

BIOLOGY MAJOR - Outcomes Matrix

Upon completing a major in Biology, students will:

1. Understand what makes life unique.
2. Be able to describe the history of life from a biological perspective.
3. Understand the unifying principles of biology
4. Recognize and discuss current biological issues and their impact on society.
5. Demonstrate content knowledge of the discipline.
6. Read, write, and understand biological literature.
7. Learn how to conduct research through use of the scientific method.
8. Have the opportunity to prepare themselves for graduate/professional school and/or the biological job market.
9. Realize appropriate stewardship accountabilities and the need to help improve society.

Courses	Outcomes								
	1	2	3	4	5	6	7	8	9
Science Core Requirements (15 hours)									
CHEM 105/L General Chemistry I (4)									
CHEM 106/L General Chemistry II (4)									
BIOL 112 General Biology (3)	2			1	2				
BIOL 265/L Molecular & Cell Biology (4)	2	2	2	2	1	1	1	2	1
Chemistry Core Requirements (8 hrs)									
CHEM 251/L Organic Chemistry I (4)									
CHEM 252/L Organic Chemistry II (4)									
Biology Core Requirements by Tract (12 hrs)									
General Biology/Marine Biology Tracts									
BIOL 201/L General Botany (4)	1	2	1		1	1			1
BIOL 206/l General Zoology (4)	1	1	1	1	1			1	1
BIOL 491R – 494R Research & Thesis (4)			1		1	2	2	2	
Pre-Professional/Molecular Biology Tracts									
BIOL 220-/L Microbiology (4)	3	1	2	2	2	1	2	1	2
BIOL 376/L Genetics (4)	3	3	2	3	2	1	2	2	1
BIOL 49R1 – 494R Research & Thesis (4)			1		1	2	2	2	
Biology Elective Requirements (25 hours)									
BIOL 204/L Pacific Natural History (4)	1	1	1	1	1			1	1
BIOL 212/L Marine Biology (4)	1				2	2	1	1	1
BIOL 248/L Conservation Biology (4)	2	1	1	2	2	1		2	2
BIOL 260/L Elementary Human Anatomy (3)	2				3			1	
BIOL 261/L Elementary Human Physiology (4)	2		2		3			3	
BIOL 300/L Animal Behavior (4)	3			3	3				
BIOL 320/L Pathogenic Microbiology (4)	2	2	2	2	2	2	2	2	2
BIOL 330/L Bioinformatics (4)	2	2	2	2	2	2	2	2	2
BIOL 340 Experimental Design and Analysis (3)	1	1	1	1		2	3	2	
BIOL 350/L General Ecology (4)	2	1	2	2	2	1	1	2	2
BIOL 374 Evolution and Human Prehistory (3)	3	3	3	3	3				
BIOL 383/L Cell Biology and Development (4)					3			3	
BIOL 390R Special Topics in Biology									
BIOL 399R Cooperative Education									
BIOL 412/L Marine Ecology (4)	2	1	2	3	3		2	3	3
BIOL 441/L Molecular Biology (4)	3	2	3	3	3	3	3	3	3
BIOL 442/L Advanced Cellular Biology (4)	3	1	3	3	3	3	2	3	2
BIOL 445/L Immunology (4)	3	2	2	3	3	2	2	3	2
BIOL 460 Advanced Human Anatomy (3)					3			3	
BIOL 465/L Principles of Physiology (4)	3	2	2	2	3	1	2	2	1
BIOL 475 Pathophysiology (3)	3	2	3	2	3	1	2	2	1
BIOL 491-4 Research & Thesis						3	3	3	
BIOL 495R Independent Study									
BIOL 496LR Student Research									

1 = Introduced, 2=Practiced with Feedback, 3=Demonstrated at the Mastery Level