



BIOLOGY MAJOR

Transfer Requirements

The following requirements for the major are subject to change without notice. To assure that this information is current, you should consult with a Biology counselor, or review articulation agreements via the internet at WWW.ASSIST.ORG. You may also consult the Articulation Officer for specific articulation agreements.

Due to the competitive nature of the Biology major, students are advised to complete as many lower division courses as possible prior to transfer. Please see a counselor for more information. Career information for the field of Biology is available in the El Camino College Career/Transfer Center and from the El Camino College Counseling Services website.

****Math 160 will only be offered summer 2015. Math 161 will not be offered after spring 2016. Students who have not started the math calculus sequence should meet with a counselor to discuss math options and course selection.**

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS (2014-2015)

BA Degree: Biology 101-102-103-104; Chemistry 1A-1B; Math 150; Physics 2A-2B or 3A-3B

BS Degree: Biology 101-102; Chemistry 1A-1B; Math 150 and Math 160 or 190; Physics 1A-1B-1C-1D or 2A-2B or 3A-3B (courses are approved as a sequence) Cellular and Molecular, Ecology and Environmental: require Biology 103 -104

CALIFORNIA STATE UNIVERSITY, FULLERTON (2014-2015)

BS in Biological Sciences: Biology 101-102- 103; Chemistry 1A-1B; Chemistry 7A-7B are accepted as subject credit for CSUF's Chemistry 301A, 301B & 302; Math 160 and Math 338 at CSUF or Math 190 and 191; Physics 2A-2B or 3A-3B

CALIFORNIA STATE UNIVERSITY, LONG BEACH (2014-2015)

Impacted Major: impacted major admission requirements must be completed by the end of the prior Spring semester for Fall admission consideration and by the end of Summer for Spring admission consideration. **To be considered for upper division admission to all options in Biology including Microbiology, applicants must minimally have the following major courses completed prior to transfer:** Chemistry 1A, 1B; Math 160 or 190 with minimum grades of C or better; eligible applicants will be selected based on cumulative GPA and space available basis.

Requirements for all options: Biology 101-102; Chemistry 1A-1B; Math 160-161 or 190-191 (preferred sequence) (see option requirements); Physics 2A-2B or 3A-3B or Physics 1A-1C or Physics 1A-1B-1C

BS Degree recommends Math 190 & 191

Options: Molecular Cell Biology & Physiology: no additional courses

Marine Biology: add Biology 17 and 18

Biology Education- add Geology 1 & 3 or 6, Microbiology 33; Math 160 or 190; Biology 17 and 18

Organismal Biology- no additional requirements

CALIFORNIA STATE UNIVERSITY, LOS ANGELES (2014-2015)

University requirement: English 1C with minimum C grade; Biology 101-102-103; Chemistry 1A & 1B; Physics 2A-2B or 3A-3B; Math 160 and 161

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE (2014-2015)

BA Biological Sciences: Biology 101, 102; Chemistry 1A, 1B; Math 170 and 180 or Math 130 and 170; Physics 2A-2B or 3A-3B

BS Biological Sciences: Biology 101, 102; Chemistry 1A, 1B; Math 160 or 190; Physics 2A- 2B or 3A-3B

Options: Cell and Molecular Biology: Add Math 161 or 191

Ecology and Environmental Biology: Add Chemistry 7A-7B

Microbiology: Highly recommended Math 150; Math 161 or 191

Marine Biology: Add Chemistry 7A-7B

SAN DIEGO STATE UNIVERSITY (2014-2015)

Biology 101 & 102 must both be taken; Chemistry 1A, 1B, 7A; Math 160 & 161 or Math 190; Physics 2A- 2B or 3A-3B

CALIFORNIA STATE UNIVERSITY POMONA (2014-2015)

* The Golden Four courses shall all have been completed by the **end of the spring term** in which the student applies to the program.

Biology 101-102; Chemistry 1A-1B, Chemistry 21A-21B; Math 150 and 160-161; Physics 2A and 2B or 3A and 3B; English 1A; English 1C or Philosophy 5 or Philosophy 8; Psychology 5 or 7; Biology 8; Microbiology 33

Options: Biology; Botany; Zoology (zoology does not require Microbiology but requires Biology 11)

CALIFORNIA STATE UNIVERSITY, SAN LUIS OBISPO (2014-2015)

Biology 101-102; Chemistry 1A-1B; Chemistry 21A-21B; Math 150 or Psychology 9A or Sociology 109 **and** 190 or Math 160-161 ; Microbiology 33, Physics 2A-2B or 3A-3B

BS Biological Sciences: concentrations in Anatomy and Physiology; Biology (requires Microbiology 33); Ecology (Microbiology 33 and Geography 1), Field and Wildlife Biology, Marine and Cellular, Molecular and Cellular Biology

UNIVERSITY OF CALIFORNIA, BERKELEY (2014-2015)

BA Integrative Biology*: Biology 101-102-103; Chemistry 1A, 7A-7B; Math 190 -191; Physics 1A-1B-1C or 3A-3B

BA Molecular and Cell Biology*: Biology 101-102-103; Chemistry 1A-1B; 7A-7B; Math 190-191; Physics 1A-1B-1C or 3A-3B. Students are advised to complete the entire Physics sequence at ECC prior to transfer or to complete the Physics requirement at Berkeley.

BS Microbial Biology: under the College of Natural Resources at UCB; Biology 101-102-103; Chemistry 1A, 7A-7B; Math 160-161 or 190-191; Physics 3A or Physics 1A and 1B; Math 150; English 1A-1B; IGETC is not required, but if completed and certified would meet UCB's R1A, R1B, and all Humanities and Social Science requirements.

***Note:** Additional courses in math, statistics, biochemistry, history of biology and/or foreign language are highly recommended; IGETC or UCB's Requirements in Reading and Composition, Quantitative Reasoning, and Foreign Language **MUST** be completed by the spring semester prior to fall transfer.

UNIVERSITY OF CALIFORNIA DAVIS (2014-2015)

Biology 101-102; Chemistry 1A-1B and 7A-7B; Math 160 & 161 or Math 190 & 191 (preferred sequence); Physics 2A-2B or 3A-3B. *Students should complete Biology, Chemistry and one year of Calculus before transferring to Davis, It is highly recommended that Chemistry 7A-7B be completed prior to transfer. English and Math admission requirements must be done fall prior to fall transfer and a minimum GPA of 2.80*

BA Majors: Evolution, Ecology, and Biodiversity; Plant Biology (Botany) add Math 150 or Psych 9A; Microbiology

BS Majors: Biochemistry, Molecular Biology, Evolution, Ecology, and Biodiversity; Plant Biology (Botany); Genetics, Microbiology;

UNIVERSITY OF CALIFORNIA, IRVINE (UCI) (2014-2015)

Courses that to be completed prior to transfer: Biology 101-102-(recommended Biology 103 but not required for admission), Chemistry 1A-1B, Chemistry 7A-7B;

Additional major preparation: Math 190 and 191; or Math 190 and 150 or Psychology 9A or Sociology 109; Physics 3A and Physics 3B or Physics 1A-1C

BS in Biological Sciences with specializations in, Biochemistry and Molecular Biology, Developmental Biology and Cell Biology, Ecology and Evolutionary Biology, Genetics, Neurobiology.

*NOTE: Students should have a 3.0 GPA or higher for admission consideration.

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA) (2014-2015)

Biology 101-102; Biology 103(recommended); Chemistry 1A-1B, 7A-7B; Math 150; Math 190 and 191 and Math 220 or Math 32A at UCLA (Math 220 is not required for admissions); or 160 and 161 and Math 3C taken at UCLA (the Math 160-161 articulation will be affected beginning fall 2015, please consult with a counselor for limitations); Physics 3A-3B or 1A, 1C, 1D;

Note: Students **MUST** complete a minimum of one year of biology, one year of chemistry, one year of calculus, and at least one semester of organic chemistry by the end of the spring term prior to transfer to be competitive for admission to any of UCLA's 10 life science majors. It is strongly recommended to complete the second semester of organic chemistry and one year of calculus based physics for admission consideration.

*NOTE: Students will **not** be able to change from a non-life science major into a life science major after admission to UCLA. All options except Molecular, Cell , and Developmental Biology, Psychobiology, and Physiological Science require Math 150 ;

Options: General Biology; Molecular, Cell, and Developmental Biology; Ecology, Behavior and Evolution Biology; Marine Biology, Neuroscience, Physiological Science, Psychobiology,

UNIVERSITY OF CALIFORNIA, RIVERSIDE (2014-2015)

*IGETC is not accepted for majors in the College of Natural and Agricultural Sciences. Transfer students are encouraged to follow the College of Natural and Agricultural Sciences GE/Breadth pattern. (Please consult a counselor or www.assist.org)

BA and BS Biology & BS Biological Science:

Biology 101-102; Chemistry 1A-1B; Chemistry 7A-7B can only be used in lieu of UCR's upper division organic chemistry; Math 190-191; Physics 3A-3B or 1A-1B-1C

BA and BS Cell , Molecular, and Developmental Biology: same requirements as Biological Sciences above

UNIVERSITY OF CALIFORNIA, SAN DIEGO (2014-2015)

*The Division of Biological Sciences will require students in all biology majors, with the exception of bioinformatics, to take one biology lab before the end of sophomore year. Transfer students whose community college laboratory course is determined to be comparable in content to an existing biology lab will have completed the requirement upon transfer. Transfer students must petition to have community college course work cover this lab requirement. Transfer students who do not meet this requirement at the time of transfer may petition through the division for an extension.

Biology 101-102-103 (the entire sequence **must** be completed prior to transfer); Math 190-191, and 220 or 150; Chemistry 1A-1B, Chemistry 7A-7B (subject credit for upper division Chemistry course at UCSD); Physics 1A-1B-1C or 3A-3B

BS in Biology with specializations in: Bioinformatics (add Math 270 and Computer Science 2 and 3*, Physics 1A-1B-1C), Animal Physiology and Neuroscience, Biochemistry and Cell Biology, Ecology, Behavior and Evolution, General Biology, Human Biology, Microbiology, Molecular Biology (add Math 220); Please view the ASSIST website for transfer information at (www.assist.org).

UNIVERSITY OF CALIFORNIA, SANTA BARBARA (2013-2014)

BA and BS degrees: Chemistry 1A-1B, 7A-7B (no upper division credit will be given); Biology 101-102-103 (complete entire series prior to transfer); Math 190-191 or 160-161; Math 150 or 270; Physics 3A-3B or students may substitute Physics 2A-2B

Options: Biochemistry (Math 190-191-270), Biochemistry-Molecular Biology, Aquatic Biology, Ecology and Evolution, Microbiology, Pharmacology, Physiology, Zoology

Note: All biological science majors screen applicants on the basis of GPA of 2.70 or better in the science and math major preparatory courses. It is highly recommended that students complete as much major preparatory courses as possible with no grade less than a "C" prior to admission.

LOYOLA MARYMOUNT UNIVERSITY (2014-2015)

BA degree: Biology 101-102; Chemistry 1A, 1B, 7A; Math 190, plus one additional math course

BS degree: Biology 101-102; Chemistry 1A, 1B, 7A, 7B; Math 190, 191; Physics 3A-3B

UNIVERSITY OF SOUTHERN CALIFORNIA (2013-2014)

BA and BS in Biological Sciences: Biology 101-102; Chemistry 1A-1B, 7A-7B; Math 190; Physics 1A-1B-1C or 2A-2B or 3A-3B

*Note: it is recommended that students complete the entire sequence of a series