Guidelines for Independent Research in Geography

GEOG 489

Course description
Independent Research in Geography (GEOG 489) is designed for students wanting to pursue an independent *research* project under the guidance of a faculty member with the Department of Geography. For *non-research* projects in Geography, see GEOG 490 (Independent Readings in Geography). GEOG 489 (but not GEOG 490) is eligible as a research course within the Dean's Multidisciplinary Undergraduate Research List. The decision on whether or not a particular geography project is *research* or *readings* should be made by the faculty supervisor based on the convention of their field of study.

Deadlines for course requirements.
Before registration in the course, students must obtain a student-supervisor agreement form outlining the nature and general objectives and deadlines for the project from the Geography Department staff member responsible for supervision. Final projects must be submitted to the supervisor for marking in time for mark submission in the relevant term.

Procedures and standards of evaluation.
Students will be evaluated on the basis of excellence with regard to three areas: 1) methodology and analytical skills in empirical research; 2) knowledge of research literature regarding the specific topic; and 3) organization and presentation of research findings and critical reasoning skills. Depending on the nature of the project, more weight may be placed on one of the first two areas. As a general rule of thumb, the workload expectation is equivalent to a 400 level lecture or seminar course.

Expectations for students (including who is eligible for the course).
Students are expected to have a strong base of knowledge in their chosen research domain before they enrol in an Independent Study course, therefore normally only U3 students are eligible. Students are expected to work independently but with strong direction from a supervisor who has agreed to participate ***before*** the research or study begins. It is incumbent upon the student to identify a supervisor and attain her or his consent.

Expectations for supervisors (including who is eligible to act as supervisor).
Depending on the nature of the work involved in the project (fieldwork, analysis of existing data, laboratory work, literature review and analysis) supervisors are responsible for providing or approving data sets, field protocols, access to laboratory facilities (see security below) and guidance with relevant literature. Supervisors are also responsible for directing the progress of the project, commenting on first drafts of the project report and final evaluation of the completed project. Supervisors must be faculty members in Geography at McGill.

Method of coordinating student's involvement in projects.
In the case where more than one student collaborates on a given project, each student must have an independent research question or set of objectives and each must submit an independent project for evaluation.

Security with respect to laboratories and building access.
Burnside Hall is accessible on a 24 hr basis, but a McGill ID card is required for access during weekends and evenings. Additional authorization may be required during holidays when the University is closed. Research supervisors can make arrangements for access if advance notice is made. Removal of equipment from Burnside during evenings and weekends requires advance authorization from the Security Office, obtained through the building director.

Safety procedures.
The McGill Laboratory Safety Manual provides laboratory personnel with basic laboratory safety guidelines and information on available safety services. This manual should be available in every wet lab (those using chemicals) and be consulted before starting laboratory research. The Geography Department has a safety officer, Paula Kestelman, who is responsible for laboratory safety and disposal of hazardous chemicals. All hazardous chemicals must be used within one of the Department's two fume hoods (rooms 631 and 609) and waste must be retained in appropriate receptacles. Personal laboratory and field safety is the responsibility of both supervisor and student. Any student working with hazardous chemicals should have appropriate chemistry background or training, be required to read Material Safety Data Sheets (MSDA) for all materials used, and if possible attend a Workplace Hazardous Materials Information System (WHMIS) safety course. Work with hazardous materials must be scheduled when other individuals are in the vicinity who can assist in case of an accident. Students should not work alone in hazardous or remote field sites and must be trained in safe operation of all field equipment.

Ethics
All projects must conform to the ethics guidelines described in the *Tri-Council Code of Ethical Conduct for Research Involving Humans.*
(See: http://www.mrc.gc.ca/ethics/code/english/toc.html). Research projects and/or research instruments which directly involve the participation of human subjects must be reviewed by the Geography Department and/or McGill University Ethics Committee.

STUDENT-SUPERVISOR AGREEMENT - GEOG 489

Semester of independent study_____

Objective(s) of project:

Methods to be used (specify if special facilities or fieldwork is required):

Nature of Product(s) to Result from Independent Study (eg. written report, software, electronic media):

Deadlines (include those for final product as well as any interim deadlines):

Dates of meetings scheduled to assess progress and establish relative weights to be given to areas of evaluation:

Student name _____ Signature_____

E-mail Address_____

Student number _____ Program_____

Supervisor name _____ Signature _____