INTRODUCTORY REQUIREMENTS

Calculus:
- MATH 11A (FWS) ___ + 11B (FWS) ___ + 22 (WS) ___
- OR MATH 19A (FWS) ___ + 19B (FWS) ___ + 22 (WS) ___
- OR AMS 15A (*) ___ + 15B (*) ___ + MATH 22 (WS) ___

Advanced Mathematics:
- MATH 21 (FWS) ___ OR MATH 24 (S) ___ OR AMS 10 (FS) ___

General Chemistry:
- CHEM 1A (FWS) ___ + 1B/M (FWS) ___ + 1C/N (FWS) ___

Organic Chemistry:
- CHEM 108A/L (FW) ___ + 108B/M (WS) ___ + CHEM 110/L (S) ___

Physics:
- PHYS 6A/L (FWS) ___ + 6B/M (WS) ___ + 6C/N (FS) ___
- OR PHYS 5A/L (F) ___ + 5B/M (W) ___ + 5C/N (S) ___

ADVANCED REQUIREMENTS

Chemistry:
- CHEM 103 Biochemistry (FS) ___
- CHEM 151A/L Chemistry of Metals (S) ___
- CHEM 163A Quantum Mechanics & Basic Spectroscopy (F) ___
- CHEM 163B Chemical Thermodynamics (W) ___
- CHEM 163C Kinetic Theory & Reaction Kinetics, Statistical Mechanics, Spectroscopic Apps (S) ___
- CHEM 164 Physical Chemistry Lab (W) ___

Electives:
- CHEM 122 Principles of Instrumental Analysis (F) ___
- CHEM 143 Organic Chemical Structure & Reactions (F) ___
- CHEM 151B Chemistry of the Main Group Elements (W) ___
- CHEM 156C Adv Topics in Inorganic Chemistry (*) ___
- Chem 169 Chemistry & Biology of Drug Design & Development (S) ___
- BIOC 100A/K Biochemistry (F) ___
- BIOC 100B Biochemistry (W) ___
- BIOC 100C Biochemistry (S) ___
- METX 101 Sources & Fates of pollutants (F) ___
- METX 102 Cell & Molecular Toxicology (*) ___
- OCEA 120 Aquatic Chemistry: Principles & Applications (*) ___
- OCEA 220 Chemical Oceanography (W) ___
- PHYS 116A Mathematical Methods in Physics (W) ___
- PHYS 116B Mathematical Methods in Physics (S) ___
- PHYS 180 Biophysics (S) ___

NOTE: CHEM 122 must be taken to receive certification from the American Chemical Society.

Advanced Laboratory:
- ONE from the following...
  - CHEM 146A Advanced Laboratory in Organic Chemistry (F) ___
  - CHEM 146B Advanced Laboratory in Inorganic Chemistry (S) ___
  - CHEM 146C Advanced Laboratory in Physical Chemistry (S) ___

NOTE: Students conducting senior thesis research are required to choose a lab outside of their area of research.

Disciplinary Communication:
- CHEM 151L and one of CHEM 146A, B, or C. The DC requirement MUST be taken at UCSC.

COMPREHENSIVE REQUIREMENT:

Senior Thesis: CHEM 195A (IS) ___ + 195B (IS) ___ + 195C (IS) ___

OR

Senior Essay: CHEM 199 (IS) ___