

BACHELOR OF SCIENCE IN MARINE BIOLOGY (IMPACTED)

Major Requirements Worksheet

2013-2014 Catalog

Name: _____

Student ID: _____

Note: This checklist is not intended to replace advising from the major department. Students should consult with the major advisor to determine the appropriate sequence of courses. This checklist is to inform students of major requirements and course prerequisites only. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification. **Pre-Biology** majors must complete their GE Foundation courses, and the highlighted areas below all with a "C" or better and a cumulative GPA of 2.5, by 60 units to be considered for the major.

Grade	Course #	Course Title	Semester	Prerequisites (<u>ALL</u> Biology Department courses require a "C" or better in every pre-requisite course)
	BIOL 153	Introduction to Marine Biology (3)		Courses that fulfill the A.1 and B.2 GE requirement pre/corequisite)
	BIOL 211	Introduction to Evolution and Diversity (4)		CHEM 111A pre/corequisite
	BIOL 212	Introduction to Cell and Molecular Biology (4)		BIOL 211 and CHEM 111A; CHEM 111B pre/corequisite
	BIOL 213	Introduction to Ecology and Physiology (4)		BIOL 211, 212 and CHEM 111B
	BIOL 260	Biostatistics (3)		BIOL 211 or BIOL 207 or MICR 200; MATH 111 or 113 or 119A or 122
	CHEM111A	General Chemistry (5)*		A passing score on the CPT; MATH 113 or 117 or 119A or 122
	CHEM111B	General Chemistry (5)		CHEM 111A

Take ONE course from EACH block:

PHYS 100A	General Physics (4) OR	MATH 109 or 113 or 117 or 119A or 120 or 122
PHYS 151	Mechanics and Heat (4)	MATH 122 pre/corequisite

PHYS 100B	General Physics (4) OR	PHYS 100A
PHYS 152	Electricity and Magnetism (4)	PHYS 151; MATH 123 pre/corequisite

MATH119A	Survey of Calculus I (3) OR	MDPT placement* or MATH 113
MATH 122	Calculus I (4)	MDPT placement* or MATH 111 and 113, or MATH 117

MATH119B	Survey of Calculus II (3) OR	MATH 119A or 122
MATH 123	Calculus II (4)	MATH 122

Upper Division (for upper division advising, see your faculty advisor)

Take **EITHER CHEM 327, OR all four** (CHEM 322A, 323A, 322B, 323B)

CHEM 327	Fundamentals of Organic Chemistry (3)	CHEM 111A (CHEM 111B is recommended)
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OR

CHEM 322A	Organic Chemistry (3) (lab required same semester*)	CHEM 111B
CHEM 323A	Organic Chemistry Laboratory (1)*	CHEM 111B
CHEM 322B	Organic Chemistry (3) (lab required same semester*)	CHEM 322A and CHEM 323A
CHEM 323B	Organic Chemistry Laboratory (1)*	CHEM 322A and CHEM 323A

NOTE: See the catalog for courses that do not meet any specific or elective requirements for the major

* See exception or clarification in the catalog

Updated 06/10/13

Take ALL of the following courses:

BIOL 313	Invertebrate Zoology (4)	BIOL 211, 212, 213
BIOL 340	Molecular Cell Biology (3)	BIOL 211, 212; CHEM 320A or 322A or 327
BIOL 345	Comparative Animal Physiology (3)	BIOL 211, 212, 213
BIOL 345L	Lab in Comparative Animal Physiology (1)	BIOL 345 pre/corequisite
BIOL 350	General Ecology (3)*	BIOL 211, 212, 213, 260; MATH 119A or MATH 122
BIOL 353	Marine Biology (3)	BIOL 153, 211, 212, 213, 260
BIOL 370	General Genetics (4)	BIOL 211, 212, <i>and</i> either BIOL 260 or CHEM 251
BIOL 419	Ichthyology (3)	BIOL 211, 212, 213, 260 <i>and</i> at least 6 additional units of upper division biological science. Recommended BIOL 350, 353, 370
BIOL 425	Phycology (4)	BIOL 353
BIOL 480	Seminars (1)	Must be taken the same semester that the student graduates. Consent of the dept
GEOL 465	Physical and Chemical Oceanography (3)	CHEM 111B; PHYS 100B Pre/Corequisite and upper division standing in the CNSM
GEOL 466	Oceanography Lab & Ocean Studies (1)	GEOL 465 pre/corequisite

Take a minimum of THREE courses from the following: BIOL 411, 420, 449, 451, 454A, 455, 457, 464; BIOL/MICR 415; *and* with prior permission of marine biology advisor for both BIOL 490, and 3 units of BIOL 496.