ENVIR SC/ EARTH SC 4BB3: FIELD TECHNIQUES IN HYDROLOGY
2017 COURSE OUTLINE DRAFT

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Description
A primarily field-based course that examines the field methods, techniques and equipment used to study watershed hydrology and ecohydrological function in natural, human-impacted and restored ecosystems.

Objectives
Offered at the senior undergraduate level, the goal of this course is to improve upon field, research and communication skills necessary for future academic or workplace success. Students will be introduced to the critical reading and interpretation of literature through the use of case-studies to introduce lecture material. These case studies will also provide the opportunity to investigate research design and this skill will be put into practice through hands-on field laboratories. Finally, communication skills will be improved as students are required to discuss literature in class and to present a seminar reviewing a relevant research topic.

Readings
There is no text for this course. Links to readings will be posted in A2L.

Evaluation
The emphasis of this course will be primarily on material presented in class and the field labs. Regular attendance is therefore suggested, since much of the material presented in labs is not covered in a text. The test will emphasize understanding, quantitative analysis, and to a large extent the ability to apply knowledge in a new context. The test format will consist of quantitative problems and short answer.

Test - 25%, Assignments - 60% (4@15%), Participation - 15%

Academic Dishonesty
You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at: www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

In this course we will be using A2L. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.
Lectures & Labs *(see schedule below for location and time)*
Topics covered in lectures in this course will include: an introduction to watershed ecosystems approach, watershed ecohydrology fundamentals, groundwater-surface water interactions, isotope hydrology, and watershed disturbance hydrology. Field trips to the McMaster Lot-M Watershed will be organized to introduce students to ecohydrological field monitoring techniques. Students will also be required to participate in the development of a sampling regime and data analysis to answer specific research questions. In addition, problem sets related to techniques discussed in lecture will also be assigned.

**SCHEDULE**
TBA once TA resources are finalized.