MATHEMATICS, B.S. - APPLIED

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 (45 Credits)

In those mathematics courses which the student applies toward the major in mathematics, he/she must have a GPA of 2.0 and, at most, one grade below C-.

MAT 150 - Calculus I (T1QR)*
MAT 151 — Calculus II (‘C-’ or better)
MAT 221 — Intermediate Applied Statistics
MAT 245 — Differential Equations
MAT 250 — Foundations of Mathematics: An Introduction (‘C-’ or better)
MAT 252 — Calculus III (‘C-’ or better)
MAT 322 — Numerical Analysis I
MAT 372 — Linear Algebra (‘C-’ or better)
MAT 378 — Discrete Mathematics
MAT 488 — Seminar in Mathematical Modeling

Select one:

• MAT 321 — Mathematical Statistics
• MAT 325 — Design of Experiments
• MAT 326 — Regression Analysis
• MAT 328 — Time Series Analysis
• MAT 329 — Bayesian Analysis and Decision Making

Select two:

• MAT 375 — Abstract Algebra I
• MAT 450 — Analysis
• MAT 480 — Topology

**COGNATE REQUIREMENTS (9 Credits)**

Select one:
CSC 152 — Computer Programming I
DSC 101 - Data Science II

Select two cognate courses beyond those used to satisfy the Liberal Education Program Requirements from any of the following areas of application. Selections must be approved through memo from the Mathematics department to the Registrar’s Office.

• Biology
  Chemistry
  Computer Science
  Earth Science
  Economics
  Physics
  or other approved area