

# 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

## Biotechnology B.S.

### INFORMATION AND ADVISORIES

#### Special Advising Note:

Transfer students are strongly advised to complete as many preparatory courses as possible for their major before enrolling at UC Davis. Preparing well for the major helps students move efficiently toward graduation and significantly reduces time to degree.

Transfer students must also meet UC transfer admission requirements. For details see the [UC Davis Transfer Admission website](#). UC Davis requires that students complete UC transfer admission requirements by the end of Spring term prior to Fall enrollment. In order to receive priority consideration it is strongly recommended that transfer students complete UC transfer admission requirements in English and Mathematics by the end of Fall term prior to enrollment.

#### REQUIREMENTS FOR ADMISSION:

The Biotechnology major is selective and requires preparatory coursework for admission. Any required courses that are offered at your current campus must be completed by the close of Spring term prior to Fall enrollment at UC Davis. If required courses are not offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall transfer GPA of 2.80 or higher to be competitive candidates for admission to this major. Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 2.50 for each of the three course groups. It is required that candidates have already achieved the minimum required GPAs in course(s) from the groups below that have been completed by the time of application and maintain the GPA through the transfer academic update filing period. Courses must be taken for a letter grade, with no grade less than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy course equivalents).

-Mathematics 016A/B or 017A/B or 021A/B

-Chemistry 002A/B/C

-Biological Sciences 002A or 002B or 002C (series completion highly recommended)

--A minimum of one course comparable to a UC Davis Biological Sciences 2 series course must be completed with a B grade or higher for admission.

--If multiple courses are required to satisfy one UC Davis Biological Sciences 2 series course, each of those courses must be completed and the GPA for those courses must be 3.00 or higher.

--If courses comparable to two UC Davis Biological Sciences 2 series courses or the entire Biological Sciences 002 series are completed, a group GPA of 2.50 or higher is required.

Students are **strongly encouraged** to complete the entire Biological Sciences 2A/B/C series before matriculating to UC Davis, as this series is a prerequisite for many upper-division courses.

It is also **strongly recommended** that transfer students complete courses comparable to the following UC Davis courses. Completion of these courses will help you move more efficiently toward graduation. Courses should be taken for a letter grade with no grade less than C:

-Organic Chemistry 008A/B or 118A/B/C\*

\*We strongly encourage students to complete the entire Organic Chemistry 008A/B or 118A/B/C series before matriculating to UC Davis, as the Organic Chemistry 008A/B or 118A/B/C series is a prerequisite for many upper-division courses. For the best transition and reduced time to degree, students should consider completing all lower-division preparatory coursework shown below.

#### 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. Visit <http://tag.ucdavis.edu> for details regarding UC Davis TAG.

#### Intersegmental General Education Transfer Curriculum (IGETC)/UC Davis General Education (GE) Note:

Students have two choices for selection of a GE pattern: IGETC or UC Davis GE. IGETC is available only at California Community Colleges and works well for students planning to complete undergraduate degrees at UC Davis. See additional details about IGETC in ASSIST. UC Davis accepts partial IGETC certification and IGETC for STEM. Students not planning to complete IGETC should see important information about the UC Davis GE pattern. Students not planning to complete IGETC should contact the Dean's Office of your undergraduate college at UC Davis who determines whether you have satisfied the GE requirement. See a UC Davis academic advisor to understand how to complete all of the GE components.

## College of Agricultural and Environmental Sciences (CA&ES) General Education (GE) English Composition Requirement for the Bachelor's Degree:

The College of A&ES English Composition requirement for the Bachelor's degree is an element of the UC Davis General Education (GE) pattern. This GE requirement may be satisfied by completing either two courses emphasizing written expression **or** one course emphasizing written expression and one course emphasizing oral expression, with a grade of C- (or P) or better. The following UC Davis lower-division courses are among those that have been approved to satisfy this requirement: English 003, University Writing Program 001, 0048, 0049 (emphasis in writing skills); Communication 001, Comparative Literature 001, 002, 003, 004, or Native American Studies 005 (emphasis in either writing or speaking skills). The English Composition requirement may also be met by achieving a score of 4 or 5 on the Advanced Placement (AP) English examination **plus** completing any previously listed course, **except** English 003 or University Writing Program 001. See the current articulation for appropriate courses available at your California Community College.

California Community College transfer students who have successfully completed the IGETC lower-division coursework are exempt from all GE requirements that may be met with lower-division courses.

You should also be aware, however, that the University requires two courses in English composition to be completed with C grades or higher for transfer admission. See the [UC Transfer Admission website](#). The courses used for the CA&ES English Composition Requirement and those chosen for admission may be the same if chosen carefully. Some majors may also require additional English courses beyond the GE/College English composition requirement. Please contact your Community College counselor or the UC Davis College of A&ES if you have any questions.

### Advanced Placement (AP) and International Baccalaureate (IB) Examination Note:

AP and IB examination credit policies are detailed in the UC Davis [General Catalog](#). Quick reference charts for AP and IB are also available [here](#).

## MAJOR PREPARATION

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

## COURSE ARTICULATION DETAILS

- **Important note:** Due to the limitations and bugs of 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 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.

## PREPARATION COURSES FOR THE MAJOR

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  
Complete entire sequence at same institution prior to transfer

<b>BIS 002A</b> - Introduction to Biology: Essentials of Life on Earth (5.00)	←	<b>BIOL 6B</b> - Cell and Molecular Biology (6.00)
<b>BIS 002B</b> - Introduction to Biology: Principles of Ecology & Evolution (5.00)	←	<b>BIOL 6C</b> - Ecology and Evolution (6.00) --- Or --- <b>BIOL 6CH</b> - Ecology and Evolution - HONORS (6.00)
<b>BIS 002C</b> - Introduction to Biology: Biodiversity & the Tree of Life (5.00)	←	<b>BIOL 6A</b> - Form and Function in the Biological World (6.00) --- Or --- <b>BIOL 6AH</b> - Form and Function in the Biological World - HONORS (6.00)

<b>BIT 001Y</b> - Introduction to Biotechnology (4.00)	←	No Course Articulated
<b>BIT 091</b> - Undergraduate Seminars in Biotechnology (1.00)	←	This Course is Never 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  
Complete entire sequence at same institution prior to transfer

**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*

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



**CHEM 1B** - General Chemistry (5.00)

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

--- Or ---

**CHEM 1BH** - 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*

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



**CHEM 1C** - General Chemistry and Qualitative Analysis (5.00)

--- Or ---

**CHEM 1CH** - General Chemistry and Qualitative Analysis - HONORS (5.00)

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

**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 an advisor prior to enrollment**

**Complete entire sequence at same institution prior to transfer**

**CHE 008A** - Organic Chemistry: Brief Course (2.00)



No Course Articulated

**CHE 008B** - Organic Chemistry: Brief Course (4.00)



No Course Articulated

--- Or ---

**CHE 008A** - Organic Chemistry: Brief Course (2.00)

--- And ---

**CHE 008B** - Organic Chemistry: Brief Course (4.00)



No Course Articulated

--- Or ---

**CHE 118A** - Organic Chemistry for Health & Life Sciences (4.00)



**CHEM 12A** - Organic Chemistry (5.00)

- *Articulation applies to one series only, or one series plus labs*
- *Lower division credit only*

**CHE 118B** - Organic Chemistry for Health & Life Sciences (4.00)



**CHEM 12B** - Organic Chemistry (5.00)

- *Articulation applies to one series only, or one series plus labs*
- *Lower division credit only*

**CHE 118C** - Organic Chemistry for Health & Life Sciences (4.00)



**CHEM 12C** - Organic Chemistry (5.00)

- *Articulation applies to one series only, or one series plus labs*
- *Lower division credit only*

--- Or ---

**CHE 128A** - Organic Chemistry (3.00)



**CHEM 12A** - Organic Chemistry (5.00)

- *Articulation applies to one series only, or one series plus labs*
- *Lower division credit only*

**CHE 128B** - Organic Chemistry (3.00)



**CHEM 12B** - Organic Chemistry (5.00)

- *Articulation applies to one series only, or one series plus labs*
- *Lower division credit only*

<b>CHE 128C</b> - Organic Chemistry (3.00)	← <b>CHEM 12C</b> - Organic Chemistry (5.00) <ul style="list-style-type: none"> <li>• <i>Articulation applies to one series only, or one series plus labs</i></li> <li>• <i>Lower division credit only</i></li> </ul>
<b>CHE 129A</b> - Organic Chemistry Laboratory (2.00)	← <b>CHEM 12A</b> - Organic Chemistry (5.00) <ul style="list-style-type: none"> <li>• <i>Articulation applies to one series only, or one series plus labs</i></li> <li>• <i>Lower division credit only</i></li> </ul>

**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 an advisor prior to enrollment**

**Complete entire sequence at same institution prior to transfer**

<b>MAT 016A</b> - Short Calculus (3.00)	← <b>MATH 1A</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 1AH</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 016B</b> - Short Calculus (3.00)	← <b>MATH 1B</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 1BH</b> - Calculus - HONORS (5.00) <ul style="list-style-type: none"> <li>• <i>Credit for articulated courses in one series only</i></li> </ul>

--- Or ---

<b>MAT 017A</b> - Calculus for Biology & Medicine (4.00)	← No Course Articulated
<b>MAT 017B</b> - Calculus for Biology & Medicine (4.00)	← No Course Articulated

--- Or ---

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

**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**

**Complete entire sequence at same institution prior to transfer**

<b>PHY 007A</b> - General Physics (4.00)	← <div> <b>PHYS 2B</b> - General Introductory Physics (5.00) <div>--- And ---</div> <b>PHYS 2C</b> - General Introductory Physics (5.00) <ul style="list-style-type: none"> <li>• <i>Complete entire sequence at same institution prior to transfer</i></li> </ul> </div>
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**PHY 007B** - General Physics (4.00)



**PHYS 2B** - General Introductory Physics (5.00)

--- And ---

**PHYS 2C** - General Introductory Physics (5.00)

- *Complete entire sequence at same institution prior to transfer*

### PLANT BIOTECHNOLOGY OPTION: RESTRICTED ELECTIVES

**EBS 075** - Properties of Materials in Biological Systems (4.00)



No Course Articulated

### BIOINFORMATICS OPTION

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



No Course Articulated

### BIOINFORMATICS OPTION: RESTRICTED ELECTIVES

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



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

--- Or ---

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

**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*

**ECS 034** - Software Development in UNIX & C++ (4.00)



This Course is Never Articulated

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



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

**END OF AGREEMENT**