

# Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: California State University, Long Beach  
2022-2023 General Catalog, Semester

From: City College of San Francisco  
2022-2023 General Catalog, Semester

## Computer Science

### BACHELOR OF SCIENCE IN COMPUTER SCIENCE

#### GENERAL INFORMATION 2022-23

##### Important Admissions Information for Fall 2023

**ALL MAJORS ARE IMPACTED AT CSU, LONG BEACH.** As a result, incoming students must complete a series of major specific preparation coursework and meet GPA requirements. Please visit our [Major Specific Degree Requirements](#) webpage for more information and to find the correct path and year for your major.

**Review the following for information related to transfer admissions to CSULB:**

- [Transfer Admission Eligibility Overview](#)
- [Transfer Application Process](#)
- [Lower Division Requirements Information for Major Agreements](#)

#### GENERAL INFORMATION - DEGREE NOTES

**Degree Progress:** Transfer students must complete the following requirements within one calendar year of declaring the major: A grade of C or better must be achieved in MATH 123 (Calculus II) and PHYS 151 (Mechanics and Heat) within one calendar year after transfer to CSULB (if the equivalent was not taken before transfer). Questions can be directed to the College of Engineering Recruitment and Retention Center at (562) 985-1800 or coe-admit@csulb.edu.

ENGR 101 and 102 are substituted for transfer students who have three units of CSU GE Area E.

**Special Notes:** A grade of "C" or better is required in all required and elective courses.

#### LOWER DIVISION CORE REQUIREMENTS, TAKE ALL OF THE FOLLOWING COURSES:

Minimum grade required: C or better

Please refer to additional important General Information section above

<b>CECS 105</b> - Introduction to Computer Engineering and Computer Science (1.00)	←	No Course Articulated
<b>CECS 174</b> - Introduction to Programming and Problem Solving (3.00)	←	<b>CS 110A</b> - Intro to Programming (4.00) --- Or --- <b>CS 110B</b> - Programming Fundamentals: C++ (4.00)
<b>CECS 225</b> - Digital Logic and Assembly Programming (3.00)	←	No Course Articulated
<b>CECS 228</b> - Discrete Structures with Computing Applications (3.00)	←	<b>MATH 115</b> - Discrete Mathematics (3.00)
<b>CECS 229</b> - Discrete Structures with Computing Applications II (3.00)	←	No Course Articulated
<b>CECS 274</b> - Data Structures (3.00)	←	<b>CS 110C</b> - Data Structures and Algorithms: C++ (4.00) --- Or --- <b>CS 111C</b> - Data Structures and Algorithms: Java (4.00)
<b>CECS 277</b> - Object Oriented Application Development (3.00)	←	No Course Articulated
<b>ENGR 101</b> - Introduction to Engineering Profession (1.00) Same-As: ENGR 101H • Please refer to additional important General Information section above	←	No Course Articulated
<b>ENGR 102</b> - Academic Success Skills (1.00) Same-As: ENGR 102H • Please refer to additional important General Information section above	←	No Course Articulated
<b>MATH 122</b> - Calculus I (4.00)	←	<b>MATH 110A</b> - Calculus I (5.00)

**MATH 123** - Calculus II (4.00)

- *Please refer to additional important General Information section above*



**MATH 110B** - Calculus II (5.00)

### APPROVED SCIENCES ELECTIVES (MINIMUM OF EIGHT UNITS), TAKE:

Please refer to additional important General Information section above

**PHYS 151** - Mechanics and Heat (4.00)

- *Please refer to additional important General Information section above*



**PHYC 4A** - Classical Mechanics for Scientists and Engineers (3.00)

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**PHYC 4AL** - Mechanics Laboratory for Scientists and Engineers (1.00)

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**CHEM 111A** - General Chemistry (5.00)



**CHEM 101A** - General College Chemistry (6.00)

### REMAINING UNITS TO BE CHOSEN FROM THE FOLLOWING:

Please refer to additional important General Information section above

**BIOL 200** - General Biology (4.00)



No Course Articulated

**BIOL 205** - Human Biology (4.00)



**BIO 9** - Human Biology (4.00)

**BIOL 207** - Human Physiology (4.00)



**BIO 111** - Human Physiology (5.00)

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**BIO 112** - Introduction to Human Physiology (4.00)

**END OF AGREEMENT**