BACHELOR OF SCIENCE, MAJOR IN ELECTRONICS AND COMPUTER ENGINEERING TECHNOLOGY

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-electronics-and-computer-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 Electronics and Computer Engineering Technology		
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) [1]		4
Degree Specific Requirements		
ENGL 3330	Introduction to Technical Writing	3
MATH 1420	Calculus I [1]	4
MATH 3379	Statistical Methods in Practice	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		
COSC 1436	Programming Fundamentals I [2]	4
COSC 1437	Programming Fundamentals II	4
COSC 2327	Introduction to Computer Networks	3
COSC 2329	Computer Organization & Machine Language	3
COSC 3327	Computer Architecture	3
ETDD 1361	Engineering Graphics	3
ETEC 1010	Engineering Foundations [3]	2
ETEC 3340 or ETEC 4340	Solar and Wind Energy Systems Alternative Energy Technology	3
ETEC 4391	Work Base Mentorship	3
ETEC 4199	Senior Design I	1
ETEC 4399	Senior Design II	3
ETEE 1340	Introduction to Circuits	3
ETEE 2320	Circuits and Systems	3
ETEE 3313	Industrial Robotics	3
ETEE 3345	Digital Electronics	3
ETEE 3350	Analog Electronics	3
ETEE 3360	Electrical Power & Machinery	3
ETEE 3373	Control Systems Technology	3
ETEE 3376	Microcontroller Applications	3
ETEE 4351	Automation and Programmable Logic Controllers (PLCs)	3
ETEE 4352	Instrumentation & Interfacing	3
ETEE 4355	Electronic & Digital Communication	3
ETEE 4375	Digital VLSI Design and Field Programmable Gate Arrays	3

Minor: Not Required [4]	
Total Hours	**124**

1. MATH 1420 satisfies the Core Curriculum requirement for Component Area II (mathematics) and one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option), and the Degree Specific requirements.
2. ECET major students must take a specific class section of COSC 1436 to learn C (C++) programming. Students must consult with academic advisors to find out a class section of COSC 1436 offers C (C++) programming.
3. Electronics & Computer Engineering Technology major students **must take** ETEC 1010 for 2 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 will be needed above the degree program's stated total semester credit hours. 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-electronics-and-computer-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	3	Component Area I	3
Component Area IX	3	Component Area IV	3
ETDD 1361	3	COSC 1436[2]	4
ETEC 1010[1]	2	ETEE 2320	3
ETEE 1340	3	MATH 1420[3]	4
	14		**17**

Second Year

Fall	Hours	Spring	Hours
Component Area VI	3	Component Area VI	3
Component Area V	3	Component Area VII	3
COSC 1437	4	Component Area VIII	3
ETEE 3350	3	ENGL 3330	3
PHYS 1301 & PHYS 1101	4	PHYS 1302 & PHYS 1102	4
	17		**16**

Third Year

Fall	Hours	Spring	Hours
Component Area VII	3	Component Area III	4
Component Area III	4	COSC 2329	3
COSC 2327	3	ETEE 3345	3
ETEE 3313	3	ETEE 3360	3
ETEE 3373	3	ETEE 4355	3
	16		**16**

Fourth Year

Fall	Hours	Spring	Hours
COSC 3327	3	ETEC 3340	3
ETEE 3376	3	ETEC 4391	3
ETEC 4199	1	ETEC 4399	3
ETEE 4352	3	ETEE 4351	3
ETEE 4375	3		

MATH 3379	3	
	16	**12**

Total Hours: 124

1 Electronics and Computer Engineering Technology majors must **take take** the ETEC 1010 section for 2 credits to learn the necessary software skills for this major.

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

3 MATH 1420 satisfies one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option) and the Degree Specific requirements.

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.

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 will be needed above the degree program's stated total semester credit hours. All minors can be paired with this degree program.

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 Electronics and Computer Engineering Technology is designed to provide graduates with the following marketable skills:

- Select and effectively apply modern electric, electronics, and computer devices and systems.
- Design and develop analog, digital, microcontroller and communication circuits and systems; test and troubleshoot for effective and efficient operations.
- Embed state-of-the-art automation, robotics, instrumentation, and data acquisition hardware and software tools into industrial environments.
- Prepare technical reports, product manuals, and testing instructions; and communicate effectively.