# **Articulation Agreement by Major**

Effective during the 2022-2023 Academic Year

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

From: Grossmont 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)	← CSIS 293 - Introduction to Java Programming (4.00)			
CPSC 121 - Object-Oriented Programming (3.00)	← No Course Articulated			
CPSC 131 - Data Structures (3.00)	← No Course Articulated			
CPSC 240 - Computer Organization & Assembly Language (3.00)	csis 165 - Assembly Language and Machine Architecture (4.00)			
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	← No Course Articulated			
And				
Select 1 Course(s) from the following				
CPSC 223C - C Programming (3.00)	← No Course Articulated			
CPSC 223J - Java Programming (3.00)	← No Course Articulated			
CPSC 223J - Java Programming (3.00) CPSC 223N - Visual C# Programming (3.00)	<ul><li>← No Course Articulated</li><li>← No Course Articulated</li></ul>			

#### **MATHEMATICS REQUIREMENTS**

Select 18 Semester Unit(s) from the following				
<b>MATH 150A</b> - Calculus I (4.00)	← MATH 180 - Analytic Geometry and Calculus I (5.00)			
<b>MATH 150B</b> - Calculus II (4.00)	← MATH 280 - Analytic Geometry and Calculus II (4.00)			
MATH 170A - Mathematical Structures I (3.00)	← No Course Articulated			
MATH 170B - Mathematical Structure II (3.00)	← No Course Articulated			
MATH 338 - Stat Appl to Natural Sci (4.00)	← No Course Articulated			

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

BIOL 101 - Elements of Biology (3.00)	$\leftarrow$	No Course Articulated
BIOL 101L - Elements of Biology Laboratory (1.00)	$\leftarrow$	No Course Articulated
BIOL 151 - Cellular & Molecular Biology (4.00)	<b>←</b>	<b>BIO 230</b> - Principles of Cellular, Molecular and Evolutionary Biology (4.00)
BIOL 152 - Evolution & Organismal Biology (4.00)	<b>←</b>	<b>BIO 240</b> - Principles of Ecology, Evolution, and Organismal Biology (5.00)
CHEM 120A - General Chemistry (5.00)	<b>←</b>	CHEM 141 - General Chemistry I (5.00)
CHEM 120B - General Chemistry (5.00)	$\leftarrow$	CHEM 142 - General Chemistry II (5.00)
CHEM 123 - Chemistry for Engineers (3.00)	$\leftarrow$	No Course Articulated
CHEM 125 - Gen Chemistry B Lecture (3.00)	$\leftarrow$	No Course Articulated
GEOL 101 - Introduction to Geology (3.00)	$\leftarrow$	<b>GEOL 110</b> - Planet Earth (3.00)
<b>GEOL 101L</b> - Introduction to Geology Laboratory (1.00)	$\leftarrow$	GEOL 111 - Planet Earth Laboratory (1.00)
GEOL 201 - Earth History (3.00)	$\leftarrow$	<b>GEOL 121</b> - Earth History (4.00)
GEOL 201L - Earth History Supplemental Lab (1.00)	<b>←</b>	No Course Articulated
<b>MATH 250A</b> - Calculus III (4.00)	<b>←</b>	MATH 281 - Mulitvariable Calculus (4.00)
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	$\leftarrow$	<b>MATH 284</b> - Linear Algebra (3.00)
		And
		MATH 285 - Differential Equations (3.00)
DUVC 225 Fundamental Physi Machanics (2.00)		No Course Articulated
PHYS 225 - Fundamental Phys; Mechanics (3.00)		
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)	<b>←</b>	No Course Articulated
PHYS 227L - Fundamental Physics Lab (1.00)	<b>←</b>	No Course Articulated

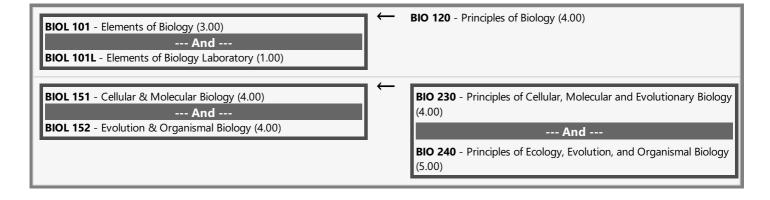
## **COMPUTER SCIENCE ELECTIVES**

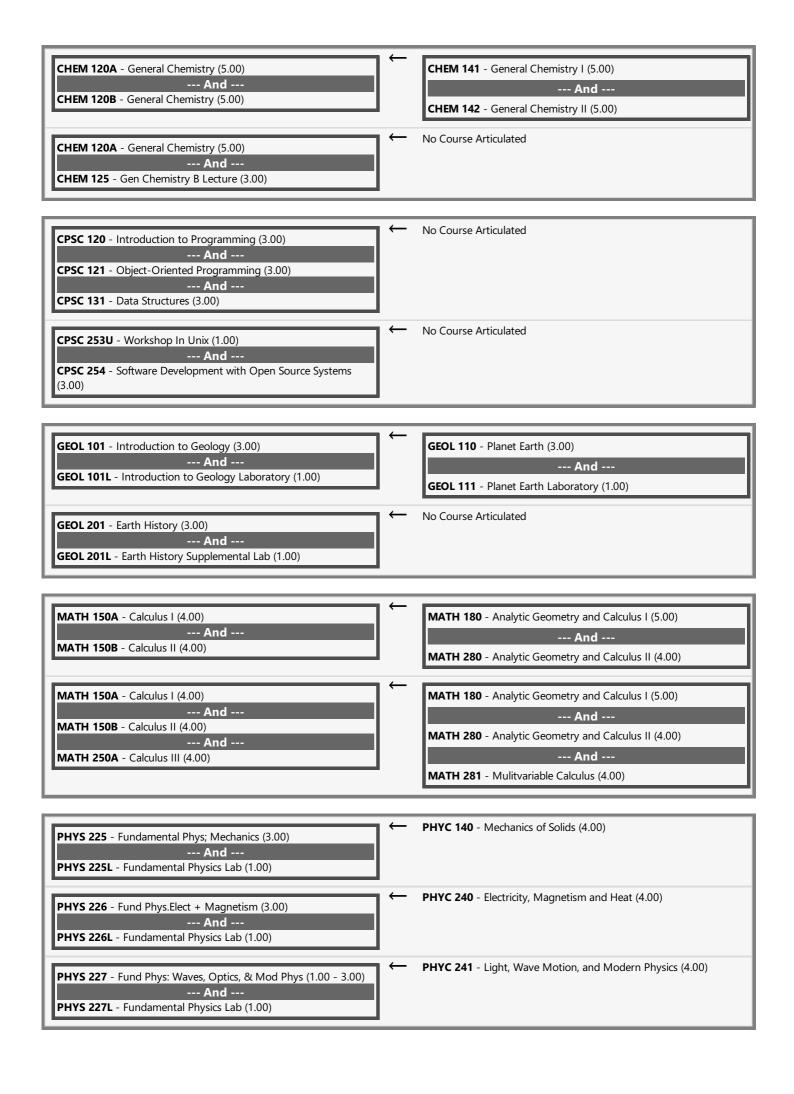
**CPSC 254** - Software Development with Open Source Systems (3.00) ← No Course Articulated

### **REQUIRED FOR GRADUATION**

POSC 100 - American Government (3.00) ← POSC 121 - Introduction to U.S. Government and Politics (3.00)

# **ARTICULATION DETAILS**





# **END OF AGREEMENT**