

BIOLOGICAL SCIENCES COURSE LIST

Updated 7/17/24

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

Check with your advisor when planning your schedule. Email 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; >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

The follow courses CANNOT be used for any major in the BIOSC department: BIOSC 0041+0042, 1690, 1900, 1901, 1903, 1904, 1909

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, Sp†varies, Sm @ PLE	(c)BIOSC 0370; BIOSC 006X
1000	Biochemistry	3	F, Sp, Sm	BIOSC 0160, CHEM 0310
1010	Communicating in the Biological Sciences (W)	2	F, Sp, Sm	See Notes
1120 (HL)	Biostatistics	3	F, Sp†varies	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	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 cr. 1511 W)	1	F	(c)BIOSC 1500; BIOSC 006X
1540	Computational Biology	3	F, Sp†varies	BIOSC 0160
1630	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)	2	F	(c)BIOSC 1940; BIOSC 006X
1999 (HL)	Medical Microbiology	3	F	BIOSC 1850

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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
1005 (Lab)	Introduction to Biochemistry Lab	1	Sp+varies	(c)BIO SC 1000
0370	Ecology	3	F, Sp, Sm@PLE	BIO SC 0160
0390	Ecology Lab	1	F, Sm @ PLE, Sp+varies	(c)BIO SC 0370; BIO SC 006X
1000	Biochemistry	3	F, Sp, Sm	BIO SC 0160, CHEM 0310
1005 (Lab)	Introduction to Biochemistry Lab	1	Sp+varies	(c)1000; BIO SC 006X
1010	Communicating in the Biological Sciences (W)	2	Sp, Sm, F	See Notes
1050	Cell & Molecular Biology of Disease	3	Sp	BIO SC 0160, CHEM 0120
1070	Human Physiology (Honors) (see notes)	4	Sp	CHEM 0120, GPA 3.25
1120 (HL)	Biostatistics	3	F, Sp+varies	BIO SC 0160, core BIO SC, STAT 1000
1130 (HL)	Evolution	3	Sp, F	BIO SC 0350
1250	Human Physiology (see notes)	3	F, Sp, Sm	BIO SC 0160, CHEM 0120
1255 (Lab)	Physiology Lab	1	F, Sp, Sm	(c)BIO SC 1250 or 1070; BIO SC 006X
1275 (HL)	Genomics	3	F, 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)	Microbial Genetics Lab	1	Sp+varies	BIO SC 1855 or 1860
1435 (HL)	Environmental 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
1470 (HL)	Biophysical Chemistry	3	Sp	BIO SC 1000 or 1810
1500 (HL)	Cell Biology	3	F	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
1540	Computational Biology	3	F, Sp+varies	BIO SC 0160
1542 (HL)	Computational Genomics	3	Sp+even	BIO SC 1540, CS 0011
1544 (HL)	Simulation and Modeling	3	Sp+odd	BIO SC 1540, CS 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 1820
1640	Computational Biology Research {CB Majors Only}	3	Sp	BIO SC 1540, CS 0011
1730 (HL)	Virology	3	Sp+varies	BIO SC 0350,1000,1850 or permission
1740 (Lab)	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	(c) BIO SC 1820; BIO SC 006X
1850	Microbiology	3	F, Sp, Sm	BIO SC 0160, CHEM 0120
1855 (Lab)	Introduction to Microbiology Lab	1	F, Sp, Sm	(c)BIO SC 1850; BIO SC 006X
1945 (HL)	Advanced Molecular Biology	3	Sp	BIO SC 1940
1998 (HL)	Beneficial Microbes, Symbiosis, and the Microbiome	3	Sp	BIO SC 1850

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	Communicating in the Biological Sciences (W)	2	F, Sp, Sm	See Notes
1250	Human Physiology (see notes)	3	F, Sp, Sm	BIOSC 0160, CHEM 0120
1255 (Lab)	Physiology Lab	1	Sp, Sm	(c)BIOSC 1250 or 1070; BIOSC 006X
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

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)	Ecology + Ecology Lab (Combined lecture/lab)	4	Sm @ PLE	BIOSC 0160; BIOSC 006X
1140	Behavioral Ecology	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1160	Forest Ecology	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1170	Freshwater Ecology	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1180	Ecology of Amphibians and Reptiles	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1190	Aquatic Entomology	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1220	Ecological Field Studies	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1230	Ornithology (Ecology of Birds)	3	Sm @ PLE+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1270	Ecology of Fish	3	Sm @ PLE+varies	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+varies	BIOSC 0160 or BIOSC 0835 or GEOL 1641
1360	Ecology of Fungi	3	Sm @ PLE+varies	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
1400 (HL)	Disease Ecology	3	Sm @ PLE	BIOSC 0370
1415	Field Mammalogy	3	Sm @ PLE+varies	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

SPECIAL ENROLLMENT: Credits count toward degree but NOT toward any major in the BIOSC department

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)1560, 1562, 1580; Biochem/Molec majors