

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

Electrical Engineering 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](#)

ELECTRICAL ENGINEERING B.S.

Please visit the department's website to learn more about this major: <https://undergrad.soe.ucsc.edu>

The Electrical Engineering B.S. program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

ADMISSION SELECTION CRITERIA

To be considered for admission to the Electrical Engineering B.S. major, transfer students must complete the following courses by the end of spring term for students planning to enter in the fall, or their equivalents, with an overall GPA of 2.80 in the courses prior to transfer:

Both of the following:

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

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

One of the following:

AM 10: Mathematical Methods for Engineers I **OR** MATH 21: Linear Algebra

One of the following:

AM 20: Mathematical Methods for Engineers II **OR** MATH 24: Ordinary Differential Equations

A year of calculus-based physics courses accepted as equivalent to:

PHYS 5A: Introduction to Physics I **AND** PHYS 5L: Introduction to Physics I Laboratory

PHYS 5B: Introduction to Physics II **AND** PHYS 5M: Introduction to Physics II Laboratory

PHYS 5C: Introduction to Physics III **AND** PHYS 5N: Introduction to Physics III Laboratory

In addition to the courses required for transfer, it is strongly recommended that students complete the following courses prior to transfer to ensure timely graduation:

CSE 12: Computer Systems and Assembly Language and Lab

MATH 23A: Vector Calculus

One of the following courses:

ECE 13: Computer Systems and C Programming

PHYS 5D: Introduction to Physics IV

MATH 23B: Vector Calculus

Prospective students are encouraged to prioritize required and recommended major preparation prior to transfer, and may additionally complete courses that articulate to UC Santa Cruz general education requirements as time allows.

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

MAJOR PREPARATION COURSES REQUIRED FOR TRANSFER

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)	←	<div> MATH 1B - Calculus (5.00) --- And --- MATH 1C - Calculus (5.00) </div> <div> --- Or --- <div> MATH 1BH - Calculus - HONORS (5.00) --- And --- MATH 1CH - Calculus - HONORS (5.00) </div> </div>

Select 1 Course from the following

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

Select 1 Course from the following

AM 20 - Mathematical Methods for Engineers II (5.00)	←	MATH 2A - Differential Equations (5.00) --- Or --- MATH 2AH - Differential Equations - HONORS (5.00)
	---	Or ---
MATH 24 - Ordinary Differential Equations (5.00)	←	MATH 2A - Differential Equations (5.00) --- Or --- MATH 2AH - Differential Equations - HONORS (5.00)

PHYS 5A - Introduction to Physics I (5.00)	←	PHYS 4A - Physics for Scientists and Engineers: Mechanics (6.00)
	---	And ---
PHYS 5L - INTRODUCTION TO PHYSICS I LABORATORY (1.00)	←	PHYS 4A - Physics for Scientists and Engineers: Mechanics (6.00)
	---	And ---
PHYS 5B - Introduction to Physics II (5.00)	←	PHYS 4C - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
	---	And ---
PHYS 5M - INTRODUCTION TO PHYSICS II LABORATORY (1.00)	←	PHYS 4C - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
	---	And ---
PHYS 5C - Introduction to Physics III (5.00)	←	PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
	---	And ---
PHYS 5N - INTRODUCTION TO PHYSICS III LABORATORY (1.00)	←	PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)

STRONGLY RECOMMENDED ADVANCED PREPARATION COURSES

CSE 12 - Computer Systems and Assembly Language and Lab (7.00)	←	CIS 21JA - Introduction to x86 Processor Assembly Language and Computer Architecture (4.50)
		--- Or ---
		CIS 21JB - Advanced x86 Processor Assembly Programming (4.50)
MATH 23A - Vector Calculus (5.00)	←	MATH 1D - Calculus (5.00)
		--- Or ---
		MATH 1DH - Calculus - HONORS (5.00)

Select 1 Course from the following

ECE 13 - Computer Systems and C Programming (7.00)	←	No Course Articulated
--- Or ---		
PHYS 5D - Introduction to Physics IV (5.00)	←	<div>PHYS 4C - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)</div> <div>--- And ---</div> <div>PHYS 4D - Physics for Scientists and Engineers: Modern Physics (6.00)</div>
--- Or ---		
MATH 23B - Vector Calculus (5.00)	←	<div>MATH 1D - Calculus (5.00)</div> <div>--- Or ---</div> <div>MATH 1DH - Calculus - HONORS (5.00)</div>

ADDITIONAL MAJOR PREPARATION COURSES

ECE 101 - Introduction to Electronic Circuits (5.00)	←	ENGR 37 - Introduction to Circuit Analysis (5.00)
		--- And ---
ECE 101L - Introduction to Electronic Circuits Laboratory (2.00)	←	No Course Articulated

END OF AGREEMENT