

Department of Geography and Planning  
University of Toronto  
**GGR462: GIS Research Project**  
**Course Outline: Winter 2020**

Instructor: Kristian Larsen  
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Office Hours: Tuesday 11:00am-1pm or by appointment (please email to arrange time)  
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### **Prerequisites**

GGR 272, 273, 373, and two other GGR courses. Other combinations of courses may also be suitable, with permission of the instructor. Knowledge of basic statistics is recommended.

### **Course description**

Students will learn how to design, manage, and complete a research project with a focus on using geographic information system (GIS). Students must work in groups of four to six people. Groups will agree with the instructor on a suitable problem and then solve it by acquiring, organizing, and analyzing data using a GIS. Projects must include a substantive analytical component where GIS is central to the methods used.

Although real issues in geographical analysis are addressed, the focus of the course evaluation is on the project's methodological and organizational design, the application of appropriate GIS techniques, and proper reporting of the results. The GIS component is accomplished through independent work. It is assumed that students already know the GIS concepts and functions required or are capable of learning them, and are proficient in the use of at least one GIS package. **This is a time-consuming course that simulates a team-oriented, workplace environment. Students must be highly motivated and able to make progress without constant supervision, manage their time effectively, meet strict deadlines, and be prepared to contribute to their group.**

Each group has the freedom to choose their own project topic and students are expected to develop their own. If you have an idea for a group project, you are encouraged to discuss it with the instructor as soon as possible to see if it is feasible and to start the process of data acquisition. Ideas may come from a variety of sources, such as a current or previous employer, work done as a volunteer, or work done in another course or on a field trip. Just keep in mind that the project topic must appeal to other members of your group. If you plan to work with an outside organization, you are encouraged to contact them as early as possible, as it often takes a while to arrange for data acquisition.

There are very few lectures during the term; most of the class time is used for groups to work on their projects and consultation with the instructor. Students are expected to participate in discussions.

### **Learning objectives**

- Develop a greater understanding of GIS
- Learn about project and time management
- Expand on your research and writing skills
- Learn about data acquisition
- Develop an understanding of real work GIS applications
- Appreciate team work

## Lectures and meetings

Tuesday, 1:10-3:00, BF 323

All students are expected to attend all classes in person. The instructor will discuss any absence with each student, as it affects their contribution to their group.

## GIS lab sessions

There are no scheduled lab sessions in this course. Students will be given computer accounts and are expected to work in the classroom, GIS Lab, or on their own computers as needed.

**Note:** students can download a free, one-year student edition of ArcGIS from the Map and Data Library (<https://mdl.library.utoronto.ca/technology/gis-software/esri-software-request>).

## Evaluation

The evaluation components build on each other. There are three written components and three accompanying presentations: a proposal, a progress report, and a final report. The progress report will include material from the proposal, and the final report will build on the progress report (this applies to both the written reports and the presentations). Each student must participate in each presentation and will be assessed on their performance. Each group will also be marked on the presentation as a whole. The written versions of each component will be due two days following the presentations (Thursday) to give you a chance to incorporate any feedback from your classmates and the instructor. Much like collaborative work for academic papers, at the end of the written report each group member must state their roll in the completion of the document.

*The instructor reserves the right to adjust the final mark of any student up or down based on their performance and contribution to their group. The participation mark will also relate to one's involvement in the group during class.*

Each student must also produce a story map based on their group project. While there will be some overlap with the content, the story maps should be completed individually.

Several classes will be devoted to project updates from each group, in which each member of each group is expected to briefly summarize their progress. These sessions provide an opportunity to discuss challenges and get suggestions from the instructor.

## Breakdown of assessment

Section	Item	Assessment	Weight	Subtotal	Duration
<b>Proposal</b>	Presentation	Individual component	0%	10%	4 weeks
		Group component	5%		
	Document	Mark	5%		
<b>Progress report</b>	Presentation	Individual component	5%	20%	4 weeks
		Group component	5%		
	Document	Mark	10%		
<b>Final report</b>	Presentation	Individual component	5%	60%	4 weeks
		Group component	5%		
	Story map	Individual component	10%		
	Document	Mark	40%		
<b>Participation</b>			10%	10%	

## Readings

There are no specific required readings but it you are expected to identify and read relevant material for your particular project.

## Course website

q.utoronto.ca

Log in using your UTORid and password.

## Lecture Schedule

**NOTE:** The following information offers a general outline of what will be covered in lecture. Depending on the background knowledge of the class we may accelerate through, or take more time on specific course topics.

### GGR462 COURSE SCHEDULE

	Week	Date	Topics and Deadlines
Proposal	1	Jan. 7	Course introduction; preliminary group formation
	2	Jan. 14	Designing a GIS research project; proposal requirements; finalize groups; <b>Submit: List of group members, roles, and tentative topic</b>
	3	Jan. 21	Presentation tips and work period
	4	Jan. 28	<b>Proposal presentations (submit presentation to the instructor); Submit: Proposal document via quercus by <u>Jan. 30<sup>th</sup></u> at 5:00 pm</b>
Progress Report	5	Feb. 4	Progress report requirements; Consultation with instructor, free time for group work
	6	Feb. 11	Status reports, consultation with instructor, free time for group work
	*	Feb. 18	Reading week - no class
	7	Feb. 25	<i>Project week (no class – please schedule an appointment if needed)</i>
Final Report	8	Mar. 3	<b>Proposal presentations (submit presentation to the instructor); Submit: Progress report via quercus by <u>March 5<sup>th</sup></u> at 5:00 pm</b>
	9	Mar. 10	Status reports, consultation with instructor, free time for group work
	10	Mar. 17	<i>Project week (no class – please schedule an appointment if needed)</i>
	11	Mar. 24	Status reports, consultation with instructor, free time for group work
	12	Mar. 31	<b>Proposal presentations (submit presentation to the instructor); Submit: Final report and Story Map via quercus by <u>April 2<sup>nd</sup></u> at 5:00 pm</b>

*The instructor reserves the right to modify the topics and schedule during the term.*

## **COURSE POLICIES**

### **Late penalty**

In keeping with the professional environment promoted in the course, there will be no provision for late submissions (i.e. a late submission will result in a mark of zero) without medical documentation.

### **Technical problems**

This course uses computers, and there are many things that can go wrong when using them. You are responsible for ensuring that you maintain regular backup copies of your files and schedule enough time when completing an assignment to allow for delays due to technical difficulties. Computer viruses, crashed hard drives, broken printers, lost or corrupted files, incompatible file formats, and similar mishaps are common issues when using technology, and are not acceptable grounds for an extension.

### **In case of illness**

Requests for deadline extensions must be made to the instructor within 5 business days after the deadline, and must be accompanied by an original copy of the official university medical form. Medical forms are accepted at the discretion of the instructor. U of T medical certificate is available online:

<http://www.illnessverification.utoronto.ca/>

### **Other student support resources**

The university provides a range of student support related to student life and academic success. Learner supports include services related to University Life, Library, Academic skills support, IT support and more. See Learner Support Available at the University of Toronto.

### **Accessibility needs**

The University of Toronto is committed to accessibility. If you require accommodations or have any accessibility concerns, please visit <http://studentlife.utoronto.ca/accessibility> as soon as possible. Please follow up with the professor in private to ensure your needs are met. For other needs (i.e. Religious, Illness, etc.) please see the professor in private before the assignment or exam due date.

### **Academic integrity**

All students are reminded of the seriousness of academic dishonesty of any form, particularly plagiarism. Plagiarism and other academic offences including false or altered medical forms, death certificates, or similar documents will not be tolerated. Students should also ensure they are submitting their own work and not that of others. Plagiarism is an academic offense at the University of Toronto. Plagiarism is quoting (or paraphrasing) the work of an author (including the work of fellow students) without proper use of citation. Quotation marks are required when using an author's words. Students also should not be submitting any academic work for which credit has previously been obtained or is being sought, without first discussing with the instructor. For more information, please refer to the universities Code of Behaviour on Academic Matters.

### **Inquiries about graded term work**

Any inquiries must be made within two weeks of the return date of the work. This is in accordance with Arts and Science rules as stated in the calendar.

### **Use of class materials and copyright notice**

The materials used in this class including, but not limited to lecture notes, video recordings, exams, quizzes, and assignments are copyright protected works. If a student wishes to photograph, record audio and/or video,

or otherwise reproduce lecture presentations, course notes or other similar materials provided by the instructor, he or she must obtain the instructor's written consent beforehand. Otherwise, all such reproduction is an infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.