

# BIOLOGY MAJOR

## Bachelor of Arts Degree Track in Biology

The A.B. degree track in biology is recommended for those students interested in the biological sciences whose career goals do not require courses in physics or calculus, e.g., scientific illustration, science writing or environmental law. The major requires a minimum of 40 credit hours (10 courses).

Total Credit Hours required for A.B. degree in biology is 40 credits.

Code	Title	Credits
BIOL 201	Intro Biol: Form and Function	4
BIOL 202	Intro Biol: Ecol and Evolution	4
BIOL 203	Intro Biol:Molecules and Cells	4
Select one BIOL elective course at any level		4
Select one BIOL elective course at the 200 level or above		4
Two BIOL elective courses at the 300 or 400 level		8
Capstone approved by department		4
Suggested Capstone examples include BIOL 390 Internship or BIOL 460 Independent Study or BIOL 470 Senior Thesis. (OR Approved Study Abroad/Away)		
CHEM 111	Chemical Principles I	4
CHEM 112	Chemical Principles II	4
<b>Total Credits</b>		<b>40</b>

All biology courses include laboratory experiences, fieldwork and/or off-campus field trips. Expanded study and research opportunities are available on the Guilford campus, at the North Carolina coast, in the mountains, and at regional universities and organizations. Several biology courses are included as options for majors in environmental studies, public health, sports studies and health science. Numerous study abroad programs offer students the opportunity to study in various places around the world.

Biology (B.S track.) majors are encouraged to pursue independent research projects under the supervision of a biology faculty member through collaborations with other universities, summer REUs or with Guilford faculty. This research can lead to the generation of a senior thesis (BIOL 470) or departmental honors (BIOL 490). In addition, there are numerous opportunities for student participation in independent studies (BIOL 260 or 460) and internships (BIOL 290).

## Bachelor of Science Degree Track in Biology

The B.S. track in Biology is recommended for students planning to pursue graduate study in any area of biology. The major requires a minimum of 56 credit hours (14 courses).

Code	Title	Credits
BIOL 201	Intro Biol: Form and Function	4
BIOL 202	Intro Biol: Ecol and Evolution	4
BIOL 203	Intro Biol:Molecules and Cells	4
Select one BIOL elective course at any level		4
Select one BIOL elective courses at the 200 level or above		4
Two BIOL elective courses at the 300 or 400 level		8

Capstone approved by department 4

Suggested Capstone examples include BIOL 390 Internship or BIOL 460 Independent Study or BIOL 470 Senior Thesis. (OR Approved Study Abroad/Away)

CHEM 111 Chemical Principles I 4

CHEM 112 Chemical Principles II 4

**Total Credits 40**

**Code Title Credits**

**Four courses selected from the following**

CHEM 231 Organic Chemistry I 4

CHEM 232 Organic Chemistry II 4

MATH 112 Elementary Statistics 4

MATH 115 Elementary Functions 4

MATH 222 Calculus II: Integral Calculus 4

MATH 220 Calculus I: Differential Calculus 4

PHYS 111 Introduction to Physics for the Life Sciences I 4

PHYS 112 Introduction to Physics for the Life Sciences II 4

PHYS 117

PHYS 118

PHYS 121 Classical and Modern Physics I 4

CTIS 210 Introduction to Computer Programming 4

**Total Credit Hours required for B.S. degree track in biology is 56 credits**

## Major Requirements for Biology - Preprofessional B.S. degree track in biology.

The biology B.S. major is recommended for students planning to pursue medical, dental, veterinary or allied health professions. This track major requires a minimum of 52 credit hours (13 courses).

**Code Title Credits**

BIOL 202 Intro Biol: Ecol and Evolution 4

BIOL 203 Intro Biol:Molecules and Cells 4

One BIOL elective courses at the 200 level or above 4

Two BIOL elective courses at the 300 or 400 level 8

Capstone approved by department 4

Suggested Capstone examples include BIOL 390 Internship or BIOL 460 Independent Study or BIOL 470 Senior Thesis. (OR Approved Study Abroad/Away)

CHEM 111 Chemical Principles I 4

CHEM 112 Chemical Principles II 4

**Five courses selected from the following based on pre-professional program requirements**

CHEM 231 Organic Chemistry I 4

CHEM 232 Organic Chemistry II 4

PHYS 111 Introduction to Physics for the Life Sciences I 4  
or PHYS 117

PHYS 112 Introduction to Physics for the Life Sciences II 4  
or PHYS 118

MATH 112 Elementary Statistics 4

MATH 115 Elementary Functions 4

MATH 220 Calculus I: Differential Calculus 4

SPST 120	Introduction to Exercise and Sport Sciences	4
SPST 311	Sport and Exercise Physiology	4

**Total Credit Hours required for pre-professional B.S. degree in biology is 52 credits**

All biology courses include laboratory experiences, fieldwork and/or off-campus field trips. Expanded study and research opportunities are available on the Guilford campus, at the North Carolina coast, in the mountains, and at regional universities and organizations. Several biology courses are included as options for majors in environmental studies, public health, sports studies and health science. Numerous study abroad programs offer students the opportunity to study in various places around the world.

Biology (B.S track.) majors are encouraged to pursue independent research projects under the supervision of a biology faculty member through collaborations with other universities, summer REUs or with Guilford faculty. This research can lead to the generation of a senior thesis (BIOL 470) or departmental honors (BIOL 490). In addition, there are numerous opportunities for student participation in independent studies (BIOL 260 or BIOL 460) and internships (BIOL 290).