Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: California State University, Fullerton 2022-2023 General Catalog, Semester	From: Santiago Canyon 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.

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LOWER DIVISION CORE

Select 15 Semester Unit(s) from the following

CPSC 120 - Introduction to Programming (3.00)	←	**CMPR 120** - Introduction to Programming (3.00)
CPSC 121 - Object-Oriented Programming (3.00)	←	**CMPR 121** - Programming Concepts (3.00) **--- Or ---** **CMPR 122** - Programming Concepts and Methodology I (3.00)
CPSC 131 - Data Structures (3.00)	←	**CMPR 131** - Data Structures Concepts (3.00) **--- Or ---** **CMPR 132** - Programming Concepts and Methodology II (3.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	←	**CMPR 129** - Introduction to Computer Organization (4.00) **--- Or ---** **CMPR 154** - Computer Architecture and Organization (3.00)
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)	←	**CMPR 112** - JAVA Programming (3.00)
CPSC 223N - Visual C# Programming (3.00)	←	No Course Articulated
CPSC 223P - Python Programming (3.00)	←	No Course Articulated

MATHEMATICS REQUIREMENTS

Select 18 Semester Unit(s) from the following

MATH 150A - Calculus I (4.00)	←	**MATH 180** - Single Variable Calculus I (4.00) **--- Or ---** **MATH 180H** - Honors Single Variable Calculus I (4.00)
MATH 150B - Calculus II (4.00)	←	**MATH 185** - Single Variable Calculus II (4.00)

MATH 170A - Mathematical Structures I (3.00)	←	**CMPR 149** - Discrete Structures for Computer Science (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)	←	**BIOL 109** - Fundamentals of Biology (3.00) **--- Or ---** **BIOL 109H** - Honors Fundamentals of Biology (3.00)
BIOL 101L - Elements of Biology Laboratory (1.00)	←	**BIOL 109L** - Fundamentals of Biology Laboratory (1.00)
BIOL 151 - Cellular & Molecular Biology (4.00)	←	**BIOL 211** - Cellular and Molecular Biology (5.00)
BIOL 152 - Evolution & Organismal Biology (4.00)	←	No Course Articulated

CHEM 120A - General Chemistry (5.00)	←	**CHEM 200A** - General Chemistry A (5.00) **--- Or ---** **CHEM 200AH** - Honors General Chemistry AH (5.00)
CHEM 120B - General Chemistry (5.00)	←	**CHEM 200B** - General Chemistry B (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)	←	**ERTH 100** - Physical Geology (3.00)
GEOL 101L - Introduction to Geology Laboratory (1.00)	←	**ERTH 100L** - Physical Geology Laboratory (1.00)
GEOL 201 - Earth History (3.00)	←	**ERTH 111** - Historical Geology (4.00)
GEOL 201L - Earth History Supplemental Lab (1.00)	←	No Course Articulated

MATH 250A - Calculus III (4.00)	←	**MATH 280** - Intermediate Calculus (4.00)
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	←	**MATH 290** - Linear Algebra (3.00) **--- And ---** **MATH 295** - Differential Equations (3.00) **--- Or ---** **MATH 287** - Introduction to 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)	←	No Course Articulated

REQUIRED FOR GRADUATION

POSC 100 - American Government (3.00)	←	**POLT 101** - Introduction to American Government (3.00) **--- Or ---** **POLT 101H** - Honors Introduction to American Government (3.00)

ARTICULATION DETAILS

BIOL 101 - Elements of Biology (3.00) **--- And ---** **BIOL 101L** - Elements of Biology Laboratory (1.00)	←	**BIOL 109** - Fundamentals of Biology (3.00) **--- And ---** **BIOL 109L** - Fundamentals of Biology Laboratory (1.00) **--- Or ---** **BIOL 109H** - Honors Fundamentals of Biology (3.00) **--- And ---** **BIOL 109L** - Fundamentals of Biology Laboratory (1.00)
BIOL 151 - Cellular & Molecular Biology (4.00) **--- And ---** **BIOL 152** - Evolution & Organismal Biology (4.00)	←	No Course Articulated

CHEM 120A - General Chemistry (5.00) **--- And ---** **CHEM 120B** - General Chemistry (5.00)	←	**CHEM 200AH** - Honors General Chemistry AH (5.00) **--- And ---** **CHEM 200B** - General Chemistry B (5.00) **--- Or ---** **CHEM 200A** - General Chemistry A (5.00) **--- And ---** **CHEM 200B** - General Chemistry B (5.00)
CHEM 120A - General Chemistry (5.00) **--- And ---** **CHEM 125** - Gen Chemistry B Lecture (3.00)	←	**CHEM 200A** - General Chemistry A (5.00) **--- And ---** **CHEM 200B** - General Chemistry B (5.00)

CPSC 120 - Introduction to Programming (3.00) **--- And ---** **CPSC 121** - Object-Oriented Programming (3.00) **--- And ---** **CPSC 131** - Data Structures (3.00)	←	**CMPR 120** - Introduction to Programming (3.00) **--- And ---** **CMPR 121** - Programming Concepts (3.00) **--- And ---** **CMPR 131** - Data Structures Concepts (3.00) **--- Or ---** **CMPR 120** - Introduction to Programming (3.00) **--- And ---** **CMPR 122** - Programming Concepts and Methodology I (3.00) **--- And ---** **CMPR 132** - Programming Concepts and Methodology II (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)	←	**ERTH 100** - Physical Geology (3.00) **--- And ---** **ERTH 100L** - 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 180** - Single Variable Calculus I (4.00) **--- And ---** **MATH 185** - Single Variable Calculus II (4.00) **--- Or ---** **MATH 180H** - Honors Single Variable Calculus I (4.00) **--- And ---** **MATH 185** - Single Variable 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 180** - Single Variable Calculus I (4.00) **--- And ---** **MATH 185** - Single Variable Calculus II (4.00) **--- And ---** **MATH 280** - Intermediate Calculus (4.00) **MATH 180H** - Honors Single Variable Calculus I (4.00) **--- And ---** **MATH 185** - Single Variable Calculus II (4.00) **--- And ---** **MATH 280** - Intermediate Calculus (4.00)

PHYS 225 - Fundamental Phys; Mechanics (3.00) **--- And ---** **PHYS 225L** - Fundamental Physics Lab (1.00)	←	**PHYS 250A** - Physics for Scientists and Engineering I (5.00)
PHYS 226 - Fund Phys.Elect + Magnetism (3.00) **--- And ---** **PHYS 226L** - Fundamental Physics Lab (1.00)	←	**PHYS 250B** - Physics for Scientists and Engineering II (5.00)
PHYS 227 - Fund Phys: Waves, Optics, & Mod Phys (1.00 - 3.00) **--- And ---** **PHYS 227L** - Fundamental Physics Lab (1.00)	←	**PHYS 250C** - Physics for Scientist and Engineering III (5.00)

END OF AGREEMENT