

# Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

From: De Anza College  
2022-2023 General Catalog, Quarter

## Computer Science & Engineering B.S.

### INFORMATION AND ADVISORIES

#### INFORMATION AND ADVISORIES FOR ALL MAJORS

UC Davis transfer students must meet the minimum UC transfer admission requirements by the end of Spring term prior to Fall enrollment. This page lists UC Davis courses with the equivalent substitutes from other colleges for preparation of the specified major. Although not required, transfer students are strongly advised to complete as many major preparatory courses as possible for their major before enrolling at UC Davis. See [UC Davis Transfer Admissions](#) for more information covering course and GPA requirements before transferring to a particular major. Some required major courses do not apply to GE criteria- refer to the General Education agreement below for more information. Advanced Placement (AP) and International Baccalaureate (IB) exams are case specific as course requirements are fulfilled depending on the exam. Completing the IGETC will completely satisfy the GE requirements that may be met with lower-division courses at UC Davis. For more information concerning satisfaction of UC Davis GE requirements in regards to IGETC, IB, AP scores, refer to the General Education/Breadth section of ASSIST or view the "General Education" section of the [UC Davis General Catalog](#). Quick reference charts for AP and IB credit are also available [here](#).

#### ADMISSION IN COMPUTER SCIENCE & ENGINEERING:

Applicants to the Engineering major who complete the equivalent of all the REQUIRED UC Davis major preparation courses and as many of the STRONGLY RECOMMENDED courses as possible with a major prep GPA of 3.20 or higher are the most competitive for admission. Applicants without all of the REQUIRED courses will be reviewed for admission, but will have less competitive applications. Courses for the major taken prior to admission must be completed with no grades lower than "C". AP or IB examinations may satisfy UC Davis course equivalents. If you have any additional questions please contact your [UC Davis Counselor](#).

#### Transfer Admission Guarantee (TAG) Note:

GPA and other requirements to obtain a [UC Davis TAG](#) may differ from those stated here for general transfer admission to the major.

REQUIRED preparation courses:

- Chemistry 002A
- Communication 001
- Engineering 017
- Computer Science Engineering 020, 036A/B/C, 050
- Mathematics 021A/B/C/D
- Mathematics 022A/B
- Physics 009A/B/C/D
- English 003 or University Writing Program 001

Additional Recommendations:

- Familiarity with UNIX

### MAJOR PREPARATION

- Please carefully review Information and Advisories and Course Articulation Details.

### COURSE ARTICULATION DETAILS

- **Important note:** Due to the limitations and bugs on the ASSIST platform at this time, it is important to view both the department and major agreements for a complete picture of the articulation arrangements. [Please always refer to the appropriate department agreements in conjunction with the major agreement below.](#)
- Please check the UC Transferability Lists on ASSIST for information on any credit limitations.
- **Attention:** Articulation agreements are California Community College *specific*. Lower division courses that are taken at multiple California Community Colleges, including those within a shared district, may articulate differently from what is indicated in the department or major agreements. It is recommended that series courses be completed at the same California Community College. Please contact your California Community College counselor for more information.

## REQUIRED COURSES FOR ADMISSION

**CHE 002A** - General Chemistry (5.00)

← **CHEM 1A** - General Chemistry (5.00)

- *Effective next fall, this articulation will be revised*

--- Or ---

**CHEM 1AH** - General Chemistry - HONORS (5.00)

- *Course is articulated in more than one agreement but credit can only apply to one*
- *Effective next fall, this articulation will be revised*

**CMN 001** - Introduction to Public Speaking (4.00)

- **\*\*REFER TO TOP OF AGREEMENT\*\***

← **COMM 1** - Public Speaking (5.00)

--- Or ---

**COMM 1H** - Public Speaking - HONORS (5.00)

**ECS 020** - Discrete Mathematics For Computer Science (4.00)

← **MATH 22** - Discrete Mathematics (5.00)

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**MATH 22H** - Discrete Mathematics - HONORS (5.00)

**ECS 050** - Computer Organization & Machine-Dependent Programming (4.00)

← **CIS 21JA** - Introduction to x86 Processor Assembly Language and Computer Architecture (4.50)

### Select 1 Series from the following

Highly recommended to complete the entire series

If the entire sequence is not completed prior to transfer, students must consult the department advisor prior to enrollment

Complete entire sequence at same institution prior to transfer

**ECS 032A** - Introduction to Programming (4.00)

← No Course Articulated

--- Or ---

**ECS 036A** - Programming & Problem Solving (4.00)

← **CIS 22A** - Beginning Programming Methodologies in C++ (4.50)

--- Or ---

**CIS 22B** - Intermediate Programming Methodologies in C++ (4.50)

- *Course is articulated in more than one agreement but credit can only apply to one*

--- Or ---

**CIS 22BH** - Intermediate Programming Methodologies in C++ - HONORS (4.50)

- *Course is articulated in more than one agreement but credit can only apply to one*

--- Or ---

**CIS 26A** - C as a Second Programming Language (4.50)

--- Or ---

**CIS 26B** - Advanced C Programming (4.50)

--- Or ---

**CIS 27** - Programming in C++ for C/Java Programmers (4.50)

- *Course is articulated in more than one agreement but credit can only apply to one*

--- Or ---

**CIS 35A** - Java Programming (4.50)

- *Course is articulated in more than one agreement but credit can only apply to one*

--- Or ---

**CIS 36A** - Introduction to Computer Programming Using Java (4.50)

**ECS 032B** - Introduction to Data Structures (4.00)

← **CIS 22C** - Data Abstraction and Structures (4.50)

- *Course is articulated in more than one agreement but credit can only apply to one*

--- Or ---

**CIS 22CH** - Data Abstraction and Structures - HONORS (4.50)

- *Course is articulated in more than one agreement but credit can only apply to one*

<b>ECS 032C</b> - Implementation of Data Structures in C (4.00)	← No Course Articulated
<b>ECS 034</b> - Software Development in UNIX & C++ (4.00)	← This Course is Never Articulated
--- Or ---	
<b>ECS 036A</b> - Programming & Problem Solving (4.00)	← <b>CIS 22A</b> - Beginning Programming Methodologies in C++ (4.50) --- Or --- <b>CIS 22B</b> - Intermediate Programming Methodologies in C++ (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 22BH</b> - Intermediate Programming Methodologies in C++ - HONORS (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 26A</b> - C as a Second Programming Language (4.50) --- Or --- <b>CIS 26B</b> - Advanced C Programming (4.50) --- Or --- <b>CIS 27</b> - Programming in C++ for C/Java Programmers (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 35A</b> - Java Programming (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 36A</b> - Introduction to Computer Programming Using Java (4.50)
<b>ECS 036B</b> - Software Development & Object-Oriented Programming in C++ (4.00)	← <b>CIS 22B</b> - Intermediate Programming Methodologies in C++ (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 22BH</b> - Intermediate Programming Methodologies in C++ - HONORS (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 29</b> - Advanced C++ Programming (4.50) --- Or --- <b>CIS 35A</b> - Java Programming (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 36B</b> - Intermediate Problem Solving in Java (4.50)
<b>ECS 036C</b> - Data Structures, Algorithms, & Programming (4.00)	← <b>CIS 22C</b> - Data Abstraction and Structures (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>CIS 22CH</b> - Data Abstraction and Structures - HONORS (4.50) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul>

<b>ENG 017</b> - Circuits I (4.00)	← <b>ENGR 37</b> - Introduction to Circuit Analysis (5.00)
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Select 1 Course from the following	
<b>**REFER TO TOP OF AGREEMENT**</b>	
<b>Minimum grade required: C- or better</b>	
<b>COM 001</b> - Major Works of the Ancient World (4.00)	← No Course Articulated
<b>COM 002</b> - Major Works of the Medieval & Early Modern World (4.00)	← No Course Articulated
<b>COM 003</b> - Major Works of the Modern World (4.00)	← No Course Articulated

<b>COM 004</b> - Major Works of the Contemporary World (4.00)	← <b>ELIT 39</b> - Contemporary Literature (4.00)
<b>ENL 003</b> - Introduction to Literature (4.00)	← <b>EWRT 1B</b> - Reading, Writing and Research (5.00) --- Or --- <b>EWRT 1BH</b> - Reading, Writing and Research - HONORS (5.00) --- Or --- <b>EWRT 1C</b> - Literature and Composition (5.00)
<b>NAS 005</b> - Introduction to Native American Literature (4.00)	← <b>NAIS 15</b> - Native American Literature (4.00)
<b>UWP 001</b> - Introduction to Academic Literacies (4.00)	← <b>COMM 9</b> - Argumentation: Analysis of Oral and Written Communication (5.00) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>COMM 9H</b> - Argumentation: Analysis of Oral and Written Communication - HONORS (5.00) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>ESL 5</b> - Advanced Composition and Reading (5.00) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>EWRT 1A</b> - Composition and Reading (5.00) --- Or --- <b>EWRT 1AH</b> - Composition and Reading - HONORS (5.00) --- Or --- <b>EWRT 1B</b> - Reading, Writing and Research (5.00) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>EWRT 1BH</b> - Reading, Writing and Research - HONORS (5.00) --- Or --- <div> <b>EWRT 1AS</b> - Intensive Composition and Reading Stretch: First Quarter (5.00)            --- And ---  <b>EWRT 1AT</b> - Intensive Composition and Reading Stretch: Second Quarter (5.00)           <ul style="list-style-type: none"> <li>Complete entire sequence at same institution prior to transfer</li> </ul> </div> --- Or --- <b>EWRT 2</b> - Critical Reading, Writing and Thinking (5.00) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul> --- Or --- <b>EWRT 2H</b> - Critical Reading, Writing and Thinking - HONORS (5.00) <ul style="list-style-type: none"> <li>Course is articulated in more than one agreement but credit can only apply to one</li> </ul>
<b>UWP 001V</b> - Introduction to Academic Literacies: Online (4.00)	← No Course Articulated
<b>UWP 001Y</b> - Introduction to Academic Literacies (4.00)	← No Course Articulated

#### Highly recommended to complete the entire series

If the entire sequence is not completed prior to transfer, students must consult an advisor prior to enrollment

<b>MAT 021A</b> - Calculus (4.00)	← <b>MATH 1A</b> - Calculus (5.00) <ul style="list-style-type: none"> <li>Credit for articulated courses in one series only</li> </ul> --- Or --- <b>MATH 1AH</b> - Calculus - HONORS (5.00) <ul style="list-style-type: none"> <li>Credit for articulated courses in one series only</li> </ul>
<b>MAT 021B</b> - Calculus (4.00)	← <b>MATH 1B</b> - Calculus (5.00) <ul style="list-style-type: none"> <li>Credit for articulated courses in one series only</li> </ul> --- Or --- <b>MATH 1BH</b> - Calculus - HONORS (5.00) <ul style="list-style-type: none"> <li>Credit for articulated courses in one series only</li> </ul>

<b>MAT 021C</b> - Calculus (4.00)	←	<b>MATH 1C</b> - Calculus (5.00) <ul style="list-style-type: none"> <li><i>Credit for articulated courses in one series only</i></li> </ul> <div>--- Or ---</div> <b>MATH 1CH</b> - Calculus - HONORS (5.00) <ul style="list-style-type: none"> <li><i>Credit for articulated courses in one series only</i></li> </ul>
<b>MAT 021D</b> - Vector Analysis (4.00)	←	<b>MATH 1D</b> - Calculus (5.00) <div>--- Or ---</div> <b>MATH 1DH</b> - Calculus - HONORS (5.00)

Select 1 Course from the following		
<b>MAT 022A</b> - Linear Algebra (3.00)	←	<b>MATH 2B</b> - Linear Algebra (5.00) <div>--- Or ---</div> <b>MATH 2BH</b> - Linear Algebra - HONORS (5.00)
<b>MAT 027A</b> - Linear Algebra with Applications to Biology (4.00) Same-As: BIS 027A	←	No Course Articulated
<b>MAT 067</b> - Modern Linear Algebra (4.00)	←	No Course Articulated

<b>MAT 022B</b> - Differential Equations (3.00)	←	<b>MATH 2A</b> - Differential Equations (5.00) <div>--- Or ---</div> <b>MATH 2AH</b> - Differential Equations - HONORS (5.00)
<b>MAT 027B</b> - Differential Equations with Applications to Biology (4.00) Same-As: BIS 027B	←	No Course Articulated

Highly recommended to complete the entire series If the entire sequence is not completed prior to transfer, students must consult an advisor prior to enrollment		
<b>PHY 009A</b> - Classical Physics (5.00)	←	<b>PHYS 4A</b> - Physics for Scientists and Engineers: Mechanics (6.00)
<b>PHY 009B</b> - Classical Physics (5.00)	←	<b>PHYS 4C</b> - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
<b>PHY 009C</b> - Classical Physics (5.00)	←	<b>PHYS 4B</b> - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
<b>PHY 009D</b> - Modern Physics (4.00)	←	<b>PHYS 4D</b> - Physics for Scientists and Engineers: Modern Physics (6.00)

**END OF AGREEMENT**