

## Major Progress Tracker: Molecular Biology Major (effective April 2022)

Name _____	PS # _____	Date _____
<b>TARGET GRADUATION DATE:</b> _____		

### BIOOSC COURSES

**You must earn a grade of C or higher in all Biology courses**

Core Courses	Cr	Grade	Notes
005X Foundations Bio Lab 1	1		
006X Foundations Bio Lab 2	1		
0150 Foundations Bio 1 (UHC0155)	3		
0160 Foundations Bio 2 (UHC0165)	3		
0350 Genetics	3		
1000 or 1810+ Biochemistry	3		
1940 Molecular Biology (F)	3		
1950 Molecular Genetics Lab (F)	2		
1945 Adv. Molecular Biology (Sp)	3		
1275 Genomics	3		
Electives	Cr	Grade	Notes
(Elective #1) <sup>o</sup>	3		
(Elective #2) <sup>o</sup>	3		
(Elective Lab) <sup>o</sup>	1		
1563 or 1951 <sup>#</sup> (WRIT)	1		
Capstone	Cr	Grade	Notes
1562 Mol.Bio Seminar (Sp)	1		

### NOTES

Color coding	FALL ONLY	SPRING ONLY
<sup>o</sup> Electives	See next page for approved courses	
+Biochemistry	BIOOSC 1810 must be taken in sequence with BIOOSC 1820 and cannot be taken in addition to BIOOSC 1000.	
#Writing Practicum	BIOOSC 1563 must be taken concurrently with BIOOSC 1562	BIOOSC 1951 must be taken concurrently with BIOOSC 1950

### General Education Requirements (Fall 2018 & later)

Wrkshp Comp \_\_\_\_\_ Sem in Comp \_\_\_\_\_  
 Writ #1 \_\_\_\_\_ Writ #2 \_\_\_\_\_ (in BIOOSC)  
 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	BIOOSC GPA
<i>See p.2 for GPA calculation details</i>			

### CO-REQUISITES

**You must average a 2.000 GPA in your co-requisite courses.**

CHEMISTRY				MATH/STAT				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			0220 Calc 1	4			0110 Physics 1 (alg)	3		
0120 Gen Chem 2*	4			STAT 1000	4			0111 Physics 2 (alg)	3		
0310 Org Chem 1	3			STAT 0200 is NOT useable for the major  MATH 0235 = MATH 0220 + 0230				0174 Physics 1 (calc)	4		
0320 Org Chem 2	3							0175 Physics 2 (calc)	4		
0345 or 0745 Org Chem Lab	2							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.			

## Major Progress Tracker: **NEW Molecular Biology Major** (effective April 2022)

### 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.

### Molecular Biology Elective Options

Course offerings and timings may vary from year to year.  
Check the Downloadable Master Course List on [this page](#) for up-to-date info.

LECTURES			
BIOSC #	Course Name	Pre-req	Cr
1070	Honors Human Physiology	BIOSC 0160 + CHEM 0120	3
1120	Biostatistics	STAT 1000	3
1130	Evolution	BIOSC 0350	3
1250	Human Physiology	BIOSC 0160 + CHEM 0120	3
1280	Microbial Genetics	BIOSC 0350 + 1850	3
1455	Human Endocrinology	BIOSC 1250	3
1470	Biophysical Chemistry	BIOSC 0160	3
1500	Cell Biology	BIOSC 1000 or 1810	3
1520	Developmental Biology	BIOSC 0350	3
1540	Computational Biology	BIOSC 0160	3
1542	Computational Genomics	BIOSC 1540 + CS 0008 or 0011	3
1730	Virology	BIOSC 0350 + 1000/1810 + 1850	3
1760	Immunology	BIOSC 0350, suggest 1000/1810	3
1820	Metabolic Pathways	BIOSC 1810	3
1850	Microbiology	BIOSC 0160	3
1865	Microbial Physiology	BIOSC 0350 + 1000/1810	3
CHEM 1830	Synthetic Biology	BIOSC 1000 or 1810	3
LABS			
BIOSC #	Course Name	Pre-req	Cr
0351	Genetics Lab	BIOSC 006X, (c)0350	1
1005	Intro to Biochemistry Lab	BIOSC 1000 or 1810	1
1285	Genomics Lab	BIOSC 006X, 0350	1
1290	Microbial Genetics Lab	BIOSC 006X, (c)1850	1
1510	Cell Biology Lab	BIOSC 006X, (c)1500	1
1530	Developmental Bio Lab	BIOSC 006X, (c)1520	1
1855	Intro to Microbiology Lab	BIOSC 006X, (c)1850	1

**BIOSC 1690 and 1900-1909 are NOT usable as elective credits for the major.**

### 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 of 2.000 or better (32 plus any extra BIOSC credits)
- 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.
- d) To receive the **chemistry minor**, you must earn at least a 2.000 average GPA in the corequisite chemistry courses and BIOSC 1000 or 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 chemistry minor must 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.**