## **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 Engineering, B.S.

#### **GENERAL INFORMATION**

Admission to the Henry Samueli School of Engineering is highly competitive. The most important selection criteria is the completion of the required major preparation courses and academic performance.

#### Required for admission:

Students must have a cumulative UC transferable GPA of 3.0 (3.4 for TAG). Students must earn a grade of C or better in all listed major preparation courses while maintaining a cumulative GPA of 3.0 in the following required courses.

- Single Variable Calculus I (C-ID MATH 210 or MATH 211)
- Single Variable Calculus II (C-ID MATH 220 or MATH 221) or 2 semester/quarters of Single Variable Calculus Sequence (C-ID MATH 900S or 910S)
- Multivariable Calculus (C-ID MATH 230)
- Ordinary Differential Equations (C-ID MATH 240) or Differential Equations and Linear Algebra (C-ID MATH 910S)
- Introduction to Linear Algebra (C-ID MATH 250) or Differential Equations and Linear Algebra (C-ID MATH 910S)
- Calculus-Based Physics for Scientists and Engineers: A (C-ID PHYS 205)
- Calculus-Based Physics for Scientists and Engineers: B (C-ID PHYS 210)
- Calculus-Based Physics for Scientists and Engineers: C (C-ID PHYS 215)
   or Calculus-Based Physics for Scientists and Engineers: ABC (C-ID PHYS 200S)
- Programming Concepts and Methodology I (C-ID comp 122) or Introduction to Programming Concepts and Methodologies for Engineers (C-ID ENGR 120)
- Circuit Analysis (C-ID ENGR 260)

#### Recommended for admission/Time to degree:

PHYSICS 7LC - Classical Physics Laboratory (1.00)

The following courses are not required for admission, however the degree cannot be completed in two years without them:

- Programming Concepts and Methodology II (C-ID comp 132)
- Computer Architecture and Organization (C-ID COMP 142)
- Circuit Analysis Lab (C-ID ENGR 260L)

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

For information regarding the UC Irvine Transfer Admission Guarantee program please visit <u>TAG</u>

### MAJOR PREPARATION COURSES REQUIRED FOR TRANSFER

| MATH 2A - Single-Variable Calculus (4.00)          | <b>←</b>   | MATH 1A - Calculus (5.00) Or MATH 1AH - Calculus - HONORS (5.00)                               |
|--|------------|--|
| MATH 2B - Single-Variable Calculus (4.00)          | <b>←</b>   | MATH 1B - Calculus (5.00) Or MATH 1BH - Calculus - HONORS (5.00)                               |
| MATH 2D - Multivariable Calculus (4.00)            | <b>←</b>   | MATH 1D - Calculus (5.00) Or MATH 1DH - Calculus - HONORS (5.00)                               |
| MATH 3A - Introduction to Linear Algebra (4.00)    | <b>←</b>   | MATH 2B - Linear Algebra (5.00) Or MATH 2BH - Linear Algebra - HONORS (5.00)                   |
| MATH 3D - Elementary Differential Equations (4.00) | <b>←</b>   | MATH 2A - Differential Equations (5.00)  Or  MATH 2AH - Differential Equations - HONORS (5.00) |
| PHYSICS 7C - Classical Physics (4.00) And          | <b>1</b> ← | 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) | <b>←</b> | PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)   |
|---|----------|--|
|   | And      |  |
| PHYSICS 7E - Classical Physics (4.00)   | <b>←</b> | <b>PHYS 4C</b> - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)   |
| EECS 12 - Introduction to Programming (4.00)  | <b>←</b> | CIS 22A - Beginning Programming Methodologies in C++ (4.50)  Or  CIS 26A - C as a Second Programming Language (4.50)  Or  CIS 35A - Java Programming (4.50)  Or  CIS 36A - Introduction to Computer Programming Using Java (4.50)  Or  CIS 36B - Intermediate Problem Solving in Java (4.50) |
| EECS 70A - NETWORK ANALYSIS I (4.00)  | <b>←</b> | ENGR 37 - Introduction to Circuit Analysis (5.00)  |

| MAJOR PREPARATION COURS                                    | ES NECESS    | ARY TO GRADUATE IN TWO YEARS  |
|--|--------------|---|
| <b>EECS 20</b> - Computer Systems and C Programming (4.00) | <b>←</b>     | CIS 21JA - Introduction to x86 Processor Assembly Language and Computer Architecture (4.50) |
|  |              | Or  |
|  |              | CIS 26B - Advanced C Programming (4.50)   |
|  |              | Or  |
|  |              | CIS 26BH - Advanced C Programming - HONORS (4.50)   |
| EECS 22 - Advanced C Programming (3.00)                    | $\leftarrow$ | CIS 22B - Intermediate Programming Methodologies in C++ (4.50)                              |
|  |              | Or  |
|  |              | CIS 22BH - Intermediate Programming Methodologies in C++ - HONORS (4.50)                    |
|  |              | And   |
|  |              | CIS 22C - Data Abstraction and Structures (4.50)  |
|  |              | Or  |
|  |              | CIS 22CH - Data Abstraction and Structures - HONORS (4.50)                                  |
| EECS 70LA - Network Analysis I Laboratory (1.00)           | ←            | No Course Articulated   |

# ADDITIONAL MAJOR REQUIREMENTS

| <b>I&amp;C SCI 6D</b> - Discrete Mathematics for Computer Science (4.00) | <b>←</b>     | MATH 22 - Discrete Mathematics (5.00)                 |
|--|--------------|---|
| EECS 22L - Software Engineering Project in C Language (3.00)             | $\leftarrow$ | No Course Articulated                                 |
| EECS 31 - Introduction to Digital Systems (4.00)                         | $\leftarrow$ | No Course Articulated                                 |
| EECS 31L - Introduction to Digital Logic Laboratory (3.00)               | $\leftarrow$ | No Course Articulated                                 |
| <b>EECS 40</b> - Object-Oriented Systems and Programming (4.00)          | $\leftarrow$ | CIS 35A - Java Programming (4.50)                     |
|  |              | And CIS 35B - Advanced Java Programming (4.50)        |
|  |              | Or  |
|  |              | CIS 36B - Intermediate Problem Solving in Java (4.50) |
|  |              | And   |
|  |              | CIS 35B - Advanced Java Programming (4.50)            |
| <b>EECS 50</b> - Discrete-Time Signals and Systems (4.00)                | ←            | No Course Articulated                                 |
| <b>EECS 55</b> - Engineering Probability (4.00)                          | $\leftarrow$ | No Course Articulated                                 |



| ADDITIONAL MAJOR ELECTIVES   |   |  |  |
|--|---|--|--|
| <b>I&amp;C SCI 6B</b> - Boolean Logic and Discrete Structures (4.00) | ← No Course Articulated   |  |  |
| MATH 2E - Multivariable Calculus (4.00)                              | ← MATH 1D - Calculus (5.00)   |  |  |
| PHYSICS 51A - Modern Physics (4.00)                                  | PHYS 4D - Physics for Scientists and Engineers: Modern Physics<br>(6.00)                        |  |  |
| PHYSICS 52A - Fundamentals of Experimental Physics (2.00)            | PHYS 4C - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00) |  |  |
| ENGR 7A - Introduction to Engineering I (2.00)                       | ← No Course Articulated   |  |  |
| And  |   |  |  |
| ENGR 7B - Introduction to Engineering II (2.00)                      | ← No Course Articulated   |  |  |

## **END OF AGREEMENT**