

## **GEOL 447 Mineral Deposits**

Instructor: John Ridley

### Course Description:

- Systematic description of the nature and occurrence of major types of metal and related ores formed in magmatic, hydrothermal, sedimentary and weathering environments. Models of ore genesis are discussed and critically examined. Suites and ores and associated rocks are examined and interpreted in laboratory sessions. Students are introduced to ore mineral identification and to reflected light petrographic examination of ores. Outcrops of different styles of ores and associated rocks will be examined on two local field excursions.

### Learning Outcome:

- Knowledge of many common ore types to a level that provides a suitable foundation for professional work or for research in the mineral resources industry and in mineral resource and environmental assessment. Knowledge will encompass the nature of ores, their geological distribution, theories of their formation, and methods of exploration.
- Knowledge of techniques used in the interpretation of ores, including hand-specimen petrography, reflected-light microscopy, and interpretation of geological plans and sections.