CHEMISTRY B.S. with Environmental Chemistry concentration

INTRODUCTORY REQUIREMENTS

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

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

Biology: BIOL 20A (FWS) ___ + BIOE 20B (FWS) ___

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

Earth & Planetary Sciences: EART 5/L (F) ___ OR EART 10/L (S) ___ OR EART 20/L (S) ___

Environmental Studies: ENVS 25 (W) ___

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 (W) ___

CHEM 122 Principles of Instrumental Analysis (F) ___

CHEM 151A/L Chemistry of Metals Lab (S) ___

CHEM 163A Quantum Mechanics & Basic Spectroscopy (F) ___

CHEM 163B Chemical Thermodynamics (W) ___

CHEM 164 Physical Chemistry Lab (W) ___

Earth & Planetary Sciences: EART 110B/M Earth as a Chemical System (W) ___

Microbiology & Environ. Toxicology: choose ONE...

METX 101 Sources & Fates of pollutants (F) ___

METX 102 Cell & Molecular Toxicology (W) ___

Ocean Sciences: ONE of the following...

OCEA 120 Aquatic Chemistry: Principles and Applications (*) ___

OCEA 220 Chemical Oceanography (W) ___

Advanced Laboratory: ONE of 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) ___