Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Santa Cruz 2022-2023 General Catalog, Quarter	From: De Anza College 2022-2023 General Catalog, Quarter

Earth Sciences, Geophysics Concentration B.S.

GENERAL INFORMATION FOR ALL MAJORS

All transfer applicants must satisfy University of California admissions eligibility requirements as well as meet campus selection criteria. 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 UC Santa Cruz, please visit the Admissions website: https://admissions.ucsc.edu/attend-ucsc/transfer-students.

This articulation agreement lists course-to-course, sequence-to-sequence or requirement substitutions for preparation in the major. **Transfer students are strongly encouraged to complete as many major preparatory courses as possible prior to enrolling at UCSC. 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.**

UC Santa Cruz Advanced Placement (AP) and International Baccalaureate (IB) credit policies are detailed in the link below:

UC Santa Cruz AP/IB Chart 2022-2023

EARTH SCIENCES, GEOPHYSICS CONCENTRATION B.S.

Please visit the department's website to learn more about this major: https://eps.ucsc.edu

The geophysics concentration provides quantitative, rigorous instruction in the geophysical sciences. Solid Earth geophysics is an internationally recognized field that includes seismology, geodesy, geodynamics and applied methods to image the Earth's interior. All of these subdisciplines have in common a strong mathematical, physical, and computational underpinning, and students wishing to pursue these subjects need training in mathematics, physics, and computer science as well as geosciences. This program will guide students through these fundamentals and then train them to apply the tools to problems in geophysics. Graduates will be prepared to pursue careers in natural hazard research and mitigation, the energy industry, or environmental consultancy.

PREPARATION FOR THE MAJOR

CHEM 1A: General Chemistry

CHEM 1B/1M: General Chemistry and General Chemistry Laboratory

CHEM 1C/1N: General Chemistry and General Chemistry Laboratory

PHYS 6A: Introductory Physics I **AND** PHYS 6L: Introductory Physics I Laboratory

PHYS 6B: Introductory Physics II **AND** PHYS 6M: Introductory Physics II Laboratory

Plus one of the following options:

MATH 11A: Calculus with Applications **AND** MATH 11B: Calculus with Applications

MATH 19A: Calculus for Science, Engineering, and Mathematics **AND** MATH 19B: Calculus for Science, Engineering, and Mathematics

Plus one of the following courses:

MATH 22: Introduction to Calculus of Several Variables

MATH 23A: Vector Calculus

EART 111: Mathematics in the Earth Sciences

Plus one of the following options:

EART 5: California Geology **AND** EART 5L: California Geology Laboratory

EART 10: Geologic Principles **AND** EART 10L: Geologic Principles Laboratory

EART 20: Environmental Geology **AND** EART 20L: Environmental Geology Laboratory

Plus one of the following courses:

MATH 21: Linear Algebra

AM 10: Mathematical Methods for Engineers I

THIS IS A NON-SCREENING MAJOR. While completion of specific major courses is not required prior to transfer, students are strongly encouraged to complete as much of the lower-division major preparation as possible as this may affect time to degree.

For more information on major requirements please visit the Admissions website: https://admissions.ucsc.edu/posts/non-screening-majors

PREPARATION FOR THE MAJOR

CHEM 1A - General Chemistry (5.00)	←	**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)
CHEM 1B - General Chemistry (5.00) **--- And ---** **CHEM 1M** - 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)
CHEM 1C - General Chemistry (5.00) **--- And ---** **CHEM 1N** - 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)
PHYS 6A - Introductory Physics I (5.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00) **--- Or ---** **PHYS 2A** - General Introductory Physics (5.00)
--- And ---		

PHYS 6L - Introductory Physics I Laboratory (1.00) ← **PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)

--- Or ---

PHYS 2A - General Introductory Physics (5.00)

PHYS 6B - Introductory Physics II (5.00) ← **PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)

--- Or ---

PHYS 2C - General Introductory Physics (5.00)

--- And ---

PHYS 6M - INTRODUCTORY PHYSICS II LABORATORY (1.00) ← **PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)

--- Or ---

PHYS 2C - General Introductory Physics (5.00)

Select 1 Series from the following

MATH 11A - Calculus with Applications (5.00) ← **MATH 1A** - Calculus (5.00)

--- Or ---

MATH 1AH - Calculus - HONORS (5.00)

--- And ---

MATH 11B - Calculus with Applications (5.00) ←

MATH 1B - Calculus (5.00)

--- And ---

MATH 1C - Calculus (5.00)

--- Or ---

MATH 1BH - Calculus - HONORS (5.00)

--- And ---

MATH 1CH - Calculus - HONORS (5.00)

--- Or ---

MATH 19A - Calculus for Science, Engineering, and Mathematics (5.00) ← **MATH 1A** - Calculus (5.00)

--- Or ---

MATH 1AH - Calculus - HONORS (5.00)

--- And ---

MATH 19B - Calculus for Science, Engineering, and Mathematics (5.00) ←

MATH 1B - Calculus (5.00)

--- And ---

MATH 1C - Calculus (5.00)

--- Or ---

MATH 1BH - Calculus - HONORS (5.00)

--- And ---

MATH 1CH - Calculus - HONORS (5.00)

Select 1 Course from the following

MATH 22 - Introduction to Calculus of Several Variables (5.00) ←

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)

--- Or ---		
MATH 23A - Vector Calculus (5.00)	←	**MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1DH** - Calculus - HONORS (5.00)
--- Or ---		
EART 111 - Mathematics in the Earth Sciences (5.00)	←	No Course Articulated

Select 1 Series from the following

EART 5 - California Geology (5.00)	←	No Course Articulated
--- And ---		
EART 5L - California Geology Laboratory (1.00)	←	No Course Articulated
--- Or ---		
EART 10 - Geologic Principles (5.00)	←	**GEOL 10** - Introductory Geology (5.00)
--- And ---		
EART 10L - Geologic Principles Laboratory (1.00)	←	**GEOL 10** - Introductory Geology (5.00)
--- Or ---		
EART 20 - Environmental Geology (5.00)	←	No Course Articulated
--- And ---		
EART 20L - Environmental Geology Laboratory (1.00)	←	No Course Articulated

Select 1 Course from the following

MATH 21 - Linear Algebra (5.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
--- Or ---		
AM 10 - Mathematical Methods for Engineers I (5.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)

END OF AGREEMENT