

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

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

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

## 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 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		
								*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.

## 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
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.**