# **Articulation Agreement by Major**

Effective during the 2022-2023 Academic Year

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

MATH 170B - Mathematical Structure II (3.00)

MATH 338 - Stat Appl to Natural Sci (4.00)

From: Pasadena City 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**

CPSC 120 - Introduction to Programming (3.00)	$\leftarrow$	CS 002 - Fundamentals of Computer Science I (4.00)
CPSC 121 - Object-Oriented Programming (3.00)	$\leftarrow$	CS 003A - Fundamentals of Computer Science II (C++) (4.00)
CPSC 131 - Data Structures (3.00)	<b>←</b>	<b>CS 008</b> - Fundamentals of Computer Science III-Data Structures (4.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	$\leftarrow$	<b>CS 066</b> - Assembly Language Programming for the Sciences and Mathematics (4.00)
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	<b>←</b>	CIS 061 - Introduction to Information Systems Security (3.00)
<del>-</del>	- And	
Select 1 Course	(3) 110	
Select 1 Course  CPSC 223C - C Programming (3.00)	(3) II €	No Course Articulated
	← ←	
CPSC 223C - C Programming (3.00)	← ← ←	No Course Articulated

### **MATHEMATICS REQUIREMENTS**

Select 18 Semester Unit(s) from the following			
<b>MATH 150A</b> - Calculus I (4.00)	← MATH 005A - Single Variable Calculus I (5.00)		
<b>MATH 150B</b> - Calculus II (4.00)	← MATH 005B - Single Variable Calculus II (5.00)		
MATH 170A - Mathematical Structures I (3.00)	← MATH 022 - Discrete Mathematics (4.00)		
	Or		
	CS 045 - Discrete Structures with Computer Science Applications		

(5.00)

No Course Articulated
No Course Articulated

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

ARTICULATION DETAILS			
Select 12 Semeste	er Unit(s) from the following		
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 010A - Cellular Biology, Genetics and Evolution (5.00)		
BIOL 152 - Evolution & Organismal Biology (4.00)	← No Course Articulated		
CHEM 120A - General Chemistry (5.00)	← CHEM 001A - General Chemistry and Chemical Analysis I (5.00)		
CHEM 120B - General Chemistry (5.00)	← CHEM 001B - General Chemistry and Chemical Analysis 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 001 - Physical Geology (4.00)		
GEOL 101L - Introduction to Geology Laboratory (1.00)	← No Course Articulated		
<b>GEOL 201</b> - Earth History (3.00)	← GEOL 002 - Historical Geology (4.00)		
GEOL 201L - Earth History Supplemental Lab (1.00)	← No Course Articulated		
MATH 250A - Calculus III (4.00)	← MATH 005C - Multivariable Calculus (5.00)		
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	MATH 010 - Linear Algebra and Applications (4.00)		
	And		
	MATH 055 - 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		

# **COMPUTER SCIENCE ELECTIVES**

No Course Articulated

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

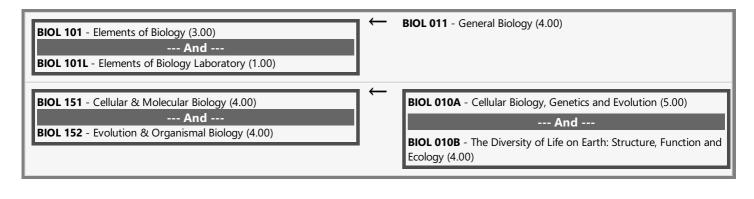
PHYS 227 - Fund Phys: Waves, Optics, & Mod Phys (1.00 - 3.00) ← No Course Articulated

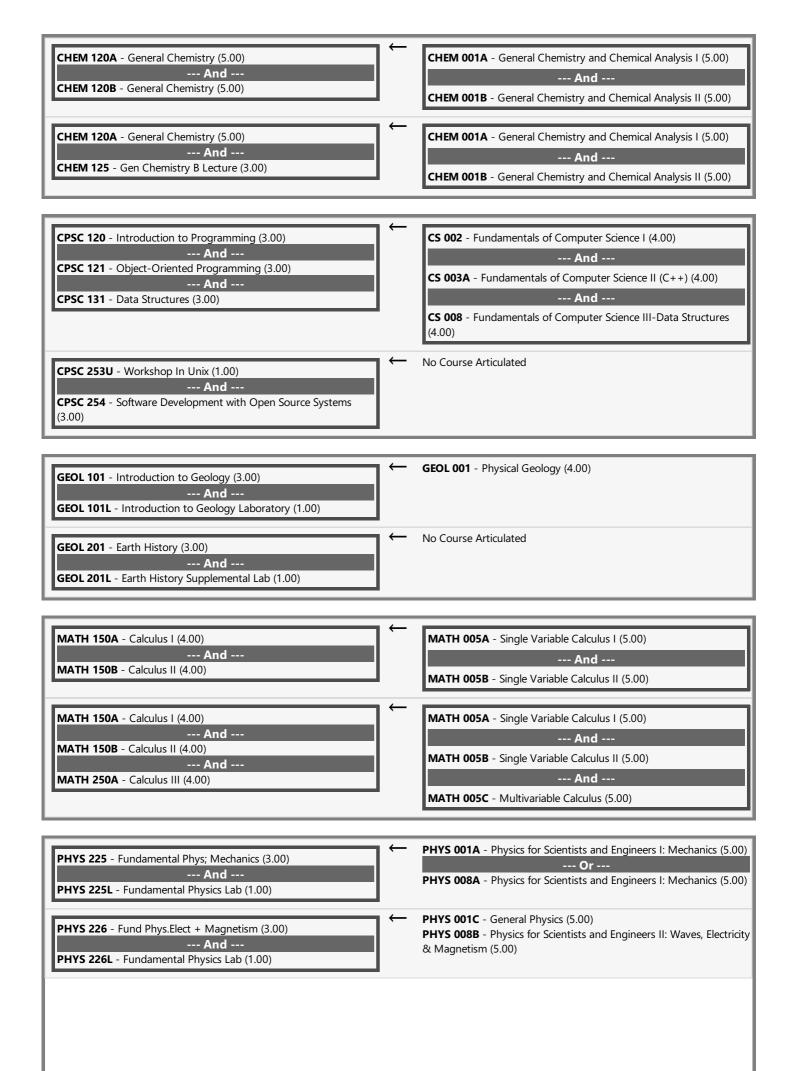
PHYS 227L - Fundamental Physics Lab (1.00)

### **REQUIRED FOR GRADUATION**

POSC 100 - American Government (3.00) POLS 001 - Introduction to American Government and 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)

PHYS 001B - General Physics (5.00)
--- And --PHYS 001D - General Physics (5.00)

--- Or --PHYS 008C - Physics for Scientists and Engineers III:
Thermodynamics, Optics, and Modern Physics (5.00)

## **END OF AGREEMENT**