

# Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Santa Barbara  
2022-2023 General Catalog, Quarter

From: De Anza College  
2022-2023 General Catalog, Quarter

## Pharmacology, B.S.

### GENERAL INFORMATION FOR ALL MAJORS

All transfer applicants must satisfy University of California admissions eligibility requirements as well as meeting campus admission selection criteria. Completing the UC transfer admission requirements in English and mathematics by the end of the fall term prior to the fall application quarter makes an applicant more competitive for admission to UCSB. All admission requirements must be completed by the end of spring prior to transfer. For more information on UC admissions eligibility requirements and admission to UCSB, please visit the Admissions website: [www.admissions.ucsb.edu](http://www.admissions.ucsb.edu)

This articulation agreement lists course-to-course or sequence-to-sequence substitutions for preparation in the major. **Transfer students are strongly encouraged to complete as many major preparatory courses as possible prior to enrolling at UCSB. Completion of all major preparatory courses is not an admissions requirement, but some majors require certain courses to be completed prior to transfer with a specified GPA, and completion or near completion of major preparatory courses will help students move more efficiently toward graduation after transfer.**

Please note that the course "equivalencies" do not necessarily apply to UCSB general education. For information concerning satisfaction of UCSB general education requirements, please refer to the General Education/Breadth articulation agreement.

**Advanced Placement (AP)** and **International Baccalaureate (IB)** exams may or may not be used to meet course requirements, depending on the exam. Please refer to the [AP Chart](#) and [IB Chart](#) in the [UCSB General Catalog](#) for information on how we use AP and IB exams.

### ALL MAJORS IN THE BIOLOGICAL SCIENCES

Department of Ecology, Evolution, and Marine Biology (**EEMB**) majors: [Aquatic Biology, B.S.](#); [Biological Sciences, B.A. & B.S.](#); [Ecology and Evolution, B.S.](#); [Physiology, B.S.](#); [Zoology, B.S.](#)

Department of Molecular, Cellular, and Developmental Biology (**MCDDB**) majors: [Biochemistry-Molecular Biology, B.S.](#); [Biological Sciences, B.A. & B.S.](#); [Cell and Developmental Biology, B.S.](#); [Microbiology, B.S.](#); [Pharmacology, B.S.](#)

**PRE-MAJOR INFORMATION** - Students are admitted initially to Pre-Biological Sciences, not directly to the major. Admission to the full major is contingent upon achievement of a grade point average of 2.0 or better in pertinent courses completed at the University of California. Because the criteria are subject to annual review and revision, interested students should consult the department directly to obtain current information regarding specific additional criteria for admission to the full major. **Admission to the pre-major does not guarantee admission to full major status.**

**ADMISSION SELECTION CRITERIA** - To be admitted to the Pre-Biological Sciences major, all transfer students must complete the following:

1. One-year sequence of **General Chemistry with laboratory**, with no individual grade lower than "C"
2. Complete sequence of major-applicable **General Biology with laboratory**, with no individual grade lower than "C"
3. A cumulative **GPA of 2.7 or better** in the required courses listed above

For students to graduate within two years of transferring, we strongly recommend the completion of one year of organic chemistry with laboratory, one year of general physics with laboratory, and one year of calculus (or one semester each of calculus and statistics). Any of these courses completed with a grade lower than "C" might not satisfy course prerequisites at UCSB.

**\*\* ADVISORY NOTE FOR FALL 2024 APPLICANTS \*\*** (November 2023 application filing period)

New Admission Selection Criteria for Fall 2024: In addition to the General Chemistry and General Biology requirements listed above, transfer applicants must complete the following by spring prior to transfer:

1. **Calculus** courses articulating with UCSB's MATH 3A-3B or MATH 34A-34B with no individual grade lower than "C" (first semester/quarter must be completed by fall prior to transfer; a single course articulating with both MATH 34A and 34B is acceptable and it may be in progress in winter or spring prior to transfer) \*
2. One-year sequence of **Organic Chemistry with laboratory** with no individual grade lower than "C" (first semester/quarter must be completed by fall prior to transfer)
3. A cumulative **GPA of 2.7 or better** in the required General Chemistry, General Biology, Calculus, and Organic Chemistry courses

\* [Applicants intending to major in Biochemistry-Molecular Biology, B.S. should take courses articulating with MATH 3A-3B rather than MATH 34A-34B if possible. MATH 34A-34B would be acceptable for admission, but MATH 3A-3B are required to complete the major]

### PHARMACOLOGY, B.S.

Please visit the department's website to learn more about this major: [www.lifesci.ucsb.edu](http://www.lifesci.ucsb.edu)

#### PREPARATION FOR THE MAJOR:

Chemistry 1A-1AL-1B-1BL-1C-1CL (*required prior to transfer, see Admission Selection Criteria above*)

MCDB 1A-1B-1LL and EEMB 2-2LL-3 (*required prior to transfer, see Admission Selection Criteria above*)

Chemistry 6AL and 109A-109B-109C

Mathematics 3A-3B or 34A-34B

One of the following: PSTAT 5LS or PSTAT 5A or Mathematics 4A

Physics 6A-6AL-6B-6BL-6C-6CL

## PREPARATION FOR THE MAJOR

**\*\*REFER TO TOP OF AGREEMENT\*\***

**Complete entire sequence prior to transfer**

**Required for admission**

**An AP exam cannot be used to satisfy this course requirement**

**An IB exam cannot be used to satisfy this course requirement**

**CHEM 1A** - General Chemistry (3.00)

--- And ---

**CHEM 1AL** - General Chemistry Laboratory (2.00)

--- And ---

**CHEM 1B** - General Chemistry (3.00)

--- And ---

**CHEM 1BL** - General Chemistry Laboratory (2.00)

--- And ---

**CHEM 1C** - General Chemistry (3.00)

--- And ---

**CHEM 1CL** - General Chemistry Laboratory (2.00)



**CHEM 1A** - General Chemistry (5.00)

--- And ---

**CHEM 1B** - General Chemistry (5.00)

--- And ---

**CHEM 1C** - General Chemistry and Qualitative Analysis (5.00)

--- Or ---

**CHEM 1AH** - General Chemistry - HONORS (5.00)

--- And ---

**CHEM 1BH** - General Chemistry - HONORS (5.00)

--- And ---

**CHEM 1CH** - General Chemistry and Qualitative Analysis - HONORS (5.00)

**\*\*REFER TO TOP OF AGREEMENT\*\***

**Complete entire sequence prior to transfer**

**Required for admission**

**An AP exam cannot be used to satisfy this course requirement**

**An IB exam cannot be used to satisfy this course requirement**

**MCDB 1A** - Introductory Biology I (4.00)

--- And ---

**MCDB 1B** - Introductory Biology II - Physiology (3.00)

--- And ---

**MCDB 1LL** - Introductory Biology Laboratory I (1.50)

--- And ---

**EEMB 2** - Introductory Biology II - Ecology and Evolution (3.00)

--- And ---

**EEMB 2LL** - Introductory Biology Laboratory II (1.50)

--- And ---

**EEMB 3** - Introductory Biology III (3.00)

- *Articulates as a sequence only*



**BIOL 6A** - Form and Function in the Biological World (6.00)

--- And ---

**BIOL 6B** - Cell and Molecular Biology (6.00)

--- And ---

**BIOL 6C** - Ecology and Evolution (6.00)

--- Or ---

**BIOL 6AH** - Form and Function in the Biological World - HONORS (6.00)

--- And ---

**BIOL 6B** - Cell and Molecular Biology (6.00)

--- And ---

**BIOL 6CH** - Ecology and Evolution - HONORS (6.00)

**CHEM 6AL** - Laboratory Methods of Organic Chemistry (3.00)



**CHEM 12A** - Organic Chemistry (5.00)

**CHEM 109A** - Organic Chemistry (4.00)

--- And ---

**CHEM 109B** - Organic Chemistry (4.00)

--- And ---

**CHEM 109C** - Organic Chemistry (4.00)



**CHEM 12A** - Organic Chemistry (5.00)

- Lower division credit only

--- And ---

**CHEM 12B** - Organic Chemistry (5.00)

- Lower division credit only

--- And ---

**CHEM 12C** - Organic Chemistry (5.00)

- Lower division credit only

**MATH 3A** - Calculus with Applications, First Course (4.00)



**MATH 1A** - Calculus (5.00)

--- Or ---

**MATH 1AH** - Calculus - HONORS (5.00)

--- And ---

**MATH 3B** - Calculus with Applications, Second Course (4.00)



**MATH 1B** - Calculus (5.00)

--- Or ---

**MATH 1BH** - Calculus - HONORS (5.00)

--- Or ---

**MATH 34A** - Calculus for Social and Life Sciences (4.00)



**MATH 12** - Introductory Calculus for Business and Social Science (5.00)

--- And ---

**MATH 34B** - Calculus for Social and Life Sciences (4.00)



**MATH 12** - Introductory Calculus for Business and Social Science (5.00)

**PSTAT 5LS** - Statistics for Life Sciences (5.00)



No Course Articulated

--- Or ---

**PSTAT 5A** - Understanding Data (5.00)



**MATH 10** - Introductory Statistics (5.00)

--- Or ---

**MATH 10H** - Introductory Statistics - HONORS (5.00)

--- Or ---

**MATH 17** - Integrated Statistics 2 (5.00)

--- Or ---

**MATH 23** - Engineering Statistics (5.00)

--- Or ---

**PSYC 15** - Statistics and Research Methods in Social Science (4.00)  
Same-As: SOC 15

--- Or ---

**SOC 15** - Statistics and Research Methods in Social Science (4.00)  
Same-As: PSYC 15

--- Or ---

**MATH 4A** - Linear Algebra with Applications (4.00)



**MATH 2B** - Linear Algebra (5.00)

--- Or ---

**MATH 2BH** - Linear Algebra - HONORS (5.00)

**PHYS 6A** - Introductory Physics (3.00)

--- And ---

**PHYS 6AL** - Introductory Experimental Physics (1.00)

--- And ---

**PHYS 6B** - Introductory Physics (3.00)

--- And ---

**PHYS 6BL** - Introductory Experimental Physics (1.00)

--- And ---

**PHYS 6C** - Introductory Physics (3.00)

--- And ---

**PHYS 6CL** - Introductory Experimental Physics (1.00)



**PHYS 2A** - General Introductory Physics (5.00)

--- And ---

**PHYS 2B** - General Introductory Physics (5.00)

--- And ---

**PHYS 2C** - General Introductory Physics (5.00)

**END OF AGREEMENT**