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

Mathematics/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

The program provides for a major in the mathematical theory that forms the foundation of modern computer science. As a major within the Department of Mathematics, it is strongly devoted to advanced mathematics (algorithm design, combinatorics, logic, probability, numerical analysis and computability). It is not equivalent to an engineering degree. It is appropriate both for those who want to enter directly into the work force and for those who want to pursue graduate study in Computer Science.

For more information please visit
https://math.ucsd.edu/students/undergraduate/ma30-math-computer-science-b-s/

NOTE: Students who have taken a vector calculus course at a non-UC college must successfully petition the course for 20E equivalency. Petitions must generally include course syllabus, textbook information and final exam. More information on the petition process for 20E can be found at the following site: https://www.math.ucsd.edu/students/undergraduate/math-20e-equivalency

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) **--- 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)
MATH 20D - Introduction to Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00)

MATH 20E - Vector Calculus (4.00) • *Petition department after transfer*	←	No Course Articulated

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)
--- Or ---		
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)

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 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)

END OF AGREEMENT