



BIOLOGICAL SCIENCES / PRE-MED

Transfer Major Advisement

SAC COURSES	CAL POLY POMONA	CSU FULLERTON	CSU LONG BEACH	UC IRVINE	PRE-MEDICINE
BIOLOGY 211, CELLULAR/MOLECULAR	X	X	X	X	X
BIOLOGY 212, ANIMAL DIVERSITY/ECOLOGY	X	2.4	X	4.1	X
BIOLOGY 214, PLANT DIVERSITY/EVOLUTION	X	2.4	X	4.1	
BIOLOGY 229, GENERAL MICROBIOLOGY	X				
CHEMISTRY 219, GENERAL	X	X	X	X	X
CHEMISTRY 229, GENERAL/QUALITATIVE ANALYSIS	X	X	X	X	X
CHEMISTRY 249, ORGANIC CHEMISTRY I	X	2.1		X	X
CHEMISTRY 259, ORGANIC CHEMISTRY II	X	2.1		X	X
MATHEMATICS 150, CALCULUS	1.2	2.2	3.1		
MATHEMATICS 180, ANALYTIC GEOMETRY/CALCULUS		2.2	3.1	X	
MATHEMATICS 185, ANALYTIC GEOMETRY/CALCULUS			3.1	4.2	
MATHEMATICS 219, STATISTICS/PROBABILITY	1.2		X	4.2	
PHYSICS 279, COLLEGE PHYSICS I	1.1	2.3	3.2		5.1
PHYSICS 289, COLLEGE PHYSICS II	1.1	2.3	3.2		5.1
PHYSICS 217, ENGINEERING PHYSICS I			3.2	4.3	
PHYSICS 227, ENGINEERING PHYSICS II			3.2	4.3	
OTHER	1.3	2.5	3.3	4.4	5.2

X = Lower division preparation for the major.

- 1.1 **CPP:** Take Physics (210+211) or (279+289).
- 1.2 **CPP:** Take Math 150 or 219.
- 1.3 **CPP:** Add (English 101H or 103) and (Exercise Science Health Education 104 or Psychology 100 or 200 or 230). Bachelor degree programs are also offered in Biotechnology, Botany, Environmental Biology, Microbiology, Plant Science, and Zoology. See the CPSU Pomona catalog and www.assist.org for more information.
- 2.1 **CSUF:** Chemistry 249 and 259 are acceptable in lieu of Chemistry 301A and 301B and 302A and 302B at CSUF. No upper division credit will be granted.
- 2.2 **CSUF:** Take Math 150 or 180.
- 2.3 **CSUF:** Take Physics 279 and 289, or 210 and 211.
- 2.4 **CSUF:** Complete both Biology 212 and 214 for CSUF course credit.
- 2.5 **CSUF:** Courses taken credit/no credit may not be applied towards the major. Concentrations are: Biodiversity, Ecology, & Conservation Biology; Cell & Developmental Biology; Marine Biology; and Molecular Biology & Biotechnology.
- 3.1 **CSULB:** Take Math 150 or 180 at SAC. Add Math 185 at SAC or (119B or 123) at CSULB.
- 3.2 **CSULB:** Take Physics 279 and 289, or 210 and 211, or 217 and 227.

- 3.3 **CSULB:** Students must select an option. **Biology Education** — Add Astronomy 110, Geology (101+101L) or Earth Science 115, Biology 139 or 229. A second semester of Calculus is not required for this option. **Ecology** — Add Geology 101 and 101L. **Cell and Molecular Biology** — Add Biology 229. Options in **General Biology, Botany, Physiology, and Zoology** are also offered. **All options of the Biology major are considered impacted.** See the CSULB catalog and the website www.csulb.edu/depts/enrollment/admissions/impacted_major.html for additional information.
- 4.1 **UCI:** Take Biology 212 or 214 (Biology 212 is preferred).
- 4.2 **UCI:** Take Math 185 or 219.
- 4.3 **UCI:** Take Physics 210 and 211, or 217 and 227.
- 4.4 **UCI:** Junior-level applicants with the highest grades overall and who have satisfactorily completed course prerequisites will be given preference for admission. All applicants must complete one year of general Chemistry with grades of "B" or better and have a cumulative GPA of 3.0 or higher. Completion of Biology 211 and (212 or 214), with grades of "C" or better, is required.
- 5.1 **PREMED:** Take Physics 279 and 289, or 210 and 211.
- 5.2 **PREMED:** Add one year of English. These courses are the requirements for most medical schools. Many schools also require Math. Students may generally major in any discipline as long as they have completed these courses. Students should also consider volunteering at a local hospital or clinic to gain practical experience in the health professions. Consult individual medical schools for specific requirements.

The major preparation listed above ONLY includes courses for which articulation exists. This information is based upon university course articulation and catalog information available at the time of publication. It is to be used as a guide for lower division preparation for the major and not as an official document. **It is the student's responsibility to check the current catalog and articulation for any additional course requirements, or for any changes which may occur. Students are advised to consult with a SAC counselor. Additional articulation information can be obtained at www.assist.org. (01/11)**