CATALOG YEAR 2022-2023

ACADEMIC MAP

COMPUTER SCIENCE

Bachelor of Science

TEXAS A&M UNIVERSITY CORPUS CHRISTI

FINISH IN 4

START HERE

YEAR 1

1 SEMESTER 1 - FALL	CREDITS	COMPLETED
UNIV 1101 UNIVERSITY SEMINAR I	1	✓
COSC 3100 SKILLS FOR COMPUTING PROFESSIONALS I	1	
COSC 1435 INTRODUCTION TO PROBLEM SOLVING WITH COMPUTERS I	4	
MATH 2413 CALCULUS I	4	
COMMUNICATION CORE REQUIREMENT	3	
SOCIAL AND BEHAVIORAL SCIENCES CORE REQUIREMENT	3	

TOTAL CREDITS: 16

2 SEMESTER 2 - SPRING	CREDITS	COMPLETED
UNIV 1102 UNIVERSITY SEMINAR II	1	
COSC 1436 INTRODUCTION TO PROBLEM SOLVING WITH COMPUTERS II	4	
MATH 2305 DISCRETE MATHEMATICS I	3	
COSC 3301 CYBER SECURITY	3	
CREATIVE ARTS CORE REQUIREMENT	3	

TOTAL CREDITS: 14

YEAR 2

3 SEMESTER 3 - FALL	CREDITS	COMPLETED
COSC 2334 COMPUTER ARCHITECTURE	3	
COSC 2437 DATA STRUCTURES	4	
MATH 2414 CALCULUS II	4	
POLS 2305 U.S. GOVERNMENT AND POLITICS	3	
COMMUNICATION CORE REQUIREMENT	3	

TOTAL CREDITS: 17

4 SEMESTER 4 - SPRING	CREDITS	COMPLETED
ENGL 3310 TECHNICAL AND PROFESSIONAL WRITING FOR COMPUTER SCIENCE	3	
COSC 3324 OBJECT-ORIENTED PROGRAMMING	3	
COSC 3353 SURVEY OF PROGRAMMING LANGUAGES	3	
POLS 2306 STATE AND LOCAL GOVERNMENT	3	
APPROVED UPPER-DIVISION COSC COURSE	3	

TOTAL CREDITS: 15

YEAR 3

5 SEMESTER 5 - FALL	CREDITS	COMPLETED
MATH 3342 OR MATH 3345 APPLIED PROBABILITY AND STATISTICS OR STATISTICAL MODELING AND DATA ANALYSIS	3	
COSC 3336 INTRODUCTION TO DATABASE SYSTEMS	3	
COSC 3370 SOFTWARE ENGINEERING	3	
COSC 3385 NUMERICAL METHODS	3	
SCIENCE SEQUENCE	4	

TOTAL CREDITS: 16

6 SEMESTER 6 - SPRING	CREDITS	COMPLETED
COSC 3346 OPERATING SYSTEMS	3	
COSC 3373 SOFTWARE PROJECT MANAGEMENT	3	
APPROVED UPPER-DIVISION COSC COURSE	3	
AMERICAN HISTORY CORE REQUIREMENT	3	
SCIENCE SEQUENCE	4	

TOTAL CREDITS: 16

YEAR 4

7 SEMESTER 7 - FALL	CREDITS	COMPLETED
COSC 4100 SKILLS FOR COMPUTING PROFESSIONALS II	1	
COSC 4342 COMPUTER NETWORKS	3	
COSC 4343 ALGORITHMS	3	
COSC 4353 OR COSC 4360 OR COSC 4370 COMPILER CONSTRUCTION OR THEORY OF PROGRAMMING LANGUAGES OR MODELS OF COMPUTATION	3	
APPROVED UPPER-DIVISION COSC COURSE	3	

TOTAL CREDITS: 16

8 SEMESTER 8 - SPRING	CREDITS	COMPLETED
COSC 4354 SENIOR CAPSTONE PROJECT	3	
COSC 4348 SYSTEMS PROGRAMMING	3	
APPROVED UPPER-DIVISION COSC COURSE	3	
LANGUAGE, PHILOSOPHY & CULTURE CORE REQUIREMENT	3	

TOTAL CREDITS: 12

This is not an official degree plan. It is a guideline for planning your courses. To access a copy of this academic map please visit tamucc.edu/academics/planning/academic-advising/

122 CREDITS | FINISHED!

CAREER MAP

COMPUTER SCIENCE

Bachelor of Science

TEXAS A&M UNIVERSITY CORPUS CHRISTI

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The mission of the computer science program is to educate undergraduate and graduate students in the principles of computer science and to extend the understanding and use of those principles by conducting research and service in support of the people and economy of south Texas, the state of Texas as a whole, and the nation, consistent with the program's function within a Hispanic-serving institution. Degree options include:
Systems Programming Option (SYPO)
Cyber Security and Infrastructure Option (CSIF)
Game Programming Option (GMPR)
Information Systems Option (ISYS)
Within this program, students analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions. Students also design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. As a part of this degree, students will be able to communicate effectively, make informed judgments and function as a member or leader within computer science team using theory and software development fundamentals to produce solutions.
The requirements for a Bachelor of Science degree in Computer Science include a total of 120-122 semester hours. The total is divided among the following groups: University Core Curriculum, Major Curriculum, and Electives. In order to prepare students to attain the program educational objectives, the CS degree program has been structured to ensure that all students, by the time of their graduation, will have been enabled to meet the following outcomes:
Analyze a complex computing problem, and to apply principles of computing and other relevant disciplines to identify solutions.
Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
Communicate effectively in a variety of professional contexts.
Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
Apply computer science theory and software development fundamentals to produce computing-based solutions.

CONTACT INFORMATION

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SKILLS/ATTRIBUTES

- Critical Thinking/Problem Solving
- Teamwork/Collaboration
- Professionalism/Work Ethic
- Oral/Written Communications
- Leadership
- Digital Technology
- Global/Multicultural Fluency

CAREER OPTIONS

- Software Developer
- Computer Programmer
- Web Developer
- Information Analyst
- Computer Support Specialist
- Software Engineer
- Data Scientist
- Database Administrator

ADDITIONAL SOURCES OF INFORMATION

1. Association for Computing Machinery
2. Association of Information Technology Professionals
3. International Webmasters Association
4. Software and Information Industry Association

STUDENT ORGANIZATIONS

- Islander Women in Computer Science
- SACNAS Chapter at Texas A&M University - Corpus Christi
- Advancement of Women in Science
- Computing Alliance of Hispanic Serving Institutions at Texas A&M University - CC
- Cyber Defense Team

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https://www.tamucc.edu/institutional-advancement/career-center/