GEOL 519: ABITIBI GEOLOGY AND FIELD SCHOOL

Credit: 3.00
Instructor: Dr. Thomas Monecke
Pre-requisite Knowledge: Satisfactory completion of a mineral deposits course and its prerequisites, undergraduate field camp, and prior reading on volcanology.

GEOL 519 is an intense 12-day field course offered in the first two weeks of summer session. The course takes place in the Archean Abitibi greenstone belt of Ontario and Quebec in Canada and exposes students to the single most highly endowed region of the crust in terms of gold and base metals. Course topics cover Archean greenstone architecture, Archean tectonic processes, and Archean metallogeny. Particular emphasis will be placed on the characteristics of volcanogenic massive sulfide and orogenic gold deposits and exploration strategies used to find these deposits under cover. The course offers an exclusive opportunity to get a student trained in geology field skills that can be immediately applied to industry upon graduation such as mapping and core logging. In addition, students will be trained in physical volcanology, structural geology, geochemistry, and metamorphic petrology.

GEOL 519 emphasizes student discovery and field skills development. Lectures are given in the field followed by outcrop inspections. Each day’s worth of learning material is accompanied by one or two exercises to help put concepts into practical use. Course assignments encourage students to map geologic features at different scale (including underground and open pit), measure stratigraphic sections, log drill core, make structural measurements, and create exploration plans in the field. Because of the remote location, there will be an added course fee for travel, transportation, room and board.