BIOLOGY, B.S. - BS TO MS ACCELERATED PATHWAY

The program outline and graduation requirements are listed below. In addition, free electives are selected to reach 120 credits overall and a 3.0 cumulative GPA is required for graduation.

The department website provides an overview of the program, admission requirements (when applicable), faculty biographies, learning outcomes, and careers: https://www.southerncst.edu/academics/biology/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 http://catalog.southerncst.edu/undergraduate/degree-requirements.html (General Education Requirements). Courses in the major and/or cognate may also be used to satisfy LEP requirements where noted below (*).

MAJOR REQUIREMENTS (37 Credits)

3.0 Major GPA Required

Biology Requirements (26 Credits)
BIO 102 – Biology I (‘C’ or better)
BIO 103 – Biology II (‘C’ or better) (T2LE)*
BIO 220 – Genetics (‘C’ or better)

ANATOMY/PHYSIOLOGY
One Entry Level:
BIO 230 – Plant Anatomy and Morphology
BIO 231 – Comparative Vertebrate Anatomy
BIO 235– Histology
BIO 250 - Plant Diversity

Biodiversity/Ecology/Organismal Biology
One Entry Level:
BIO 202 – Ecology
BIO 210 – Environmental Biology and Conservation
BIO 215 - Animal Behavior
BIO 228 – Vertebrate Zoology
BIO 229 – Invertebrate Zoology

Cell/Molecular
One Entry Level:
BIO 205 – Forensic Biology
BIO 233 – Introductory Microbiology
BIO 236 - Cell Biology
BIO 240 – Human Heredity
BIO 296 - Genomics I

Required:
BIO 499 – Independent Study and Research (3 cr)

Accelerated Pathway Requirements (11 Credits)

ANATOMY/PHYSIOLOGY
One Upper Level ('B' or better required):
BIO 529 - Endocrinology
BIO 537 - Plant Anatomy and Physiology
BIO 545 - Immunology
BIO 552 - Human and Medical Genetics
BIO 555 - Neurobiology

BIODIVERSITY/ECOLOGY/ORGANISMAL BIOLOGY
One Upper Level ('B' or better required):
BIO 501 - Conservation Ecology
BIO 502 - Population and Community Biology
BIO 504 - Evolution
BIO 512 - Marine Invertebrate Ecology
BIO 513 - Coastal Ecosystem Management
BIO 525 - Ichthyology
BIO 526 - Herpetology
BIO 534 - Stream Ecology
BIO 536 - Marine Algae
BIO 540 - Biogeography
BIO 582 - Biological Illustration

CELL/MOLECULAR
One Upper Level ('B' or better required):
BIO 518 - Advanced Microbiology
BIO 519 - Emerging Infectious Diseases
BIO 541 - Tissue Culture Workshop
BIO 547 - Virology
BIO 551 - Molecular and Developmental Genetics

Required:
BIO 550 – Research Methods in Biology (1 credit)
BIO 560 – General Topics Seminar (1 credit)

COGNATE REQUIREMENTS (28 Credits)

CHE 120 – General Chemistry I (T2PR)*
CHE 121 – General Chemistry II
CHE 260 – Organic Chemistry I
MAT 122 or MAT 150 – Precalculus or Calculus I (T1QR)*
MAT 221 – Intermediate Applied Statistics

Select one from:
1. PHY 200 and PHY 201 – General Physics I and II
2. PHY 230 and PHY 231 – Physics for Scientists and Engineers I and II