

# GGR272: Geographic Information and Mapping I

## Course Description

---

This online course is an introduction to digital mapping and spatial analysis using a geographic information system (GIS). You will learn how to create your own maps and how to use a GIS to analyze geographic problems using methods that can be applied to a wide variety of subject areas within geography and in other disciplines. Over the term, you will have opportunities to find and work with data sets that relate to your own interests through a series of practical assignments. These assignments provide an opportunity for you to learn how to use the software, gaining hands-on experience with ArcGIS from [Esri Inc.](#), the most popular GIS software and an industry standard in many fields. To get a sense of what this course is about and the style of the lecture videos, you can watch the [Course Introduction video](#) (18:24).

**Online course format:** There is no scheduled lecture time. The course is designed to be flexible and personalized, so that you can learn when it works best for you, and you can connect your own interests to the concepts and methods covered. The course is structured around two-week modules and related activities. All the new material required for a module will be made available on Fridays as specified on Quercus, including lecture and software videos. Over the following two weeks, you are expected to watch the relevant videos, read all related readings, complete the quiz and assignment for that module, and participate in discussions on the discussion board as needed. All of the necessary material for each module is clearly organized and available on the course website.

**Communication:** In this course, you have the option to gain experience with a variety of communication tools including webinars, videoconferencing, screen sharing, discussion boards, and chat windows. Think of this as another aspect of your learning and take the opportunity to learn how to use them effectively.

**Please keep in mind:** Many of the concepts and skills learned in this course are cumulative. This course provides great flexibility as to when you work on it, but it is essential that you manage your time well. If you find you are falling behind, ask for help from your TA or instructor as soon as possible. You may find this link helpful in preparing for this course: [Getting Ready for Online](#).

**Online discussion:** There is a lot to learn in this course, and you will find that interacting with other students, the TAs, and the instructor will make your learning experience more efficient and enjoyable. You are strongly encouraged to ask and answer questions on Piazza, a discussion board website. You can set notifications so that you are notified when there is a new post, to save you having to check it all the time. You will not be evaluated based on your level of participation, but it will likely help you with the other aspects of the course in which you *are* being evaluated.

**Textbook:** There is no required textbook. Links to online readings will be provided by the instructor.

**Prerequisite:** There is no prerequisite. A basic familiarity with computers and the Microsoft Windows operating system is assumed. A general understanding of geography is helpful, but no prior geography courses are required.

**Software:** The course uses ArcGIS software from [Esri Inc.](#), the most popular GIS software and an industry standard in many fields.

**Course website:** available through the Quercus [portal](#).

## Instructor

---

Don Boyes, Department of Geography and Planning

Office: 5011, Sidney Smith Hall

Phone: (416) 978-1585

E-mail: [don.boyes@utoronto.ca](mailto:don.boyes@utoronto.ca)

[Website](#)

### Office hours

I will be joining one of the scheduled drop-in help sessions each week along with our course TAs, so you have the opportunity to talk to all of us as a group, or individually in a breakout room. The TAs will also have separate drop-in sessions for you to get help with your assignments or to ask questions about marking. Check the course website page “Getting Help” for the schedule. If you can’t attend, then please email me or a TA to set up an appointment. All meetings will be held online using Blackboard Collaborate, which you can access from the course website.

## Evaluation

---

### Assignments: 55%

The assignments are designed to help you see connections between the theory discussed in the lectures, how those concepts are used in the software, and how both relate to your own interests. By the end of the course, you should be able to make informed decisions about finding, evaluating, managing, and analyzing geospatial data to answer geographic questions. You should also be able to communicate your results as maps and interpret and discuss their meaning. You will have opportunities to find and explore map data sets on topics of your choosing, and these data sets may be integrated into your assignments.

The time required to complete the assignments varies, depending on the person. You will be learning practical skills in mapping and problem solving using complex software, which will require a substantial amount of time each week.

Assignments (including maps and figures) are completed in Quercus. Printed or e-mailed submissions are not accepted.

**Marking:** You will be assigned to a teaching assistant based on your last name, and that TA will be marking all of your work. Please check the Getting Help page on Quercus for a list of TAs and whose assignments they are marking.

### Quizzes: 10%

There is one quiz for each of the five course modules on Quercus. The quizzes are designed to help you stay on track. You can complete each quiz any time before it is due, but each one can only be completed twice (the highest score will be kept) and there is a time limit. The quizzes are each worth 2% of your final mark.

### Final assessment: 35%

Students will be responsible for all course material for the entire term. The assessment format will be short answer and essay questions. The questions asked in the lectures, quizzes, and assignments are all useful examples of the types of questions you may see on the assessment. It should take approximately 2 to 3 hours to complete. The assessment may be completed at any time during a 5 day period from 9:00 am on Dec. 11 until 9:00 am on Dec. 16. Once you start the assessment, you will have 24 hours to submit it. You may only submit once. You are advised to submit well before the 24-hour deadline, in case you run into technical difficulties.

## Options for Using the GIS Software

---

There are several options for accessing ArcGIS for Desktop (Advanced version) made by [ESRI Inc.](#), which you will need to complete the course work. Details about each option are available on the course website in Quercus. Please note that you are responsible for ensuring that you have access to ArcGIS using one of these methods.

If you cannot install ArcGIS on your own computer and have to remotely connect to a campus computer, you should work well ahead of your assignment deadlines. In the current situation, it is possible demand for remote access will be high and you may not be able to use a computer when you want to.

## Getting Help

---

**Drop-in Help Sessions:** You are not required to attend scheduled tutorials or lab sessions. Instead, there will be scheduled drop-in help sessions each week when a teaching assistant will be available to assist you online. These are informal sessions and you are welcome to attend as many as you like. The schedule will be posted on the course website. If you are not able to attend or would like a one-on-one session with your TA, then just contact them to set up a time.

Please note that the teaching assistant's role is to guide you and make suggestions but in order to learn the concepts and software, you must be prepared to try things on your own. The TAs will not give you the answers to assignment questions, as this would deny you the chance to learn for yourself. Make sure you monitor the discussion board, as this is often where you will get valuable tips and other help.

**Discussion board:** If you've gone through all of the course material and are still stuck, then post a question to the discussion board. Chances are that another student, a TA, or the instructor has encountered a similar problem and will be able to offer advice. Students can sometimes feel isolated and that they have no one to talk to about the course. Don't let this happen! If you participate in conversations online, you'll have a much easier time understanding the material, keeping up, and you will likely find the course more enjoyable. Using the discussion board also allows other students to benefit from the discussion and dramatically improves efficiency in communication. E-mail to your TA or the instructor should only be used for personal questions, such as requests for deadline extensions due to illness.

**ArcGIS Help:** Esri provides extensive documentation for its software that provides technical information, but there also many sections with explanations similar to what you would find in a textbook. Numerous links to these help pages are available on Quercus, but you are encouraged to consult this [website](#) yourself as well.

**GeoNet:** This is a group of ArcGIS forums run by Esri. You are not required to consult GeoNet for this course, but it can be a useful place to look if you're getting an error message, or want to participate in technical discussions. You can access the website [here](#).

**Learner support available at the University of Toronto:** The University provides a range of student support related to student life and academic success, including services related to university life, library and academic skills support, IT support and more. See [Learner Support Available at the University of Toronto](#).

## Course Policies

---

**Late penalty:** A penalty of 10% of the total mark for the assignment will be applied per day, up to 7 days (including weekends and holidays), after which assignments will not be marked. Penalties are calculated for each 24-hour period after the deadline. If an assignment has been handed back, no other assignments will be accepted, even if it has not been 7 days.

**Technical problems:** This course requires the use of computers and the internet, and many things can go wrong when using them. You are responsible for having a reliable internet connection, ensuring that you maintain regular backup copies of your files, using antivirus software (if using your own computer), and scheduling enough time to allow for delays due to technical difficulties. Computer viruses, crashed hard drives, lost or corrupted files, incompatible file formats, etc. are common issues when using technology, and are not acceptable grounds for a deadline extension.

**In case of illness:** The University is temporarily suspending the need for a doctor's note or medical certificate for absences from academic participation. Please use the Absence Declaration tool on [ACORN](#) to declare an absence if you require consideration for missed academic work. You are responsible for contacting your instructor to request the academic consideration you are seeking. Record each day of your absence as soon as it begins, up until the day before you return to classes or other academic activities.

**Inquiries about graded term work:** Any inquiries about marking 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. Please contact the person that did the marking first. If, after discussing the issue with the marker, you are still not satisfied with the explanation for your mark, you should then contact the instructor. You will be assigned to a teaching assistant based on your last name, and that TA will be marking all of your work. Please check the "Getting Help" page on Quercus for a list of TAs and which names they are marking.

**Accessibility needs:** The University of Toronto and the course instructor are committed to accessibility. If you require accommodations or have any accessibility concerns, please visit the [Accessibility Services website](#).

**Academic offences:** Plagiarism and other academic offences including impersonating another student or providing false or altered medical forms, death certificates, or similar documents will not be tolerated. For more information, please refer to the [Code of Behaviour on Academic Matters](#).

**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.

## Course Schedule

---

Assignments and quizzes are due at 5:00 pm on the dates indicated below. Please keep in mind that the instructor keeps regular business hours. Emails/posts received outside of these hours will usually be replied to the next business day. The instructor reserves the right to modify the topics and schedule during the term.

Friday, Sept. 11

Module: Introduction to ArcGIS

Lab 1 assigned, worth 5%

Monday, Sept. 21

Quiz 1 due, worth 2%

Friday, Sept. 25

Module: Map design and data acquisition

Lab 1 due, Lab 2 assigned, worth 5%

Monday, Oct. 5

Quiz 2 due, worth 2%

Friday, Oct. 9

Module: Coordinate systems & map projections

Lab 3 assigned, worth 10%, Lab 2 due

Monday, Oct. 19

Quiz 3 due, worth 2%

Friday, Oct. 23

Module: Mapping quantitative data

Lab 3 due, Lab 4 assigned worth 15%

Monday, Nov. 2

Quiz 4 due, worth 2%

Friday, Nov. 6

Module: Data preparation and vector analysis

Lab 4 due, Lab 5 assigned worth 20%

Monday, Nov. 23

Quiz 5 due, worth 2%

Friday, Nov. 27

Course review