

Environmental Chemistry Concentration

Supporting Department: [Chemistry](#)
([College of Liberal Arts & Sciences](#))

Concentration objectives:

The concentration is designed to stimulate intellectual curiosity, to instruct students in logical reasoning, and to provide students with the knowledge and skills in Environmental Chemistry qualifying them to enter industry or to continue their education leading to advanced degrees. A firm foundation in chemistry is provided with an emphasis on organic and analytical chemistry. The students are taught to think independently through hands on experience with modern research quality chemical instrumentation applied to environmental chemical problems. The creative use of theory and methodology for problem solving is emphasized. Typical environmental problems range from the concentration PCBs (polychlorinated biphenyls) in the marine food chain to the determination of Freon in the atmosphere.

The students are trained in literature searching and provided with the literature tools that can be employed by them to keep abreast of new developments in a rapidly changing field. The number of chemistry papers published practically doubles every ten years and keeping abreast of new developments is of the utmost importance. Furthermore, the students will be taught by example by being instructed by faculty actively engaged in Environmental Chemistry research.

Contact the concentration advisor, Dr. Michael Hren (Michael.Hren@uconn.edu) for more information.

Environmental Chemistry concentration required course work:

Students must complete at least 15 credits including: CHEM 2443, 2444, 2445 or 2446; or CHEM 2241, 2242; and 3332 with remaining credits from CHEM 3210: CHEM 3334; MATH 2110Q and CHEM 3563; CHEM 4370, 4371

Students must complete 15 credits including either Sequence I or Sequence II & CHEM 3332:

Sequence I:

CHEM 2443

Organic Chemistry

CHEM 2444

Organic Chemistry

CHEM 2445 or CHEM 2446

Organic Chemistry Lab

OR

Sequence II:

CHEM 2241

Organic Chemistry

CHEM 2242

Organic Chemistry Lab

CHEM 3332

Quantitative Analytical Chemistry

Remaining credits must be from:

CHEM 3210

Descriptive Inorganic Chemistry

CHEM 3334

Instrumental Analysis I

MATH 2110Q and CHEM 3563

Multivariable Calculus & Physical Chemistry

CHEM 4370

Environmental Chemistry - Atmosphere

CHEM 4371

Environmental Chemistry - Hydrosphere

