

Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

From: Grossmont College
2022-2023 General Catalog, Semester

Computer Science - CS Option

THE ARTICULATION AGREEMENT BELOW IS SUBJECT TO PERIODIC REVISION. PLEASE CONSULT A COUNSELOR EVERY SEMESTER TO OBTAIN CURRENT INFORMATION ABOUT POSSIBLE CHANGES IN THE AGREEMENT.

MINIMUM GRADE OF C

All courses counted toward the major, including Preparation for the Major courses, must be completed with a letter grade of C (2.0) or better. Credit/No Credit is not accepted.

LOWER AND UPPER DIVISION COURSE OPTIONS

The course below, MATH 264, can be used to satisfy a major requirement; an upper division course can also be used to satisfy this requirement.

[*Please see the 2022-2023 CSUSM catalog to view the upper division option within the Requirements for Non-Computer Science Supporting Courses section*](#)

PREPARATION FOR THE MAJOR

CS 111 - Computer Science I (4.00)	←	CSIS 296 - Introduction to C++ Programming (4.00) --- Or --- CSIS 293 - Introduction to Java Programming (4.00)
CS 211 - Computer Science II (4.00)	←	CSIS 297 - Intermediate C++ Programming (4.00) --- Or --- CSIS 294 - Intermediate Java Programming and Fundamental Data Structures (4.00)
CS 231 - Assembly Language and Digital Circuits (4.00)	←	CSIS 165 - Assembly Language and Machine Architecture (4.00)

NON-COMPUTER SCIENCE SUPPORTING COURSES

MATH 160 - Calculus with Applications, I (5.00)	←	MATH 180 - Analytic Geometry and Calculus I (5.00) • Subject credit will be granted for one course only
MATH 162 - Calculus with Applications, II (4.00)	←	MATH 280 - Analytic Geometry and Calculus II (4.00)
MATH 270 - Basic Discrete Mathematics (3.00)	←	No Course Articulated
MATH 242 - Introduction to Statistics (3.00)	←	MATH 160 - Elementary Statistics (4.00)
MATH 264 - Introduction to Linear Algebra (3.00)	←	MATH 284 - Linear Algebra (3.00)

Select 8 Unit(s) from the following

BIOL 104 - Principles of Biology-Human Emphasis (4.00)	←	BIO 120 - Principles of Biology (4.00)
BIOL 160 - Microbiology for Health Sciences (4.00)	←	BIO 152 - Paramedical Microbiology (5.00)
BIOL 177 - Intro to Human Anatomy & Physiology for Kinesiology I (4.00)	←	BIO 144 - Anatomy and Physiology I (4.00) --- And --- BIO 145 - Anatomy and Physiology II (4.00)
BIOL 178 - Intro to Human Anatomy & Physiology for Kinesiology II (4.00)	←	BIO 144 - Anatomy and Physiology I (4.00) --- And --- BIO 145 - Anatomy and Physiology II (4.00)
BIOL 210 - Introduction to Cellular and Molecular Biology (4.00)	←	BIO 230 - Principles of Cellular, Molecular and Evolutionary Biology (4.00)

BIOL 211 - Introduction to Organismal and Population Biology (4.00)



BIO 120 - Principles of Biology (4.00)

--- Or ---

BIO 240 - Principles of Ecology, Evolution, and Organismal Biology (5.00)

CHEM 105 - General, Organic, and Biochemistry for Life (4.00)



CHEM 115 - Fundamentals of Chemistry (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biochemistry (4.00)

--- Or ---

CHEM 120 - Preparation for General Chemistry (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biochemistry (4.00)

--- Or ---

CHEM 102 - Introduction to General, Organic and Biological Chemistry (5.00)

--- And ---

CHEM 105L - General, Organic, and Biochemistry for Life Laboratory (1.00)



CHEM 115 - Fundamentals of Chemistry (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biochemistry (4.00)

--- Or ---

CHEM 120 - Preparation for General Chemistry (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biochemistry (4.00)

--- Or ---

CHEM 102 - Introduction to General, Organic and Biological Chemistry (5.00)

CHEM 150 - General Chemistry (4.00)



CHEM 141 - General Chemistry I (5.00)

--- And ---

CHEM 150L - General Chemistry Laboratory (1.00)



CHEM 141 - General Chemistry I (5.00)

CHEM 160 - General Chemistry II (3.00)



CHEM 142 - General Chemistry II (5.00)

--- And ---

CHEM 175 - General Chemistry Laboratory II (1.00)



CHEM 142 - General Chemistry II (5.00)

CHEM 201 - Organic Chemistry (3.00)



CHEM 231 - Organic Chemistry I (5.00)

--- Or ---

CHEM 241 - Organic Chemistry I Lecture (3.00)

--- And ---

CHEM 241L - Organic Chemistry I Laboratory (2.00)

--- And ---

CHEM 201L - Organic Chemistry Laboratory (2.00)



CHEM 231 - Organic Chemistry I (5.00)

--- Or ---

CHEM 241 - Organic Chemistry I Lecture (3.00)

--- And ---

CHEM 241L - Organic Chemistry I Laboratory (2.00)

CHEM 202 - Organic Chemistry (3.00)	←	CHEM 232 - Organic Chemistry II (5.00)
		--- Or ---
		CHEM 242 - Organic Chemistry II Lecture (3.00)
		--- And ---
		CHEM 242L - Organic Chemistry II Laboratory (2.00)
--- And ---		
CHEM 202L - Organic Chemistry Laboratory (2.00)	←	CHEM 232 - Organic Chemistry II (5.00)
		--- Or ---
		CHEM 242 - Organic Chemistry II Lecture (3.00)
		--- And ---
		CHEM 242L - Organic Chemistry II Laboratory (2.00)
PHYS 101 - Introduction to Physics I (4.00)	←	PHYC 130 - Fundamentals of Physics (4.00)
PHYS 102 - Introduction to Physics II (4.00)	←	PHYC 131 - Fundamentals of Physics (4.00)
PHYS 201 - Physics of Mechanics and Sound (4.00)	←	PHYC 140 - Mechanics of Solids (4.00)
PHYS 202 - Physics of Electromagnetism and Optics (4.00)	←	PHYC 240 - Electricity, Magnetism and Heat (4.00)
PHYS 205 - Physics for the Biological Sciences I (4.00)	←	PHYC 130 - Fundamentals of Physics (4.00)
PHYS 206 - Physics for the Biological Sciences II (4.00)	←	PHYC 131 - Fundamentals of Physics (4.00)

END OF AGREEMENT