

COURSE MODULE INFORMATION

EOS304: Aquatic Geochemistry

Semester 2 | Credits: 5

This course introduces students to the quantitative treatment of chemical processes in aquatic systems. It includes a brief review of chemical thermodynamics and photochemistry as it applies to natural waters. Specific topics covered include acid-base chemistry, precipitation-dissolution, coordination, and redox reactions. Emphasis is on equilibrium calculations as a tool for understanding the variables that govern the chemical composition of aquatic systems and the fate of pollutants.
(Language of instruction: English)

Learning Outcomes

1. construct and balance chemical equations for reactions in aquatic systems
2. use thermodynamic data to calculate the solubility of minerals and construct stability diagrams
3. use geochemical analyses of rocks and waters to determine and quantify weathering reactions
4. describe the most important factors that control weathering rates
5. know the main chemical elements and compounds of river water and sea water and explain why
6. know the main chemical elements and compounds of river water and sea water and explain why
7. describe the behaviour of light in aquatic systems

Assessments

- Written Assessment (70%)
- Continuous Assessment (30%)

Module Director

- PETER CROOT: [Research Profile](#) | [Email](#)

Lecturers / Tutors

- PETER CROOT: [Research Profile](#)

Reading List

1. "Principles and Applications of Aquatic Chemistry" by Morel and Hering

The above information outlines module EOS304: "Aquatic Geochemistry" and is valid from 2015 onwards.

Note: Module offerings and details may be subject to change.