

BACHELOR OF SCIENCE WITH A MAJOR IN COMPUTER ENGINEERING (BS)

HOURS REQUIRED

A minimum of 129 semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the "Requirements for Graduation (<http://catalog.tamui.edu/undergraduate-information/academic-regulations/>)" section of this catalog.

Code	Title	Semester Credit Hours
[University Core Curriculum] (http://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/)		
Select 42 SCH as outlined in the suggested plans and as specified in the "Requirements for Graduation." MATH 2413 must be taken as part of the core.		42
Major		
ENGR 1201	Foundations of Engineering I	2
ENGR 1204	Engineering Graphics	2
ENGR 2105	Principles of Elec Engr Lab	1
ENGR 2305	Principles of Elec Engineering	3
ENGR 2372	Engineering Statistics	3
ENGR 3300	Engineering Economics	3
ENGR 3301	Engineering Ethics	3
CSCE 1136	Funds of Programming Lab	1
CSCE 1336	Fundamentals of Programming	3
CSCE 1137	Object-Oriented Program Lab	1
CSCE 1337	Object Oriented Programming	3
CSCE 2330	Digital Logic Design	3
CSCE 3301	Algorithms & Data Structures	3
CSCE 3314	Electronic Devices & Apps	3
CSCE 3326	Operating Systems & Networking	3
CSCE 3340	Microprocessor Systems	3
CSCE 3390	Software Development	3
CSCE 4203	Dig Electronic Circuit Design	2
CSCE 4214	Data Communication	2
CSCE 4310	Computer Security	3
CSCE 4315	Embedded Systems	3
CSCE 4320	Computer System Architecture	3
CSCE 4390	Comp Eng Senior Design Project	3
Math and Sciences		
PHYS 2126	University Physics II Lab	1
CHEM 1111	General Chemistry I-Lab	1
CHEM 1311	General Chemistry I	3
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
MATH 3330	Ordinary Diff Equations	3

MATH 3365	Discrete Mathematics	3
Select 1 SCH surplus from core		1
CSCE Advanced Electives		
Select 8 SCH from the following:		8
CSCE 4210	Computer Engineering Design	
CSCE 4220	Programming Languages	
CSCE 4240	Intro to Unmanned Aerial Vehic	
CSCE 4350	Comp Approach to Crim Justice	
CSCE 4395	Undergraduate Research	
Total Semester Credit Hours		129

Four-Year Degree Plan

Following is a suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment; responsible for reviewing the **Program of Study Requirements**; responsible for meeting all course prerequisites; and must meet **foreign language** and **writing intensive course** requirements for graduation. See Academic Regulations-Undergraduate online. (<http://catalog.tamui.edu/undergraduate-information/academic-regulations/>)

		Semester Credit Hours
Freshman		
Fall		
ENGL 1301	English Composition I	3
MATH 2413	Calculus I	4
HIST 1301	The US to 1877	3
ENGR 1201	Foundations of Engineering I	2
CSCE 1336	Fundamentals of Programming	3
CSCE 1136	Funds of Programming Lab	1
UNIV 1101	Learn a Global Context I	1
Semester Credit Hours		17
Spring		
MATH 2414	Calculus II	4
PHYS 2325	University Physics I	3
PHYS 2125	University Physics I Lab	1
CSCE 1337	Object Oriented Programming	3
CSCE 1137	Object-Oriented Program Lab	1
UNIV 1402	Signature Course	4
Semester Credit Hours		16
Sophomore		
Fall		
ENGL 2311	Technical Communication-WIN	3
MATH 2415	Calculus III	4
HIST 1302	The US Since 1877	3
PHYS 2326	University Physics II	3
PHYS 2126	University Physics II Lab	1
ENGR 1204	Engineering Graphics	2
Semester Credit Hours		16
Spring		
PSCI 2305	American National Government	3
CSCE 2330	Digital Logic Design	3

ENGR 2372	Engineering Statistics	3
ENGR 2305	Principles of Elec Engineering	3
ENGR 2105	Principles of Elec Engr Lab	1
Language, Philosophy, & Culture		3
Semester Credit Hours		16

Junior

Fall

CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry I-Lab	1
CSCE 3314	Electronic Devices & Apps	3
ENGR 3301	Engineering Ethics	3
MATH 3330	Ordinary Diff Equations	3
MATH 3365	Discrete Mathematics	3
Semester Credit Hours		16

Spring

PSCI 2306	American State Government	3
CSCE 3301	Algorithms & Data Structures	3
CSCE 3326	Operating Systems & Networking	3
CSCE 3340	Microprocessor Systems	3
CSCE 3390	Software Development	3
ENGR 3300	Engineering Economics	3
Semester Credit Hours		18

Senior

Fall

CSCE 4203	Dig Electronic Circuit Design	2
CSCE 4214	Data Communication	2
CSCE 4310	Computer Security	3
CSCE 4315	Embedded Systems	3
CSCE Advanced Elective		3
Social & Behavioral Sciences		3
Semester Credit Hours		16

Spring

CSCE 4320	Computer System Architecture	3
CSCE 4390	Comp Eng Senior Design Project	3
CSCE Advanced Elective		3
CSCE Advanced Elective		2
Creative Arts		3
Semester Credit Hours		14
Total Semester Credit Hours		129

CSCE Advance Electives from CSCE 4210, CSCE 4220, CSCE 4240, CSCE 4350, and/or CSCE 4395.

Actual degree plans may vary depending on availability of courses in a given semester.

Some courses may require prerequisites not listed.