## RAMAPO COLLEGE

## **School of Theoretical and Applied Science**

## **Biology**

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	1	Spring Semester	HRS	✓	
BIOL 111 & BIOL 111L- Fundamentals of Biology I Lecture & Lab	4+1		BIOL 113 & BIOL 113L* - Fundamentals of Biology II Lecture & Lab	4+1		
CHEM 116 & CHEM 116L - General Chemistry I Lecture & Lab	4+1		CHEM 117 & CHEM 117L*- General Chemistry II Lecture & Lab	4+1		
Gen Ed: CRWT 102 - Critical Reading & Writing II	4		Gen Ed: Quantitative Reasoning - Strongly Recommended: MATH 110 Precalculus^, MATH 121 Calculus I^, or CMPS 147 Computer Science I	4		
Gen Ed: INTD 101 - First Year Seminar	4		Gen Ed: Historical Perspectives	4		
			Career Pathways: SCIN 001 – Career Pathways Module 1	Degree Rqmt.		
Total:	18		Total:	18		

Second Year						
Fall Semester	HRS	✓	Spring Semester	HRS	1	
BIOL 221* - General Ecology	4		Bio Elective 1	4		
CHEM 211 & CHEM 211L* Organic Chemistry I Lecture & Lab OR CHEM 206 & CHEM 206L* - Essentials of Organic Chemistry Lecture & Lab	4+1		CHEM 213 & CHEM 213L* Organic Chemistry II Lecture & Lab OR Gen Ed: AIID 201* - Studies in the Arts & Humanities (if CHEM 206 & 206L are taken in Fall)	4+1 or 4		
MATH 122* - Calculus II or BIOL 354/ENSC 345* - Research Design & Statistics or PSYC 242* - Statistics	4		BIOL 332 & BIOL 332L* - Genetics Lecture & Lab WI	4+1.5		
Gen Ed: SOSC 110 - Social Science Inquiry	4		Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics (OR move to Third Year Fall Semester if CHEM 213 & 213L is taken)	0 or 4		
Career Pathways: SCIN 002 – Career Pathways Module 2	Degree Rqmt.		Career Pathways: SCIN 003 – Career Pathways Module 3	Degree Rqmt.		
Total:	17		Total:	14.5- 17.5		

Third Year						
Fall Semester	HRS	✓	Spring Semester	HRS	<b>~</b>	
BIOL 356* - Evolution WI	4		Bio Elective 3 #	4-5.5		
PHYS 111-Fundamentals of Physics I & PHYS 118L-Introductory Physics I Lab	4+1		PHYS 113* - Fundamentals of Physics II & PHYS 119L* - Introductory Physics II Lab	4+1		
Bio Elective 2 w/lab #	5.5		Gen Ed: Global Awareness	4		

		Gen Ed: Culture & Creativity, Systems Sustainability & Society, or Values & Ethics	4	
Total:	14.5	Total:	17	

Fourth Year						
Fall Semester	HRS	✓	Spring Semester	HRS	1	
Bio Elective 4 #	4-5.5		Elective 2	4		
BIOL 407 & BIOL 407L* - Cell and Molecular Biology Lecture & Lab <b>WI</b>	4+1.5		Elective 3	4		
Elective 1 OR Gen Ed: AIID 201* - Studies in the Arts & Humanities	4		Elective 4	4		
			Elective 5 +	4		
Total:	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

# 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 count as one elective.

A 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

<sup>\*</sup> This course has a pre-requisite. Please refer to the course catalog for information about pre-requisites.