

# BIOLOGY MAJOR CHECKLIST

## *Class of 2022*

NAME: \_\_\_\_\_  
ADVISOR: \_\_\_\_\_

CLASS: \_\_\_\_\_

### **REQUIREMENTS:**

To complete a major, students should take the following biology courses:

1. **Introductory courses:** BIOL-181 and BIOL-191.
2. **Five advanced courses in Biology**, three of which must involve laboratories and one of which must be at the 400 level, including Seminars or Honors, but not Special Topics. The advanced core courses (one from each of two core areas of Biology) must be completed by the end of the junior year. Note that Special Topics and courses numbered below BIOL-181 do not fulfill this requirement and at least three of the five advanced courses must be completed at Amherst College, unless approved in advance by the Department.
3. **General Science Requirements**
4. **Biology Comprehensive Requirement**
  - **Note Off Campus courses:** to count toward the major, courses taken off campus must be approved by the Department (written permission to be submitted to the student's Advisor to be evaluated by the Department).

#### **Fall 2020: update for Current Biology Majors to allow for Equity & Inclusion exploration:**

For the 2020-2021 academic year, current biology majors can substitute a major course requirement (with the exception of BIOL-181, BIOL-191, and either the two advanced core or the three bin requirements based on class year) with *HSTEM* (BIOL-250) or another similar science-oriented course that's approved by the department and that focuses on issues of diversity, equity, and inclusion. Specifically, the course can count as either one of the four general science courses, or as one of the five advanced biology courses (BIOL-200 or above) including the three advanced laboratory courses (BIOL-200 or above), or the seminar course (BIOL 400 or above) requirement.

*The following courses will count for the 2020-21 Academic Year:*

#### **Fall 2020**

[ANTH-211: Feminist Science Studies](#)

[ENST-226: Social Drivers of Ecological Crises and Environmental Inequality](#)

[ANTH-245: Medical Anthropology](#)

#### **January 2021**

[BIOL-250: Being Human in STEM \(HSTEM\)](#)

#### **Spring 2021**

[SWAG-231: Race, Gender, and Embodiment in Biomedicine](#)

[ENST-328: The Pandemic](#)

[PHIL-212: Public Health Ethics during COVID-19](#)

1. **Introductory courses:** Two Introductory courses taken in either order. BIOL-191 requires completion or concurrent enrolment in CHEM-161.

**Placing Out:** Students with a Biology AP score of 5 who feel prepared to place out of either Introductory Biology course must first seek permission from the Biology Department. Placing out will not reduce the number of courses required for the major. Students placing out of BIOL-181 must substitute a course from the *Ecology & Evolution Core*; students placing out of BIOL-191 must substitute a course from the *Cellular/Molecular Core*. Students who place out must take a minimum of four semesters of laboratory work (Placing out of 1: 1 Intro + 3 upper-level labs; Placing out of both: 4 upper-level labs).

If placing out of BIOL-181: Additional Course (*Ecology & Evolution Core*): \_\_\_\_\_

If placing out of BIOL-191: Additional Course (*Cellular /Molecular Core*): \_\_\_\_\_

## BIOLOGY MAJOR CHECKLIST (continued)

### 2. **Advanced courses:** All have pre-requisite of BIOL-181 or BIOL-191 (or both)

#### I. Cellular/Molecular Core: (completed by end of junior year: \_\_\_)

*Cell Structure and Function* (BIOL-291) or *Molecular Genetics* (BIOL-370/371): \_\_\_\_\_

#### II. Ecology & Evolution Core: (completed by end of junior year: \_\_\_)

*Ecology* (BIOL-230) or *Evolutionary Biology* (BIOL-320/321): \_\_\_\_\_

#### III. Two Additional Upper-level Courses: \_\_\_\_\_

#### IV. 400-Level Course (Seminar or Honors): \_\_\_\_\_

List your three advanced lab courses: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

### 3. **General Sciences:** Students are required to take two courses in chemistry (CHEM-151/155 and CHEM-161/165 or above) *and* two courses in mathematics, statistics, and/or physics at the level of MATH-111, STATS-111, and PHYS-116 or above. Students with Advanced Placement scores may satisfy the requirement by taking upper-level courses.

- Chemistry 151/155 or equivalent: \_\_\_\_\_
- Chemistry 161/165 or equivalent: \_\_\_\_\_
- MATH-111, STAT-111, or PHYS-116/123 or equivalent: \_\_\_\_\_
- MATH-111, STAT-111, or PHYS-116/123 or equivalent: \_\_\_\_\_

### 4. **Final Comprehensive Requirements for the Biology Major:**

1. Senior year attendance at the Monday Biology Seminars is required.
2. Successful completion of the Senior Comprehensive Exam administered by the department during Senior year.

Passed: \_\_\_\_\_ Date: \_\_\_\_\_

#### **Please note:**

- Seminar courses count as Biology major courses.
- Non-majors courses: 104, 106, 108, 110, 114 and 131, and *Special Topics* courses do not count toward the major.
- Honors students must still satisfy bin and lab requirements.
- Majors are expected to take at least 3 of the 5 courses beyond BIOL-181/191 at Amherst College unless approved in advance by the Department. The advanced *core* courses must be completed by the end of the junior year.
- A Biology course cannot be counted towards the Biology major if it is also being used to meet the requirements of another major, unless the course in question is required by both majors.
- **In order to count toward the major, all courses taken off campus must be approved by petitioning the Department and cannot be approved by your Advisor alone.** It is better to do this in advance. For off-campus courses note the institution, course name and number, and when approval was granted. In petitioning, indicate which AC course you want to substitute and your reasons. Include a copy of the catalog description of the course you are substituting and any additional pertinent information (syllabus, credit hours, lab hours etc..). If your Honors project is done off campus, you are expected to follow the same guidelines as students working on campus, and assignment of levels of Latin Honors and grades will be made by the Department, taking into consideration recommendations by your Advisor.

## BIOLOGY MAJOR CHECKLIST (continued)

### The Biology Major, with place-out options:

	<b>2 Semesters of Intro</b>	<b>1 Semester of Intro</b>	<b>0 Semesters of Intro</b>
<b>Distribution Requirement:</b>	2 core areas	2 core areas	2 core areas
<b>Minimum Lab Requirement:</b>	2 Intro + 3 Upper = 5 labs	1 Intro + 3 upper = 4 labs	0 Intro + 4 upper = 4 labs
<b>Upper-Level Course Requirements:</b>			
<b>a) No Honors</b>	5	6	7
<b>b) With Honors</b>	4 + 3 thesis	5 + 3 thesis	6 + 3 thesis