BACHELOR OF SCIENCE, MAJOR IN ELECTRONICS AND COMPUTER ENGINEERING TECHNOLOGY

Code	Title	Hours
Bachelor of Science, Major in Electronics and Computer 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)		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]		3
Degree Specific Requirements		
ENGL 3330	Intro to Technical Writing	3
MATH 3379	Statistical Mthods in Practice	3
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 Core		
COSC 1436	Programming Fundamentals I	4
COSC 1437	Programming Fundamentals II	4
ETDD 1361	Engineering Graphics	3
ETEC 1010	Engineering Foundations [2]	1-2
ETEE 1340	Introduction to Circuits	3
Major		
COSC 2327	Intro to Computer Networks	3
COSC 2329	Comp Organiz & Machine Lang	3
COSC 3327	Computer Architecture	3
ETEC 3340 or ETEC 4340	Solar and Wind Energy Systems Alternative Energy Technology	3
ETEC 3376	Microcontroller Applications	3
ETEC 4391	Work Base Mentorship	3
ETEC 4399	Senior Design	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 4351	Automation & Control Systems	3
ETEE 4352	Instrumentation & Interfacing	3
ETEE 4355	Electronic & Digital Communication	3
Total Hours		**122-123**

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

[2]   Electronics & Computer Engineering Technology major student must take ETEC 1010 for 2 credit hours section to learn necessary software skills for this major.

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 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)	3	COSC 1436	4
ETEC 1010[1]	1-2	ETEE 2320	3
ETEE 1340	3	MATH 1420[2]	4
	13-14		**17**

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 V (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3	Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3
COSC 1437	4	Component Area VIII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	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 (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3	Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4	COSC 2329	3
COSC 2327	3	ETEC 3340 or 4340	3
ETEE 3373	3	ETDD 1361	3
MATH 3379	3	ETEE 3345	3
	16		**16**

Fourth Year

Fall	Hours	Spring	Hours
COSC 3327	3	ETEC 4391 (Internship)	3
ETEC 3376	3	ETEC 4399	3
ETEE 3313	3	ETEE 4352	3

ETEE 3360	3	ETEE 4355	3
ETEE 4351	3		
	15		**12**

Total Hours: 122-123

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

[2]   MATH 1420 (http://catalog.shsu.edu/archives/2021-2022/search/?P=MATH%201420) satisfies one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option) and the Degree Specific requirements.

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.