

## Concentration Course Descriptions

- **EVSC 7110 / Water, Soil, and Air Chemistry—Part I / Lec. 3. Cr. 3.**
  - Prerequisite: CHEM 5520, 5710, or consent of instructor. Composition of waters and soils; kinetics and thermodynamics of environmental chemical and physical processes in waters and soils. Equilibrium modeling exercises are employed to prepare students for professional activities, and to reinforce course material.
- **EVSC 7120 / Water, Soil, and Air Chemistry—Part II / Lec. 3. Cr. 3.**
  - Prerequisite: EVSC 7110 or consent of instructor. Electrochemistry and solubility of soil minerals. Kinetics, reaction dynamics, photochemistry, and heterogeneous phase chemistry of the troposphere and stratosphere. Students will become familiar with watershed modeling and the use of geographical information systems in environmental chemistry.
- **EVSC 7210 / Organic Chemistry in the Environment / Lec. 3. Cr. 3.**
  - Prerequisite: CHEM 3520 and 6210 or consent of instructor. Introduction to specific organic compounds, their physical and chemical properties, chemical and photochemical transformation reactions and mechanisms in the environment, and literature case studies effectively used in their decontamination.
- **EVSC 7900 / Research Design in Environmental Chemistry / Lec. 3. Cr. 3.**
  - Prerequisite: Full Standing in Ph.D. program in environmental sciences, completion of core courses, and consent of research advisory committee. Literature investigation of a current area of environmental research leading to the development of a research proposal on a topic not related to student's doctoral dissertation research.
- **EVSC 7970 / Special Topics in Environmental Chemistry / Lec. 1-3. Lab. 0-3. Cr. 1-4.**
  - Prerequisite: Full Standing in Ph.D. program in environmental sciences or consent of instructor. Timely topics in environmental chemistry. Course may be taken for credit more than once.
- **EVSC 7990 / Research and Dissertation / Cr. 3, 6, 9.**