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

Applied Physics 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

APPLIED PHYSICS B.S.

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

ADMISSION SELECTION CRITERIA

To be considered for admission to the Applied Physics B.S. major, transfer students must pass **equivalents** of the following courses with a cumulative GPA of 2.7 or higher:

PHYS 5A: Introduction to Physics I

PHYS 5B: Introduction to Physics II

PHYS 5C: Introduction to Physics III

In addition, transfer students must achieve a minimum grade of C (2.0) in courses articulated to the following:

MATH 19A: Calculus for Science, Engineering, and Mathematics

MATH 19B: Calculus for Science, Engineering, and Mathematics

MATH 23A: Vector Calculus

All courses must be completed by the end of the spring term for students planning to enter in the fall.

Although not required for admission, transfer students are **strongly encouraged** to complete all general education requirements and the equivalent of PHYS 5D: Introduction to Physics IV before coming to UC Santa Cruz, without which they may not be able to graduate in two years.

This major also has a concentration in computational physics. Students interested in this concentration are encouraged to complete the equivalent of CSE 20: Beginning Programming in Python prior to transfer.

Winter Applicants

Students entering UCSC Santa Cruz in the winter quarter must complete, in addition to the requirements for students entering in the fall quarter, the equivalents of the following two courses:

PHYS 5D: Introduction to Physics IV

MATH 23B: Vector Calculus

Prospective students are also encourage to complete the Intersegmental General Education Transfer Curriculum (IGETC) or to complete all UC Santa Cruz general education requirements before matriculation.

THIS IS A SCREENING MAJOR. For more information on screening major requirements please visit the Admissions website: https://admissions.ucsc.edu/posts/screening-major-selection-criteria

MAJOR PREPARATION COURSES REQUIRED FOR TRANSFER

PHYS 5A - Introduction to Physics I (5.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 5B - Introduction to Physics II (5.00)	←	**PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
PHYS 5C - Introduction to Physics III (5.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
MATH 19A - Calculus for Science, Engineering, and Mathematics (5.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)
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)
MATH 23A - Vector Calculus (5.00)	←	**MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1DH** - Calculus - HONORS (5.00)

STRONGLY RECOMMENDED ADVANCED PREPARATION COURSES

PHYS 5D - Introduction to Physics IV (5.00)	←	**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)

ADDITIONAL MAJOR PREPARATION COURSES

MATH 23B - Vector Calculus (5.00)	←	**MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1DH** - Calculus - HONORS (5.00)
PHYS 5L - INTRODUCTION TO PHYSICS I LABORATORY (1.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 5M - INTRODUCTION TO PHYSICS II LABORATORY (1.00)	←	**PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
PHYS 5N - INTRODUCTION TO PHYSICS III LABORATORY (1.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
CHEM 1A - General Chemistry (5.00) **--- And ---** **CHEM 1B** - General Chemistry (5.00) **--- And ---** **CHEM 1C** - General Chemistry (5.00) **--- And ---** **CHEM 1M** - General Chemistry Laboratory (2.00) **--- 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)

CSE 20 - Beginning Programming in Python (5.00)	←	**CIS 40** - Introduction to Programming in Python (4.50) **--- Or ---** **CIS 41A** - Python Programming (4.50)

END OF AGREEMENT