

Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

From: MiraCosta 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.

Note: The Criminology and Justice Studies program is offered through Extended Learning. For further information, please call (760) 750-4020.

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)



CS 111 - Introduction to Computer Science I: Java (3.00)

CS 211 - Computer Science II (4.00)



CS 112 - Introduction to Computer Science II: Java (3.00)

--- And ---

CS 113 - Basic Data Structures and Algorithms (3.00)

CS 231 - Assembly Language and Digital Circuits (4.00)



CS 220 - Computer Architecture and Assembly Language (3.00)

NON-COMPUTER SCIENCE SUPPORTING COURSES

MATH 160 - Calculus with Applications, I (5.00)



MATH 150 - Calculus and Analytic Geometry I (5.00)

--- Or ---

MATH 150H - Calculus and Analytic Geometry I (Honors) (5.00)

MATH 162 - Calculus with Applications, II (4.00)



MATH 155 - Calculus and Analytic Geometry II (4.00)

MATH 270 - Basic Discrete Mathematics (3.00)



MATH 226 - Discrete Mathematics (4.00)

--- Or ---

CS 226 - Discrete Structures (4.00)

MATH 242 - Introduction to Statistics (3.00)



MATH 103 - Statistics (4.00)

--- Or ---

MATH 103S - Statistics with Integrated Support (5.00)

MATH 264 - Introduction to Linear Algebra (3.00)



MATH 270 - Linear Algebra (4.00)

Select 8 Unit(s) from the following

BIOL 104 - Principles of Biology-Human Emphasis (4.00)



BIO 111 - Introductory Biology: Preparation for Pre-Health Professions (Lecture) (3.00)

--- And ---

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

--- Or ---

BIO 110 - Introductory Biology: Preparation for Pre-Health Professions (Lecture and Lab) (4.00)

BIOL 160 - Microbiology for Health Sciences (4.00)



BIO 230 - Introduction to Microbiology (5.00)

BIOL 177 - Intro to Human Anatomy & Physiology for Kinesiology I (4.00) ←

BIO 210 - Human Anatomy (4.00)

--- And ---

BIO 220 - Human Physiology (4.00)

--- Or ---

BIO 210H - Human Anatomy (Honors) (4.00)

--- And ---

BIO 220 - Human Physiology (4.00)

BIOL 178 - Intro to Human Anatomy & Physiology for Kinesiology II (4.00) ←

BIO 210 - Human Anatomy (4.00)

--- And ---

BIO 220 - Human Physiology (4.00)

--- Or ---

BIO 210H - Human Anatomy (Honors) (4.00)

--- And ---

BIO 220 - Human Physiology (4.00)

BIOL 210 - Introduction to Cellular and 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 211 - Introduction to Organismal and Population Biology (4.00) ←

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

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

CHEM 112 - Introductory General, Organic and Biological Chemistry: For Allied Health Majors (5.00)

--- Or ---

CHEM 115 - Introductory General Chemistry: For Allied Health Majors (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biological Chemistry: For Allied Health Majors (4.00)

--- Or ---

CHEM 115H - Introductory Chemistry General: For Allied Health Majors (Honors) (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biological Chemistry: For Allied Health Majors (4.00)

--- And ---

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

CHEM 112 - Introductory General, Organic and Biological Chemistry: For Allied Health Majors (5.00)

--- Or ---

CHEM 115 - Introductory General Chemistry: For Allied Health Majors (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biological Chemistry: For Allied Health Majors (4.00)

--- Or ---

CHEM 115H - Introductory Chemistry General: For Allied Health Majors (Honors) (4.00)

--- And ---

CHEM 116 - Introductory Organic and Biological Chemistry: For Allied Health Majors (4.00)

CHEM 150 - General Chemistry (4.00)	←	CHEM 150 - General Chemistry I: For Science Majors (5.00) --- Or --- CHEM 150H - General Chemistry I : For Science Majors (Honors) (5.00)
--- And ---		
CHEM 150L - General Chemistry Laboratory (1.00)	←	CHEM 150 - General Chemistry I: For Science Majors (5.00) --- Or --- CHEM 150H - General Chemistry I : For Science Majors (Honors) (5.00)

CHEM 160 - General Chemistry II (3.00)	←	CHEM 151 - General Chemistry II: For Science Majors (5.00) --- Or --- CHEM 151H - General Chemistry II : For Science Majors (Honors) (5.00)
--- And ---		
CHEM 175 - General Chemistry Laboratory II (1.00)	←	CHEM 151 - General Chemistry II: For Science Majors (5.00) --- Or --- CHEM 151H - General Chemistry II : For Science Majors (Honors) (5.00)

CHEM 201 - Organic Chemistry (3.00)	←	CHEM 210 - Organic Chemistry I: For Science Majors (5.00) --- Or --- CHEM 210H - Organic Chemistry I: For Science Majors (Honors) (5.00)
--- And ---		
CHEM 201L - Organic Chemistry Laboratory (2.00)	←	CHEM 210 - Organic Chemistry I: For Science Majors (5.00) --- Or --- CHEM 210H - Organic Chemistry I: For Science Majors (Honors) (5.00)

CHEM 202 - Organic Chemistry (3.00)	←	CHEM 211 - Organic Chemistry II: For Science Majors (5.00) --- Or --- CHEM 211H - Organic Chemistry II: For Science Majors (Honors) (5.00)
--- And ---		
CHEM 202L - Organic Chemistry Laboratory (2.00)	←	CHEM 211 - Organic Chemistry II: For Science Majors (5.00) --- Or --- CHEM 211H - Organic Chemistry II: For Science Majors (Honors) (5.00)

PHYS 101 - Introduction to Physics I (4.00)	←	PHYS 111 - Introductory Physics I (4.00) --- Or --- PHYS 111H - Introductory Physics I (Honors) (4.00)
PHYS 102 - Introduction to Physics II (4.00)	←	PHYS 112 - Introductory Physics II (4.00) --- Or --- PHYS 112H - Introductory Physics II (Honors) (4.00)
PHYS 201 - Physics of Mechanics and Sound (4.00)	←	PHYS 151 - Principles of Physics I (4.00) --- Or --- PHYS 151H - Principles of Physics I (Honors) (4.00)
PHYS 202 - Physics of Electromagnetism and Optics (4.00)	←	PHYS 152 - Principles of Physics II (4.00) --- Or --- PHYS 152H - Principles of Physics II (Honors) (4.00)
PHYS 205 - Physics for the Biological Sciences I (4.00)	←	PHYS 151 - Principles of Physics I (4.00) --- Or --- PHYS 151H - Principles of Physics I (Honors) (4.00)
PHYS 206 - Physics for the Biological Sciences II (4.00)	←	PHYS 152 - Principles of Physics II (4.00) --- Or --- PHYS 152H - Principles of Physics II (Honors) (4.00)

END OF AGREEMENT