

# BACHELOR OF SCIENCE IN BIOLOGY (IMPACTED)

## Option in Botany Major Requirements Worksheet

2012-2013 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 ( <i>ALL</i> Biology Department courses require a "C" or better in every pre-requisite course)
	BIOL 211	Introduction to Evolution and Diversity (4)		CHEM 111A (can also be a corequisite)
	BIOL 212	Intro to Cell and Molecular Biology (4)		BIOL 211 <i>and</i> CHEM 111A*
	BIOL 213	Introduction to Ecology and Physiology (4)		BIOL 211, 212 <i>and</i> CHEM 111B*
	BIOL 260	Biostatistics (3)		BIOL 211 or BIOL 207 or MICR 200*; MATH 111* or 113* or 119A* or 122*
	CHEM 111A	General Chemistry (5)**		A passing score on the CPT (credit in CHEM 101 does not substitute for a passing score on the CPT); MATH 113*, or 117* or 119A* or 122*
	CHEM 111B	General Chemistry (5)		CHEM 111A*

### Take ONE course from EACH block set:

	MATH 119A MATH 122	Survey of Calculus I (3) OR Calculus I (4)		MDPT placement or MATH 113* Appropriate MDPT placement or MATH 111* <i>and</i> 113*, or 117*
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	MATH 119B MATH 123	Survey of Calculus II (3) OR Calculus II (4)		MATH 119A <i>or</i> 122 MATH 122*
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	PHYS 100A PHYS 151	General Physics (4) OR Mechanics and Heat (4)		MATH 109 <i>or</i> 113 <i>or</i> 117 <i>or</i> 119A <i>or</i> 120 <i>or</i> 122 MATH 122 (can also be a pre/corequisite)
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	PHYS 100B PHYS 152	General Physics (4) OR Electricity and Magnetism (4)		PHYS 100A PHYS 151; pre/corequisite MATH 123
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### Upper Division (for upper division advising, please see your faculty advisor). Take 47 units including:

	CHEM 322A	Organic Chemistry (3)		CHEM 111B* (lab required same semester**)
	CHEM 323A	Organic Chemistry Laboratory (1)**		CHEM 111B*
	CHEM 322B	Organic Chemistry (3)		CHEM 322A* <i>and</i> CHEM 323A* (+ lab**)
	CHEM 323B	Organic Chemistry Laboratory (1)**		CHEM 322A* <i>and</i> CHEM 323A*
	BIOL 312	Evolutionary Biology (3)		BIOL 211, 212, 213, 260
	BIOL 340	Molecular Cell Biology (3)		BIOL 211, 212; CHEM 320A* <i>or</i> 322A* <i>or</i> 327*
	BIOL 350	General Ecology (3)**		BIOL 211, 212, 213, 260; MATH 119A* <i>or</i> 122*
	BIOL 370	General Genetics (4)		BIOL 211, 212, <i>and</i> either BIOL 260 <i>or</i> CHEM 251*
	BIOL 427	Vascular Plant Systematics (4)		BIOL 312 <i>or</i> 370
	BIOL 439	Plant Morphology (4)		BIOL 312 <i>or</i> 370
	BIOL 480	Seminars (1)		Taken during the semester the student is to graduate and with the consent of the undergraduate advisor

### Take at least TWO courses from the following:

	BIOL 425	Phycology (4)		BIOL 353
	BIOL 447	Molecular Plant Physiology (3)		BIOL 340 <i>and</i> 370
	BIOL 450	Plant Ecology (3)		BIOL 260, 350 (recommended BIOL 427, 447)
	BIOL 451	Wetlands and Mangrove Ecology (3)		BIOL 260, 350

Take at least 11 additional units with advisor consultation. CHEM 441A, B, or 448 will count toward these 11 units. Students may use 1-3 units of BIOL 496 toward the remaining 11 units but *only* with prior permission of the advisor for this option.

\* Must receive a "C" or better \*\* See further explanation in the catalog.

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

Updated 12/10/12 LM