## **BACHELOR OF SCIENCE IN BIOLOGY 2017-2018 DEGREE REQUIREMENTS**

FIRST YEAR-FALL	HOURS
GT 1000 FRESHMAN SEMINAR*	1
ENGL 1101 ENGLISH COMPOSITION I	3
MATH 1551 DIFFERENTIAL CALCULUS	2
BIOL 1511 (OR 1510) BIOLOGICAL PRINCIPLES	4
CHEM 1211K CHEMICAL PRINCIPLES I	4
TOTAL SEMESTER HOURS	14
SECOND YEAR-FALL	HOURS
BIOL 2335 ECOL, BIOL 2344 GENETICS, OR BIOL 2354 HONS. GENETICS <sup>2</sup>	3
BIOL 2336 ECOL LAB, BIOL 2345 GEN LAB, OR BIOL 2355 HONS. GEN LAB <sup>2</sup>	1
CHEM 2311 ORGANIC CHEMISTRY I	3
MATH 1553 LINEAR ALGEBRA	2
QUANTITATIVE BIOLOGY REQUIREMENT <sup>3</sup> or COMPUTING REQUIREMENT	3
HIST 2111 or 2112 or POL 1101 or PUBP 3000 or INTA 1200 (CONSTITUTION/HISTORY REQUIREMENT)	3
TOTAL SEMESTER HOURS	14 or 15

THIRD YEAR-FALL	HOURS
PHYS 2211 INTRODUCTORY PHYSICS I FOR LIFE SCIENCES	4
BIOL 3450 CELL & MOLECULAR BIOLOGY OR BIOL 3600 EVOLUTION	3
BIOLOGY ELECTIVE	3
HUM or SS ELECTIVE	3
FREE ELECTIVE	3
TOTAL SEMESTER HOURS	16

FOURTH YEAR-FALL	HOURS
BIOLOGY ELECTIVES	6
FREE ELECTIVE	3
HUM or SS ELECTIVE	3
SENIOR RESEARCH EXPERIENCE <sup>4</sup>	3
BIOL 4460 COMMUNICATING BIOLOGICAL RESEARCH	1
TOTAL SEMESTER HOURS	16

\*Not required for graduation, another free elective may be substituted

FIRST YEAR-SPRING	HOURS
ENGL 1102 ENGLISH COMPOSITION II	3
MATH 1555 CALCULUS FOR LIFE SCIENCES (OR MATH 1552 INTEGRAL CALCULUS)	4
BIOL 1521 (OR 1520) INTRODUCTION TO ORGANISMAL BIOLOGY <sup>1</sup>	4
CHEM 1212K CHEMICAL PRINCIPLES II	4
TOTAL SEMESTER HOURS	15

SECOND YEAR-SPRING	HOURS
BIOL 2344 GENETICS, BIOL 2335 OR BIOL 2337 HONORS ECOLOGY <sup>2</sup>	3
BIOL 2345 GENETICS LAB, BIOL 2336, OR BIOL 2338 HONS. ECOLOGY LAB <sup>2</sup>	1
CHEM 2313 BIO-ORGANIC CHEMISTRY	3
CHEM 2380 SYNTHESIS LAB	2
QUANTITATIVE BIOLOGY REQUIREMENT <sup>3</sup> or COMPUTING REQUIREMENT	3
HUM or SS ELECTIVE	3
TOTAL SEMESTER HOURS	14 or 15

THIRD YEAR-SPRING	HOURS
PHYS 2212 INTRODUCTORY PHYSICS II FOR LIFE SCIENCES	4
BIOL 3450 CELL & MOLECULAR BIOLOGY OR BIOL 3600 EVOLUTION	3
BIOL 3451 CELL & MOLECULAR BIOL LAB <sup>2</sup>	1
BIOLOGY ELECTIVE	3
WELLNESS	2
HUM or SS ELECTIVE	3
TOTAL SEMESTER HOURS	15 or 16

FOURTH YEAR-SPRING	HOURS
BIOLOGY ELECTIVE	9
FREE ELECTIVE	5
HUM or SS ELECTIVES	3
TOTAL SEMESTER HOURS	17

TOTAL DEGREE REQUIREMENT HOURS 122<sup>5</sup>

## Important notes

<sup>1</sup>4 credit hours of Biology elective may be substituted for BIOL 1521 if a score of 5 was achieved on the AP Biology test. A maximum of 1 of these credits may be BIOL 4697 or BIOL 4699. Please discuss this option with your advisor. It is important to note that substituting for BIOL 1520/1521 often results in a student needing to take more than a single Biology elective class, because most Biology electives are only 3 credit hours.

<sup>2</sup>Only 2 of the 3 core labs are required: BIOL 2336/2338, BIOL 2345/2355, BIOL 3451.

<sup>3</sup>Quantitative Biology Requirement: choose one of the following: BIOL 2400 Mathematical Models in Biology, BIOL 4150 Genomics & Applied Bioinformatics, BIOL 4401 Experimental Design & Biostatistics.

<sup>4</sup>Senior Research Experience: choose one of the following: BIOL 4590 Research Project Lab, BIOL 4690 Independent Research Project, BIOL 4910 Honors Research Thesis. Senior Research Experience can be fulfilled in fourth year fall or spring semester.

<sup>5</sup>A minimum of 39 hours of upper division coursework (3000-level or higher) is required for all Georgia Tech undergraduate degrees. The 39 hours of upper division coursework can fulfill any category of degree requirements, including free electives and "fallthrough" courses.