

BACHELOR OF SCIENCE IN BIOLOGY (IMPACTED)

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 (<u>ALL</u> 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	Introduction to Cell and Molecular Biology (4)		BIOL 211 and CHEM 111A*
	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*
	CHEM 111A	General Chemistry (5)**		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:

	MATH 119A	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*

Choose ONE

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

Choose ONE

	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 (can also be a pre/ corequisite)

Choose ONE

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

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

Take ALL of the following courses:

	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*

Take at least 35 units in biological science including: ALL of the following courses:

	BIOL 312	Evolutionary Biology (3)		BIOL 211, 212, 213, 260
	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 (can also be a pre/corequisite)

* Must receive a "C" or better

** See exception or clarification in the catalog

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

Updated 12/10/12 LM

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	BIOL 350	General Ecology (3)**		BIOL 211, 212, 213, 260; MATH 119A* or 122*
	BIOL 370	General Genetics (4)		BIOL 211, 212, and either BIOL 260 or CHEM 251*
	BIOL 480	Seminars (1)		Taken the semester the student plans to graduate with the consent of undergraduate advisor

Take ONE of the following courses in animal diversity:

	BIOL 313	Invertebrate Zoology (4)		BIOL 211, 212, 213
	BIOL 316	General Entomology (4)		BIOL 211, 212, 213
	BIOL 324	Vertebrate Zoology (4)		BIOL 211, 212, 213

Take ONE of the following courses in plant diversity:

	BIOL 427	Vascular Plant Systematics (4)		BIOL 312 or 370
	BIOL 439	Plant Morphology (4)		BIOL 312 or 370

Nine additional units must be selected from UPPER division courses in the Department of Biological Sciences. At least two of the courses selected to fulfill these additional units must have numbers between 410-499. Either CHEM 441A, B, or 448 will count toward these additional 9 units. Up to 6 of these additional units may be substituted from courses in other departments in the College of Natural Sciences and Mathematics upon approval by the undergraduate advisor. Students may use from 1-3 units of BIOL or MICR 496 towards the 9 additional units of upper division course work but *only* with prior permission of the advisor for this option.

* Must receive a "C" or better

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Updated 12/10/12 LM