Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: California State University, Fullerton	From: Cypress College
2022-2023 General Catalog, Semester	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.

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LOWER DIVISION CORE

Select 15 Semester Unit(s) from the following

CPSC 120 - Introduction to Programming (3.00)	←	**CIS 211 C** - Introduction to Programming (3.00)
CPSC 121 - Object-Oriented Programming (3.00)	←	**CSCI 123 C** - Introduction to Programming Concepts in C++ (3.00)
CPSC 131 - Data Structures (3.00)	←	**CSCI 133 C** - Data Structures in C++ (3.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	←	**CSCI 242 C** - Computer Architecture and Organization (3.00)
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	←	**CIS 195 C** - Network Security (3.00)

--- And ---

Select 1 Course(s) from the following

CPSC 223C - C Programming (3.00)	←	No Course Articulated
CPSC 223J - Java Programming (3.00)	←	**CIS 226 C** - Java Programming (3.00)
CPSC 223N - Visual C# Programming (3.00)	←	No Course Articulated
CPSC 223P - Python Programming (3.00)	←	**CIS 247 C** - Python Programming (3.00)

MATHEMATICS REQUIREMENTS

Select 18 Semester Unit(s) from the following

MATH 150A - Calculus I (4.00)	←	**MATH 150AC** - Calculus I (4.00)
MATH 150B - Calculus II (4.00)	←	**MATH 150BC** - Calculus II (4.00)

MATH 170A - Mathematical Structures I (3.00)	←	**CSCI 252 C** - Discrete Structures (3.00)
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

Select 12 Semester 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 174 C** - Biology of Cells and Tissues (4.00)
BIOL 152 - Evolution & Organismal Biology (4.00)	←	**BIOL 175 C** - Evolution and Biodiversity (4.00)

CHEM 120A - General Chemistry (5.00)	←	**CHEM 111 AC** - General Chemistry I (5.00)
CHEM 120B - General Chemistry (5.00)	←	**CHEM 111 BC** - General Chemistry II (5.00)
CHEM 123 - Chemistry for Engineers (3.00)	←	No Course Articulated
CHEM 125 - Gen Chemistry B Lecture (3.00)	←	**CHEM 112 C** - General Chem II for Engineers (4.00)

GEOL 101 - Introduction to Geology (3.00)	←	**GEOL 100 C** - Physical Geology (3.00)
		--- Or ---
		GEOL 100HC - Honors Physical Geology (3.00)
GEOL 101L - Introduction to Geology Laboratory (1.00)	←	**GEOL 101 C** - Physical Geology Laboratory (1.00)
GEOL 201 - Earth History (3.00)	←	**GEOL 103 C** - Historical Geology (4.00)
GEOL 201L - Earth History Supplemental Lab (1.00)	←	No Course Articulated

MATH 250A - Calculus III (4.00)	←	**MATH 250AC** - Multivariable Calculus (4.00)
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	←	**MATH 250BC** - Linear Algebra and Differential Equations (5.00)

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
PHYS 227 - 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)	←	**CIS 110 C** - Linux Operating System (3.00)

REQUIRED FOR GRADUATION

POSC 100 - American Government (3.00)	←	**POSC 100 C** - United States Government (3.00)
		--- Or ---
		POSC 100HC - Honors United States Government (3.00)

ARTICULATION DETAILS

BIOL 101 - Elements of Biology (3.00) --- And --- **BIOL 101L** - Elements of Biology Laboratory (1.00)	←	**BIOL 101 C** - General Biology (4.00) --- Or --- **BIOL 101 HC** - Honors General Biology (4.00)
BIOL 151 - Cellular & Molecular Biology (4.00) --- And --- **BIOL 152** - Evolution & Organismal Biology (4.00)	←	**BIOL 174 C** - Biology of Cells and Tissues (4.00) --- And --- **BIOL 175 C** - Evolution and Biodiversity (4.00)
CHEM 120A - General Chemistry (5.00) --- And --- **CHEM 120B** - General Chemistry (5.00)	←	**CHEM 111 AC** - General Chemistry I (5.00) --- And --- **CHEM 111 BC** - General Chemistry II (5.00)

CHEM 120A - General Chemistry (5.00)
--- And ---
CHEM 125 - Gen Chemistry B Lecture (3.00)

←

CHEM 111 AC - General Chemistry I (5.00)
--- And ---
CHEM 112 C - General Chem II for Engineers (4.00)

CPSC 120 - Introduction to Programming (3.00)
--- And ---
CPSC 121 - Object-Oriented Programming (3.00)
--- And ---
CPSC 131 - Data Structures (3.00)

←

CIS 211 C - Introduction to Programming (3.00)
--- And ---
CSCI 123 C - Introduction to Programming Concepts in C++ (3.00)
--- And ---
CSCI 133 C - Data Structures in C++ (3.00)

CPSC 253U - Workshop In Unix (1.00)
--- And ---
CPSC 254 - Software Development with Open Source Systems (3.00)

←

No Course Articulated

GEOL 101 - Introduction to Geology (3.00)
--- And ---
GEOL 101L - Introduction to Geology Laboratory (1.00)

←

GEOL 100 C - Physical Geology (3.00)
--- And ---
GEOL 101 C - Physical Geology Laboratory (1.00)

GEOL 100HC - Honors Physical Geology (3.00)
--- And ---
GEOL 101 C - Physical Geology Laboratory (1.00)

GEOL 201 - Earth History (3.00)
--- And ---
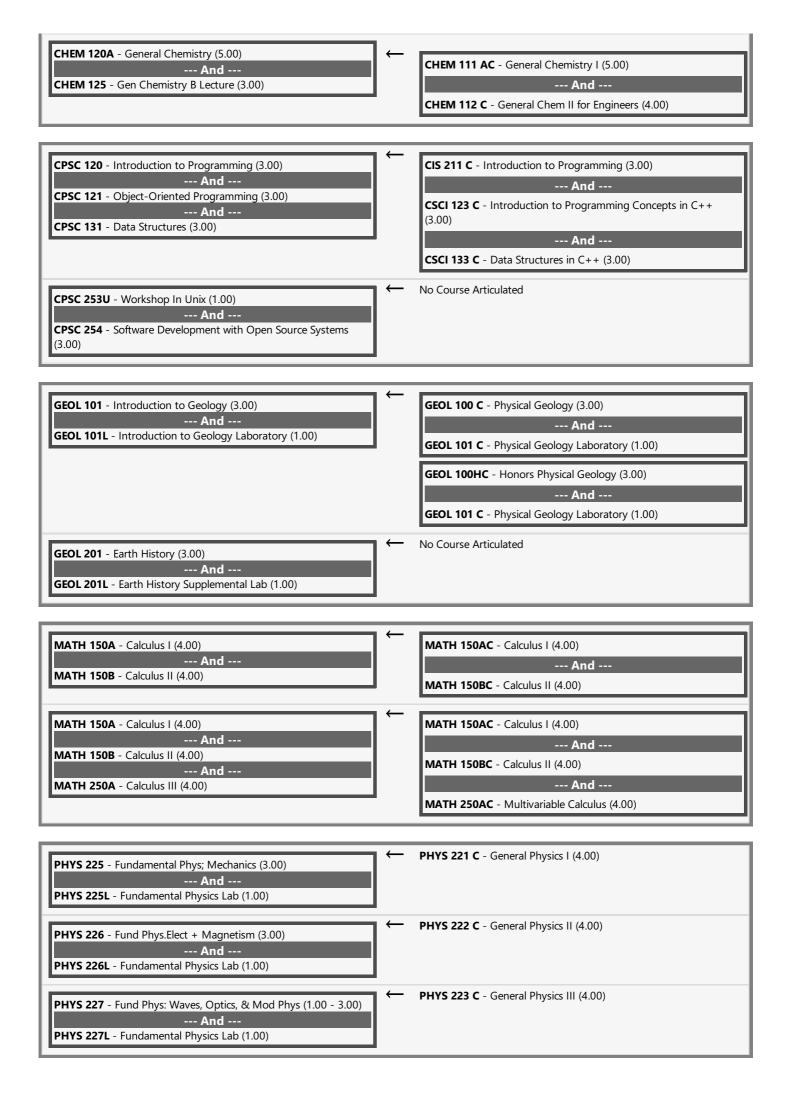**GEOL 201L** - Earth History Supplemental Lab (1.00)

←

No Course Articulated

MATH 150A - Calculus I (4.00)
--- And ---
MATH 150B - Calculus II (4.00)

←

MATH 150AC - Calculus I (4.00)
--- And ---
MATH 150BC - Calculus II (4.00)

MATH 150A - Calculus I (4.00)
--- And ---
MATH 150B - Calculus II (4.00)
--- And ---
MATH 250A - Calculus III (4.00)

←

MATH 150AC - Calculus I (4.00)
--- And ---
MATH 150BC - Calculus II (4.00)
--- And ---
MATH 250AC - Multivariable Calculus (4.00)

PHYS 225 - Fundamental Phys; Mechanics (3.00)
--- And ---
PHYS 225L - Fundamental Physics Lab (1.00)

←

PHYS 221 C - General Physics I (4.00)

PHYS 226 - Fund Phys.Elect + Magnetism (3.00)
--- And ---
PHYS 226L - Fundamental Physics Lab (1.00)

←

PHYS 222 C - General Physics II (4.00)

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

←

PHYS 223 C - General Physics III (4.00)

END OF AGREEMENT