# **Articulation Agreement by Major**

Effective during the 2022-2023 Academic Year

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

From: San Bernardino Valley College 2022-2023 General Catalog, Semester

### **Computer Science, B.S.**

#### **COMPUTER SCIENCE**

The degree program for the Bachelor of Science in Computer Science assumes that students have already obtained a working knowledge of personal computing fundamentals and applications, including word processing, spreadsheets, database systems, e-mail systems and presentation graphics.

The curriculum begins with a three-course sequence covering concepts of programming and data structures. If students have knowledge of these topics, but do not have the courses to transfer, nor AP scores to submit, they may take the Computer Science Placement Examination to waive one or more of these courses. The test may be taken only once, and scores are valid for two consecutive semesters.

#### General Education

All students at Cal State Fullerton are expected to complete prescribed units of General Education that are made up of courses outside of their chosen disciplines. Students seeking a degree in Engineering have been provided exceptions from some of the General Education requirements. For this reason, it is important that students take the approved G.E. courses for Engineering majors that are found in their Titan Degree Audit (TDA). Additionally, they should confirm the G.E. courses that are required within their specific programs with their respective advisers.

#### **LOWER DIVISION CORE**

Select 15 Semester	Unit(s	) from the following
CPSC 120 - Introduction to Programming (3.00)	$\leftarrow$	CS 110 - Fundamentals of Computer Science (3.00)
CPSC 121 - Object-Oriented Programming (3.00)	$\leftarrow$	<b>CS 190</b> - Programming in C++ (4.00)
CPSC 131 - Data Structures (3.00)	$\leftarrow$	CS 265 - Data Structures and Algorithms with C++ (3.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	$\leftarrow$	<b>CS 170</b> - Assembly Language (4.00)
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	<del></del>	CIT 160 - Introduction to Information Systems Security (3.00)
-	And	
		 m the following
Select 1 Cours		m the following
CPSC 223C - C Programming (3.00)		m the following  No Course Articulated

#### **MATHEMATICS REQUIREMENTS**

Select 18 Semester Unit(s) from the following		
<b>MATH 150A</b> - Calculus I (4.00)	← MATH 250 - Single Variable Calculus I (4.00)	
<b>MATH 150B</b> - Calculus II (4.00)	← MATH 251 - Single Variable Calculus II (4.00)	
MATH 170A - Mathematical Structures I (3.00)	← CS 130 - Discrete Structures (3.00)	
14 (2 00)	← No Course Articulated	
MATH 170B - Mathematical Structure II (3.00)	No Course Articulated	

MATH AND SCIENCE (WITH CORRESPONDING LAB) ELECTIVES- SEE ADDITIONAL INFORMATION UNDER ARTICULATION DETAILS

BIOL 101 - Elements of Biology (3.00)	← No Course Articulated
BIOL 101L - Elements of Biology Laboratory (1.00)	← No Course Articulated
BIOL 151 - Cellular & Molecular Biology (4.00)	← BIOL 205 - Cell and Molecular Biology (4.00)
BIOL 152 - Evolution & Organismal Biology (4.00)	← BIOL 206 - Organismal Biology (4.00)
	(
CHEM 120A - General Chemistry (5.00)	CHEM 150 - General Chemistry I (5.00)
CHEM 120B - General Chemistry (5.00)	CHEM 151 - General Chemistry II (5.00)
CHEM 123 - Chemistry for Engineers (3.00)	← No Course Articulated
CHEM 125 - Gen Chemistry B Lecture (3.00)	No Course Articulated
GEOL 101 - Introduction to Geology (3.00)	← GEOL 101 - Introduction to Physical Geology (3.00)
GEOL 101L - Introduction to Geology Laboratory (1.00)	← GEOL 111 - Introduction to Physical Geology Laboratory (1.00)
<b>GEOL 201</b> - Earth History (3.00)	GEOL 112 - Historical Geology (4.00)
	Or
	BIOL 109 - History of Life (4.00)
	BIOL 109H - History of Life - Honors (4.00)
GEOL 201L - Earth History Supplemental Lab (1.00)	← No Course Articulated
MATH 250A - Calculus III (4.00)	← MATH 252 - Multivariable Calculus (5.00)
·	WIATH 252 - Wultivariable Calculus (5.00)
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	MATH 265 - Linear Algebra (4.00)
	And
	MATH 266 - Ordinary Differential Equations (4.00)
PHYS 225 - Fundamental Phys; Mechanics (3.00)	← No Course Articulated
PHYS 225L - Fundamental Physics Lab (1.00)	← No Course Articulated
PHYS 226 - Fund Phys.Elect + Magnetism (3.00)	← No Course Articulated
PHYS 226L - Fundamental Physics Lab (1.00)	← No Course Articulated
<b>PHYS 227</b> - Fund Phys: Waves, Optics, & Mod Phys (1.00 - 3.00)	← No Course Articulated
PHYS 227L - Fundamental Physics Lab (1.00)	← No Course Articulated

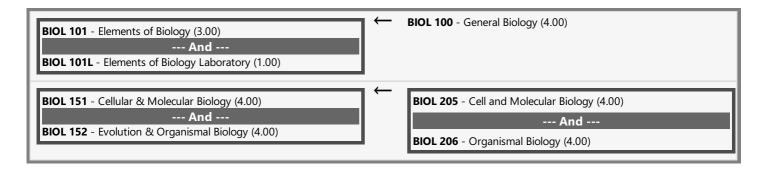
## **COMPUTER SCIENCE ELECTIVES**

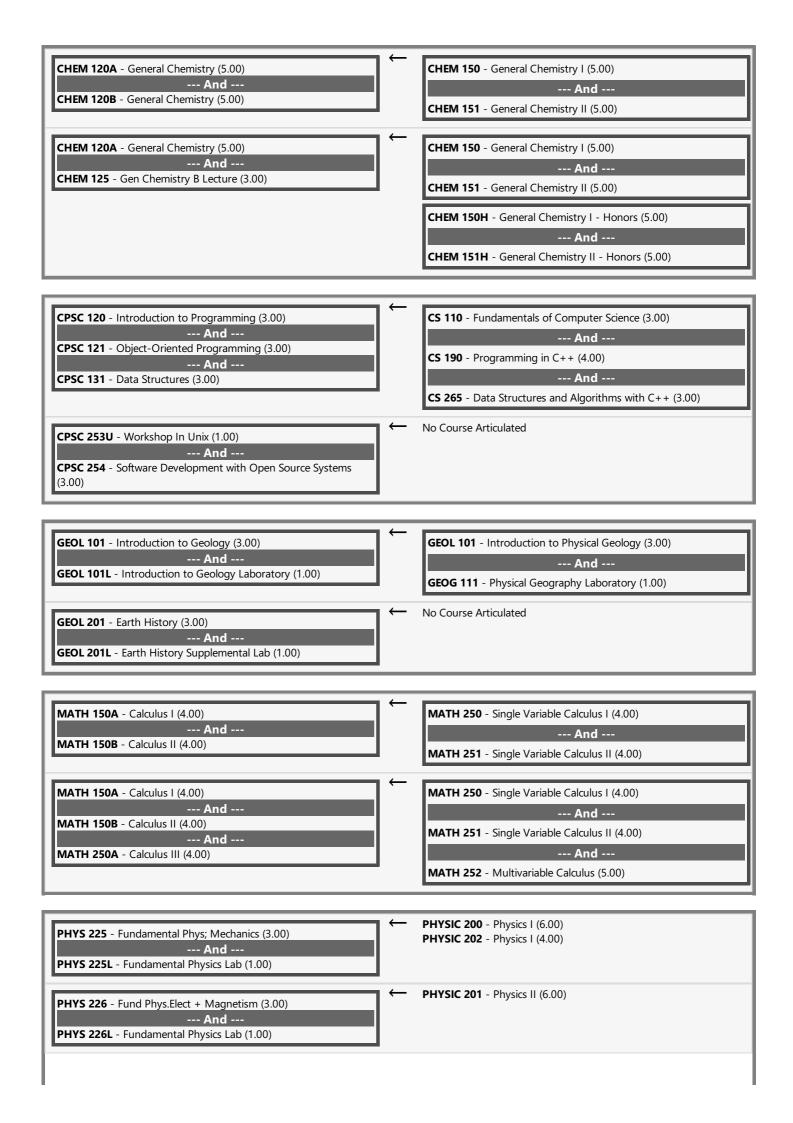
**CPSC 254** - Software Development with Open Source Systems (3.00) ← No Course Articulated

### **REQUIRED FOR GRADUATION**

POSC 100 - American Government (3.00) ← POLIT 100 - American Politics (3.00)

### **ARTICULATION DETAILS**





PHYS 227 - Fund Phys: Waves, Optics, & Mod Phys (1.00 - 3.00)
--- And --PHYS 227L - Fundamental Physics Lab (1.00)

← PHYSIC 204 - Physics III (4.00)

## **END OF AGREEMENT**