

BACHELOR OF SCIENCE IN MICROBIOLOGY (IMPACTED)

Major Requirements Worksheet

2015-2016 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.

Degree Progress

Pre-Biology majors must complete CHEM 111A, BIOL 211, and MATH 119A (or 122) within one and a half calendar years of declaring the pre-major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

Semester	Grade	Course #	Course Title	Prerequisites <i>ALL Biology department courses require a "C" or better.</i>
		BIOL 211	Intro. to Evolution and Diversity (4)	Pre/Corequisite: CHEM 111A
		BIOL 212	Introduction to Cell and Molecular Biology (4)	BIOL 211 and CHEM 111A; Pre/Corequisite: CHEM 111B
		BIOL 260	Biostatistics (3)	BIOL 211 or 207 or MICR 200; MATH 111 or 113 or 119A or 122
		CHEM 111A	General Chemistry (5)*	A passing score on the CPT; Corequisite: MATH 109 or higher
		CHEM 111B	General Chemistry (5)	CHEM 111A and MATH 113 or 115 or 119A or 122
		MICR 211	General Microbiology	BIOL 211, BIOL 212; CHEM 111B

Select ONE course from each block:

		PHYS 100A PHYS 151	General Physics (4) OR Mechanics and Heat (4)	MATH 109 or 113 or 119A or 122 Pre/Corequisite: MATH 122
		PHYS 100B PHYS 152	General Physics (4) OR Electricity and Magnetism (4)	PHYS 100A PHYS 151; Pre/Corequisite: MATH 123.
		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.

Take ALL of the following courses:

		CHEM 220A	Organic Chemistry I (3) (*lab required same semester)	CHEM 111B. Must be taken concurrently with CHEM 223A.
		CHEM 220B	Organic Chemistry II (3) (*lab required same semester)	CHEM 220A Corequisite: CHEM 223B or 320L
		CHEM 223A	Organic Chemistry Laboratory I (1)*	Corequisite: CHEM 220A
		CHEM 223B	Organic Chemistry Laboratory II (1)*	CHEM 220A and CHEM 223A Corequisite: CHEM 220B

UPPER DIVISION COURSES (See major faculty advisor)

Take ALL of the following courses:

		BIOL 340	Molecular Cell Biology (3)	BIOL 211, 212
		BIOL 480	Seminars (1)	Consent of the department. Undergraduates must have filed for graduation and be in their last semester.

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 05/18/15

		CHEM 441A	Biological Chemistry (3)	Either CHEM 220B or CHEM 223B; Recommended: a Biology or Microbiology course
		CHEM 441B	Biological Chemistry (3)	CHEM 441A
		MICR 320	Bacterial Pathogenesis (3)	MICR 211; Recommended: MICR 320L
		MICR/BIOL 355	Microbial Ecology (3)	MICR 211 or BIOL 211, 212, 213, 260
		MICR 371	Microbial Genetics (3)	MICR 211
		MICR 372	Methods in Microbial Genetics (2)	MICR 211; Recommended: MICR 371
		MICR/BIOL 430	Immunology (3)	BIOL 340
		MICR 471	Bacterial Physiology (3)	MICR 320 <i>and</i> CHEM 441A

Take a *minimum* of 11 elective units chosen from the following: BIOL 473, BIOL 474, BIOL 477; MICR 320L, MICR 322, MICR 325, MICR 355L, MICR 415, MICR 416, MICR 423, MICR 429, MICR 490, and MICR 495. Students may use only MICR 496 towards the additional units but *only* with prior permission of the advisor for this degree. Those students seeking a career as a **Clinical Laboratory Scientist/Medical Technologist** are encouraged to take MICR 320L, 416, and 423.

BIOL 301, BIOL 304, BIOL 305; MICR 300; and NSCI 492 do not meet any specific or elective requirements for this major.
