

COMPUTER SCIENCE - BA

This program blends computing skills with multiple fields, preparing students for interdisciplinary careers.

Program Requirements

First Year

Fall		Semester Credit Hours
CSCE 181	Introduction to Computing ¹	1
ENGL 103 or ENGL 104	Introduction to Rhetoric and Composition or Composition and Rhetoric	3
Select one of the following: ¹		4
CSCE 110	Programming I	
CSCE 111	Introduction to Computer Science Concepts and Programming	
CSCE 206	Structured Programming in C	
Select one of the following:		3
MATH 142	Business Calculus ²	
MATH 147	Calculus I for Biological Sciences	
MATH 151	Engineering Mathematics I	
MATH 171	Calculus I	
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
Semester Credit Hours		14

Spring		
CSCE 120	Program Design and Concepts ¹	3
Select one of the following:		3
MATH 140	Mathematics for Business and Social Sciences ²	
MATH 148	Calculus II for Biological Sciences	
MATH 152	Engineering Mathematics II	
MATH 168	Finite Mathematics	
MATH 172	Calculus II	
PHIL 240	Introduction to Logic	
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
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Concentration elective ⁴		3
Semester Credit Hours		15

Second Year

Fall		
CSCE 221	Data Structures and Algorithms ¹	4
CSCE 222/ ECEN 222	Discrete Structures for Computing	3
Select one of the following:		3
STAT 211	Principles of Statistics I	
STAT 301	Introduction to Biometry	
STAT 302	Statistical Methods	

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University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
Concentration elective ⁴		3

Semester Credit Hours 16

Spring

CSCE 312	Computer Organization ¹	4
CSCE 314	Programming Languages ¹	3
Select one of the following:		3
COMM 203	Public Speaking	
COMM 205	Communication for Technical Professions	
ENGL 210	Technical and Professional Writing	
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
Concentration elective ⁴		3

Semester Credit Hours 16

Third Year

Fall		
CSCE 313	Introduction to Computer Systems ¹	4
CSCE 331	Foundations of Software Engineering ¹	4
CSCE 481	Seminar ¹	1
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
Concentration elective ⁴		3

Semester Credit Hours 15

Spring

CSCE 411	Design and Analysis of Algorithms ¹	3
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
Concentration elective ⁴		3
Concentration elective ⁴		3
Prescribed elective ⁵		3

Semester Credit Hours 15

Fourth Year

Fall		
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3
Concentration elective ⁴		3
Concentration elective ⁴		3
Prescribed elective ⁵		3

Semester Credit Hours 15

Spring

CSCE 482	Senior Capstone Design ¹	3
University Core Curriculum (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/) ³		3

Concentration elective ⁴	3
Concentration elective ⁴	2
Prescribed elective ⁵	3
Semester Credit Hours	14
Total Semester Credit Hours	120

¹ All CSCE courses (excluding the prescribed electives) require a grade of C or better.

² Students who select MATH 140 and MATH 142 as their Math options must take MATH 140 and receive a grade of C or better before taking MATH 142.

³ Of the 30 hours shown as University Core Curriculum electives, 9 must be from life and physical sciences, 3 from creative arts, 3 from language, philosophy and culture, 3 from social and behavioral sciences, 6 from American history and 6 from government/political science. The required 3 hours of International and Cultural Diversity and 3 hours of Cultural Discourse may be met by courses also satisfying the creative arts, language, philosophy and culture, social and behavioral sciences and American history requirements if they are also on the approved list of International and Cultural Diversity (<https://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) and Cultural Discourse (<https://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>).

⁴ To be selected in consultation with major advisor.

⁵ Select from CSCE 305, CSCE 310, CSCE 320/STAT 335, CSCE 400#479 (<https://catalog.tamu.edu/undergraduate/course-descriptions/csce/>), CSCE 489.