Professor:
Dr. Neil R. Banerjee
Office: Rm. 0166 B&GS
Phone: 519-661-3727
E-mail: neil.banerjee@uwo.ca

Dates: Late April to Early May, 2016. **Location:** TBD

Prerequisite(s): Enrollment in a graduate program in the Department of Earth Sciences. Demonstrated ability or desire to learn field techniques in geology and geophysics.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Adjudication: Registration in the course is conditional and competitive as course costs are largely covered by external funds raised by the department just prior to departure. A committee will adjudicate students on the basis of grades in program courses, a vision statement submitted as part of the application process, and demonstrated interest in field studies.

Course Costs: Students will be expected to contribute toward the cost of the trip to cover accommodation and other expenses. Students will also be responsible for their own food and miscellaneous expenses. Students are encouraged to apply for travel support from the Robert W. Hodder Travel Awards in Earth Sciences, which may cover the student's required contribution.

Aims of the course: You will be provided with a "state of the art" research level experience through a discussion/lecture/seminar/practical program on fundamental problems in our understanding of primary processes in Earth science. The unit will include a residential field course, typically 10-14 days, to international geological type localities. The course will be delivered by guiding you through key papers in the literature. Students will gain practical field experience through collection of primary geological and geophysical field data. Students will also learn to present on a scientific topic and lead discussion in a series of open plan seminars/lectures. Practical and calculation exercises will emphasize the interaction between the physical, chemical, and biological aspects of the Earth system. Students will be expected to cover the cost of accommodation and food/refreshments.

Grading Scheme
1) Research project (40%): The research project can focus either on any aspect of the geology or geophysics of the field area data collected in the field during the residential field course or on samples collected in the field or both. The report should follow the style of short journal article (e.g., Geology) with abstract, figures, tables and references. Due first week of August.

2) Classroom/fieldwork exercises (60% Total): Completion of a field notebook, field exercises, and practical exercises (25%). Presentation of a scientific topic and discussion in a series of open plan seminars/lectures (25%). Completion of a final report/exercise. (35%). Participation. (15%)

Learning Outcomes: At the end of the course students will learn how to: 1) Assimilate information and data from a wide range of disciplines (geophysics, geochemistry, structural geology, mineralogy, petrology, tectonics, etc.); 2) Understand how to tackle complex Earth science problems and what the present flaws in our understandings are; and 3) Prepare research quality reports on topics relevant to this course.

Key Skills Acquired: 1) The synthesis, understanding and presentation of "state of the art" knowledge on the formation and evolution of the Earth's crust and mantle and the associated controversies and knowledge gaps; 2) An ability to draw together information from a wide variety of subject areas (geology, geophysics, isotope geochemistry, etc.) to address issues relevant to the course; 3) Field training in the mapping of igneous, metamorphic, and sedimentary rocks and the identification of the relationships between them; and 4) An appreciation how simple numerical calculations can put constraints on major processes that affect the Earth system.

Accessibility: Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

Illness: A level of physical fitness, appropriate for fieldwork in a controlled but possibly remote environment is required for this course. Students should discuss any concerns regarding physical fitness with the instructor well in advance of departure on the trip. If you are unable to meet a course requirement due to illness or other serious circumstances, you must immediately inform the instructor since this course is conducted off campus. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. For further information please see: http://www.uwo.ca/univsec/handbook/appeals/medical.pdf.

Statement on Academic Offences: Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/handbook/appeals/scholoff.pdf

Plagiarism: Students must write their assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar).

The Exceptional Contributor: "The Class Was Better Because You Were Here".

As part of the learning process I expect all students to participate actively on this course. **Remember that 15% of your grade is assigned to participation**. Here are some guidelines to keep in mind when on this field course:

- You provide clear, concise, and correct explanations that help others gain a better understanding of concepts.
- You make outstanding, original, and informative comments.
- You make highly attentive and constructive comments on other people's statements.
- You ask questions strategically, that are penetrating, and that help clarify (understanding that there are other students in the course).
- You actively encourage others to express their ideas.
- You display body language that communicates interest.
- You are on time and prepared for the day.