming Fundamentals I [2]	4
MATH 1420	Calculus I [1]	4
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
ETDD 4388	3-Dimensional Parametric Design	3
ETEC 1010	Engineering Foundations [3]	2
ETEC 2382	Manufacturing Processes	3
ETEC 3367	Engineering Materials Techniques	3
ETEC 3375	Statics	3
ETEC 4199	Senior Design I	1
ETEC 4376	Strength of Materials	3
ETEC 4399	Senior Design II	3
ETEE 1340	Introduction to Circuits	3
ETEE 2320	Circuits and Systems	3
ETEE 3360	Electrical Power & Machinery	3
ETEE 3373	Control Systems Technology	3
ETME 2305	Engineering Analysis Methods	3
ETME 3376	Engineering Dynamics	3
ETME 3378	Applied Fluid Mechanics	3
ETME 4376	Applied Thermodynamics	3
ETME 4378	HVAC Systems	3
ETME 4385	Mechanical Design	3
ETSM 3386	Industrial Safety	3
Major: Prescribed Electives		
Select three of the following:		9
ETDD 3310	Product Design & Development	
ETDD 4380	Material Hand & Plant Layout	

ETEC 3340	Solar and Wind Energy Systems
ETEC 3382	Manufacturing Processes II
ETEC 4315	Quality Assurance and Control
ETEC 4340	Alternative Energy Technology
ETEC 4391	Work Base Mentorship
ETEE 3376	Microcontroller Applications
ETEE 4351	Automation and Programmable Logic Controllers (PLCs)
Minor: Not Required [4,5]	
Total Hours	**120**

1 MATH 1420 requires the following prerequisites: C or better in MATH 1410, or C or better in MATH 1410, or an A or B in AP Calculus, or a 660 on the new Math SAT, or a 28 on the Math ACT, or a 276 on the Next- Generation Advanced Algebra and Functions ACCUPLACER. Satisfies the Core Curriculum requirement Component Area II (Mathematics) as well as one hour of Component Area IX (Component Area Option).

2 ETME major students must take a specific class section of COSC 1436 to learn C (C++) programming. Students must consult with academic advisors to learn which class section of COSC 1436 offers C (C++) programming.

3 Mechanical Engineering Technology major students must take ETEC 1010 for two credit hours section to learn necessary software skills for this major.

4 A minor is not required for this degree program; however, a student has the option to add a minor, but to do so additional semester credits hours may be needed above the degree program's stated total semester credit hours.

5 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.

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

First Year

Fall	Hours	Spring	Hours
Component Area I (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai)	3	Component Area I (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai)	3
Component Area IV (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3	Component Area III (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
Component Area VI (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3	ETEE 1340	3
ETDD 1361	3	MATH 1420[2]	4
ETEC 1010[1]	2		
	14		**14**

Second Year

Fall	Hours	Spring	Hours
Component Area VII (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3	Component Area VI (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3

COSC 1436[3]	4	Component Area VII (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3
ETEC 2382	3	ETEE 2320	3
PHYS 1301 & PHYS 1101	4	ETME 2305	3
		PHYS 1302 & PHYS 1102	4
	14		**16**

Third Year

Fall	Hours	Spring	Hours
Component Area VIII (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3	Component Area III (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
Component Area IX (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)[2]	3	ETEE 3360	3
ETEC 3367	3	ETEE 3373	3
ETEC 3375	3	ETME 3376	3
ETSM 3386	3	ETME 3378	3
	15		**16**

Fourth Year

Fall	Hours	Spring	Hours
Component Area V (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3	ETEC 4399	3
ETDD 4388	3	ETME 4376	3
ETEC 4199	1	ETME 4378	3
ETEC 4376	3	ETME 4385	3
Prescribed Electives[4]	6	Prescribed Electives[4]	3
	16		**15**

Total Hours: 120

1. Mechanical Engineering Technology major students must take ETEC 1010 for two credit hours section to learn necessary software skills for this major.
2. MATH 1420 (https://catalog.shsu.edu/archives/2025-2026/search/?P=MATH%201420) requires the following prerequisites: C or better in MATH 1410 (https://catalog.shsu.edu/archives/2025-2026/search/?P=MATH%201410), or C or better in MATH 1410, or an A or B in AP Calculus, or a 660 on the new Math SAT, or a 28 on the Math ACT, or a 276 on the Next- Generation Advanced Algebra and Functions ACCUPLACER. Satisfies the Core Curriculum requirement Component Area II (Mathematics) as well as one hour of Component Area IX (Component Area Option).
3. ETME major students must take a specific class section of COSC 1436 to learn C (C++) programming. Students must consult with academic advisors to learn which class section of COSC 1436 offers C (C++) programming.
4. See the course list of Prescribed Electives in the table below.

Code	Title	Hours
Major: Prescribed Electives [4]		
ETDD 3310	Product Design & Development	3
ETDD 4380	Material Hand & Plant Layout	3
ETEC 3340	Solar and Wind Energy Systems	3
ETEC 3382	Manufacturing Processes II	3
ETEC 4315	Quality Assurance and Control	3
ETEC 4340	Alternative Energy Technology	3

ETEC 4391	Work Base Mentorship	3
ETEE 3376	Microcontroller Applications	3
ETEE 4351	Automation and Programmable Logic Controllers (PLCs)	3

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 Mechanical Engineering Technology is designed to provide graduates with the following marketable skills:

- Advanced mechanical discipline knowledge.
- Application of design and analysis concepts to mechanical engineering and technology.
- Familiarity with manufacturing processes and equipment.
- Knowledge of industry standards, quality assurance, and ethics.
- Critical thinking skills.
- Ability to logically solve practical problems.