



# MICROBIOLOGY 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 an academic counselor, or review articulation agreements via the Internet at [WWW.ASSIST.ORG](http://WWW.ASSIST.ORG) You may also consult the Articulation Officer for specific articulation agreements.

Microbiologists investigate the growth and characteristics of microscopic organisms such as bacteria, yeasts, other fungi, algae, protozoa, viruses, and genetic engineering and research. Some are concerned with the identification and control of communicable diseases, environmental pollutants, and health hazards within the community. They analyze water supplies, food products, and clinical specimens. A bachelor's degree in microbiology is excellent preparation for a career in biotechnology, pharmacology, agriculture and the food industry. It also provides a strong background for students wishing to continue on to professional studies in medicine and other health sciences.

Some work in the veterinary field and others develop, test, and monitor products and processes used in agriculture, industry, sanitation, food, wine and other beverage processing, and drug manufacturing. Some specialize in specific kinds of microorganisms or areas of work.

**Specialties:** Bacteriologists (Bacteriology Research Scientists), Biochemists (Biological Research Scientists, Cell Biologists (Cell Biology Research Scientists), Genetic Engineers (Geneticists, Genetics Research Scientists), Immunologists (Immunology Research Scientists), Mycologists (Mycology Research Scientists), Parasitologists (Parasitology Research Scientists), virologists (Virology Research Scientists).

**UNIVERSITY OF CALIFORNIA, DAVIS** (2014-2015) <http://microbiology.ucdavis.edu/>

**\*Beginning Fall 2015, biological sciences majors will need to complete the biology sequence with a 2.5 GPA or higher**

**Bachelor of Arts Degree in Microbiology:** Transfer students must complete Biology 101 and 102; Chemistry 1A and 1B; Math 160 and 161 **or** Math 190 and 191 before enrolling at UC Davis; Physics 2A and 2B **or** 3A and 3B; It is highly recommended that transfer students complete Chemistry 7A and 7B before enrolling at UC Davis. To be a competitive applicant, the minimum overall GPA is 2.8

**Bachelor of Science Degree in Microbiology:** Transfer students must complete Biology 101 and 102; Chemistry 1A and 1B; Math 160 and 161 **or** Math 190 and 191 before enrolling at UC Davis; Physics 2A and 2B **or** 3A and 3B. It is highly recommended that transfer students complete Chemistry 7A and 7B before enrolling at UC Davis. To be a competitive applicant, the minimum overall GPA is 2.8

**UNIVERSITY OF CALIFORNIA, IRVINE** (2014-2015) <http://www.ucihs.uci.edu/microbio/>

Transfer students interested in this major should apply as biological science majors. To enter the Biological Science major, junior-level applicants with the highest grades overall and who satisfactorily complete course prerequisites will be given preference for admissions. All applicants must complete one year of general chemistry with laboratory, one year of organic chemistry with laboratory, biology sequence comparable to UCI's Biology 93, 94, and have a cumulative GPA of 3.0 or higher. Transfer students are advised to complete as many lower-division articulated biology and degree requirements as possible prior to transfer. For information contact the School of Biological Sciences at (949) 824-5318, [www.bio.uci.edu](http://www.bio.uci.edu).

**Bachelor of Science in Microbiology and Immunology:** Biology 101-102; Chemistry 1A-1B, 7A-7B; Math 190;191 or Math 150 or Psychology 9A or Sociology 109 (statistics recommended for students intending to apply to a health profession school; Physics 3A-3B or Physics 1A-1C; Recommended: Biology 103; those interested in a medical professional school should complete the year of calculus

**Bachelor of Science Degree in Biochemistry and Molecular Biology:** Biology 101-102; Chemistry 1A, 1B, 7A, 7B; Math 190; 191 or Math 150 or Psychology 9A or Sociology 109 (statistics recommended for students intending to apply to a health profession school); Physics 3A- 3B or Physics 1A-1C; Recommended: Biology 103; those interested in a medical professional school should complete the year of calculus

**UNIVERSITY OF CALIFORNIA, LOS ANGELES** (2013-2014) [www.mimg.ucla.edu](http://www.mimg.ucla.edu)

**Bachelor of Science Degree in Microbiology, Immunology, and Molecular Genetics:**

Biology 101,102, 103; Chemistry 1A, 1B, 7A, 7B; Math 190,191, 220 or Math 160 and 161 and Math 3C at UCLA; Physics 3A and 3B or Physics 1A-1C-1D

\*Note: This major is highly selective. Students should complete at a minimum: one year of biology with laboratory, one year of general chemistry with laboratory, one year of calculus and one semester of organic chemistry with laboratory. Completion of a second semester of organic chemistry or one year of calculus-based physics is strongly recommended.

**UNIVERSITY OF CALIFORNIA, SAN DIEGO** (2014-2015) <http://www.biology.ucsd.edu/>

**IMPACTED**

**Bachelor of Science Degree in Biology: Microbiology:** Biology 101, 102, 103; Chemistry 1A and 1B; Chemistry 7A and 7B will be accepted, but students must meet upper division graduation requirements for the college at UCSD. Math 190, 191, and 220 or 150; Physics 3A and 3B or Physics 1A, 1B, 1C, 1D

\*Note: The entire Biology sequence should be completed prior to transfer. Students who do not complete the sequence will have to complete the one year sequence at UCSD.

**CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS** (2012-2013) [www.nbs.csudh.edu/](http://www.nbs.csudh.edu/)

**Bachelor of Science in Biology, Microbiology Option:** Biology 101, 102; Chemistry 1A, 1B; CIS 13; Math 150 and Math 160 or 190; Physics 2A and 2B or Physics 3A and 3B or Physics 1A, 1B, 1C, 1D

**CALIFORNIA STATE UNIVERSITY, LONG BEACH** (2014-2015)

IMPACTED: students must complete the entire chemistry sequence, calculus, and the golden four prior to transfer; admission is based on a space available basis and GPA.

<http://www.csulb.edu/depts/biology/pages/bsmicr.shtml>

**Bachelor of Science in Microbiology:** Biology 101, 102; Chemistry 1A, 1B; Math 160 or Math 190; Microbiology 33; Physics 2A- 2B or 3A-3B or 1A-1B-1C

**CALIFORNIA STATE UNIVERSITY, LOS ANGELES** (2013-2014)

<http://www.calstatela.edu/academic/biol/>

**Bachelor of Science in Microbiology:** English 1C; Biology 101,102; Chemistry 1A, 1B; Physics 2A, 2B or 3A, 3B; Math 160

**CALIFORNIA STATE UNIVERSITY, NORTHRIDGE** (2014-2015) <http://www.csun.edu/~hfbio002/>

**Bachelor of Science in Biology, Microbiology Option**

Biology 101,102; Chemistry 1A, 1B; Math 150 and Math 160 and 161 or 190 and 191; Physics 2A, 2B or 3A, 3B

**CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA** (2014-2015)

**B.S. Biology: Microbiology:** Biology 101, 102; Chemistry 1A, 1B, 7A, 7B; Physics 2A , 2B or 3A, 3B; English 1A and 1C or PHIL 5 or PHIL 8; Math 160, 161; Psychology 5 or 7; Microbiology 33

**SAN DIEGO STATE UNIVERSITY** (2013-2014) <http://arweb.sdsu.edu/es/admissions/ab/biology.htm>

**Microbiology:** Biology 101, 102; Chemistry 1A, 1B, 7A; Math 160 and 161 or 190; Physics 2A-2B or 3A-3B.

**Microbiology Major with the B.A. Degree in Applied Arts and Sciences:**

The B.A. degree requires the same courses as above and a minimum of 26 upper division units in addition to a 3<sup>rd</sup> course in a Foreign Language. Recommended languages are French, German or Russian. This major is impacted, students should have a minimum GPA of 2.7 in the prerequisites with a "C" or higher and a cumulative GPA of 2.6 to be competitive for admission.

**Recommended Website:** [www.asm.org](http://www.asm.org) — American Society for Microbiology