

Biology Major: Comprehensive Science High School Teaching Licensure (BIOL)—B.A.

Degree: Bachelor of Arts

Required: 122 semester hours, to include at least 36 hours at or above the 300 course level; note that licensure programs may require hours beyond the minimum listed.

AOS Code: U119

The Comprehensive Science High School Licensure (BIOL) program provides a strong background in biology as well as licensure for high school biology teaching. In addition, successful completion of this program qualifies candidates to teach other high school science subjects as well. The Department offers a full range of courses leading to the B.A. degree. The degree may lead to further study in graduate school, medicine, dentistry, veterinary medicine, medical technology, biotechnology, and environmental biology.

See also Preprofessional Programs. Both study and laboratory facilities are available to advanced undergraduates.

Students seeking admission to the UNCG Teacher Education Program with a major in Biology must meet the following minimum requirements of the Department of Biology:

1. Completion of a minimum of 9 s.h. in biology courses, with at least six of those hours from courses taken at UNCG
 2. A grade point average of at least 2.50 for biology courses completed at UNCG
- Students already admitted to the UNCG Teacher Education Program with a major in Biology who are seeking admission to Student Teaching must meet the following requirements of the Department of Biology:
1. Completion of a minimum of 18 s.h. of biology courses, with at least 15 of those hours from courses taken at UNCG
 2. A grade point average of at least 2.50 for biology courses completed at UNCG

I General Education Core Requirements (GEC)

See complete GEC requirements under General Education Program in the University Requirements section. See the GEC Course Summary Table for approved courses.

GLT—Literature (6 s.h.)

Student selects 6 s.h. from GLT list.

GFA—Fine Arts (3.s.h.)

Student selects 3 s.h. from GFA list.

GPR—Philosophical, Religious, Ethical Principles (3 s.h.)

Student selects 3 s.h. from GPR list.

GHP—Historical Perspectives (3 s.h.)

Student selects 3 s.h. from GHP list.

GNS—Natural Sciences (7 s.h.)

BIO 111 Principles of Biology I

CHE 111 General Chemistry I

GMT—Mathematics (3 s.h.)

MAT 151 Precalculus II

or

MAT 191 Calculus I

GRD—Reasoning and Discourse (6 s.h.)

ENG 101 College Writing I

or

FMS 115 Freshman Seminar in Reasoning and Discourse I

or

RCO 101 College Writing I

Student selects additional 3 s.h. from the GRD list.

GSB—Social and Behavioral Sciences (6 s.h.)

Student selects 6 s.h. from GSB list.

II General Education Marker Requirements

See complete GEC requirements under General Education Program in the University Requirements section. See the GEC Course Summary Table for approved courses.

GL/GN—Global/Global Non-Western Perspectives

Four courses carrying GL/GN markers, at least one of which must carry the GN marker.

One SI (Speaking Intensive) Course

In addition to this SI Marker requirement, students must also complete a second SI course within the major. All programs have identified at least one course among their major requirements that is taught as Speaking Intensive.

One WI (Writing Intensive) Course

In addition to this WI Marker requirement, students must also complete a second WI course within the major. All programs have identified at least one course among their major requirements that is taught as Writing Intensive.

III College of Arts and Sciences Additional Requirements (CAR)

See CAR requirements in the Academic Units section. See the GEC Course Summary Table for approved CAR courses.

GMO/GPM—Historical Perspectives (3 s.h.)

Student selects 3 s.h. from GMO or GPM list, depending on category used to satisfy GHP requirement.

GLS/GPS—Natural Sciences (3–4 s.h.)

Required:

BIO 112 Principles of Biology II

GSB—Social and Behavioral Sciences (3 s.h.)

Student selects 3 s.h. from GSB list.

GFL—Foreign Language (0–12 s.h.)

Intermediate-level proficiency in one language, demonstrated by placement test, or completion of course work through course number 204.

WI—Writing Intensive Courses

A total of four WI courses.

IV Major Requirements

Program Qualifications

BIO 111 Principles of Biology I

BIO 112 Principles of Biology II

Additional Qualifications

- A minimum of 30 semester hours of Biology courses above the 100 level.
- A maximum of 4 s.h. at the 200 level may be counted toward the major.
- Students must have a grade point average of at least 2.0 in Biology courses completed at UNCG.

Core Courses

In meeting the requirement for hours above the 100 level, all B.A. in Biology majors must complete the following core courses; completion of at least four of these requirements is strongly recommended prior to enrollment in courses numbered 400 and higher.

1. Ecology

BIO 301 Principles of Ecology

2. Cell Biology

BIO 355 Cell Biology

3. Genetics

BIO 392 Genetics

4. Evolution

BIO 330 Evolution

5. Two laboratory courses

BIO 315 Ecology and Evolution Laboratory

BIO 375 Cell Biology and Genetics Laboratory

V Related Area Requirements

1. Required

CHE 111 General Chemistry I

CHE 112 General Chemistry I Laboratory

CHE 114 General Chemistry II

CHE 115 General Chemistry II Laboratory

2. Required

MAT 151 Precalculus II

or

MAT 191 Calculus I

Recommended

The department highly recommends the courses listed below in addition to the required courses listed above.

1. Required

CHE 351 Organic Chemistry I

CHE 352 Organic Chemistry II

CHE 354 Organic Chemistry Laboratory

2. Required

MAT 191 Calculus I

MAT 292 Calculus II

3.

STA 271 Fundamental Concepts of Statistics

4.

PHY 211 General Physics I

PHY 212 General Physics II

VI Additional Requirements for Teacher Licensure

The Teaching Licensure program in Biology includes a diverse science curriculum in order to align with licensure requirements of the North Carolina Department of Public Instruction.

a.

1. Required

GEO 103 Introduction to Earth Science

2. One or more of the courses listed below.

GEO 111 Physical Geology

GEO 205 Environmental Change: Its Nature and Impact

GEO 311 Weather and Climate

GEO 314 Physical Geography: Landscape Processes

b. The following courses must be taken in a specified sequence terminating in student teaching in the spring semester of the senior year. See the online Secondary Education Handbook for more information.

1. Required

TED 535 Literacy in the Content Area

2. Required

ERM 401 Assessment I: Accountability in Our Nation's Schools

ERM 402 Assessment II: Standardized Tests

ERM 403 Assessment III: Classroom Assessment

3. Required

TED 401 Child and Adolescent Development and Learning

SES 401 Understanding and Teaching Students with Disabilities in Inclusive Settings

TED 403 Teaching English Learners with Diverse Abilities

4. Required

TED 445 Human Diversity, Teaching, and Learning

5. Required

TED 559 Teaching Practices and Curriculum in Science

6. The course provided below for 12 s.h.

TED 465 Student Teaching and Seminar: Secondary School

7. Strongly recommended

LIS 120/TED 120 Introduction to Instructional Technology for Educational Settings

VII Electives

Electives sufficient to complete the 122 semester hours required for the degree.