BACHELOR OF SCIENCE, MAJOR IN MECHANICAL ENGINEERING TECHNOLOGY

Code	Title	Hours
Bachelor of Science, Major in Mechanical Engineering Technology		
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)		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
Degree Specific Requirements		
COSC 1436	Programming Fundamentals I [2]	4
MATH 1420	Calculus I [1]	4
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		
ETDD 1361	Engineering Graphics	3
ETDD 4388	3D Parametric Design	3
ETEC 1010	Engineering Foundations [3]	2
ETEC 2382	Manufacturing Processes	3
ETEC 3367	Engineering Materials Techn	3
ETEC 3375	Statics	3
ETEC 4376	Strength of Materials	3
ETEC 4378	HVAC Systems	3
ETEC 4399	Senior Design	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 4385	Mechanical Design	3
ETSM 3386	Industrial Safety	3
Major: Prescribed Electives		
Select two of the following:		6
ETDD 3310	Product Design & Development	
ETDD 4380	Material Hand & Plant Layout	
ETEC 3340	Solar and Wind Energy Systems	
ETEC 4340	Alternative Energy Technology	
ETEC 4391	Work Base Mentorship	
ETEE 3376	Microcontroller Applications	

ETEE 4351	Automation & PLCs	
Minor: Not Required [4,5]		
Total Hours		**120**

1. MATH 1420 requires the following prerequisites: C or better in MATH 1410, or MATH 1314 and MATH 1316 with a grade of C or higher, or high school equivalent. MATH 1410 is recommended. Satisfies the Core Curriculum requirement Component Area II (Mathematics).
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.

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 II (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaii)	3	Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
Component Area IV (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3	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
ETEC 1010[1]	2	MATH 1420[2]	4
	14		**15**

Second Year

Fall	Hours	Spring	Hours
Component Area VI (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3	Component Area VI (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3
Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3	Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3
COSC 1436[3]	4	ETEE 2320	3
ETEC 2382	3	ETME 2305	3
PHYS 1301 & PHYS 1101	4	PHYS 1302 & PHYS 1102	4
	17		**16**

Third Year

Fall	Hours	Spring	Hours
Component Area VIII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3	Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	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 (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3	ETEC 4378	3
ETDD 4388	3	ETME 4376	3
ETEC 4376	3	ETME 4385	3
ETEC 4399	3	Prescribed Electives	3
Prescribed Electives	3		
	15		**12**

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.

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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.