

Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

From: Imperial Valley 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)	←	CIS 210 - Programming in C++ (3.00)
CPSC 121 - Object-Oriented Programming (3.00)	←	CS 221 - Introduction to Object Oriented Programming in Java (3.00)
CPSC 131 - Data Structures (3.00)	←	CS 231 - Introduction to Data Structures (3.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	←	CS 280 - Assembly Language and Machine Organization (4.00)
		--- Or ---
		CS 281 - Assembly Language and Machine Organization (3.00)
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	←	No Course Articulated

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Select 1 Course(s) from the following

CPSC 223C - C Programming (3.00)	←	No Course Articulated
CPSC 223J - Java Programming (3.00)	←	CS 220 - Introduction to Object-Oriented Programming Using Java (4.00)
		--- Or ---
		CS 230 - Intermediate Object-Oriented Programming Using Java (4.00)
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 192 - Analytic Geometry and Calculus I (4.00)
MATH 150B - Calculus II (4.00)	←	MATH 194 - Analytic Geometry and Calculus II (4.00)

MATH 170A - Mathematical Structures I (3.00)	←	CS 240 - 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)	←	Course(s) Denied: BIOL 100;
BIOL 101L - Elements of Biology Laboratory (1.00)	←	Course(s) Denied: BIOL 100;
BIOL 151 - Cellular & Molecular Biology (4.00)	←	No Course Articulated
BIOL 152 - Evolution & Organismal Biology (4.00)	←	BIOL 182 - General Biology: Principles of Organismal Biology (4.00)

CHEM 120A - General Chemistry (5.00)	←	CHEM 200 - General Inorganic Chemistry I (5.00)
CHEM 120B - General Chemistry (5.00)	←	CHEM 202 - General Inorganic Chemistry 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 100 - General Geology (4.00)
GEOL 101L - Introduction to Geology Laboratory (1.00)	←	GEOL 100 - General Geology (4.00)
GEOL 201 - Earth History (3.00)	←	No Course Articulated
GEOL 201L - Earth History Supplemental Lab (1.00)	←	No Course Articulated

MATH 250A - Calculus III (4.00)	←	MATH 210 - Multivariable Calculus (4.00)
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	←	<div style="border: 1px solid black; padding: 5px;"> MATH 220 - Elementary Differential Equations (3.00) <div style="text-align: center;">--- And ---</div> MATH 230 - Introduction to Linear Algebra with Applications (3.00) </div>

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)	←	CS 170 - Introduction to Unix/Linux (3.00)
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REQUIRED FOR GRADUATION

POSC 100 - American Government (3.00)	←	POLS 102 - American Government and Politics (3.00)
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ARTICULATION DETAILS

<div style="border: 1px solid black; padding: 5px;"> BIOL 101 - Elements of Biology (3.00) <div style="text-align: center;">--- And ---</div> BIOL 101L - Elements of Biology Laboratory (1.00) </div>	←	No Course Articulated
<div style="border: 1px solid black; padding: 5px;"> BIOL 151 - Cellular & Molecular Biology (4.00) <div style="text-align: center;">--- And ---</div> BIOL 152 - Evolution & Organismal Biology (4.00) </div>	←	No Course Articulated

CHEM 120A - General Chemistry (5.00)

--- And ---

CHEM 120B - General Chemistry (5.00)



CHEM 200 - General Inorganic Chemistry I (5.00)

--- And ---

CHEM 202 - General Inorganic Chemistry II (5.00)

CHEM 120A - General Chemistry (5.00)

--- And ---

CHEM 125 - Gen Chemistry B Lecture (3.00)



No Course Articulated

CPSC 120 - Introduction to Programming (3.00)

--- And ---

CPSC 121 - Object-Oriented Programming (3.00)

--- And ---

CPSC 131 - Data Structures (3.00)



CIS 210 - Programming in C++ (3.00)

--- And ---

CS 221 - Introduction to Object Oriented Programming in Java (3.00)

--- And ---

CS 231 - Introduction to Data Structures (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 - General Geology (4.00)

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 192 - Analytic Geometry and Calculus I (4.00)

--- And ---

MATH 194 - Analytic Geometry and 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 192 - Analytic Geometry and Calculus I (4.00)

--- And ---

MATH 194 - Analytic Geometry and Calculus II (4.00)

--- And ---

MATH 210 - Multivariable Calculus (4.00)

PHYS 225 - Fundamental Phys; Mechanics (3.00)

--- And ---

PHYS 225L - Fundamental Physics Lab (1.00)



PHYS 200 - General Physics I (4.00)

PHYS 226 - Fund Phys.Elect + Magnetism (3.00)

--- And ---

PHYS 226L - Fundamental Physics Lab (1.00)



PHYS 202 - 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 204 - General Physics III (4.00)

END OF AGREEMENT