

**COURSE OUTLINE**  
**GEOG 495 LOCAL FIELD SCHOOL: MT ST. HILAIRE**  
**May 17-June 04, 2021**

**INSTRUCTOR:**

Prof. Christian von Sperber, [chris.vonsperber@mcgill.ca](mailto:chris.vonsperber@mcgill.ca)

**TEACHING ASSISTANT:**

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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 an emphasis on the application of field and laboratory methods in physical geography.

Due to COVID19, the lectures of this course will be held online via Zoom. The number of field days had to be reduced compared to normal years. The course will consist of 2 days of online lectures, 3 days field instruction at the Gault Nature Reserve on Mont Saint-Hilaire, one week of laboratory instructions at McGill University and one week of independent data analysis and report writing. The course will consist of 12 students, which will be subdivided into three groups. Each group will spend one day in the field to collect samples, which will then be analyzed during the following week in the laboratories of the Department of Geography in Burnside Hall.

Students will be required to submit a report on your research findings on Friday, June 11 and prepare a powerpoint presentation on the last day of the course on Friday, June 4.

**WEEK 1**

We will have two days of introductory lectures on Monday and Tuesday from 9:00-15:00. From Wednesday to Friday each group will spend one day in the field to collect environmental samples. The day in the field will be from 8:00-18:00. The exact times and location where we will meet will be announced during the first day of lectures. Students whose group is not in the field will prepare the laboratory experiments and work on their literature review.

**WEEK 2**

During the second week of the course, the environmental samples will be processed and analyzed. Only one group will be allowed at a time in the laboratories. Groups will therefore work in four-hour blocks from 8:00-12:00 and 13:00-17:00 from Monday, May 24, to Friday, June 4. During the off times, students will work on their literature review.

**WEEK 3**

During the third week, students will analyze their data and write up the report on their findings. The report is supposed to be written in 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. It consists of an **Introduction** (which entails a detailed literature review, the objectives of the research project and the hypotheses), a **Material and Methods** section (which entails a detailed description of the field site, the sampling campaign and the laboratory

analyses), a **Results** section (which entails a detailed description of the produced data), a **Discussion** section (which entails the interpretation of the data, the discussion of the main findings within the context of the broader scientific literature) and a **Conclusion & Outlook** section. The final report is due on Friday, June 11, to be submitted as word file per email. In addition to the final report, each group will prepare a powerpoint presentation of their findings on Friday, June 4.

### COURSE EVALUATION

Field work (including notes)	20%
Laboratory work (including notes)	20%
Research paper	30%
Final presentation	30%
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	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. We will hike through partly steep terrain in a forest to get to the field sites. The hike will take about 1 to 1.5 hours. Hiking boots or work boots which are good for hiking are therefore essential. Mosquitoes, ticks and black flies can be a nuisance so bring your favorite insect repellent or a bug jacket.

### WHAT TO BRING INTO THE FIELD

- work/hiking boots
- day pack
- lunch, snacks and sufficient water
- rain coat/suit
- hat and gloves
- sweater
- anorak or wind breaker
- rain suit (water proof jacket at least)
- Camera
- pencils, rulers, protractor, camera,
- we will also provide a field notebook
- any personal needs, medications,
- sunscreen, sun glasses

### 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, and other associated costs.

*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/](http://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.*