

Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

From: MiraCosta 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)	←	No Course Articulated
CPSC 121 - Object-Oriented Programming (3.00)	←	CS 150 - C++ Programming (3.00)
CPSC 131 - Data Structures (3.00)	←	CS 113 - Basic Data Structures and Algorithms (3.00)
CPSC 240 - Computer Organization & Assembly Language (3.00)	←	No Course Articulated
CPSC 253 - Cybersecurity Foundations and Principles (3.00)	←	Course(s) Denied: CSIT 188;

--- And ---

Select 1 Course(s) from the following

CPSC 223C - C Programming (3.00)	←	No Course Articulated
CPSC 223J - Java Programming (3.00)	←	CS 111 - Introduction to Computer Science I: Java (3.00)
		--- Or ---
		CS 112 - Introduction to Computer Science II: Java (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 150 - Calculus and Analytic Geometry I (5.00)
		--- Or ---
		MATH 150H - Calculus and Analytic Geometry I (Honors) (5.00)
MATH 150B - Calculus II (4.00)	←	MATH 155 - Calculus and Analytic Geometry 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

Select 12 Semester Unit(s) from the following

BIOL 101 - Elements of Biology (3.00)	←	BIO 111 - Introductory Biology: Preparation for Pre-Health Professions (Lecture) (3.00)
BIOL 101L - Elements of Biology Laboratory (1.00)	←	BIO 111L - Introductory Biology: Preparation for Pre-Health Professions (Lab) (1.00)
BIOL 151 - Cellular & Molecular Biology (4.00)	←	BIO 204 - Foundations of Biology: Biochemistry, Cell Biology, Genetics and Molecular Biology (4.00) --- Or --- BIO 204H - Foundations of Biology: Biochemistry, Cell Biology, Genetics, and Molecular Biology(Honors) (4.00)
BIOL 152 - Evolution & Organismal Biology (4.00)	←	BIO 202 - Foundations of Biology: Evolution, Biodiversity and Organismal Biology (4.00)

CHEM 120A - General Chemistry (5.00)	←	CHEM 150 - General Chemistry I: For Science Majors (5.00) --- Or --- CHEM 150H - General Chemistry I : For Science Majors (Honors) (5.00)
CHEM 120B - General Chemistry (5.00)	←	CHEM 151 - General Chemistry II: For Science Majors (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 101 - Physical Geology (3.00) --- Or --- GEOL 101H - Physical Geology (Honors) (3.00)
GEOL 101L - Introduction to Geology Laboratory (1.00)	←	GEOL 101L - Physical Geology Laboratory (1.00)
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)	←	No Course Articulated
MATH 250B - Intro to Linear Algebra and Diff. Equations (4.00)	←	MATH 265 - Differential Equations (4.00) --- And --- MATH 270 - Linear Algebra (4.00)

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
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REQUIRED FOR GRADUATION

POSC 100 - American Government (3.00)	←	PLSC 102 - American Institutions and History (4.00)
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ARTICULATION DETAILS

BIOL 101 - Elements of Biology (3.00)
--- And ---
BIOL 101L - Elements of Biology Laboratory (1.00)

← **BIO 111** - Introductory Biology: Preparation for Pre-Health Professions (Lecture) (3.00)
BIO 111L - Introductory Biology: Preparation for Pre-Health Professions (Lab) (1.00)

BIOL 151 - Cellular & Molecular Biology (4.00)
--- And ---
BIOL 152 - Evolution & Organismal Biology (4.00)

← **BIO 202** - Foundations of Biology: Evolution, Biodiversity and Organismal Biology (4.00)

--- And ---

BIO 204 - Foundations of Biology: Biochemistry, Cell Biology, Genetics and Molecular Biology (4.00)

BIO 202 - Foundations of Biology: Evolution, Biodiversity and Organismal Biology (4.00)

--- And ---

BIO 204H - Foundations of Biology: Biochemistry, Cell Biology, Genetics, and Molecular Biology(Honors) (4.00)

CHEM 120A - General Chemistry (5.00)
--- And ---
CHEM 120B - General Chemistry (5.00)

← **CHEM 150** - General Chemistry I: For Science Majors (5.00)

--- And ---

CHEM 151 - General Chemistry II: For Science Majors (5.00)

CHEM 150H - General Chemistry I : For Science Majors (Honors) (5.00)

--- And ---

CHEM 151H - General Chemistry II : For Science Majors (Honors) (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)

← 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)

← **GEOL 101** - Physical Geology (3.00)

--- And ---

GEOL 101L - Physical Geology Laboratory (1.00)

GEOL 101H - Physical Geology (Honors) (3.00)

--- And ---

GEOL 101LH - Physical Geology Laboratory (Honors) (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)

← No Course Articulated

MATH 150A - Calculus I (4.00)

--- And ---

MATH 150B - Calculus II (4.00)

--- And ---

MATH 250A - Calculus III (4.00)

← No Course Articulated

PHYS 225 - Fundamental Phys; Mechanics (3.00)

--- And ---

PHYS 225L - Fundamental Physics Lab (1.00)

← **PHYS 151** - Principles of Physics I (4.00)

--- Or ---

PHYS 151H - Principles of Physics I (Honors) (4.00)

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

--- And ---

PHYS 226L - Fundamental Physics Lab (1.00)

← **PHYS 152** - Principles of Physics II (4.00)

--- Or ---

PHYS 152H - Principles of Physics II (Honors) (4.00)

PHYS 227 - Fund Phys: Waves, Optics, & Mod Phys (1.00 - 3.00)

--- And ---

PHYS 227L - Fundamental Physics Lab (1.00)

← **PHYS 253** - Principles of Physics III (4.00)

--- Or ---

PHYS 253H - Principles of Physics III (Honors) (4.00)

END OF AGREEMENT