RAMAPO
COLLEGE

## School of Theoretical and Applied Science

## Biology/Pre-Med Track

## (for preparation to apply to Medical, Dental, Optometry and Podiatry programs)

Recommended Four-Year Plan (Fall 2020)
The recommended four-year plan is designed to provide a blueprint for students to complete their degrees within four years. Students must meet with their Major Advisor to develop a more individualized plan to complete their degree. This plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which are not listed in the plan and may extend degree completion.
NOTE: This recommended Four-Year Plan is applicable to students admitted into the major during the 2020-2021 academic year.

| First Year |  |  |  |  |  |
| :--- | :---: | :---: | :--- | :---: | :---: |
| Fall Semester | HRS | $\boldsymbol{J}$ | Spring Semester | HRS | $\boldsymbol{\checkmark}$ |
| BIOL 111 \& BIOL 111L- Fundamentals of <br> Biology I Lecture \& Lab | $4+1$ |  | BIOL 113 \& BIOL 113L* - Fundamentals of <br> Biology II Lecture \& Lab | $4+1$ |  |
| CHEM 116 \& CHEM 116L - General <br> Chemistry I Lecture \& Lab | $4+1$ |  | CHEM 117 \& CHEM 117L*- General <br> Chemistry II Lecture \& Lab | $4+1$ |  |
|  <br> Writing II | 4 |  | Gen Ed: Quantitative Reasoning - MATH 110 <br> Precalculus^, MATH 121 Calculus I^, or <br> CMPS 147 Computer Science I | 4 |  |
| Gen Ed: INTD 101 - First Year Seminar | 4 |  | Gen Ed: Historical Perspectives | 4 |  |
|  |  |  | Career Pathways: SCIN 001 - Career <br> Pathways Module 1 | Degree <br> Rqmt. |  |
| Total: | 18 |  | Total: | 18 |  |


| Second Year |  |  |  |  |  |
| :--- | :---: | :---: | :--- | :---: | :---: |
| Fall Semester | HRS | $\boldsymbol{\checkmark}$ | Spring Semester | HRS | $\checkmark$ |
| BIOL 221* - General Ecology | 4 |  | BIOL 332 \& BIOL 332L* - Genetics Lecture <br> \& Lab WI | $4+1.5$ |  |
| CHEM 211 \& CHEM 211L* - Organic <br> Chemistry I Lecture \& Lab | $4+1$ | CHEM 213 \& CHEM 213L* - Organic <br> Chemistry II Lecture \& Lab | $4+1$ |  |  |
| MATH 122* - Calculus II or ENSC 345* - <br> Research Design \& Statistics or PSYC 242* - <br> Statistics | 4 |  <br> Humanities | 4 |  |  |
| Gen Ed: SOSC 110 - Social Science Inquiry | 4 | Elective | 4 |  |  |
| Career Pathways: SCIN 002 - Career Pathways <br> Module 2 | Degree <br> Rqmt. | Career Pathways: SCIN 003 - Career <br> Pathways Module 3 | Degree <br> Rqmt. |  |  |
| Total: | 17 | Total: | 18.5 |  |  |


| Third Year |  |  |  |  |  |
| :--- | :---: | :---: | :--- | :---: | :---: |
| Fall Semester | HRS | $\boldsymbol{J}$ | Spring Semester | HRS | $\boldsymbol{\checkmark}$ |
| BIOL 407 \& BIOL 407L* - Cell and Molecular <br> Biology Lecture \& Lab WI | $4+1.5$ |  | Bio Elective 2 \# (CHEM 426 - Biochemistry <br> Recommended) | 4 |  |
| PHYS 111-Fundamentals of Physics I \& PHYS <br> 118L-Introductory Physics I Lab | $4+1$ |  |  <br> PHYS 119L* - Introductory Physics II Lab | $4+1$ |  |
| Bio Elective 1\# | 4 |  | Bio Elective 3 \# | $4-5.5$ |  |
| Gen Ed: Global Awareness | 4 |  | Gen Ed: Culture \& Creativity, Systems <br>  <br> Ethics** | 4 |  |
| Total: |  | 18.5 |  | Total: | $17-18.5$ |


| Fourth Year |  |  |  |  |  |
| :--- | :---: | :---: | :--- | :---: | :---: |
| Fall Semester | HRS | $\checkmark$ | Spring Semester | HRS | $\checkmark$ |
| Bio Elective 4 \# | $4-5.5$ |  | Elective 2 | 4 |  |
| BIOL 356* - Evolution WI | 4 |  | Elective 3 | 4 |  |
| Gen Ed: Culture \& Creativity, Systems <br> Sustainability \& Society, or Values \& Ethics** | 4 |  | Elective 4 | 4 |  |
|  |  |  | Elective 5 + | 4 |  |
| Total: | $12-13.5$ |  | Total: | 16 |  |

The General Education courses can be taken in any sequence, not necessarily what is suggested here.

## Total Credits Required: 128 credits

## GPA Required: 2.0

* This course has a pre-requisite. Please refer to the course catalog for information about pre-requisites.
\# Biology electives with Lab or Field experiences are up to to 5.5 credits. One of the four required Biology electives must include Lab or Field experience. Only one can be 200 level. BIOL 214/214L and BIOL 216/216L-Anatomy and Physiology I and II count as one elective. Students may also opt to choose BIOL 311/311L-Microbiology as an elective as that is a requirement for many professional programs. Some graduate professional programs require 2 psychology courses including PSYC 101 Intro to Psychology. Students are advised to speak to their advisor while planning their course of study so that those particular requirements can be met.
^This course requires a CLM test for placement purposes.
+ Depending on the Biology electives selected, students may need to take a 5th Elective to reach 128 credits.


## WI: Writing Intensive- 3 required in the major

