

PHARMACY PREREQUISITE COURSEWORK

www.csusm.edu/prehealth

The following prerequisite courses are offered at CSUSM. Courses numbered 300+ are upper-division courses. Requirements vary among individual schools and subject to change. **Please check each school you intend to apply for most current requirements.**

MATHEMATICS: (2 semesters)

- MATH 160 "Calculus with Applications I"
- MATH 162 "Calculus with Applications II"

STATISTICS:

- BIOL 215 "Biostatistics"; **or**
- MATH 242 "Intro to Statistics"

GENERAL CHEMISTRY: (2 semesters with Lab)

- CHEM 150/150L "Gen Chemistry I + Lab"; **and**
- CHEM 160/175 "Gen Chemistry II + Lab"; **or**
- CHEM 160/275 "Gen Chemistry II + Quantitative Investigations"
***CHEM 275 only if required by major*

ORGANIC CHEMISTRY: (1 or 2 semesters with Lab)

- CHEM 201/201L "Organic Chemistry I + Lab"
- CHEM 202/202L "Organic Chemistry II + Lab"

BIOCHEMISTRY: (1 or 2 semesters; lab optional)

- CHEM 341 "General Biochemistry" (if only 1 semester required); **or**
- CHEM 351/352 "Biochemistry I/II" (if 2 semesters required)
- CHEM 351L "Biochemistry Lab" (if lab required)

BIOLOGICAL SCIENCES: (2 semesters with Lab)

- BIOL 210 "Intro to Cellular & Molecular Biology + Lab"; **and**
- BIOL 211 "Intro to Organismal & Population Biology + Lab"

- BIOL 160 "Microbiology + Lab" (lower-division); **or**
- BIOL 367 "Biology of Microorganisms + Lab" (upper-division)

HUMAN ANATOMY/PHYSIOLOGY: (2 semesters with Lab)

***Equivalents can also be completed at a community college*

- BIOL 175/176 "Intro to Human Anatomy & Physiology I/II + Lab for Nursing"; **or**
- BIOL 177/178 "Intro to Human Anatomy & Physiology I/II + Lab for Kinesiology"

PHYSICS: (2 semesters with Lab)

- PHYS 101/102 "Intro to Physics I/II + Lab"; **or**
- PHYS 201/202 "Physics of Mechanics & Sound/Electromagnetism & Optics + Lab" (calculus-based); **or**
- PHYS 205/206 "Physics for the Biological Sciences + Lab" (calculus-based)

ECONOMICS: (1 course)

- ECON 201 "Principles of Microeconomics"; **and/or**
- ECON 202 "Principles of Macroeconomics"

ENGLISH COMPOSITION/LITERATURE: (2 courses)

- GEW 101 "Principles of Written Communication"; **and** LTWR 115 "Critical Reading & Writing"; **or**
- GEW 101 "Principles of Written Communication"; **and** LTWR 100 "Intro to Literature"; **or**
- LTWR 100 "Intro to Literature"; **and** LTWR 115 "Critical Reading & Writing"

SOCIAL/BEHAVIORAL SCIENCE: (1 or more courses)

- PSYC 100 "Intro to Psychology"
- SOC 101 "Intro to Sociology"
- ANTH 200 "Cultural Anthropology"

PUBLIC SPEAKING:

- GEO 102 "Oral Communication"

ADDITIONAL BIOLOGY COURSES TO CONSIDER:

- BIOL 351 "Molecular Cell Biology + Lab"
- BIOL 352 "Genetics + Lab"
- BIOL 353 "Comparative Animal Physiology + Lab"
- BIOL 477 "Immunology"
- BIOL 477L "Immunology Lab"