



THE BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

The Bachelor of Science in software engineering is designed to provide the skills and competencies required by students wishing to pursue a career in software development. Software developers typically focus on either systems or applications. Systems software developers create and maintain the operating systems that make computers and devices run. Application software developers design software programs that run on computers and devices, such as databases and games. **Successful software developers are often strong in mathematics, effective communicators who work well with others, and detail-oriented.**

CAREERS

Computer Programmer
Computing Systems Design
Financial Institutions
Government Agencies
Information Systems Manager
Software Engineer
Software Publishers
Web Developer

REQUEST INFORMATION
shsu.edu/see/computersoftware

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Department of Computer Science
COLLEGE OF SCIENCE & ENGINEERING TECHNOLOGY
SAM HOUSTON STATE UNIVERSITY
MEMBER THE TEXAS STATE UNIVERSITY SYSTEM



BE BOLD.

SOFTWARE ENGINEERING, BS
COLLEGE OF SCIENCE &
ENGINEERING TECHNOLOGY



DEGREE SPECIFIC REQUIREMENTS

MATH 1420	Calculus I
MATH 1430	Calculus II
MATH 2395	Discrete Mathematics
MATH 3379	Statistical Methods in Practice
ADV MATH (3 hours)	

MAJOR

COSC 1436	Programming Fundamentals I
COSC 1437	Programming Fundamentals II
COSC 2327	Intro to Computer Networks
COSC 2329	Comp Organiz & Machine Lang
COSC 3312	Numerical Methods
COSC 3318	Data Base Management Systems
COSC 3319	Data Structures & Algorithms
COSC 3321	Digital System Design
COSC 3327	Computer Architecture
COSC 4314	Data Mining
COSC 4318	Advanced Language Concepts
COSC 4319	Software Engineering
COSC 4320	System Modeling & Simulation
COSC 4332	Computer Graphics
COSC 4340	Spc Tpcs in Computer Sci
COSC 4349	Professionalism & Ethics

ELECTIVES

COSC or DFSC Electives (3 hours must be advanced)

General Electives

REQUIREMENTS

In addition to coursework about programming, databases, and other computer-related topics, the computer software engineering degree requires calculus, discrete mathematics, and statistics.

MINOR

This program does not require a minor; however, students may select a minor that suits their interests and career goals.

HIGHLIGHTS

A variety of operating systems, network protocols, programming languages, and application packages are available in the comprehensive computing environment provided for students. In addition to campus resources, the Department of Computer Science operates a range of lab facilities, including network, robotics, and Unix/Linux labs, a data recovery lab, and a network security lab. Off-campus access to departmental computing resources is available.



Other Degrees offered through the department of computer science:

Computing Science, BS

Cyber Security, BS

Computing & Information Science, MS

Digital Forensics, MS

Information Assurance & Cybersecurity, MS

Digital & Cyber Forensic Science, PhD