Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: California State University, Fullerton 2022-2023 General Catalog, Semester	From: Glendale Community 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)	←	**CS/IS 112** - Introduction to Programming Using Java (3.00)
CPSC 121 - Object-Oriented Programming (3.00)	←	**CS/IS 130** - Introduction to Algorithms (3.00) **--- Or ---** **CS/IS 135** - Programming in C/C++ (3.00)
CPSC 131 - Data Structures (3.00)	←	**CS/IS 211** - Data Structures (4.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	←	**CS/IS 165** - Computer Architecture and Assembly Language (4.00)
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	←	Course(s) Denied: CS/IS 193;

--- And ---

Select 1 Course(s) from the following

CPSC 223C - C Programming (3.00)	←	No Course Articulated
CPSC 223J - Java Programming (3.00)	←	**CS/IS 139** - JAVA (3.00)
CPSC 223N - Visual C# Programming (3.00)	←	No Course Articulated
CPSC 223P - Python Programming (3.00)	←	**CS/IS 151** - Python Programming (3.00)

MATHEMATICS REQUIREMENTS

Select 18 Semester Unit(s) from the following

MATH 150A - Calculus I (4.00)	←	**MATH 103** - Calculus and Analytic Geometry (5.00) **MATH 103E** - Calculus and Analytic Geometry I (5.00) **--- Or ---** **MATH 103EH** - Honors Calculus and Analytic Geometry I (5.00)
MATH 150B - Calculus II (4.00)	←	**MATH 104** - Calculus and Analytic Geometry (5.00) **MATH 104E** - Calculus and Analytic Geometry II (5.00)

MATH 170A - Mathematical Structures I (3.00)	←	**CS/IS 125** - Discrete Structures for Computing (4.00)
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 101** - General Biology I (4.00)
BIOL 152 - Evolution & Organismal Biology (4.00)	←	**BIOL 102** - General Biology II (5.00)

CHEM 120A - General Chemistry (5.00)	←	**CHEM 101** - General Chemistry A (5.00)
CHEM 120B - General Chemistry (5.00)	←	**CHEM 102** - General Chemistry B (5.00)
CHEM 123 - Chemistry for Engineers (3.00)	←	No Course Articulated
CHEM 125 - Gen Chemistry B Lecture (3.00)	←	**CHEM 102** - General Chemistry B (5.00)

GEOL 101 - Introduction to Geology (3.00)	←	**GEOL 101** - Physical Geology (3.00)
GEOL 101L - Introduction to Geology Laboratory (1.00)	←	**GEOL 111** - Physical Geology Laboratory (1.00)
GEOL 201 - Earth History (3.00)	←	**GEOL 105** - Earth and Life through Time (3.00)
GEOL 201L - Earth History Supplemental Lab (1.00)	←	**GEOL 115** - Earth and Life through Time Lab (1.00)

MATH 250A - Calculus III (4.00)	←	**MATH 105** - Multivariable and Vector Calculus (5.00)
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	←	**MATH 108** - Ordinary Differential Equations (5.00) **--- And ---** **MATH 107H** - Honors Linear Algebra (5.00) **MATH 107** - Linear Algebra (5.00) **--- And ---** **MATH 108** - Ordinary 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)	←	**POL S 101** - Introduction to United States and California Government and Politics (3.00)

ARTICULATION DETAILS

BIOL 101 - Elements of Biology (3.00) **--- And ---** **BIOL 101L** - Elements of Biology Laboratory (1.00)	←	**BIOL 122** - Introduction to Biology (4.00)

BIOL 151 - Cellular & Molecular Biology (4.00) **--- And ---** **BIOL 152** - Evolution & Organismal Biology (4.00)	←	**BIOL 101** - General Biology I (4.00) **--- And ---** **BIOL 102** - General Biology II (5.00)
CHEM 120A - General Chemistry (5.00) **--- And ---** **CHEM 120B** - General Chemistry (5.00)	←	**CHEM 101** - General Chemistry A (5.00) **--- And ---** **CHEM 102** - General Chemistry B (5.00)
CHEM 120A - General Chemistry (5.00) **--- And ---** **CHEM 125** - Gen Chemistry B Lecture (3.00)	←	**CHEM 101** - General Chemistry A (5.00) **--- And ---** **CHEM 102** - 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)	←	No Course Articulated
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)	←	No Course Articulated
GEOL 201 - Earth History (3.00) **--- And ---** **GEOL 201L** - Earth History Supplemental Lab (1.00)	←	**GEOL 105** - Earth and Life through Time (3.00) **--- And ---** **GEOL 115** - Earth and Life through Time Lab (1.00)
MATH 150A - Calculus I (4.00) **--- And ---** **MATH 150B** - Calculus II (4.00)	←	**MATH 103** - Calculus and Analytic Geometry (5.00) **MATH 104** - Calculus and Analytic Geometry (5.00)
MATH 150A - Calculus I (4.00) **--- And ---** **MATH 150B** - Calculus II (4.00) **--- And ---** **MATH 250A** - Calculus III (4.00)	←	**MATH 103** - Calculus and Analytic Geometry (5.00) **--- And ---** **MATH 104** - Calculus and Analytic Geometry (5.00) **--- And ---** **MATH 105** - Multivariable and Vector Calculus (5.00)
PHYS 225 - Fundamental Phys; Mechanics (3.00) **--- And ---** **PHYS 225L** - Fundamental Physics Lab (1.00)	←	**PHY 101** - Physics for Scientists and Engineers: A (5.00) **--- Or ---** **PHY 101H** - Honors Physics for Scientists and Engineers: A (5.00)
PHYS 226 - Fund Phys.Elect + Magnetism (3.00) **--- And ---** **PHYS 226L** - Fundamental Physics Lab (1.00)	←	**PHY 102** - Physics for Scientists and Engineers: B (5.00)

PHYS 227 - Fund Phys: Waves, Optics, & Mod Phys (1.00 - 3.00) **--- And ---** **PHYS 227L** - Fundamental Physics Lab (1.00)	←	**PHY 103** - Physics for Scientists and Engineers: C (5.00)

END OF AGREEMENT