

BIOLOGICAL SCIENCES COURSE LIST – UPDATED APRIL 2022

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

Check with an advisor when planning your schedule. A258 Langley Hall and BioAdv@pitt.edu

Course Descriptions and Syllabi

| 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) | | (L) = 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 <u>and only one</u> 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 | | |
| Repeat Note: BIOSC 1440 Animal Behavior and BIOSC 1140 Behavioral Ecology are considered course repeats, and 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. This policy is effective as of 1/1/2022 unless you are graduating in April 2022. | | |
| Biochemistry: Students who need biochemistry should either take BIOSC 1000 or 1810+1820. BIOSC 1000 and 1810 are considered course repeats, and you cannot take both for credit. If you are a Biological Sciences, Computational Biology, or Microbiology major and you elect to take BIOSC 1810 and 1820 instead of BIOSC 1000, then BIOSC 1820 can count as an elective for your major. | | |
| Other Department Electives: You may use ≤6 credits of the following as BIOSC electives: NROSCI 1000, 1012 (HL), 1017 (HL); ANTH 1601, 1603, 1605; 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 |
| 0370 | Ecology | 3 | F, Sp, Sm@PLE | BIOSC 0160 |
| 0390 | <i>Ecology Lab</i> (+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 |
| 1005 (Lab) | <i>Introduction to Biochemistry Lab</i> | 1 | F†varies | (c)BIOSC 1000 |
| 1010 | Communicating in the Biological Sciences (W) | 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) | <i>Vertebrate Morphology Lab</i> | 1 | F | (c)BIO 1200; BIOSC 006X |
| 1221 (Lab) | <i>Urban Ecological Field Studies</i> | 1 | F | BIOSC 0370, BIOSC 006X |
| 1250 | Human Physiology (see notes) | 3 | F, Sp, Sm | BIOSC 0160, CHEM 0120 |
| 1320 (HL) | Population Biology | 3 | F†odd | BIOSC 0370 |
| 1350 | Plant Biology | 3 | F†odd | BIOSC 0160 |
| 1375 | Tropical Biology | 3 | F†even | BIOSC 0160 |
| 1445 (HL) | Animal Communication | 3 | F | BIOSC 0370 |
| 1500 (HL) | Cell Biology | 3 | F | BIOSC 1000 or 1810 |
| 1510 | <i>Cell Biology Lab</i> (+1 cr. 1511 W) | 1 | F | (c)BIOSC 1500; BIOSC 006X |
| 1540 | Computational Biology | 3 | F | BIOSC 0160 |
| 1630 | Computational Biology Seminar (W) {CB Majors} | 2 | F | BIOSC 1540, ENGCOMP 0200 |
| 1810 | Macromolecular Structure & Function | 3 | F | BIOSC 0160, CHEM 0320. |
| 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 |
| 1860 (Lab) | <i>Microbiology Lab {Micro Majors}</i> (+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 1810 or 1000; 0350 |
| 1950 (Lab) | <i>Molecular Genetics Lab</i> (+1 cr. 1951 W) | 2 | F | (c)BIOSC 1940, BIOSC 006X |
| 1998 (HL) | Beneficial Microbes | 3 | F | BIOSC 1850 |
| 1999 (HL) | Medical Microbiology | 3 | F | BIOSC 1850 |

SPECIAL ENROLLMENT: Credits count toward degree but NOT toward 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 | By arrangement only |
| 1901 | Independent Study | Variable | F, Sp, Sm | By arrangement only |
| 1903/1904 | Undergraduate Research/Honors | Variable | F, Sp, Sm | By arrangement only |

| BIO SC SPRING TERM OFFERINGS | | | | |
|------------------------------|--|----|---------------|--|
| Number | Title | Cr | Term(s) | Pre- or Co-Req (c) |
| 0350 | Genetics | 3 | F, Sp, Sm | BIO SC 0160, CHEM 0120 |
| 0351 (Lab) | Genetics Lab | 1 | Sp | (c)BIO SC 0350; BIO SC 006X |
| 0352 (Lab) | Introduction to Molecular Genetics Lab | 1 | Sp | BIO SC 0350, BIO SC 006X |
| 0370 | Ecology | 3 | F, Sp, Sm@PLE | BIO SC 0160 |
| 1000 | Biochemistry | 3 | F, Sp, Sm | BIO SC 0160, CHEM 0310 |
| 1010 | Communicating in the Biological Sciences (W) | 2 | Sp, Sm, F | See Notes |
| 1070 (HL) | Human Physiology (Honors) (see notes) | 4 | Sp | CHEM 0120, NROSCI 1000, GPA 3.25 |
| 1130 (HL) | Evolution | 3 | Sp, F | BIO SC 0350 |
| 1250 | Human Physiology (see notes) | 3 | Sp, Sm, F | BIO SC 0160, CHEM 0120 |
| 1255 (Lab) | Physiology Lab | 1 | Sp, Sm | (c)BIO SC 1250 or 1070; BIO SC 006X |
| 1275 (HL) | Genomics | 3 | Sp | BIO SC 0350 |
| 1280 (HL) | Microbial Genetics | 3 | Sp | BIO SC 0350, 1850 |
| 1285 (Lab) | Genomics Lab | 1 | Sp | BIO SC 0350, BIO SC 006X |
| 1290 (Lab) | Genetic Engineering Lab (+1 cr. 1291 W) | 1 | Sp+varies | BIO SC 1855 or 1860; BIO SC 006X |
| 1435 (HL) | Environ. Physiology of Animals | 3 | Sp | BIO SC 0370 |
| 1440 (HL) | Animal Behavior | 3 | Sp | BIO SC 0370 |
| 1455 (HL) | Human Endocrinology | 3 | Sp | BIO SC 1250 or NROSCI 1250 or NROSCI 1070 |
| 1470 | Biophysical Chemistry | 3 | Sp | BIO SC 1000 or 1810 |
| 1520 (HL) | Developmental Biology | 3 | Sp | BIO SC 0350 |
| 1530 (Lab) | Developmental Biology Lab (+1 cr. 1531 W) | 1 | Sp | (c)BIO SC 1520; BIO SC 006X |
| 1542 (HL) | Computational Genomics | 3 | Sp+even | BIO SC 1540, CS 0008 or 0011 |
| 1544 (HL) | Simulation and Modeling | 3 | Sp+odd | BIO SC 1540, CS 0008 or 0011 |
| 1550 | Ecology/Evolution Seminar (+1 cr. 1551 W) | 1 | Sp | BIO SC 0350, 0370, 1130 |
| 1560 | Cell & Dev. Bio. Seminar (+1 cr. 1561 W) | 1 | Sp | BIO SC 1500; (c)1520 |
| 1562 | Molecular Bio Seminar (+1 cr. 1563 W) | 1 | Sp | BIO SC 1940 |
| 1570 | Microbiology Seminar (+1 cr. 1571 W) | 1 | Sp | BIO SC 1865 |
| 1580 | Biochemistry Seminar (+1 cr. 1581 W) | 1 | Sp | BIO SC 1810, 1820 |
| 1640 | Computational Biology Research {CB Majors} | 3 | Sp | BIO SC 1540, CS 0008 or 0011 |
| 1730 (HL) | Virology | 3 | Sp+even | BIO SC 0350,1000,1850 or instructor permission |
| 1740 | Virology Lab (+1 cr. 1741 W) | 1 | Sp | BIO SC 0350, 1855 or 1860 |
| 1760 (HL) | Immunology | 3 | Sp | BIO SC 0350, suggest 1000 |
| 1820 (HL) | Metabolic Pathways & Regulation | 3 | Sp | BIO SC 1810 |
| 1830 (Lab) | Biochemistry Lab (+1 cr. 1831 W) | 2 | Sp | BIO SC 1810, (c)1820; BIO SC 006X |
| 1850 | Microbiology | 3 | Sp, Sm, F | BIO SC 0160, CHEM 0120 |
| 1855 (Lab) | Introduction to Microbiology Lab | 1 | Sp, Sm, F | (c)BIO SC 1850; BIO SC 006X |
| 1945 | Adv. Molecular Biology | 3 | Sp | BIO SC 1940 |

| BIO SC SUMMER TERM OFFERINGS (Not all PLE are courses offered every summer) | | | | |
|---|--|---|-----------|-------------------------------------|
| 0350 | Genetics | 3 | F, Sp, Sm | BIO SC 0160, CHEM 0120 |
| 0370/0390 (L) | Ecology + Ecology Lab (Combined lecture/lab) | 4 | Sm @ PLE | BIO SC 0160, BIO SC 006X |
| 1000 | Biochemistry | 3 | F, Sp, Sm | BIO SC 0160, CHEM 0310 |
| 1010 | Communicating in the Biological Sciences (W) | 2 | Sm, F, Sp | See Notes |
| 1140 | Behavioral Ecology | 3 | Sm @ PLE | BIO SC 0160 |
| 1160 | Forest Ecology | 3 | Sm @ PLE | BIO SC 0160 |
| 1170 | Freshwater Ecology | 3 | Sm @ PLE | BIO SC 0160 |
| 1180 | Ecology of Amphibians and Reptiles | 3 | Sm @ PLE | BIO SC 0160 |
| 1190 | Aquatic Entomology | 3 | Sm @ PLE | BIO SC 0160 |
| 1220 | Ecological Field Studies | 3 | Sm abroad | BIO SC 0160 |
| 1230 | Ornithology (Ecology of Birds) | 3 | Sm @ PLE | BIO SC 0160 |
| 1250 | Human Physiology (see notes) | 3 | Sm, F, Sp | BIO SC 0160, CHEM 0120 |
| 1255 | Physiology Lab | 1 | Sm, Sp | (c)BIO SC 1250 or 1070; BIO SC 006X |
| 1270 | Ecology of Fish | 3 | Sm @ PLE | BIO SC 0160 |
| 1310 | Wetland Ecology and Management | 3 | Sm @ PLE | BIO SC 0160 |
| 1330 | Field Botany | 3 | Sm @ PLE | BIO SC 0160 |
| 1340 | Field Entomology | 3 | Sm @ PLE | BIO SC 0160 |
| 1360 | Ecology of Fungi | 3 | Sm @ PLE | BIO SC 0160 |
| 1390 | Field Techniques in Ecology & Conservation | 3 | Sm @ PLE | BIO SC 0160 |
| 1400 (HL) | Disease Ecology | 3 | Sm @ PLE | BIO SC 0370 |
| 1410 | Mammalogy | 3 | Sm @ PLE | BIO SC 0160 |
| 1420 | Wildlife Management | 3 | Sm @ PLE | BIO SC 0160 |
| 1610 | Conservation Biology | 3 | Sm @ PLE | BIO SC 0160 |
| 1850 | Microbiology | 3 | Sm, F, Sp | BIO SC 0160, CHEM 0120 |
| 1855 | Introduction to Microbiology Lab | 1 | Sm, F, Sp | (c)BIO SC 1850; BIO SC 006X |

