

# Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Los Angeles  
2022-2023 General Catalog, Quarter

From: El Camino College  
2022-2023 General Catalog, Semester

## Computer Science/B.S.

### IMPORTANT MAJOR DETAILS

Admission to the Henry Samueli School of Engineering and Applied Sciences at UCLA is highly competitive. **The most important selection criteria are completion of the required preparatory courses and academic performance.** Listed below are the lower division preparation courses for the major. All applicants must have a minimum transferable cumulative GPA of 3.4. Preparatory courses must be completed by the end of spring prior to fall enrollment. All major courses must be taken for a letter grade. HSSEAS admits students by major and does NOT consider applicants for alternate majors.

Applicants are not required to complete the HSSEAS General Education Requirements in order to be admitted, although it is beneficial for students to complete 1 course from each of the following areas: arts, humanities, social sciences, and life sciences. Applicants can fulfill the lower division General Education requirement by completion of the Intersegmental General Education Transfer Curriculum (IGETC). **Partial IGETC is NOT accepted.** For more information regarding this major and UCLA's transfer selection process, visit [www.admission.ucla.edu](http://www.admission.ucla.edu). If you still have specific questions, you may email the HSSEAS admissions office at [erkki@seas.ucla.edu](mailto:erkki@seas.ucla.edu).

**PLEASE NOTE:** The community college courses listed on this major agreement have been approved as substitutes to satisfy the admission preparation requirements for this major, but they may not be exact equivalents of the UCLA courses listed. In addition, upper division requirements for the major may be satisfied by lower division community college course(s) listed below, however, credit will be determined by the department after transfer.

### PROGRAMMING REQUIREMENT

C++ is the Preferred language for this major, however (Java, & C) are also acceptable programming courses.

**NOTE:** A course equivalent to UCLA's CS 31 is acceptable to meet the programming requirement for this major.

### LOWER DIVISION MAJOR REQUIREMENTS

**MATH 31A** - Differential and Integral Calculus (4.00)



**MATH 190** - Single Variable Calculus and Analytic Geometry I (5.00)

**MATH 31B** - Integration and Infinite Series (4.00)



**MATH 191** - Single Variable Calculus and Analytic Geometry II (5.00)

**MATH 32A** - Calculus of Several Variables (4.00)



**MATH 220** - Multi-Variable Calculus (5.00)

**MATH 32B** - Calculus of Several Variables (4.00)



**MATH 220** - Multi-Variable Calculus (5.00)

**MATH 33A** - Linear Algebra and Applications (4.00)



**MATH 270** - Differential Equations with Linear Algebra (5.00)

**MATH 33B** - Differential Equations (4.00)



**MATH 270** - Differential Equations with Linear Algebra (5.00)

PHYSICS 1A+ 1B+1C+ 4AL or 4BL



**PHYS 1A** - Mechanics of Solids (4.00)

--- And ---

**PHYS 1C** - Electricity and Magnetism (4.00)

--- And ---

**PHYS 1D** - Optics and Modern Physics (4.00)

**ENGCOMP 3** - English Composition, Rhetoric, and Language (5.00)



**ENGL 1A** - Reading and Composition (4.00)

--- And ---

Select 1 Course(s) from the following

One additional course in English composition



**ENGL 1B** - Literature and Composition (3.00)

--- Or ---

**ENGL 1BH** - Honors Literature and Composition (3.00)

--- Or ---

**ENGL 1C** - Critical Thinking and Composition (4.00)

--- Or ---

**ENGL 1CH** - Honors Critical Thinking and Composition (4.00)

--- Or ---

**PHIL 105** - Critical Thinking and Discourse (3.00)

--- Or ---

**PSYCH 103** - Critical Thinking and Psychology (3.00)

--- And ---

Select 1 Course(s) from the following

One course in computer programming: C++ preferred



**COMP SCI 1** - Problem Solving and Program Design Using C++ (4.00)

--- Or ---

**COMP SCI 30** - Advanced Programming in C++ (4.00)

--- Or ---

**COMP SCI 2** - Introduction to Data Structures (5.00)

--- And ---

**COMP SCI 3** - Object-Oriented Programming in Java (4.00)

## STRONGLY RECOMMENDED COURSES

**COM SCI 31** - Introduction to Computer Science I (4.00)



**COMP SCI 1** - Problem Solving and Program Design Using C++ (4.00)

--- And ---

**COMP SCI 2** - Introduction to Data Structures (5.00)

**COM SCI 32** - Introduction to Computer Science II (4.00)



**COMP SCI 2** - Introduction to Data Structures (5.00)

**COM SCI 33** - Introduction to Computer Organization (5.00)



No Course Articulated

**COM SCI M51A** - Logic Design of Digital Systems (4.00)



No Course Articulated

**MATH 61** - Introduction to Discrete Structures (4.00)



**MATH 210** - Introduction to Discrete Structures (5.00)

END OF AGREEMENT