



## THE BACHELOR OF SCIENCE IN COMPUTING SCIENCE

The Bachelor of Science in computing science at Sam Houston State University offers coursework grounded in theory, small class sizes, knowledgeable professors, and a variety of facilities for hands-on learning. All computing science majors will complete coursework in programming and algorithms, computer architecture, database systems, data structures, and software engineering. The computing science program at SHSU strives to provide students with the highest quality education possible.

**This commitment is indicated by the program's accreditation from the ABET Computing Accreditation Commission.**

## CAREERS

Analyst  
Cyber Security Engineer  
Database Administrator  
Network Administrator  
Pentester  
Blue/Red Teamer  
Security Researcher  
Site Reliability Engineer  
Software Developer  
Software Engineer  
Systems Analyst  
Technical Support Engineer  
UX Designer

**REQUEST INFORMATION**  
[shsu.edu/computingscience](https://shsu.edu/computingscience)

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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.

**COMPUTING SCIENCE, BS**  
COLLEGE OF SCIENCE &  
ENGINEERING TECHNOLOGY





## REQUIRED COURSES

COSC 1436	Programming Fundamentals I
COSC 1437	Programming Fundamentals II
COSC 2329	Comp Organiz & Machine Lang
COSC 3318	Data Base Management Systems
COSC 3319	Data Structures and Algorithms
COSC 4318	Advanced Language Concepts
COSC 4319	Software Engineering
COSC 4349	Professionalism and Ethics

## COMPUTING SCIENCE CONCENTRATION

COSC 2347	Special Topics/Programming
COSC 3327	Computer Architecture
COSC 4316	Compiler Design & Construction
COSC 4327	Computer Operating Systems
COSC 4149	Seminar in Computer Science
COSC/DFSC	Advanced Electives

### Advanced General Electives

## INFORMATION ASSURANCE CONCENTRATION

DFSC 1316	DF and IA Fundamentals I
DFSC 2316	DF and IA Fundamentals II
COSC 2347	Special Topics/Programming
DFSC 3316	Cryptography & Network Scrt
COSC 3327	Computer Architecture
DFSC 4317	Information Security
COSC 4149	Seminar in Computer Science

### DFSC Advanced Electives

## INFORMATION SYSTEMS CONCENTRATION

COSC 2327	Intro to Computer Networks
COSC 2347	Special Topics/Programming
COSC 3337	Infor Sys Design & Management
COSC 4326	Network Theory
COSC 4149	Seminar in Computer Science
COSC/DFSC	Advanced Electives



## REQUIREMENTS

The Bachelor of Science in computing science requires courses in calculus, discrete mathematics, statistics, and natural sciences in addition to computing science coursework.

## CONCENTRATION

Students are expected to select an emphasis from the options of computing science, information assurance, or information systems. Each concentration requires slightly varied coursework.

## HIGHLIGHTS

SHSU provides students with a comprehensive computing environment consisting of a large number of labs and a variety of operating systems, network protocols, programming languages, and application packages. Additionally, the department operates network, robotics and Unix/Linux labs, a data recovery lab, a network security lab, and a symmetric multiprocessing system.



### Other Degrees offered through the department of computer science:

Software Engineering, BS  
Cyber Security, BS  
Computing & Information Science, MS  
Digital Forensics, MS  
Information Assurance & Cybersecurity, MS  
Digital & Cyber Forensic Science, PhD