COMPUTER SCIENCE, B.S. - GENERAL

The program outline and graduation requirements are listed below. In addition, free electives are selected to reach 120 credits overall required for graduation.

The department website provides an overview of the program, admission requirements (when applicable), faculty biographies, learning outcomes, and careers: https://www.southernct.edu/academics/computer-science/programs

GENERAL EDUCATION REQUIREMENTS

All bachelor’s degree programs include liberal education (LEP) and writing (W) course requirements. To review more detailed information regarding these requirements, please visit Degree Requirements >>General Education (LEP) Requirements. Courses in the major and/or cognate may also be used to satisfy LEP requirements where noted below (*).

MAJOR REQUIREMENTS (52 Credits)

**Computer Science Requirements** (34 Credits)
CSC 152 – CS1: Programming Fundamentals (’C’ or better)
CSC 207 – Computer Systems
CSC 212 – CS2: Data Structures (’C’ or better)
CSC 229 - Object-Oriented Programming (’C’ or better)
CSC 235 - Web and Database Development
CSC 265 - Computer Networking and Security I
CSC 324 - Computer Ethics
CSC 330 - Software Design and Development
CSC 400 - Computer Science Project Seminar (T3)*
CSC 421 - Theory of Programming Language
CSC 463 - Distributed and Parallel Computing

**Computer Science Concentration** (18 Credits)
CSC 305 - Computer Organization
CSC 321 - Algorithm Design and Analysis
CSC 425 - Operating Systems

Select 3 courses from:

CSC 334 - Human-Computer Interaction
CSC 335 - Database Systems
CSC 341 - Digital Imaging
CSC 398 - Special Topics
CSC 431 - Computer Graphics
CSC 443 - Internet Programming
CSC 451 - Fundamentals of Deep Learning
CSC 453 - Information Security
CSC 465 - Computer Networking and Security II
CSC 476 - Fundamentals of Data Warehousing
CSC 477 - Data Mining
CSC 481 - Artificial Intelligence
CSC 497 - Computer Science Internship

COGNATE REQUIREMENTS (25 Credits)

MAT 150 – Calculus I (T1QR)*
MAT 151 – Calculus II
MAT 178 – Elementary Discrete Mathematics
MAT 221 – Intermediate Applied Statistics

Select one from (T2LE)*:
BIO 100 – General Zoology
BIO 101 – General Botany
BIO 103 – Biology I
BIO 120 – Microbiology
BIO 200 – Human Biology I
BIO 201 - Human Biology II
ESC 201 – Historical Geology

Select one from (T2PR)*:
CHE 120 – General Chemistry I
ESC 200 – Physical Geology
PHY 200 – General Physics I
PHY 230 – Physics for Scientists and Engineers I

Select one from:
BIO 102 – Biology
CHE 121 – General Chemistry II
ESC 210 – Principles of Astronomy
MAT 252 – Calculus III
MAT 322 – Numerical Analysis I
MAT 372 – Linear Algebra
PHY 201 – General Physics II
PHY 231 – Physics for Scientists and Engineers II