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

CSE: Computer Science with a Specialization in Bioinformatics 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 for full information.

Lower-Division Requirements:
Transfer students are advised to complete preparatory courses for their major before enrolling at UC San Diego. Preparing well for the major helps students move efficiently toward graduation. The following is a list of all required lower-division courses for the major:

Math 20A, 20B, 20C, and 18
Chemistry 6A, 6B, 40A
CHEM 40A or CHEM 41A
Physics 2A
BILD 1, 3, and 4
CSE 8A, and 8B or 11, 12, 15L, 21 and 30

Course equivalency: For course equivalencies not listed below, visit the CSE Student Affairs Office, CSE Building (EBU3) first floor, or email CSEPeerAdviser@eng.ucsd.edu.

For information not found here, please visit the CSE Undergraduate Program at: http://www.cse.ucsd.edu/ugrad

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

LOWER DIVISION MAJOR REQUIREMENTS

BILD 1 - The Cell (4.00) ←

BIOL 6A - Form and Function in the Biological World (6.00)
--- And ---
BIOL 6B - Cell and Molecular Biology (6.00)
--- And ---
BIOL 6C - Ecology and Evolution (6.00)

--- Or ---

BIOL 6AH - Form and Function in the Biological World - HONORS (6.00)
--- And ---
BIOL 6B - Cell and Molecular Biology (6.00)
--- And ---
BIOL 6CH - Ecology and Evolution - HONORS (6.00)

BILD 3 - Organismic and Evolutionary Biology (4.00)	←	**BIOL 6A** - Form and Function in the Biological World (6.00) **--- And ---** **BIOL 6B** - Cell and Molecular Biology (6.00) **--- And ---** **BIOL 6C** - Ecology and Evolution (6.00) **--- Or ---** **BIOL 6AH** - Form and Function in the Biological World - HONORS (6.00) **--- And ---** **BIOL 6B** - Cell and Molecular Biology (6.00) **--- And ---** **BIOL 6CH** - Ecology and Evolution - HONORS (6.00)
BILD 4 - Introductory Biology Lab (2.00)	←	**BIOL 6A** - Form and Function in the Biological World (6.00) **--- And ---** **BIOL 6B** - Cell and Molecular Biology (6.00) **--- And ---** **BIOL 6C** - Ecology and Evolution (6.00) **--- Or ---** **BIOL 6AH** - Form and Function in the Biological World - HONORS (6.00) **--- And ---** **BIOL 6B** - Cell and Molecular Biology (6.00) **--- And ---** **BIOL 6CH** - Ecology and Evolution - HONORS (6.00)

CHEM 6A - General Chemistry I (4.00)	←	**CHEM 1A** - General Chemistry (5.00) **--- Or ---** **CHEM 1AH** - General Chemistry - HONORS (5.00)
CHEM 6B - General Chemistry II (4.00)	←	**CHEM 1B** - General Chemistry (5.00) **--- Or ---** **CHEM 1BH** - General Chemistry - HONORS (5.00)

CHEM 41A - Organic Chemistry I: Structure and Reactivity (4.00)	←	**CHEM 12A** - Organic Chemistry (5.00)

CSE 8A - Introduction to Programming and Computational Problem Solving I (4.00)	←	**CIS 22A** - Beginning Programming Methodologies in C++ (4.50) **--- Or ---** **CIS 36A** - Introduction to Computer Programming Using Java (4.50) **--- Or ---** **CIS 40** - Introduction to Programming in Python (4.50)
--- And ---		
CSE 8B - Introduction to Programming and Computational Problem Solving II (4.00)	←	**CIS 36B** - Intermediate Problem Solving in Java (4.50)
--- Or ---		
CSE 11 - Introduction to Programming and Computational Problem Solving - Accelerated Pace (4.00)	←	**CIS 35A** - Java Programming (4.50) **--- Or ---** **CIS 36A** - Introduction to Computer Programming Using Java (4.50) **--- And ---** **CIS 36B** - Intermediate Problem Solving in Java (4.50)

CSE 12 - Basic Data Structures and Object-Oriented Design (4.00)	←	**CIS 22C** - Data Abstraction and Structures (4.50) **--- And ---** **CIS 28** - Object Oriented Analysis and Design (4.50) **--- Or ---** **CIS 22CH** - Data Abstraction and Structures - HONORS (4.50) **--- And ---** **CIS 28** - Object Oriented Analysis and Design (4.50)
CSE 15L - Software Tools and Techniques Laboratory (2.00)	←	No Course Articulated
CSE 21 - Mathematics for Algorithms and Systems (4.00)	←	No Course Articulated
CSE 30 - Computer Organization and Systems Programming (4.00)	←	**CIS 21JA** - Introduction to x86 Processor Assembly Language and Computer Architecture (4.50) **--- And ---** **CIS 21JB** - Advanced x86 Processor Assembly Programming (4.50) **--- And ---** **CIS 26B** - Advanced C Programming (4.50) **--- Or ---** **CIS 21JA** - Introduction to x86 Processor Assembly Language and Computer Architecture (4.50) **--- And ---** **CIS 21JB** - Advanced x86 Processor Assembly Programming (4.50) **--- And ---** **CIS 26BH** - Advanced C Programming - HONORS (4.50)
MATH 18 - Linear Algebra (4.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
MATH 20A - Calculus for Science and Engineering (4.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)
MATH 20B - Calculus for Science and Engineering (4.00)	←	**MATH 1B** - Calculus (5.00) **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00)
MATH 20C - Calculus and Analytic Geometry for Science and Engineering (4.00)	←	**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)
PHYS 2A - Physics - Mechanics (4.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)

END OF AGREEMENT