

Tentative COURSE OUTLINE
GEOG 495 LOCAL FIELD SCHOOL: MT ST. HILAIRE
May 9-27, 2016

INSTRUCTOR:

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COURSE DESCRIPTION:

Field investigations remain the primary source of data for research in Physical Geography and Environmental Science. The quality or value of a scientist's research often reflects their ability to observe and measure natural processes or phenomena in the field. Thus, exposure to field techniques and the systematic analysis of a field problem and data are important components of a student's training. This course provides an introduction to the physical environment with emphasis on the application of field methods in physical geography. The course consists of 12 days field instruction and independent study at the Gault Nature Reserve. You will be required to submit the structured assignments while in the field (we'll make sure 2-3 computers are available with word processing and statistical software). Wireless internet is available so you may wish to bring your own notebook computers for background investigation on potential project topics. The independent research involves a project that you develop (study aims and research design) with my help, undertake on your own or in a group of 2 and write up in a journal paper format. The journal format means you have a 15-20 page (double spaced) limit on text and is designed to force you to organize your information and write concisely.

PROGRAM IN THE FIELD:

The first 4 -5 days will be spent on a series of structured exercises, field demonstrations and a local excursion (not necessarily in this order):

Exercise Topics - work done in groups

Exercise 1: Micro-meteorology
Exercise 2: Biogeography & soils
Exercise 3: Mapping and Surveying
Exercise 4: Fluvial Geomorphology
Exercise 5: Disturbance ecology

In addition to these exercises there will be various demonstrations of equipment, data loggers, etc. and you will also be expected (as a group) to maintain twice-a-day meteorological observations.

Independent Study: The last 3-4 days will be spent on a project of your own design (with the help of faculty) which will be approved by the professor(s) in charge. This project should be simple enough that you can collect your field data in 3-4 days and not require overly sophisticated hardware or depend on the cooperation of the weather. You do not have to have your project defined before the start of the course, although some thought and a few ideas before hand will help you enormously.

INDIVIDUAL RESEARCH PROJECT:

The purpose of the individual project is to give you experience in defining, designing, carrying out and writing up a small field research project (the evaluation scheme is structured accordingly). You will be required to write and present in a round table format a short proposal before starting your research project. In the proposal I am looking for a number of elements (see proposal form) that are necessary for a successful study. Often complex studies are unsuccessful because too many things can go wrong, conversely simple projects based on a single problem or hypothesis are

extremely successful, (follow the motto of a the famous periglacial geomorphologist - J. Ross Mackay who says "simple is best"). A component of your grade will be assessed on the basis of the problem statement (proposal), research design and field methods (and your ability to complete the study) data, data analysis, write up and presentation. Remember the final paper should be only 15-20 pages in length and includes a statement of problem and the aim of the research, field and laboratory methodology, analysis of results and a comparison with other published findings. A brief review of key literature on your topic should also be incorporated. This makes up 50% of your final mark so allocate your energy accordingly.

You will submit 2 typed copies, one that will be corrected and returned and the other kept as part of a course collection. Diagrams must be neat and clearly presented. A conference will be held at the end of the course where each student will present the results of their project (oral presentation and notebook constitute 10%). You will submit your field notebook at the same time as your individual project, your notebook should contain all your field observations and preliminary thoughts about your independent study and the other projects. Your notebook is a field diary, don't leave it until you return, don't borrow a colleagues notebook and copy, even if you are handling equipment while some one else is taking notes make sure each night you bring your notebook up-to-date.

ASSIGNMENTS / EXERCISES:

During the first five days you will undertake 5 assignments, even though the fieldwork associated with these assignments will be undertaken in groups you will write up your reports independently. Each assignment is worth 10% (totaling 50%).

COURSE EVALUATION:

<i>Individual Project</i>	50%
Proposal and Paper -	40%
Presentation and notebook -	10%
<i>Exercises</i>	
Landform - Survey Project	10%
Geomorphology Project	10%
Meteorology Project	10%
Biogeography Project	10%
Glacial/Disturbance	<u>10%</u>
	100%

CLOTHING:

Temperatures may range from ~5° C in the evenings to 20+°C on warm sunny days. However, you will also need to plan for cool wet weather so bring rain suits, warm clothing and rubber boots. Hiking or work boots are good for hiking, work in gravel pits or in the woods and rubber boots are needed for work around rivers and rainy days. On warm days shorts and T-shirts may be an option. However mosquitoes and flies can be a nuisance so bring your favorite insect repellent or a bug jacket.

RECOMMENDED CLOTHING LIST

- rubber boots
- work/hiking boots
- day pack
- running shoes
- rain coat/suit
- gloves
- sweater
- anorak or wind breaker
- rain suit (water proof jacket at least)
- shorts, T shirts ...
- Camera

Miscellaneous

- pencils, rulers, protractor, camera,
- notebook computer if you wish
- topo. maps will be available in the field
- we will also a field notebook
- any personal needs, medications, sunscreen, if you wear glasses or contacts bring a spare.

Accommodation in the chalet consists of 4 bed rooms each with 4 bunk beds – you will need to bring a sleeping bag or bed linens as well as a towel. Each Chalet has 2 toilets and 2 showers.

COST:

In addition to the tuition fees for this course an additional fee will be charged directly to your student fee account to cover the costs for travel, food and accommodation.

Please Note: Policies governing academic issues which affect students can be found in the Handbook on Student Rights and Responsibilities, Charter of Students' Rights (online at <http://www.mcgill.ca/files/secretariat/greenbookenglish.pdf>).

Academic Integrity: "McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/integrity/ for more information)."

"In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded."

Student Support: If you have a disability, please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Office for Students with Disabilities at 398-6009 (online at <http://www.mcgill.ca/osd>) before you do this.

Course Communication: Communication to students will often be via email on MyCourses. Students are encouraged to check MyCourses regularly for course

updates. While students can set-up forwarding of MyCourses emails to personal accounts, they are strongly encouraged to forward this mail only to their official McGill email account (not hotmail or yahoo). The university and instructor cannot guarantee that course emails will be successfully forwarded to external email accounts.

Finally: Please inform the instructor in writing before starting the course of any medical conditions, allergies or food preferences that could jeopardize your health or limit your ability to work in a field setting.