Course Description: A comprehensive introduction to how the principles of mineralogy, phase equilibria, and the compositions of terrestrial and extraterrestrial materials are used to understand the evolution of the Earth and its resources. The course will discuss how we know that the Earth's crust has more than sufficient resources for its human population.

Field trip to the Oslo area of Norway
- Igneous, metamorphic and sedimentary rocks
- Resources and ore deposits
- Evolution of Earth’s surface environments and interior

Laboratory
- Identification and classification of minerals and rocks
- Measurements of chemical compositions of rocks with ICP-MS

Recommended Prep: An introductory earth and planetary science course and a course in college-level chemistry.