

# Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

From: American River College  
2022-2023 General Catalog, Semester

## CSE: Computer Science B.S.

### GENERAL INFORMATION

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

Effective Fall 2018, major preparation will be required for this major. For details, visit: <http://admissions.ucsd.edu/MajorPrep>

Effective Fall 2015, the B.S. and B.A. in Computer Science, the B.S. in Computer Engineering, and the B.S. in Computer Science with a specialization in Bioinformatics are impacted for transfer students. Visit [cse.ucsd.edu](http://cse.ucsd.edu) for full information.

**General advice:** Transfer students are advised to complete the following courses for their major before enrolling at UC San Diego. Preparing well for the major helps students move efficiently toward graduation.

- Calculus I-for Science and Engineering (Math. 20A)
- Calculus II-for Science and Engineering (Math. 20B)
- Calculus and Analytic Geometry (Math. 20C)
- Linear Algebra (Math. 18)
- Two courses chosen from: PHYS 2A or PHYS 4A, PHYS 2B or PHYS 4B, CHEM 6A or CHEM 6AH, CHEM 6B or CHEM 6BH, BILD 1, BILD 2, BILD 3
- Highest level of introductory computer programming language course offered at the community college. For example, CSE 3, CSE 6R, and 8A may be used to fulfill the lower-division elective requirement; CSE 8B or 11 fulfill other lower-division requirements.

**Course equivalency:** For course equivalencies not listed below, visit the CSE Student Affairs Office, CSE Building (EBU3B, Room 1200) first floor, or email [CSEStudent@eng.ucsd.edu](mailto:CSEStudent@eng.ucsd.edu).

For information not found here, please visit the CSE Undergraduate Program at: <https://cse.ucsd.edu/undergraduate>

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

### LOWER DIVISION MAJOR REQUIREMENTS

**CSE 8A** - Introduction to Programming and Computational Problem Solving I (4.00)

← No Course Articulated

--- And ---

**CSE 8B** - Introduction to Programming and Computational Problem Solving II (4.00)

← No Course Articulated

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**CSE 11** - Introduction to Programming and Computational Problem Solving - Accelerated Pace (4.00)

← **CISP 401** - Object Oriented Programming with Java (4.00)

**CSE 12** - Basic Data Structures and Object-Oriented Design (4.00)

← **CISP 430** - Data Structures (4.00)

**CSE 15L** - Software Tools and Techniques Laboratory (2.00)

← No Course Articulated

**CSE 20** - Discrete Mathematics (4.00)  
Same-As: MATH 15A

← **CISP 440** - Discrete Structures for Computer Science (3.00)

<b>CSE 21</b> - Mathematics for Algorithms and Systems (4.00)	←	No Course Articulated
<b>CSE 30</b> - Computer Organization and Systems Programming (4.00)	←	<b>CISP 310</b> - Assembly Language Programming for Microcomputers (4.00)

<b>MATH 18</b> - Linear Algebra (4.00)	←	<b>MATH 410</b> - Introduction to Linear Algebra (3.00)
<b>MATH 20A</b> - Calculus for Science and Engineering (4.00)	←	<b>MATH 400</b> - Calculus I (5.00)
<b>MATH 20B</b> - Calculus for Science and Engineering (4.00)	←	<b>MATH 401</b> - Calculus II (5.00)
<b>MATH 20C</b> - Calculus and Analytic Geometry for Science and Engineering (4.00)	←	<b>MATH 402</b> - Calculus III (5.00)

Select 2 Course(s) from the following		
<b>BILD 1</b> - The Cell (4.00)	←	<div> <b>BIOL 400</b> - Principles of Biology (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 410</b> - Principles of Botany (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 420</b> - Principles of Zoology (5.00)</div> <div>--- Or ---</div> <div> <b>BIOL 400</b> - Principles of Biology (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 415</b> - Introduction to Biology: Biodiversity, Evolution, and Ecology (5.00)</div>
<b>BILD 2</b> - Multicellular Life (4.00)	←	<div> <b>BIOL 400</b> - Principles of Biology (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 410</b> - Principles of Botany (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 420</b> - Principles of Zoology (5.00)</div> <div>--- Or ---</div> <div> <b>BIOL 400</b> - Principles of Biology (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 415</b> - Introduction to Biology: Biodiversity, Evolution, and Ecology (5.00)</div>
<b>BILD 3</b> - Organismic and Evolutionary Biology (4.00)	←	<div> <b>BIOL 400</b> - Principles of Biology (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 410</b> - Principles of Botany (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 420</b> - Principles of Zoology (5.00)</div> <div>--- Or ---</div> <div> <b>BIOL 400</b> - Principles of Biology (5.00)</div> <div>--- And ---</div> <div> <b>BIOL 415</b> - Introduction to Biology: Biodiversity, Evolution, and Ecology (5.00)</div>
<b>CHEM 6A</b> - General Chemistry I (4.00)	←	<b>CHEM 400</b> - General Chemistry I (5.00)
<b>CHEM 6B</b> - General Chemistry II (4.00)	←	<div> <b>CHEM 400</b> - General Chemistry I (5.00)</div> <div>--- And ---</div> <div> <b>CHEM 401</b> - General Chemistry II (5.00)</div>
<b>PHYS 2A</b> - Physics - Mechanics (4.00)	←	<b>PHYS 410</b> - Mechanics of Solids and Fluids (5.00)



**END OF AGREEMENT**