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

| Name   |                  | Date |  |
|--------|------------------|------|--|
| TARGET | GRADUATION DATE: |      |  |

| BIOSC COURSES  Must total a minimum of 32 credits                  |    |       |       |  |  |  |
|--|----|-------|-------|--|--|--|
| You must earn a grade of <u>C or higher</u> in all Biology courses |    |       |       |  |  |  |
| BIOSC 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* Biochemistry   | 3  |       |       |  |  |  |
| 1850 Microbiology  | 3  |       |       |  |  |  |
| 1280º Microbial Genetics (Sp)                                      | 3  |       |       |  |  |  |
| 1860 Microbiology Lab (F)  | 2  |       |       |  |  |  |
| 1865 Microbial Physiology (F)                                      | 3  |       |       |  |  |  |
| Electives  | Cr | Grade | Notes |  |  |  |
| (Micro Elective <sup>†</sup> )                                     | 3  |       |       |  |  |  |
| (Micro Elective†)  | 3  |       |       |  |  |  |
| (Micro Elective Lab <sup>†</sup> )                                 | 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. |             |  |  |  |
| <sup>o</sup> BIOSC 1280 Pre-reqs | BIOSC 0350 + 1850   |             |  |  |  |
| <sup>†</sup> Electives           | Choose from list on next  | page        |  |  |  |
| # Writing Practicum              | See next page for details   |             |  |  |  |

| General Education Requirements (Fall 2018 & later) |                             |                      |                |  |  |  |  |  |  |
|--|-----------------------------|----------------------|----------------|--|--|--|--|--|--|
| Wrkshp Com   | Wrkshp Comp Sem in Comp     |                      |                |  |  |  |  |  |  |
| Writ #1  | Writ #1 Writ #2(in BIOSC)   |                      |                |  |  |  |  |  |  |
| Algebra  | Algebra Quant Formal Reas   |                      |                |  |  |  |  |  |  |
| 2nd Languag  | 2nd Language                |                      |                |  |  |  |  |  |  |
| Diversity Course                                   |                             |                      |                |  |  |  |  |  |  |
|  | equirements<br>Natural Scie | (Humanities<br>nces) | , Arts, Social |  |  |  |  |  |  |
| Literature   |                             |                      |                |  |  |  |  |  |  |
| The Arts   |                             |                      |                |  |  |  |  |  |  |
| Creative Wor                                       | k                           |                      |                |  |  |  |  |  |  |
| Philosophical                                      | Thinking/Ethi               | cs                   |                |  |  |  |  |  |  |
| Social Science                                     |                             |                      |                |  |  |  |  |  |  |
| Historical Analysis                                |                             |                      |                |  |  |  |  |  |  |
| Natural Sciences <u>Fulfilled by Major</u>         |                             |                      |                |  |  |  |  |  |  |
| Global Awareness & Cultural Understanding          |                             |                      |                |  |  |  |  |  |  |
| Global Issues                                      |                             |                      |                |  |  |  |  |  |  |
| Geographic Region                                  |                             |                      |                |  |  |  |  |  |  |
|  |                             |                      |                |  |  |  |  |  |  |
| 120  |                             | Co-req GPA           |                |  |  |  |  |  |  |
| TOTAL  | Date                        | OUTEN OF A           | DIOGO GFA      |  |  |  |  |  |  |

|  |                                | NOTES        |            |  |   | 120       | _                     | Date Co-req GPA                                | BI                      | OSC GPA | <b>A</b> |
|--|--------------------------------|--------------|------------|--|---|-----------|-----------------------|--|-------------------------|---------|----------|
| Color coding                           | FALL                           |              |            | SPRING ONLY                            |   | TOTA      | _                     |  |                         |         |          |
| * Biochemistry Can substitute BIOSC 18 |                                |              |            |  |   |           |                       |  |                         |         |          |
| BIOSC 1280 Pre-regs                    |                                |              |            | 1000 and 1810/1820.                    |   | require   |                       |  |                         |         |          |
| · ·                                    | Change from list or part years |              |            |  |   |           |                       |  |                         |         |          |
| Electives<br># Writing Practicum       |                                | ext page for |            | 490                                    |   |           | эее р                 | .2 IOI GI A Calculation u                      | 3FA Calculation details |         |          |
| r vviiding i racticum                  | 00011                          | ext page it  | or dotalis |  |   |           |                       |  |                         |         |          |
|  |                                |              |            |  |   |           |                       |  |                         |         |          |
|  |                                |              |            | CO-RI                                  | EQUIS                                     | SITES     |                       |  |                         |         |          |
|  |                                |              | Yo         | u must average a 2.00                  | 00 GF                                     | PA co-req | uisite co             | ourses.  |                         |         |          |
| CHE                                    | CHEMISTRY                      |              |            | M                                      | ATH PHYSICS Take 1 sequence (alg OR calc) |           |                       | (c)  |                         |         |          |
|  | Τ_                             | l            |            |  |   | l         |                       | •  |                         |         |          |
| 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 <sup>nd</sup> :                      | 4   |           |                       | 0111 Physics 2 (alg)                           | 3                       |         |          |
| 0310 Org Chem 1                        | 3                              |              |            | 2nd 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<br>Chem Lab              | 2                              |              |            | MATH 0235 = MATH 0220 + 0230           |   |           | 0212 or 0219 (lab)+   | 2  |                         |         |          |
|  |                                |              |            |  |   |           |                       | *Lab is not needed for<br>medical and some hea |                         |         |          |

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

#### **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      | Intro to Molecular Genetics Lab | 1  |
| 0370      | Ecology                         | 3  |
| 0390      | Ecology Lab                     | 1  |
| 1005      | Intro Biochem Lab (varies)      | 1  |
| 1120      | Biostatistics                   | 3  |
| 1130      | Evolution                       | 3  |
| 1275      | Genomics                        | 3  |
| 1285      | Genomics Lab                    | 1  |
| 1360      | Ecology of Fungi (PLE)          | 3  |
| 1400      | Disease Ecology (PLE)           | 3  |
| 1500      | Cell Biology                    | 3  |
| 1510      | Cell Biology Laboratory         | 1  |
| 1540      | Computational Biology           | 3  |
| 1730      | Virology                        | 3  |
| 1740      | Virology Laboratory             | 1  |
| 1760      | Immunology                      | 3  |
| 1820      | Metabolic Pathways*             | 3  |
|           | *(must be taken with 1810)      |    |
| 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.

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 <u>at least</u> 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.