

BACHELOR OF SCIENCE, MAJOR IN ENGINEERING TECHNOLOGY - CONCENTRATION IN MANUFACTURING ENGINEERING TECHNOLOGY

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 Manufacturing Engineering Technology		
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 Requirement		
MATH 1314	Pre Calculus Algebra ¹	3
MATH 1316	Plane Trigonometry ¹	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		
ETEC 1010	Engineering Foundations	1
ETDD 1361	Engineering Graphics	3
ETEE 1340	Introduction to Circuits	3
Major		
ETEC 2382	Manufacturing Processes	3
ETEC 3367	Engineering Materials Techniques	3
ETEC 3374 or ETDD 3379	Time And Motion Study Industrial Design & Drafting	3
ETEC 3375	Statics	3
ETEC 4099	Engineering Innovation	1
ETEC 4384	Supervisory Personnel Practice	3
ETEC 4391	Work Base Mentorship	3
ETDD 1366	Machining Technology I	3
ETDD 2366	Machining Technology II	3
ETDD 3310 or ETEC 4376	Product Design & Development Strength of Materials	3
ETDD 4380	Material Hand & Plant Layout	3
ETDD 4388 or ETDD 4339	3-Dimensional Parametric Design Advanced Computer-Aided Drafting and Modeling	3
ETEE 2320	Circuits and Systems	3
Major: Concentration (Manufacturing Engineering Technology)		
ETEC 3344	Computer Integrated Manufacturing	3
ETEC 3382	Manufacturing Processes II	3
ETEC 4315	Quality Assurance and Control	3

EETC 4399	Senior Design II	3
ETEE 3313	Industrial Robotics	3
ETEE 4351	Automation and Programmable Logic Controllers (PLCs)	3
ETSM 3386	Industrial Safety	3
Total Hours		121

¹ If MATH 1314 or MATH 1316 are used to satisfy the Core Curriculum requirement for Component Area II (Mathematics) then an additional 3 hours in Math will be needed to meet the 120 total semester credit hour requirement.

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.

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First Year

Fall	Hours	Spring	Hours
Component Area I		3 Component Area I	3
Component Area IX		4 Component Area IV	3
ETDD 1361		3 ETDD 1366	3
EETC 1010		1 ETEE 1340	3
MATH 1314 ¹		3 MATH 1316 ¹	3
		14	15

Second Year

Fall	Hours	Spring	Hours
Component Area III		4 Component Area II ¹	3
Component Area V		3 Component Area III	4
ETDD 2366		3 Component Area VI	3
ETEE 2320		3 EETC 2382	3
PHYS 1301 & PHYS 1101		4 PHYS 1302 & PHYS 1102	4
		17	17

Third Year

Fall	Hours	Spring	Hours
Component Area VI		3 Component Area VII	3
Component Area VII		3 ETDD 3310 or EETC 4376	3
EETC 3367		3 ETDD 4380	3
EETC 3374 or ETDD 3379		3 ETEE 3313	3
EETC 3375		3 ETSM 3386	3
		15	15

Fourth Year

Fall	Hours	Spring	Hours
Component Area VIII		3 EETC 4315	3
ETDD 4339 or 4388		3 EETC 4391	3
EETC 3344		3 EETC 4399	3
EETC 3382		3 ETEE 4351	3
EETC 4099		1	

ETEC 4384	3	
	16	12

Total Hours: 121

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Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

The BS in Engineering Technology - Manufacturing Engineering Technology Concentration is designed to provide graduates with the following marketable skills:

- Knowledge and hands-on experience in various manufacturing processes such as machining, plastic processing, and 3D printing.
- Skills in product design and development and the product life cycle.
- Skills in the plant layout for high efficiency production.
- Skills in material testing and properties measurement following industrial standards.
- Automation and control of manufacturing equipment.
- Demonstrate leadership, teamwork, and effective communication skills.