

GEOG 5803* Seminar in Geomatics Winter 2019

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Office Hours: Any time if I'm not busy.
Please come by, telephone, or e-mail me.

Schedule: Seminar Tuesday 2:30-5:30. Loeb A220.
Lab (A237) time is not officially allotted. Students using the lab are expected to work around other class schedules.

Prerequisite: GEOM 4003 or equivalent remote sensing course, including familiarity with one of the major remote sensing (e.g. PCI, Erdas, Idrisi) and/or GIS (e.g. ArcGIS) software packages. **Graduate students without experience in remote sensing or GIS should contact me before term** and either:

1. check the GEOM 4003 course outline on the Geography and Environmental Studies website to determine if it is more suitable, or
2. take GEOG 5803 but be prepared to do additional reading on fundamental aspects of remote sensing and perhaps some of the labs from GEOM 3002 and GEOM 4003 before the course begins or during the first three weeks of term.

Course Objectives

1. Development of advanced skills and understanding of selected elements of geomatics. Depending on the interests of enrolled students, these may include: remote sensing imaging systems and calibration, processing techniques to improve information content in images and GIS data; spatial and/or temporal data processing and analysis techniques; advanced classification techniques, empirical or physical biophysical/biochemical surface property modelling; specific applications of remote sensing and/or GIS.
2. Development of skills in reviewing and critiquing geomatics literature.
3. Development of skills in geomatics research proposal writing, journal paper/project report writing, and oral communication through a teaching seminar and simulated conference presentation.

Course topics

The course is tailored to student interests and the course content is designed together in the first class. Specific course topics are selected by students for the seminars, literature to review, and their projects to meet their needs and applications interests. A list of potential topics will be provided as a guide, or students may suggest topics not on the list.

Structure

Seminars

The course consists of 1.5-2 hour seminars with additional time for journal paper and project discussion. Some seminars will be given by the instructor and guest speakers.

Student Seminars

Each student must present one seminar. See Seminar Requirements document.

Weekly Readings and Journal Paper Review

Each week, the readings for the following week will be given. All students are expected to read them and be prepared to discuss them following the seminar. The student giving the seminar will be responsible for initiating and facilitating the discussion of the assigned readings.

Each student selects one of the readings during the term and conducts a critical evaluation of it in a format and style similar to that used to peer review a paper for a journal. An example will be given as a guide.

Project, Project Proposal, and Project Presentation

A project will be conducted by each student on an application of their choice that incorporates one of the course topics. It will ideally contribute towards the student's thesis research by developing a theoretical foundation for the research, learning new algorithms and software, or exploring data and methods that may be of use in the thesis research. It can consist of either empirical analysis of real data or literature analysis. Each student will give an in-class oral presentation of their project, of length and format similar to a conference presentation, at the end of term. Project reports are written in journal paper format.

Evaluation:

Student seminar and student-led discussion	30%
Critical evaluation of one reading	10%
Project proposal	10%
Project paper	40%
Project presentation	10%

***The final course mark may be adjusted up or down by 1/2 of a letter grade depending on the degree of participation of the student during the weekly seminars and readings discussions.

Instructional and Conduct Offences

Carleton University has clear and firm policies regarding instructional and conduct offences. Instructional offences include among other activities cheating, contravening examination regulations, plagiarism, submitting similar work in two or more courses without prior permission, and disrupting classes. Conduct offences apply in areas of discrimination and sexual harassment. Further information about University regulations which define and regulate these offences can be found at <http://www1.carleton.ca/studentaffairs/academic-integrity/>. Plagiarism is one kind of instructional offence. Examples of plagiarism include:

- Reproducing or paraphrasing portions of someone else's published or unpublished material, and presenting these as one's own without proper citation or reference to the original source;
- Submitting a assignment written, in whole or in part, by someone else;
- Using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- Failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;
- Handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

For more information on how to cite sources, refer to the library web page "*Citing Your Sources*" available at <http://www.library.carleton.ca/help/citing-your-sources>.

Plagiarism is a serious offence that cannot be resolved directly with the course instructor. The Associate Deans of the Faculty conduct a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They include sanctions ranges from a grade of zero for the assignment to suspension from your program of study.

Academic Accommodations

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made.

carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline