

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

Physics, B.A. & 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

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.

PHYSICS, B.A. & B.S.

Please visit the department's website to learn more about this major: www.physics.ucsb.edu

ADMISSION SELECTION CRITERIA: To be admitted to Physics, B.A. or Physics, B.S., transfer applicants must complete the following (in addition to general admission requirements):

1. Complete the [UC Transfer Pathway in Physics](#) *
2. Earn at least a 3.4 GPA in the **UC Transfer Pathway in Physics*** courses with no grade lower than C

*These are the **UC Transfer Pathway in Physics** courses:

- **Physics 21-22-23-24-25 and 20AL-BL-CL** (Calculus-based physics for scientists and engineers)
- **Mathematics 3A-3B** (Single variable calculus)
- **Mathematics 4A** (Linear algebra)
- **Mathematics 4B** (Differential equations)
- **Mathematics 6A** (Multivariable calculus)
- **Chemistry 1A-1AL-1B-1BL-1C-1CL** (General chemistry)

ADDITIONAL MAJOR PREPARATION COURSES (may be taken after transfer):

- Mathematics 6B (recommended to be completed prior to transfer)
- Physics 29

(At UCSB, two science electives are required for the major. Transfer students will fully satisfy this requirement with the general chemistry series. There is no need to take the other science elective options for admissions purposes. Other science elective options for UCSB students who started as freshmen are: Astronomy 1, 2; Earth 2, 9, 11, 20; EEMB 22 or W22 or MCDB 20; PSTAT 10.)

**** Students must earn a minimum grade of C in all major-applicable courses in order to satisfy UCSB major requirements ****

Advanced Placement (AP) exams and International Baccalaureate (IB) exams will not satisfy any part of the Physics or Chemistry course requirements.

MAJOR PREPARATION COURSES REQUIRED FOR TRANSFER

****REFER TO TOP OF AGREEMENT****
Required for admission

PHYS 21 - General Physics (4.00)

--- And ---

PHYS 22 - General Physics (4.00)

--- And ---

PHYS 23 - General Physics (4.00)

--- And ---

PHYS 24 - General Physics (4.00)

--- And ---

PHYS 25 - General Physics (4.00)

--- And ---

PHYS 20AL - Experimental Physics (2.00)

--- And ---

PHYS 20BL - Experimental Physics (2.00)

--- And ---

PHYS 20CL - Experimental Physics (2.00)

- Complete entire sequence prior to transfer
- Required for admission



PHYS 4A - Physics for Scientists and Engineers: Mechanics (6.00)

--- And ---

PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)

--- And ---

PHYS 4C - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)

--- And ---

PHYS 4D - Physics for Scientists and Engineers: Modern Physics (6.00)

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

- Required for admission



MATH 1A - Calculus (5.00)

--- Or ---

MATH 1AH - Calculus - HONORS (5.00)

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

- Required for admission



MATH 1B - Calculus (5.00)

--- Or ---

MATH 1BH - Calculus - HONORS (5.00)

MATH 4A - Linear Algebra with Applications (4.00)

- Required for admission



MATH 2B - Linear Algebra (5.00)

--- Or ---

MATH 2BH - Linear Algebra - HONORS (5.00)

MATH 4B - Differential Equations (4.00)

- Required for admission



MATH 2A - Differential Equations (5.00)

--- Or ---

MATH 2AH - Differential Equations - HONORS (5.00)

MATH 6A - Vector Calculus with Applications, First Course (4.00)

- Required for admission



MATH 1C - Calculus (5.00)

--- And ---

MATH 1D - Calculus (5.00)

--- Or ---

MATH 1CH - Calculus - HONORS (5.00)

--- And ---

MATH 1DH - Calculus - HONORS (5.00)

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)

- Complete entire sequence prior to transfer
- Required for admission



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)

MATH 6B - Vector Calculus with Applications, Second Course (4.00)



- *Recommended to be completed prior to transfer*

MATH 1C - Calculus (5.00)

--- And ---

MATH 1D - Calculus (5.00)

--- Or ---

MATH 1CH - Calculus - HONORS (5.00)

--- And ---

MATH 1DH - Calculus - HONORS (5.00)

PHYS 29 - Introduction to Computer Programming for the Physical Sciences (2.00)



No Course Articulated

END OF AGREEMENT