

Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, San Diego
2022-2023 General Catalog, Quarter

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

Structural Engineering B.S.

GENERAL INFORMATION

DATED MATERIAL, SUBJECT TO CHANGE. PLEASE CONSULT CURRENT UCSD GENERAL CATALOG FOR ANY ADDITIONAL INFORMATION.

Effective Fall 2017, major preparation will be required for this major. For details, visit: <http://admissions.ucsd.edu/MajorPrep>

Effective Fall 2015, admission to all of the engineering majors at UC San Diego will be limited, as the majors have been declared capped. Students must apply to be directly admitted to the Structural Engineering major.

Transfer students must have completed the following courses in order to be considered for admission to the Structural Engineering major.

- Calculus I-for Science and Engineering (Math. 20A)
- Calculus II-for Science and Engineering (Math. 20B)
- Calculus and Analytic Geometry (Math. 20C)
- Differential Equations (Math. 20D)
- Linear Algebra (Math. 18)
- Complete calculus-based physics series with lab experience (Physics 2A-B-C)
- Chemistry 6A (except computer science and computer engineering majors)

For the purpose of engineering major preparation, the computer programming requirement is dependent upon the department and selected major. Please refer to the UCSD General Catalog to select major prerequisite requirement for computer language courses.

Special Advising Note:

The following courses are recommended preparation for all transfer students considering admission to the Structural Engineering major. Preparing well for the major helps students move efficiently toward graduation.

- Matlab based algorithms and programming for structural engineering or equivalent
- Statics or equivalent

While structural engineering is often viewed as a sub-discipline of civil engineering, we take a cross-disciplinary approach to structural engineering at UCSD by developing an undergraduate curriculum, fully accredited by ABET (Accreditation Board for Engineering Technology), as well as a full graduate program, emphasizing structural design of not only civil engineering structures, (such as buildings, bridge, and earth dams) but also aerospace structures, mechanical structures, offshore, and marine structures. A cross-disciplinary education allows our graduates to find employment in any of the above mentioned engineering disciplines, which provides the student with great flexibility in employment after graduating with a B.S. in structural engineering. For more information please visit se.ucsd.edu.

UC San Diego Advanced Placement (AP) and International Baccalaureate (IB) credit policies are detailed in the links below:

Advanced Placement (AP) <https://www.ucsd.edu/catalog/pdf/APC-chart.pdf>

International Baccalaureate (IB) https://catalog.ucsd.edu/_files/international-baccalaureate-credits-chart.pdf

MATH 18 - Linear Algebra (4.00)



MATH 2B - Linear Algebra (5.00)

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MATH 2BH - Linear Algebra - HONORS (5.00)

MATH 20A - Calculus for Science and Engineering (4.00)	←	MATH 1A - Calculus (5.00) <div>--- Or ---</div> MATH 1AH - Calculus - HONORS (5.00)
MATH 20B - Calculus for Science and Engineering (4.00)	←	MATH 1B - Calculus (5.00) <div>--- Or ---</div> MATH 1BH - Calculus - HONORS (5.00)
MATH 20C - Calculus and Analytic Geometry for Science and Engineering (4.00)	←	<div> MATH 1C - Calculus (5.00) <div>--- And ---</div> MATH 1D - Calculus (5.00) </div> <div> <div>--- Or ---</div> <div> MATH 1CH - Calculus - HONORS (5.00) <div>--- And ---</div> MATH 1DH - Calculus - HONORS (5.00) </div> </div>
MATH 20D - Introduction to Differential Equations (4.00)	←	MATH 2A - Differential Equations (5.00) <div>--- Or ---</div> MATH 2AH - Differential Equations - HONORS (5.00)
MATH 20E - Vector Calculus (4.00) <ul style="list-style-type: none"> Articulation is subject to placement by proficiency exam Petition department after transfer 	←	No Course Articulated

PHYS 2A - Physics - Mechanics (4.00)	←	PHYS 4A - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 2B - Physics - Electricity and Magnetism (4.00)	←	PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
PHYS 2C - Physics - Fluids, Waves, Thermodynamics, and Optics (4.00)	←	PHYS 4C - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
PHYS 2BL - Physics Laboratory - Mechanics (2.00)	←	PHYS 4A - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 2CL - Physics Laboratory - Electricity and Magnetism (2.00)	←	PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)

SE 1 - Intro to Structures & Design (4.00)	←	This course must be taken at the university after transfer
SE 3 - Graphical Communication for Engineering Design (4.00)	←	This course must be taken at the university after transfer
SE 9 - Algorithms and Programming for Structural Engineering (4.00)	←	No Course Articulated

CHEM 6A - General Chemistry I (4.00)	←	CHEM 1A - General Chemistry (5.00) <div>--- Or ---</div> CHEM 1AH - General Chemistry - HONORS (5.00)
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END OF AGREEMENT