Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Irvine 2022-2023 General Catalog, Quarter	From: De Anza College 2022-2023 General Catalog, Quarter

Computer Science and Engineering, B.S.

GENERAL INFORMATION

The undergraduate program in Computer Science and Engineering is administered by faculty from two academic units: the Department of Computer Science (CS) in The Donald Bren School of Information and Computer Sciences, and the Department of Electrical Engineering and Computer Science (EECS) in The Henry Samueli School of Engineering. Successful completion of the program leads to a B.S. in Computer Science and Engineering. *This major does not participate in the TAG program.*

Required for admission:

Students must have a cumulative GPA of 3.0 and grade of B or higher in all required courses below:

- **One year of computer programming courses* in a single object-language. For example Python, Java, or C++. Object-oriented programming language courses that do not directly articulate to I&C SCI 31-33 can be used to satisfy the admissions requirements. Introduction to computer science courses do not meet this requirement**
- Two semesters/two quarters of approved first-year calculus
- One year of calculus-based physics with laboratories (mechanics, electricity, and magnetism)
- One additional approved transferable course for the major (an approved Math or CS course - see below)

Additional Approved Courses:

- One course in advanced data structures
- One course in software engineering
- One course in discrete mathematics
- One course in Boolean algebra
- One course in linear algebra
- One course in multivariable calculus

***NOTE**: Additional computer science courses beyond the two required are strongly recommended, particularly those that align with the major of interest. Our first year of object-oriented programming is taught in Python. C++ and Java are used extensively in the curriculum; therefore, transfer students should plan to learn it by studying on their own or by completing related programming courses prior to their first quarter at UCI.

Additional courses beyond those required for admission must be taken to fulfill the lower-division degree requirements, as many are prerequisites for upper-division courses. For some transfer students, this may mean that it will take longer than two years to complete their degree.

While articulated I&C SCI 31-33 credit is not required for transfer admission, students will need to have I&C SCI 31-33 credit first in order to fulfill degree requirements and move further into the program here at UCI.

Courses in Visual Basic, C, and C# are not approved preparation for this major.

For further information, contact The Donald Bren School of Information and Computer Sciences at (949) 824-5156 or The Henry Samueli School of Engineering at (949) 824-4334.

For information regarding the AP and IB examination credit policies refer to the UCI General Catalogue.

MAJOR PREPARATION COURSES REQUIRED FOR TRANSFER

I&C SCI 31 - Introduction to Programming (4.00) **--- And ---** **I&C SCI 32** - Programming with Software Libraries (4.00) **--- And ---** **I&C SCI 33** - Intermediate Programming (4.00) • *Please refer to additional important General Information section above*	←	**CIS 40** - Introduction to Programming in Python (4.50) **--- And ---** **CIS 41A** - Python Programming (4.50) **--- And ---** **CIS 41B** - Advanced Python Programming (4.50)
MATH 2A - Single-Variable Calculus (4.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)
MATH 2B - Single-Variable Calculus (4.00)	←	**MATH 1B** - Calculus (5.00) **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00)

PHYSICS 7C - Classical Physics (4.00) **--- And ---** **PHYSICS 7LC** - Classical Physics Laboratory (1.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
--- And ---		
PHYSICS 7D - Classical Physics (4.00) **--- And ---** **PHYSICS 7LD** - Classical Physics Laboratory (1.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
One additional approved transferable course for the major (an approved Math, Science, or CSE course): • *Please refer to additional important General Information section above*	←	No Course Articulated

ADDITIONAL APPROVED COURSES FOR THE MAJOR

MATHEMATICS AND BASIC SCIENCE COURSES

I&C SCI 6B - Boolean Logic and Discrete Structures (4.00)	←	No Course Articulated
I&C SCI 6D - Discrete Mathematics for Computer Science (4.00)	←	**MATH 22** - Discrete Mathematics (5.00)
MATH 2D - Multivariable Calculus (4.00)	←	**MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1DH** - Calculus - HONORS (5.00)
MATH 3A - Introduction to Linear Algebra (4.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
MATH 3D - Elementary Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00)
STATS 67 - Introduction to Probability and Statistics for Computer Science (4.00)	←	No Course Articulated

ENGINEERING AND COMPUTING TOPICS COURSES

CSE 90 - Systems Engineering and Technical Communications (2.00)	←	No Course Articulated
I&C SCI 46 - Data Structure Implementation and Analysis (4.00)	←	**CIS 22C** - Data Abstraction and Structures (4.50)
I&C SCI 45C - Programming in C/C++ as a Second Language (4.00)	←	**CIS 22A** - Beginning Programming Methodologies in C++ (4.50) **--- And ---** **CIS 22B** - Intermediate Programming Methodologies in C++ (4.50) **--- Or ---** **CIS 26A** - C as a Second Programming Language (4.50) **--- And ---** **CIS 29** - Advanced C++ Programming (4.50)
IN4MATX 43 - Introduction to Software Engineering (4.00)	←	No Course Articulated
EECS 31 - Introduction to Digital Systems (4.00)	←	No Course Articulated
EECS 31L - Introduction to Digital Logic Laboratory (3.00)	←	No Course Articulated
EECS 50 - Discrete-Time Signals and Systems (4.00)	←	No Course Articulated
EECS 70A - NETWORK ANALYSIS I (4.00)	←	**ENGR 37** - Introduction to Circuit Analysis (5.00)

END OF AGREEMENT