DATA SCIENCE, B.S.

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/mathematics/programs

GENERAL EDUCATION REQUIREMENTS

All bachelor’s degree programs include liberal education (LEP) and writing (W) course requirements. Detailed information on these requirements is published in this section of the catalog: https://catalog.southernct.edu/undergraduate/general-information/lep.html.

Writing courses are not additional course requirements, course sections that meet this requirement are designated with a ‘W’ on the class schedule. Courses in the major and/or cognate may also be used to satisfy LEP requirements where noted below (*).

MAJOR REQUIREMENTS (70 Credits)

DSC 100 - Data Science I
DSC 101 - Data Science II
DSC 490 - Data Science Capstone Project (T3)*
CSC 212 - CS 2: Data Structures
CSC 229 - Object-Oriented Programming
CSC 235 - Web and Database Development
CSC 321 - Algorithm Design and Analysis
CSC 330 - Software Design and Analysis
CSC 477 - Data Mining
CSC 481 - Artificial Intelligence or MAT 428 - Mathematical Foundations in Machine Learning
MAT 122 - Precalculus (T1QR)*
MAT 150 - Calculus I (T1QR)*
MAT 151 - Calculus II
MAT 178 - Elementary Discrete Mathematics
MAT 221 - Intermediate Applied Statistics
MAT 326 - Regression Analysis
MAT 329 - Bayesian Analysis and Decision Making
MAT 372 - Linear Algebra

Select 4 from the following (Must include at least one from CSC and one from MAT):
CSC 335 - Database Systems
CSC 451 - Fundamentals of Deep Learning
CSC 463 - Distributed and Parallel Computing
DSC 398 - Special Topics
MAT 322 - Numerical Analysis I
MAT 328 - Time Series Analysis
MAT 429 - Modern Nonparametric Statistics