

Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: California State University, Los Angeles
2022-2023 General Catalog, Semester

From: Long Beach City College
2022-2023 General Catalog, Semester

Computer Science - B.S.

ADMISSIONS CRITERIA FOR MAJOR

[Major Specific Criteria for Transfer Admission](#)

GENERAL INFORMATION FOR ALL TRANSFER STUDENTS

[Cal State LA](#)

[General Education Lower Division Courses](#)

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[Department of Computer Science](#)

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[College of Engineering, Computer Science, and Technol](#)

COMPUTER SCIENCE - BS

The objective of the Bachelor of Science degree in Computer Science is to prepare qualified students for careers involving the design of computer systems and their applications to science and industry. The program provides an excellent foundation in all core areas of computer science with the opportunity to choose electives in a variety of specialized fields.

Requirements for the Major

- The total number of units required for the Bachelor of Science degree in Computer Science is 120 units, of which 93 units are in the major.
- Computer Science students are required to take 48 units of [General Education \(GE\)](#) of which 21 units are met by courses in the major. Consult with an advisor in the department for the specific number of units required in all areas of the degree, including GE and free electives.

LOWER DIVISION GENERAL EDUCATION REQUIREMENTS

Lower Division General Education Requirements (39 units)

Block A - English Language Communication and Critical Thinking Courses (9 units):

- A1 Oral Communication (3)
- A2 Written Communication (3) - Must take [ENGL 1010](#) (3)
- A3 Critical Thinking and Composition (3)
 - Critical Thinking - Met by [CS 2011](#) (4), [CS 3801](#) (3), [CS 3337](#) (3), [CS 3186](#) (3), [CS 4961](#) (3), and [CS 4962](#) (3)
 - 2nd Composition - Met by [ENGL 2030](#) (3)

Block B - Natural Science and Math/Quantitative Reasoning Courses (9 units):

- B1 Physical Science (3) - Met by [PHYS 2100](#) (5)
- B2 or B3 Biological science (3) or Interdisciplinary Science (3)
- B4 Quantitative Reasoning and Mathematical Concepts (3) - Met by [MATH 2110](#) (4)

Block C - Arts and Humanities Courses (9 units):

- American Institutions - US History (3)
- C1 Arts (3)
- C2 Humanities (3) - Met by [CS 3801](#) (3)

Block D - Social Science Courses (9 units):

- American Institutions - US Constitution and State/Local Govt. (3)
- Social Science (6 units)

Block E - Lifelong Understanding and Self-Development Courses (3 units):

- Met by [CS 1010](#) (3), also satisfied LD (c) and IHE

DIVERSITY REQUIREMENT FOR CAL STATE LA GRADUATION

The articulation information in Assist.org not only shows a link to the admission requirements (aka our [Major Specific Criteria](#) webpage) but also Cal State LA graduation requirements that may be completed at the lower-division level, prior to transferring to the University. The diversity requirement is a **graduation requirement**, not an admission requirement. The diversity requirement may be completed prior to, or after, transferring to the University.

For the Cal State LA degree, students will be required to complete **two courses (six units)** certified as diversity courses, at least one focusing on issues of race and ethnicity and their intersectionality with other social categories that structure inequality in society. These courses can be completed either at the lower division or upper-division level from among courses satisfying GE requirements.

Please see the **Requirement Information** sections below for the lower-division courses that will meet the Diversity and Race & Ethnicity Requirements.

LOWER DIVISION REQUIRED COURSES

Minimum grade required: C or better		
CS 1222 - Introduction to Relational Databases (3.00)	←	COSP 38 - Data Base Concepts (4.00)
CS 2011 - Introduction to Programming I (3.00)	←	CS 11 - Introduction to Computer Science-C++ (3.00)
		--- Or ---
		CS 21 - Introduction to Computer Science-Java (3.00)
CS 2012 - Introduction to Programming II (3.00)	←	CS 12 - Advanced Computer Science-C++ (4.00)
		--- Or ---
		CS 22 - Data Structures and Algorithms (3.00)
CS 2013 - Programming with Data Structures (3.00)	←	CS 22 - Data Structures and Algorithms (3.00)
CS 2148 - Discrete Structures (3.00)	←	CS 61 - Discrete Structures (3.00)
CS 2445 - Introduction to Computer Systems (3.00)	←	CS 51 - Introduction to Computer Architecture (3.00)
CS 2470 - Fundamentals of Network Systems and Cybersecurity (3.00)	←	No Course Articulated
ENGL 2030 - Introduction to Technical Writing (3.00)	←	No Course Articulated
MATH 2110 - Calculus I (4.00)	←	MATH 60 - First Calculus Course (5.00)
		--- Or ---
		MATH 60H - Honors First Calculus Course (5.00)
MATH 2120 - Calculus II (4.00)	←	MATH 70 - Second Calculus Course (5.00)
		--- Or ---
		MATH 70H - Honors Second Calculus Course (5.00)
MATH 2550 - Introduction to Linear Algebra (3.00)	←	MATH 84 - Intro to Differential Equations and Linear Algebra (5.00)
PHYS 2100 - General Physics I: Mechanics (5.00)	←	PHYS 3A - Physics for Sci & Eng. - Mechanics (5.50)

DIVERSITY COURSES FOR CAL STATE LA GRADUATION REQUIREMENT

REFER TO TOP OF AGREEMENT		
AAAS 1600 - History of Asia (3.00) Same-As: HIST 1600	←	No Course Articulated
AAAS 1700 - Understanding Contemporary Asia (3.00)	←	No Course Articulated
AAAS 2000 - Pacific Asian Culture, People, & Society (3.00)	←	No Course Articulated
ANTH 1001 - Where in the World of Education at CSULA are You? (3.00)	←	No Course Articulated
ANTH 1500 - Introduction to Cultural Anthropology (3.00)	←	ANTHR 2 - Cultural Anthropology (3.00)
		--- Or ---
		ANTHR 2H - Honors Cultural Anthropology (3.00)
ANTH 2700 - Great Archaeological Discoveries of the Past (3.00)	←	ANTHR 3 - Introduction to Archaeology (3.00)
ART 2090 - Perspectives on Art and Cultural Diversity (3.00)	←	No Course Articulated
ART 2400 - Art and Life Perspectives (3.00)	←	No Course Articulated
BUS 2500 - Diversity, Business and the Workplace (3.00)	←	No Course Articulated
CHDV 1200 - Intimate Relationships in our Diverse Society (3.00) Same-As: SOC 1200	←	SOCIO 40 - Sociology of the Family (3.00)
CHDV 2250 - Ethnic Identity and Awareness in Children and Families (3.00)	←	CDECE 61 - Teaching in a Diverse Society D3 (3.00)
CLS 2200 - Chicanas and Latinas in Contemporary U.S. Society (3.00) Same-As: WGSS 2200	←	No Course Articulated

COMM 2500 - Communication, Identity and Culture (3.00)	←	No Course Articulated
COUN 2020 - Integration of Adults with Disabilities in the U.S. Society (3.00)	←	No Course Articulated
COUN 2250 - Diversity and Awareness of Self and Others for Helping Professionals (3.00)	←	No Course Articulated
ENGL 2600 - Literary Los Angeles (3.00)	←	No Course Articulated
GEOG 1550 - Cultural Geography (3.00)	←	GEOG 2 - Elements of Cultural Geography (3.00)
HIST 1010 - World History to 1500 CE (3.00)	←	HIST 1A - History of Western (European) Civilization (3.00)
HIST 1020 - World History since 1500 CE (3.00)	←	HIST 2C - World History Since 1500 (3.00)
HIST 1600 - History of Asia (3.00) Same-As: AAAS 1600	←	No Course Articulated
HIST 2010 - Early American History (3.00)	←	HIST 10 - History of Early America (Colonial-Reconstruction) (3.00) --- Or --- HIST 10H - Honors History/Early America (Colonial-Reconstruction) (3.00)
HIST 2020 - Recent United States History (3.00)	←	HIST 11 - Hist./Modern America (Reconstr-Present) (3.00) --- Or --- HIST 11H - Honors History/Modern America (3.00)
HNRS 2210 - Reading Los Angeles: Engaging Cultural Expressions in a Global City (3.00)	←	No Course Articulated
LAS 1500 - Introduction to Latin American Studies (3.00)	←	HIST 8A - History of the Americas (3.00) --- Or --- HIST 8AH - Honors History of the Americas (3.00) --- Or --- HIST 8B - History of the Americas (Modern Era) (3.00) --- Or --- HIST 8BH - Honors History of the Americas (Modern) (3.00)
LAS 2550 - Diverse Latin American Populations in Southern California (3.00) Same-As: CLS 2040	←	No Course Articulated
LBS 2400 - Introduction to Environmental Humanities (3.00)	←	No Course Articulated
LBS 2500 - Social Change and Social Movements in the U.S. (3.00)	←	No Course Articulated
LBS 2666 - Science Fiction Film and Television (3.00) Same-As: TVF 2666	←	No Course Articulated
PHIL 2000 - Introduction to Comparative Religions (3.00) Same-As: RELS 2000	←	PHIL 14 - Philosophy of Religion (3.00)
PHIL 2200 - Contemporary Moral and Social Issues: An Intersectional Approach (3.00)	←	PHIL 7 - Introduction to Ethics (3.00)
HNRS 2210 - Reading Los Angeles: Engaging Cultural Expressions in a Global City (3.00)	←	No Course Articulated
PHIL 2300 - Meanings of Human Life: An Intersectional Approach (3.00)	←	No Course Articulated
PHIL 2400 - Philosophy of Film (3.00)	←	No Course Articulated
RELS 2000 - Introduction to Comparative Religions (3.00) Same-As: PHIL 2000	←	PHIL 14 - Philosophy of Religion (3.00)
SOC 1001 - Individual Development in Diverse Contexts (3.00) • <i>Minimum grade required: C or better</i>	←	CDECE 47 - Human Development (3.00)
SOC 1200 - Intimate Relationships in Our Diverse Society (3.00) Same-As: CHDV 1200	←	SOCIO 40 - Sociology of the Family (3.00)
SOC 2010 - Introduction to Sociology (3.00)	←	SOCIO 1 - Introduction to Sociology (3.00) --- Or --- SOCIO 1H - Honors Introduction to Sociology (3.00)
TVF 1938 - History of Comic Books (3.00)	←	No Course Articulated
TVF 2500 - Media, Culture and Identity (3.00)	←	No Course Articulated
TVF 2666 - Science Fiction Film and Television (3.00) Same-As: LBS 2666	←	No Course Articulated
WGSS 1010 - Gender and Sexuality in College (3.00)	←	No Course Articulated

WGSS 2000 - Introduction to Women's, Gender, and Sexuality
Studies (3.00)

← No Course Articulated

RACE & ETHNICITY COURSES FOR CAL STATE LA GRADUATION REQUIREMENT

REFER TO TOP OF AGREEMENT

AAAS 1400 - Introduction to Globalization, Race and Place (3.00)
Same-As: PAS 1400, LAS 1400

← No Course Articulated

AAAS 1500 - Asian-American History (3.00)
Same-As: HIST 1500

← No Course Articulated

AAAS 2100 - Asian America: Culture, History, and Community (3.00)

← No Course Articulated

AAAS 2200 - Asia and Asian American in Literature, Arts, and Media
(3.00)

← No Course Articulated

AAAS 2630 - Asian-American Experience (3.00)

← No Course Articulated

CLS 1200 - Chicanas/os Latinas/os, Gender, and Class in the US
Experience (3.00)

← No Course Articulated

CLS 1300 - The Constitution, Equity and Chicanas/os and Latinas/os
(3.00)

← No Course Articulated

CLS 1500 - Cultural Diversity, Chicanas/os, and Latinas/os (3.00)

← No Course Articulated

CLS 1600 - Cultural Expressions in the Americas (3.00)

← No Course Articulated

CLS 2010 - Modern Mexican Literature in Translation (3.00)

← No Course Articulated

CLS 2050 - Chicanas/os and Latinas/os in Film and Popular Culture
(3.00)

← No Course Articulated

CLS 2060 - Latina/o Images in Media, Social Media, and Digital
Communication Systems (3.00)

← No Course Articulated

CLS 2100 - Chicana/o and Latino/a Political and Social Movements
(3.00)

← No Course Articulated

CLS 2300 - Family Structure in the Americas (3.00)

← No Course Articulated

ENGL 2665 - Race and Ethnicity in Science Fiction (3.00)
Same-As: LBS 2665

← No Course Articulated

HIST 1500 - Asian-American History (3.00)
Same-As: AAAS 1500

← No Course Articulated

HIST 2050 - Race and Ethnicity in United States History (3.00)

← No Course Articulated

LAS 1020 - The African Diaspora in the Americas (3.00)
Same-As: PAS 1020

← No Course Articulated

LAS 1400 - Introduction to Globalization, Race and Place (3.00)
Same-As: PAS 1400, AAAS 1400

← No Course Articulated

LBS 2340 - Multicultural Arts, L.A. (3.00)

← No Course Articulated

LBS 2665 - Multicultural Science Fiction (3.00)
Same-As: ENGL 2665

← No Course Articulated

PAS 1020 - The African Diaspora in the Americas (3.00)
Same-As: LAS 1020

← No Course Articulated

PAS 1100 - Racial Equality, Government and the Constitution (3.00)

← No Course Articulated

PAS 1200 - Elementary African Language and Culture (3.00)

← No Course Articulated

PAS 1400 - Introduction to Globalization, Race and Place (3.00)
Same-As: LAS 1400, AAAS 1400

← No Course Articulated

PAS 1500 - Black Oral Traditions and Communication (3.00)

← No Course Articulated

PAS 1510 - African American History (3.00)

← **HIST 27A** - African-American History to 1877 (3.00)

PAS 1800 - Critical Race Theory (3.00)

← No Course Articulated

PAS 2010 - Third World Literature (3.00)

← No Course Articulated

PAS 2020 - African American Religion as Civic Culture (3.00)

← No Course Articulated

PAS 2210 - African American Music as History and Criticism (3.00)

← No Course Articulated

PAS 2500 - African History (3.00)

← No Course Articulated

PAS 2600 - Third World Images in Film (3.00)

← No Course Articulated

PHIL 2230 - Diversity and Justice (3.00)

← No Course Articulated

SOC 2630 - Asian-American Experience (3.00)	←	No Course Articulated
SPAN 2420 - Hispanic Societies through Literature (3.00)	←	No Course Articulated
WGSS 2030 - Gender and Race in the United States (3.00)	←	No Course Articulated
WGSS 2200 - Chicanas and Latinas in Contemporary U.S. Society (3.00) Same-As: CLS 2200	←	No Course Articulated
WGSS 2300 - Gender, Sexuality, and American Indian Communities (3.00)	←	No Course Articulated

END OF AGREEMENT