

BACHELOR OF SCIENCE IN 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 (<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 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 CHEM111B
	BIOL 260	Biostatistics (3)		BIOL211 or 207 or MICR 200; MATH111 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 MATH 122	Survey of Calculus I (3) OR Calculus I (4)		MDPT placement* or MATH 113 MDPT placement* or MATH 111 and 113, or MATH 117
	MATH 119B MATH 123	Survey of Calculus II (3) OR Calculus II (4)		MATH 119A or 122 MATH 122
	PHYS 100A PHYS 151	General Physics (4) OR Mechanics and Heat (4)		MATH 109 or 113 or 117 or 119A or 120 or 122 MATH 122 pre/corequisite
	PHYS 100B PHYS 152	General Physics (4) OR Electricity and Magnetism (4)		PHYS 100A PHYS151; MATH123 pre/corequisite

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 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 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 dept.

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

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Take at least one of the following course/course pairs in physiology:

	BIOL 342 & BIOL 342L	Human/Mammalian Phys (3) and Lab in Human/Mammalian Phys (1)		BIOL 211, 212, 213; BIO 342 Pre/Corequisite
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OR

	BIOL 345 & BIOL 345L	Comparative Animal Phys (3) and Lab in Comp Animal Phys (1)		BIOL 211, 212, 213; BIO 345 Pre/Corequisite
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OR

	BIOL 447	Molecular Plant Physiology (3)		BIOL 340, 370
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Take TWO of the following courses in animal and plant diversity. One of the courses must be BIOL 313, 316, 324, 427, or 439:

	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
	BIOL 419	Ichthyology (3)		BIOL 211, 212, 213, 260 <i>and</i> at least 6 additional units of upper division science with “C” or better (recommended: BIOL350, 353, 370)
	BIOL 421	Herpetology (3)		BIOL 260, 350, <i>and</i> one additional upper division biology course. (recommended: BIOL 312, 324, or 370)
	BIOL 423	Mammalogy (3)		BIOL 312 or 324 or 350
	BIOL 424	Ornithology (3)		BIOL 211, 212, 213, 260 <i>and</i> at least 6 additional units of upper division science with “C” or better (recommended: BIOL350)
	BIOL 427	Vascular Plant Systematics (4)		BIOL 312 or 370
	BIOL 439	Plant Morphology (4)		BIOL 312 or 370

Three additional courses (totaling a minimum of 9 units) must be selected from UPPER division courses in the Department of Biological Sciences. At least six of these units must be at the 400 level. Courses outside of BIOL that can also count toward these units include GEOG 481, CHEM 441A, and CHEM 448. Courses that will not count towards these units are BIOL 301, 304, 305, 308, and MICR 300I. Student contemplating graduate or professional school should consider taking 1-3 units of BIOL 496 in addition to the requirements listed above. With prior permission of the advisor for this option, students may use 3 units of BIOL 496 as an elective.

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