

Major Progress Tracker: Microbiology
For majors declared Fall 2021 and later

Name		Date	
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TARGET GRADUATION DATE:

BIOSC COURSES			
Must total a minimum of 32 credits			
<i>You must earn a grade of C or higher in all Biology courses</i>			
BIOSC Core Courses	Cr	Grade	Notes
005X Foundations Bio Lab 1	1		
006X Foundations Bio Lab 2	1		
0150 Foundations Bio 1 (JHC0155)	3		
0160 Foundations Bio 2 (JHC0165)	3		
0350 Genetics	3		
1000* Biochemistry	3		
1850 Microbiology	3		
1280° Microbial Genetics (Sp)	3		
1860 Microbiology Lab (F)	2		
1865 Microbial Physiology (F)	3		
Electives	Cr	Grade	Notes
(Micro Elective [†])	3		
(Micro Elective [†])	3		
(Micro Elective Lab [†])	1		
(WRIT) [#]	1		
Capstone	Cr	Grade	Notes
1570 Sr Seminar Micro (Sp)	1		

NOTES		
Color coding	FALL ONLY	SPRING ONLY
* Biochemistry	Can substitute BIOSC 1810 + 1820. 1820 will count as HL elective. Cannot take 1000 and 1810/1820.	
° BIOSC 1280 Pre-reqs	BIOSC 0350 + 1850	
[†] Electives	Choose from list on next page.	
[#] Writing Practicum	See next page for details	

General Education Requirements (Fall 2018 & later)

Wrkshp Comp _____ Sem in Comp _____
 Writ #1 _____ Writ #2 _____ (in BIOSC)
 Algebra _____ Quant Formal Reas. _____
 2nd Language _____
 Diversity Course _____
The Diversity course may be used to fulfill another General Education Requirement.

Division Requirements (Humanities, Arts, Social Sciences, Natural Sciences)

Literature _____
 The Arts _____
 Creative Work _____
 Philosophical Thinking/Ethics _____
 Social Science _____
 Historical Analysis _____
 Natural Sciences *Fulfilled by Major*

Global Awareness & Cultural Understanding

Global Issues _____
 Geographic Region _____
 Cross-Cultural Awareness _____

120 TOTAL credits required for degree	Date	Co-req GPA	BIOSC GPA

See p.2 for GPA calculation details

CO-REQUISITES

You must average a 2.000 GPA co-requisite courses.

CHEMISTRY				MATH				PHYSICS <i>Take 1 sequence (alg OR calc)</i>			
CHEM #	Cr	Grade	Notes	COURSE #	Cr	Grade	Notes	PHYS #	Cr	Grade	Notes
0110 Gen Chem 1*	4			MATH 0220 (Calc 1)	4			0110 Physics 1 (alg)	3		
0120 Gen Chem 2*	4			2 nd :	4			0111 Physics 2 (alg)	3		
0310 Org Chem 1	3			2 nd math options: MATH 0230, STAT 1000				0174 Physics 1 (calc)	4		
0320 Org Chem 2	3			STAT 0200 is NOT useable for the major				0175 Physics 2 (calc)	4		
0345/0745 Org Chem Lab	2			MATH 0235 = MATH 0220 + 0230				0212 or 0219 (lab)*	2		
*must include lecture <u>and</u> lab for General Chemistry sequence								*Lab is not needed for major but is required for medical and some health-related grad schools.			

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Note on Major Timeline

This major is designed to be completed in 4 academic years. Specific course sequencing cannot be changed. If you are looking for a major that can be completed in fewer than 4 academic years, we offer a BS in Biological Sciences which is much more flexible in course sequencing. Occasionally a student bringing in transfer credit may have a different timeline; please see a Bio Advisor to discuss.

To complete elective, elective lab, and Writing Intensive credits for the MICRO major, see below:

Course offerings and timings may vary from year to year.

Check the Downloadable Master Course List on [this page](#) for up-to-date info.

BIOSC #	Course Name	Cr
0352	<i>Intro to Molecular Genetics Lab</i>	1
0370	Ecology	3
0390	<i>Ecology Lab</i>	1
1005	<i>Intro Biochem Lab (varies)</i>	1
1120	Biostatistics	3
1130	Evolution	3
1275	Genomics	3
1285	<i>Genomics Lab</i>	1
1290	<i>Microbial Genetics Lab</i>	1
1360	Ecology of Fungi (PLE)*	3
1400	Disease Ecology (PLE)*	3
1500	Cell Biology	3
1510	<i>Cell Biology Laboratory</i>	1
1540	Computational Biology	3
1730	Virology	3
1740	<i>Virology Laboratory</i>	1
1760	Immunology	3
1820	Metabolic Pathways*	3
	<i>*(must be taken with 1810)</i>	
1940	Molecular Biology	3
1945	Advanced Molecular Biology	3
1998	Beneficial Microbes	3
1999	Medical Microbiology	3
CHEM 1830	Synthetic Biology	3

BIOSC 1690 and 1900-1909 are not useable as elective credits for the major.

*Can use approved Pymatuning Field Courses to satisfy elective lab requirement in addition to elective lecture requirement.

Writing Practicum: Choose one of the following:

- BIOSC 1571: Microbiology Seminar Writing Practicum. Must be taken concurrently with BIOSC 1570. Sp only.
- BIOSC 1741: Virology Lab Writing Practicum. Must be taken concurrently with BIOSC 1740. Sp only.
- BIOSC 1861: Microbiology Lab Writing Practicum. Must be taken concurrently with BIOSC 1860. F only.

Grade and GPA Requirements:

- a) **You must have a grade of "C" or better in your 32 credits of Biology courses** for the BIOSC major - this means no C- or lower in a BIOSC course will be allowed for the major. However, a C-, D+, D, D- can count towards your total 120 credits for the bachelor's degree, and is averaged into your BIOSC GPA.
- b) **AND an overall BIOSC GPA** (32 plus any extra BIOSC credits) of 2.000 or better.
- c) **AND your corequisite GPA (chem, math, phys) must average to 2.000 or better.** [Thus, a grade lower than C in Math, Chemistry or Physics can be used if the co-req GPA still averages to 2.000. See **exceptions** below.]
 - **Exceptions:**
 - i. Students must earn a grade of C (not C-) or better in CHEM 0110 and CHEM 0120 for the major.
 - ii. Students must earn a grade of C (not C-) or better in PHYS 0110/0174 to enroll in PHYS 0111/0175.
 - iii. Students must earn a grade of C (not C-) or better in MATH 0220 to enroll in MATH 0230.
- d) To receive the **chemistry minor**, you must earn at least a 2.000 average GPA in the corequisite chemistry courses and BIOSC 1000/1810, AND at least half of the chemistry credits must be earned at the Pittsburgh Campus. Only CHEM 0110 and CHEM 0120 can be taken on a S/NC basis, all other classes for the minor need to be taken for a letter grade.

Calculating your GPA - The Bio advisors have a GPA calculator spreadsheet – ask and we'll send it to you.