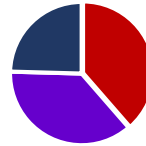


How will my coursework be distributed? (Percentage)



- Foundation (SH)
- Breadth (SH)
- Depth (SH)

Program Planning Worksheet

BIOLOGY MAJOR - Degree: Bachelor of Science

GENERAL BIOLOGY

The General Biology degree without a concentration allows students to explore across different areas of biology instead of concentrating on one specific area. Students will obtain a greater breadth of knowledge by completing additional coursework in three breadth areas. This General Biology degree is designed for students seeking a more general education in the biological sciences and for students who do not have immediate plans to enter graduate or professional schools. This degree would be particularly suited for those students pursuing a career in education.

Students majoring in biology must complete a minimum of 120 semester hours (**SH**) in order to graduate. This includes satisfying the General Education (**GE**) course requirements, completing outlined areas of foundation, breadth, and depth courses, and appropriate elective requirements. Several of these courses can also be taken as part of the GE requirements. A minimum grade of C- or better is required in each biology and chemistry course. Required major courses include 22 SH of Foundation courses, 21 SH of Breadth courses, and 14 SH of Depth courses. In addition, during the senior year, all students must complete and present a Senior Reflection Project.

FOUNDATION COURSES (22 SH)

Course	SH	Grade
BIO 1313 General Biology I (GE)	3	
BIO 1113 General Biology I Lab (GE) <i>Co-requisite: BIO 1313</i>	1	
BIO 1314 General Biology II (GE)	3	
BIO 1114 General Biology II Lab (GE) <i>Co-requisite: BIO 1314</i>	1	
BIO 1307 Scientific Writing (GE) <i>Pre-requisite: Level I GE writing course</i>	3	
CHE 1313 Chemistry I (GE)	3	
CHE 1113 General Chemistry I Lab (GE) <i>Co-requisite: CHE 1313</i>	1	
CHE 1314 General Chemistry II (GE)	3	
CHE 1114 General Chemistry II Lab (GE) <i>Co-requisite: CHE 1314</i>	1	
Select 1 of the following courses: MAT 2326 Elementary Statistics (GE) GER 2326 Statistics for Social and Behavioral Sciences (GE) PSY 2326 Statistics for Social and Behavioral Sciences (GE) SOC 2326 Statistics for Social and Behavior Sciences (GE) MAT 3310 Probability and Statistics I EXS 2310 Demystifying the Statistics of the Health Sciences (GE) MAT 2317 Calculus I (GE) - possible prerequisite(s) required if student did not test into this course	3	
Total Foundation		

BREADTH COURSES (21 SH)

Course	SH	Grade
CHE 2326 Organic Chemistry - CHE 2126 lab recommended (1 SH)	3	
PHY 1321 College Physics I	3	
PHY 1121 College Physics I Lab Co-requisite: PHY 1321	1	

Students must complete the remaining 14 hours by taking at least one course from Areas I, II, III, and IV detailed below. To reach the remaining 14 hours students may have to take an additional course from Area I or an optional laboratory course(s) in Areas II, III, or IV. Courses used to fulfill the breadth areas may not be used to fulfill depth concentration requirements.

Area I (2–4 SH): Bio-techniques and Lab Skills

Course	SH	Grade
Select 1 of the following course(s) BIO 1315 & 1315 Intro to Biotech w/ lab (3 SH & 1 SH) BIO 3201 Tissue Culture (2 SH) BIO 2277 Investigation & Research I (2 SH) BIO 3277 Investigation & Research II (2 SH) BIO 3333 Field Biology (3 SH)		
Optional Course (if necessary):		

Area II (3–4 SH): Cells & Molecules

Course	SH	Grade
Select 1 of the following course(s) BIO 3337 Biomolecules (3 SH) - BIO 3137 lab optional (1 SH) BIO 3342 Introduction to Molecular Biology (3 SH) BIO 3364 Cell Biology (3 SH) - BIO 3164 lab optional (1 SH)		
Optional Course (if necessary):		

Area III (3–4 SH): Structure & Function

Course	SH	Grade
Select 1 of the following course(s) BIO 3231/3232 Microbiology with lab (2 SH & 2 SH) BIO 3311/3111 Fund. of Anatomy and Physiology with lab (3 SH & 1 SH) BIO 3336 Developmental Bio (3SH) - BIO 3136 lab optional (1 SH) BIO 3343 Histology (3 SH) - BIO 3143 lab optional (1 SH) BIO 2311/2111 Anatomy & Physiology I with Lab (3 SH & 1 SH)		
Optional Course (if necessary):		

Area IV (3-4 SH): Heredity, Evolution, & Diversity

Course	SH	Grade
Select <u>1</u> of the following course(s) BIO 2310 Zoology (3 SH) BIO 2316 Botany (3 SH) - <i>BIO 2116 lab optional</i> (1 SH) BIO 3366 Genetics (3 SH) - <i>BIO 3166 lab optional</i> (1 SH) BIO 3371 Ecology & Evolution (3 SH)		
Optional Course (if necessary):		

Total Breadth		
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DEPTH COURSES (14 SH)

Course	SH	Grade
BIO 4276 Seminar	2	
BIO 4277 Investigation and Research III	2	

To fulfill the General Biology degree, students must complete ≥ 10 SH by completing one additional course in each of the breadth areas II, III, and IV, and one Biology elective course if needed.

Course	SH	Grade
AREA II:		
AREA III:		
AREA IV:		
Biology Elective:		
Total Depth		

***Graduation Requirement: Department of Biological Sciences E-Portfolio Senior Project**

Refer to E-portfolio Guidelines and Checklist

Program Notes

General Education

The General Education curriculum is designed to foster the development of critical skills such as thinking, writing, and speaking, while offering students the opportunity to explore the vast fields that make up the academy. The General Education curriculum at Winston-Salem State University is designed to offer students a mix of the liberal arts as a foundation for the major. Students are required to take approximately one-half (a minimum of 60 semester hours) of their courses outside of their major field of study. Most of these courses are taken in the first two years at the university. Students have choice in the courses they take and are encouraged to sample widely across the curriculum.

The General Biology Degree

The student is responsible for the completeness and accuracy of registration and for determining the requirements of the selected program/concentration. It is strongly advised for students to read course descriptions before registering for a course to determine if they have necessary prerequisites. **The General Biology Degree is an excellent avenue for pursuing STEM Education. There are a number of routes to become a science K-12 teacher, including coupling WSSU education programs and teaching transition programs associated with school systems. Additionally, students who want to attend graduate, professional, or medical school may have additional requirements that are not required for the biology major, including a full year of organic chemistry with lab, a full year of physics with lab, and other courses. As requirements vary by school and program, students are strongly advised to investigate the requirements early, consult their advisor, and plan their schedules accordingly.**

What Can I Do With A General Biology Degree?

1. <http://www.onedayonejob.com/majors/biology/>
2. <https://web.archive.org/web/20190805061212/http://resources.alljobopenings.com/biology-majors>
3. Biology Majors Guide: <http://www.worldwidelearn.com/online-education-guide/science/biology-major.htm>

Undergraduate Research

The Department of Biological Sciences encourages undergraduate students to become involved in research. It is a requirement for all majors made possible by various modes of directed research opportunities. Our faculty members adhere to the principle that the best way to learn science is by doing research, and laboratory research is a strongly encouraged supplement to undergraduate studies in the department.

Tips for Undergraduate Research:

[Tips for a successful undergraduate research experience](#)

Graduate School Preparation

Our department aims for its students to develop a deep understanding of current ideas and problems in biology. At the same time, we help to build foundational skills in logic, reasoning, self-expression and communication-skills relevant to any career or professional program.

Graduate School Preparation Resource:

1. Application Timeline: <http://www.princetonreview.com/grad-school-advice/application-timeline>
2. Tips: <https://www.btaa.org/docs/default-source/diversity/gradschoolguide.pdf>