

ACADEMIC MAP

Computer Information Systems, Bachelor of Science



First Year		Hours
Fall		
UNIV 1101	University Seminar I	1
ENGL 1301	Writing and Rhetoric I	3
COSC 1435	Introduction to Problem Solving with Computers I	4
MATH 2413	Calculus I	4
Social and Behavioral Sciences Core Requirement		3
Hours		15
Spring		
UNIV 1102	University Seminar II	1
ENGL 1302	Writing and Rhetoric II	3
or COMM 1311	or Foundation of Communication	
COSC 1436	Introduction to Problem Solving with Computers II	4
MATH 2305	Discrete Mathematics I	3
Creative Arts Core Requirement		3
Hours		14
Second Year		
Fall		
COSC 2334	Computer Architecture	3
COSC 2437	Data Structures	4
COSC 2470	COBOL Programming	4
Minor Course		3
POLS 2305	U.S. Government and Politics	3
ENGL 3310	Technical and Professional Writing for Computer Science	3
Hours		20
Spring		
COSC 3336	Introduction to Database Systems	3
Approved Upper-Division COSC Course		3
Minor Course		3
American History Core Requirement		3
POLS 2306	State and Local Government	3
Hours		15

Third Year		Hours
Fall		
MATH 3342	Applied Probability and Statistics	3
or MATH 3345	or Statistical Modeling and Data Analysis	
COSC 3300	Computing Ethics and Professional Skills	3
COSC 3346	Operating Systems	3
COSC 3324	Object-oriented Programming	3
Minor Course		3
American History Core Requirement		3
Hours		18
Spring		
COSC 3370	Software Engineering	3
Approved Upper-Division COSC Course		3
Life & Physical Science Core Requirement		3
Component Area Option Core Requirement		3
Hours		12
Fourth Year		
Fall		
COSC 4342	Computer Networks	3
Approved Upper-Division COSC Course		3
Minor Course		3
Minor Course		3
Life & Physical Science Core Requirement		3
Hours		15
Spring		
COSC 4354	Senior Capstone Project	3
Approved Upper-Division COSC Course		3
Minor Course		3
Language, Philosophy & Culture Core Requirement		3
Component Area Option Core Requirement		3
Hours		15
Total Hours		124

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/



CAREER MAP

COMPUTER SCIENCE, COMPUTER INFORMATION SYSTEMS

Bachelor of Science



The Computer Information Systems option is intended for those who want to develop and maintain information systems. In this option, the student learns to develop software systems and function as a computer professional. The student should choose electives to link the application-independent foundations and processes of computing and information systems to the needs of a particular application area. The student will gain knowledge of the particular application area by choosing a minor in an academic discipline highly related to the application area. The degree program has an emphasis in system software programming and requires a one-year sequence in a physical science with a laboratory component. 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. 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
- Digital Technology
- Teamwork/Collaboration
- Professionalism/Work Ethic
- Oral/Written Communication
- Leadership

STUDENT ORGANIZATIONS

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

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

CAREER OPTIONS

- Software Developer/Engineer
- Systems Analyst
- Database Administrator
- Network Administrator
- Information Security Analyst
- Business Intelligence Analyst
- IT Project Manager
- IT Consultant
- Quality Assurance Engineer
- Technical Support Specialist