

# BIOLOGICAL SCIENCES COURSE LIST

Updated 6/25/25

This document is a guide. Course offerings are subject to change.

Check with your advisor when planning your schedule. Email [BioAdv@pitt.edu](mailto:BioAdv@pitt.edu) or schedule an appointment in Navigate.

[Course Descriptions and Sample Syllabi can be found here](#)

## ABBREVIATIONS

**Pre-requisite:** complete with grade of a C (not C-) or higher before taking the course for which it is required.

**(c) = Co-requisite:** take either before or at the same time as the course for which they are required

**(HL)** = Higher Level Course (has Foundations + additional BIOSC course as pre-req)      **(Lab)** = Lab Course

**†even** = Only offered on even years

**†odd** = Only offered on odd years

**†varies** = Years offered varies

**PLE** = a field course offered at the Pymatuning Lab of Ecology. Field courses may satisfy one and only one lab requirement.

**Writing (W):** pre-req is ENGCOMP 0200 / W's are restricted by major / W's with lab or seminar are 1 credit add-ons.

## NOTES

**BIOSC 1010:** pre-reqs are ENGCOMP 0200; BIOSC 0350 or 0370 or 1000 or 1810 or 1130; Junior or Senior Level; BIOSC major only; >16 BIOSC credits

### Repeat Notes:

- BIOSC 1070 Human Physiology (Honors) and BIOSC 1250 (Human Physiology) are considered course repeats. You cannot take both. Choose either BIOSC 1070 or BIOSC 1250.
- BIOSC 1440 (Animal Behavior) and BIOSC 1140 (Behavioral Ecology) are considered course repeats. You cannot take both for credit. Although BIOSC 1140 is a field course with an experimental component, both courses cover much of the same material.

**Biochemistry:** Biochemistry Majors are required to take BIOSC 1810+1820 and are not permitted to substitute BIOSC 1000 for this requirement. All other students may take either BIOSC 1000 or 1810+1820. BIOSC 1000 and 1810 are considered course repeats, and you cannot take both for credit. Biological Sciences, Computational Biology, or Microbiology Majors who elect to take BIOSC 1810+1820 instead of BIOSC 1000 can count BIOSC 1820 as an elective for their majors.

**Other Department Electives:** You may use ≤6 credits of the following as BIOSC electives:

NROSCI 1000, 1012 (HL), 1017 (HL); CHEM 1830 (HL); MSNBIO 2614

## BIOSC FALL TERM OFFERINGS

| Number     | Title                                                            | Cr | Term(s)         | Pre-Req or Co-Req (c)             |
|------------|------------------------------------------------------------------|----|-----------------|-----------------------------------|
| 0350       | Genetics                                                         | 3  | F, Sp, Sm       | BIOSC 0160, CHEM 0120             |
| 0352 (Lab) | Introduction to Molecular Genetics Lab                           | 1  | F               | BIOSC 0350, BIOSC 006X            |
| 0370       | Ecology                                                          | 3  | F, Sp, Sm @ PLE | BIOSC 0160                        |
| 0390       | Ecology Lab (+1 cr. 0391 W, Fall only)                           | 1  | F, Sm @ PLE     | (c)BIOSC 0370; BIOSC 006X         |
| 1000       | Biochemistry                                                     | 3  | F, Sp, Sm       | BIOSC 0160, CHEM 0310             |
| 1010 (W)   | Communicating in the Biological Sciences (W) {BIOSC Majors only} | 2  | F, Sp, Sm       | See Notes                         |
| 1120 (HL)  | Biostatistics                                                    | 3  | F               | BIOSC 0160, core BIOSC, STAT 1000 |
| 1130 (HL)  | Evolution                                                        | 3  | F, Sp           | BIOSC 0350                        |
| 1200       | Vertebrate Morphology                                            | 3  | F               | BIOSC 0160                        |
| 1205 (Lab) | Vertebrate Morphology Lab                                        | 1  | F               | (c)BIO 1200; BIOSC 006X           |
| 1221 (Lab) | Urban Ecological Field Studies                                   | 1  | F               | BIOSC 0370, BIOSC 006X            |
| 1250       | Human Physiology (see notes)                                     | 3  | F, Sp, Sm       | BIOSC 0160, CHEM 0120             |
| 1255 (Lab) | Physiology Lab                                                   | 1  | F, Sp, Sm       | (c)BIOSC 1250 or 1070; BIOSC 006X |
| 1275 (HL)  | Genomics                                                         | 3  | F, Sp           | BIOSC 0350                        |
| 1350       | Plant Biology                                                    | 3  | F†odd           | BIOSC 0160                        |
| 1445 (HL)  | Animal Communication                                             | 3  | F               | BIOSC 0370                        |
| 1500 (HL)  | Cell Biology                                                     | 3  | F               | BIOSC 1000 or 1810                |
| 1510       | Cell Biology Lab                                                 | 1  | F               | (c)BIOSC 1500 or 1050; BIOSC 006X |
| 1540       | Computational Biology                                            | 3  | F               | BIOSC 0160                        |
| 1630 (W)   | Computational Biology Seminar (W) {CB Majors only}               | 2  | F               | BIOSC 1540                        |
| 1810       | Macromolecular Structure & Function                              | 3  | F               | BIOSC 0160, CHEM 0320             |
| 1850       | Microbiology                                                     | 3  | F, Sp, Sm       | BIOSC 0160, CHEM 0120             |
| 1855 (Lab) | Introduction to Microbiology Lab                                 | 1  | F, Sp, Sm       | (c)BIOSC 1850; BIOSC 006X         |
| 1860 (Lab) | Microbiology Lab {Micro Majors only} (+1 cr. 1861 W)             | 2  | F               | (c)BIOSC 1850; BIOSC 006X         |
| 1865 (HL)  | Microbial Physiology                                             | 3  | F               | BIOSC 1850; 1000 or 1810          |
| 1940 (HL)  | Molecular Biology                                                | 3  | F               | BIOSC 1000 or 1810; 0350          |
| 1950 (Lab) | Molecular Genetics Lab (+1 cr. 1951 W) {MolBio Majors only}      | 2  | F               | (c)BIOSC 1940; BIOSC 006X         |
| 1999 (HL)  | Medical Microbiology                                             | 3  | F               | BIOSC 1850                        |

## \*\*NOT\*\* RUNNING IN FALL 2025

| Number     | Title                     | Cr | Term(s) | Pre-Req or Co-Req (c)   |
|------------|---------------------------|----|---------|-------------------------|
| 1205 (Lab) | Vertebrate Morphology Lab | 1  | F       | (c)BIO 1200; BIOSC 006X |
| 0391 (W)   | Ecology Lab Writing (W)   | 1  | F       | (c)BIOSC 0390           |

| BIOSC SPRING TERM OFFERINGS |                                                                           |    |               |                                               |
|-----------------------------|---------------------------------------------------------------------------|----|---------------|-----------------------------------------------|
| Number                      | Title                                                                     | Cr | Term(s)       | Pre- or Co-Req (c)                            |
| 0350                        | Genetics                                                                  | 3  | F, Sp, Sm     | BIOSC 0160, CHEM 0120                         |
| 0351 (Lab)                  | Genetics Lab                                                              | 1  | Sp            | (c)BIOSC 0350; BIOC 006X                      |
| 0370                        | Ecology                                                                   | 3  | F, Sp, Sm@PLE | BIOSC 0160                                    |
| 1000                        | Biochemistry                                                              | 3  | F, Sp, Sm     | BIOSC 0160, CHEM 0310                         |
| 1005 (Lab)                  | Introduction to Biochemistry Lab                                          | 1  | Sp+varies     | (c)1000; BIOC 006X                            |
| 1010 (W)                    | Communicating in the Biological Sciences (W) { <b>BIOSC Majors only</b> } | 2  | Sp, Sm, F     | See Notes                                     |
| 1050                        | Cell & Molecular Biology of Disease                                       | 3  | Sp            | BIOSC 0160, CHEM 0120                         |
| 1070                        | Human Physiology (Honors) (see notes)                                     | 4  | Sp            | BIOSC 0160, CHEM 0120                         |
| 1130 (HL)                   | Evolution                                                                 | 3  | Sp, F         | BIOSC 0350                                    |
| 1250                        | Human Physiology (see notes)                                              | 3  | F, Sp, Sm     | BIOSC 0160, CHEM 0120                         |
| 1255 (Lab)                  | Physiology Lab                                                            | 1  | F, Sp, Sm     | (c)BIOSC 1250 or 1070; BIOC 006X              |
| 1275 (HL)                   | Genomics                                                                  | 3  | F, Sp         | BIOSC 0350                                    |
| 1280 (HL)                   | Microbial Genetics                                                        | 3  | Sp            | BIOSC 0350, 1850                              |
| 1285 (Lab)                  | Genomics Lab                                                              | 1  | Sp            | BIOSC 0350, BIOC 006X                         |
| 1290 (Lab)                  | Microbial Genetics Lab                                                    | 1  | Sp+varies     | BIOSC 1855 or 1860                            |
| 1425                        | Sex and Gender in the Natural World                                       | 3  | Sp            | BIOSC 0160                                    |
| 1435 (HL)                   | Environmental Physiology of Animals                                       | 3  | Sp            | BIOSC 0370                                    |
| 1440 (HL)                   | Animal Behavior                                                           | 3  | Sp            | BIOSC 0370                                    |
| 1455 (HL)                   | Human Endocrinology                                                       | 3  | Sp            | BIOSC 1250                                    |
| 1470 (HL)                   | Biophysical Chemistry                                                     | 3  | Sp            | BIOSC 1000 or 1810                            |
| 1520 (HL)                   | Developmental Biology                                                     | 3  | Sp            | BIOSC 0350                                    |
| 1542 (HL)                   | Computational Genomics                                                    | 3  | Sp+even       | BIOSC 1540, CS 0011                           |
| 1544 (HL)                   | Simulation and Modeling                                                   | 3  | Sp+odd        | BIOSC 1540, CS 0011                           |
| 1550                        | Ecology & Evolution Seminar { <b>E&amp;E Majors only</b> }                | 1  | Sp            | BIOSC 0350, 0370, 1130                        |
| 1551 (W)                    | Ecology & Evolution Writing Practicum (W) { <b>E&amp;E Majors only</b> }  | 1  | Sp            | (c) BIOC 1550                                 |
| 1562                        | Molecular Bio Seminar { <b>MolBio Majors only</b> }                       | 1  | Sp            | BIOSC 1940                                    |
| 1563 (W)                    | Molecular Bio Writing Practicum { <b>MolBio Majors only</b> }             | 1  | Sp            | (c) BIOC 1562                                 |
| 1570                        | Microbiology Seminar { <b>Micro Majors only</b> }                         | 1  | Sp            | BIOSC 1865 or 1280 or 1999                    |
| 1571 (W)                    | Microbiology Writing Practicum (W) { <b>Micro Majors only</b> }           | 1  | Sp            | (c) BIOC 1570                                 |
| 1580                        | Biochemistry Seminar { <b>Biochem Majors only</b> }                       | 1  | Sp            | BIOSC 1820 and 1940                           |
| 1581 (W)                    | Biochemistry Writing Practicum (W) { <b>Biochem Majors only</b> }         | 1  | Sp            | (c) BIOC 1580                                 |
| 1640                        | Computational Biology Research { <b>CB Majors Only</b> }                  | 3  | Sp            | BIOSC 1540, CS 0011                           |
| 1730 (HL)                   | Virology                                                                  | 3  | Sp+even       | BIOSC 0350,1000,1850 or instructor permission |
| 1740 (Lab)                  | Virology Lab (+1 cr. 1741 W)                                              | 1  | Sp            | BIOSC 0350, 1855 or 1860                      |
| 1760 (HL)                   | Immunology                                                                | 3  | Sp            | BIOSC 0350 and 1850                           |
| 1820 (HL)                   | Metabolic Pathways & Regulation                                           | 3  | Sp            | BIOSC 1810                                    |
| 1830 (Lab)                  | Biochemistry Lab (+1 cr. 1831 W) { <b>Biochem Majors only</b> }           | 2  | Sp            | (c) BIOC 1820; BIOC 006X                      |
| 1850                        | Microbiology                                                              | 3  | F, Sp, Sm     | BIOSC 0160, CHEM 0120                         |
| 1855 (Lab)                  | Introduction to Microbiology Lab                                          | 1  | F, Sp, Sm     | (c)BIOSC 1850; BIOC 006X                      |
| 1945 (HL)                   | Advanced Molecular Biology                                                | 3  | Sp            | BIOSC 1940                                    |

**\*\*NOT\*\* RUNNING IN SPRING 2026**

| Number     | Title                                     | Cr | Term(s) | Pre-Req or Co-Req (c)    |
|------------|-------------------------------------------|----|---------|--------------------------|
| 1530 (Lab) | Developmental Biology Lab (+1 cr. 1531 W) | 1  | Sp      | (c)BIOSC 1520; BIOC 006X |

**SPECIAL ENROLLMENT: Credits count toward degree but NOT toward any major**

| Number    | Title                                       | Cr       | Term(s)   | Pre-Req or Co-Req (c)                |
|-----------|---------------------------------------------|----------|-----------|--------------------------------------|
| 0041+0042 | Anatomy for the Health Professions with Lab | 3+1      | F, Sm     | Must take lecture AND lab as co-reqs |
| 1690      | Experience in Undergraduate Teaching        | Variable | F, Sp, Sm | By arrangement only                  |
| 1900      | Biological Sciences Peer Advising           | 1        | F, Sp     | By arrangement only                  |
| 1901      | Independent Study                           | Variable | F, Sp, Sm | By arrangement only                  |
| 1903      | Undergraduate Research                      | Variable | F, Sp, Sm | By arrangement only                  |
| 1904      | Department Honors Undergraduate Research    | Variable | F, Sp, Sm | By arrangement only                  |
| 1909      | ASBMB Degree Certification Exam Preparation | 1        | Sp        | (c)1562, 1580; Biochem/Molec majors  |

*Scroll for more classes*

**BIOSC SUMMER TERM OFFERINGS: ON PITTSBURGH CAMPUS**

|            |                                                                            |   |           |                                   |
|------------|----------------------------------------------------------------------------|---|-----------|-----------------------------------|
| 0350       | Genetics                                                                   | 3 | F, Sp, Sm | BIOSC 0160, CHEM 0120             |
| 1000       | Biochemistry                                                               | 3 | F, Sp, Sm | BIOSC 0160, CHEM 0310             |
| 1010 (W)   | Communicating in the Biological Sciences (W)<br><b>{BIOSC Majors only}</b> | 2 | F, Sp, Sm | See Notes                         |
| 1250       | Human Physiology (see notes)                                               | 3 | F, Sp, Sm | BIOSC 0160, CHEM 0120             |
| 1255 (Lab) | <i>Physiology Lab</i>                                                      | 1 | F, Sp, Sm | (c)BIOSC 1250 or 1070; BIOSC 006X |
| 1850       | Microbiology                                                               | 3 | F, Sp, Sm | BIOSC 0160, CHEM 0120             |
| 1855 (Lab) | <i>Introduction to Microbiology Lab</i>                                    | 1 | F, Sp, Sm | (c)BIOSC 1850; BIOSC 006X         |

**BIOSC SUMMER TERM OFFERINGS: PYMATUNING LAB OF ECOLOGY**

*Note: Class offerings vary from year to year*

<https://www.ple.pitt.edu/courses>

|                  |                                                     |   |          |                                       |
|------------------|-----------------------------------------------------|---|----------|---------------------------------------|
| 0370/0390 (Lab)  | <i>Ecology + Ecology Lab (Combined lecture/lab)</i> | 4 | Sm @ PLE | BIOSC 0160; BIOSC 006X                |
| 1140             | Behavioral Ecology                                  | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1160             | Forest Ecology                                      | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1170             | Freshwater Ecology                                  | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1180             | Ecology of Amphibians and Reptiles                  | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1220             | Ecological Field Studies                            | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1230             | Ornithology (Ecology of Birds)                      | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1270             | Ecology of Fish                                     | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1310             | Wetland Ecology and Management                      | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1330             | Field Botany                                        | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1340             | Field Entomology                                    | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1390             | Field Techniques in Ecology & Conservation          | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| <b>1400 (HL)</b> | <b>Disease Ecology</b>                              | 3 | Sm @ PLE | BIOSC 0370                            |
| 1415             | Field Mammalogy                                     | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1420             | Wildlife Management                                 | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |
| 1610             | Conservation Biology                                | 3 | Sm @ PLE | BIOSC 0160 or BIOSC 0835 or GEOL 1641 |