

Point Loma Nazarene University		LO 1	LO 2	LO 3	LO 4
Biology B.A. Curriculum Map		Demonstrate an understanding of the process of science and of the concepts and theories of biology across a broad range of organizational levels, as defined by the Vision and Change nationally-validated set of core biology concepts (AAAS, 2011).	Students will participate in the life of the department in Biology/Chemistry clubs or in various positions of responsibility such as graders, tutors, and teaching assistants	Students will develop a rationally defensible integration of science and faith.	Students will be prepared for entry to professional or graduate schools, or to science-related careers.
Course	Course Title				
LOWER-DIVISION REQUIREMENTS		M C O E			
BIO 2010/2010L	Cell Biology and Biochemistry	I I		I	I
BIO 2011/2011L	Ecological and Evolutionary Systems		I I	I	I
BIO 2012/2012L	Organismal Biology		I		I
UPPER-DIVISION REQUIREMENTS		M C O E			
BIO 3045/3045L	Genetics	D D D		D	D
BIO 3052	Research Methodology	D D D D			D
BIO 3063/3063L	Conservation Ecology		D D	D	D
BIO 4097	Biology Seminar			M	M
UPPER-DIVISION ELECTIVES (11 units)		M C O E			
BIO 3012	Applied Plant Science		D M D		D
BIO 3015/3015L	Microbiology	D D		D	D
BIO 3023/3023L	Introduction to Oceanography		D D	D	D
BIO 3033/3033L	Marine Biology		D/M D/M	D	D
BIO 3040	Field Biology		D D		D
BIO 3050/3050L	Advanced Cell Biology	M M			D
BIO 3080/3080L	Molecular Biology	D/M D			D
BIO 3090/3090L	Immunology	M M M			D
BIO 4000/4000L	Developmental Biology	M M D		M	D
BIO 4010/4010L	Vertebrate Biology		D/M D/M	D/M	D
BIO 4023/4023L	Advanced Human Physiology		D D/M		D
BIO 4030/4030L	Animal Behavior		D/M D/M	D/M	D
BIO 4050/4050L	Advanced Biochemistry	M M			D
BIO 4063	Methods of Teaching Secondary Science	M M M M			M
BIO 4070	Neuroscience	D M M			D
BIO 4073/4073L	Experimental Marine Ecology		M M		D
BIO 4083	Introduction to GIS		D D		D
BIO4090	Internships in Biology	M M M M			D/M
BIO 4099	Research in Biology	M M M M			D/M
Extracurricular Activities		M C O E			
Faculty Advising (required for registration clearance)					I
Pre-Health Advising					D
Pre-Teaching Advising					D

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Course	Course Title				
Undergraduate Research & Internships		M M M M			D
Participation in science clubs or as a grader, TA, or tutor			I, D, M		D

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Course	Course Title	M	C	O	E
LOWER-DIVISION REQUIREMENTS					
BIO 2010/2010L	Cell Biology and Biochemistry	I	I		I
BIO 2011/2011L	Ecological and Evolutionary Systems			I	I
BIO 2012/2012L	Organismal Biology			I	I
UPPER-DIVISION REQUIREMENTS					
BIO 3045/3045L	Genetics	D	D	D	D
BIO 3052	Research Methodology	D	D	D	D
BIO 3063/3063L	Conservation Ecology			D	D
BIO 3080/3080L	Molecular Biology	D/M	D		D
BIO 4097	Biology Seminar				M
UPPER-DIVISION ELECTIVES					
BIO 3012	Applied Plant Science		D	M	D
BIO 3015/3015L	Microbiology	D	D		D
BIO 3023/3023L	Introduction to Oceanography			D	D
BIO 3033/3033L	Marine Biology			D/M	D/M
BIO 3040	Field Biology			D	D
BIO 3050/3050L	Advanced Cell Biology	M	M		D
BIO 3090/3090L	Immunology	M	M	M	D
BIO 4000/4000L	Developmental Biology	M	M	D	D
BIO 4010/4010L	Vertebrate Biology			D/M	D/M

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Course	Course Title				
BIO 4023/4023L	Advanced Human Physiology	D D/M			D
BIO 4030/4030L	Animal Behavior	D/M D/M		D/M	D
BIO 4050/4050L	Advanced Biochemistry	M M			D
BIO 4063	Methods of Teaching Secondary Science	M M M M			M
BIO 4070	Neuroscience	D M M			D
BIO 4073/4073L	Experimental Marine Ecology	M M			D
BIO 4083	Introduction to GIS	D D			D
BIO4090	Internships in Biology	M M M M			D/M
BIO 4099	Research in Biology	M M M M			D/M
Extracurricular Activities		M C O E			
Faculty Advising (required for registration clearance)					I
Pre-Health Advising					D
Pre-Teaching Advising					D
Undergraduate Research & Internships		M M M M			D
Participation in science clubs or as a grader, TA, or tutor			I, D, M		D