

**GEOM 3007A: Cartographic Theory and Design  
Section A - Winter 2025**

DRAFT

**Department of Geography and Environmental Studies, Carleton University**

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### Course Electronic Resources:

Brightspace (<http://brightspace.carleton.ca>) and log in using your student account.

### Calendar Description:

Principles of and issues in cartography, cartographic communication and map design; practical aspects of cartographic representation using multimedia and online mapping.

Includes: Experiential Learning Activity

Course prerequisite(s): [GEOM 1004](#) or [GEOM 2007](#) or permission of the Department

Lectures and laboratory four hours a week.

### Course Objectives

- Develop both theoretical and practical knowledge in thematic cartography including but not limited to descriptive statistics, data classification, mapping techniques, design concepts, multivariate mapping
- Get *extensive, hands-on practice* in making cartographically correct, attractive maps and figures incorporating maps, graphs, figures, images, etc.
- Gain exposure to the concept of critical cartography
- Gain experience in online mapping, web mapping and alternative maps.

### Required Textbooks (available at or online through the MacOdrum Library and online):

Krygier, John, and Denis Wood. *Making Maps : a Visual Guide to Map Design for GIS* . Third edition. New York, NY: The Guilford Press, 2017. Print.

Permalink:

[https://ocul-crl.primo.exlibrisgroup.com/permalink/01OCUL\\_CRL/1gorbd6/alma991022759510205153](https://ocul-crl.primo.exlibrisgroup.com/permalink/01OCUL_CRL/1gorbd6/alma991022759510205153)

Monmonier, M. *How to Lie with Maps*. Third edition. Chicago, USA: The University of Chicago Press, 2018. **Older versions are out of date!** You can purchase this textbook on amazon: <https://www.amazon.ca/How-Maps-Third-Mark-Monmonier/dp/022643592X/> or at the bookstore.

Any additional course material will be made available on Brightspace.

## Course Evaluation:

The grade weighting will be as below:

Lecture, lab and online participation: 12%

Laboratory assignments: 48%

Mid-term quiz: 10%

Final project and presentation 30%

**Total 100%**

## Course Format and Overview

As with the Fall 2024 term courses, this course will be delivered in-person. Each week will include a combination of in-person lecture and discussion sessions and practical workshops in the campus lab.

Each week will include an in-person lecture session for full group participation. The second in-person session will usually be used for practical lab sessions or student presentations however some sessions will include a review of lecture material or assigned readings. Please do not hesitate to contact the instructor if anything is preventing you from participating properly in the course as designed.

## *Requirements:*

Students will have access to lab computers that include all necessary software. However, most of the lab work will use open-source software (i.e. QGIS) that can be downloaded and installed on your computer.

If students would like to use other software such as ArcGIS for their term project, for example, this software will be available on lab computers. Additionally, off-campus access to the software may be possible through the use of CU Desktop (<https://carleton.ca/cudesktop/>) or by installing the software on your computer system (see <https://library.carleton.ca/help/arcgis-desktop-installation-guide>).

The exact computing requirements and recommendations will necessarily be a work in progress, since we anticipate learning new restrictions and fixes as we test the software and then bring the students in as the term begins. We will document this evolving advice at

## ***Attendance and Participation***

**Each week** attendance may be taken (at any time during the in-person period). You must contact the instructor before an absence to provide an explanation and arrange for an alternate method to cover the material missed. 12% of the course grade is awarded for active engagement in lecture, lab and online activities (Brightspace help and discussion forums).

## **Lab Assignments**

**Each week** an in-person period will be used to complete the lab assignments (6 assignments @ 8% each) or the term project. The lab assignments may require you to spend time outside of the lab period to complete them. Due dates are indicated in the detailed schedule provided as a separate document. The assignment reports must be submitted before the start of the lab session on their due dates. *Please note the penalty for late assignments (below).*

## **Final Project**

There will be a project (30%) on thematic mapping with your choice. At the end of the course, students will present their work during the lecture period and submit a report and all the files needed for working on the project by the last week of the classes. Please note that there will be a penalty for late project submission.

## **Mid-Term Quiz**

A mid-term quiz will occur before the reading week and will be based on the lecture material from previous lectures in the course and any reading material assigned prior to the quiz. The quiz will take 45 minutes in the lab period. Lab material will be presented after the quiz.

## **Readings**

Journal article and other academic readings will be assigned. Students will prepare and present summaries of readings and their associated concepts in class. Readings supporting these presentations will be chosen in cooperation with the instructor.

## **Policy on late assignments/projects:**

In the spirit of compassionate grading initially established during the COVID-19 era, some credit may be given for late assignments. The penalty for late assignments is 15% deduction in grade per day beyond the due date and time. Assignments over two days late will be reviewed and feedback provided but no grade assigned.

Standing in the course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

## Instructional & Conduct Offences:

Instructional offences include, among other activities, cheating, contravening examination regulations, plagiarism, submitting similar work in 2 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 is presented in the Undergraduate Calendar:

<http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/> and the university's [Academic Integrity Policy](#).

## Plagiarism:

The University Academic Integrity Policy defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.*” This includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else, including the unauthorized use of generative AI tools (e.g., ChatGPT);
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another’s data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one’s own; and
- failing to acknowledge sources through the use of proper citations when using another’s work and/or failing to use quotations marks.

Plagiarism is a serious offence that cannot be resolved directly by the course’s instructor. The Associate Dean of the Faculty conducts 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 can include a final grade of “F” for the course.

## Statement on Student Mental Health

As a university student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you.

[You may include the following list or reference this link (<https://carleton.ca/wellness/>):

Emergency Resources (on and off campus): <https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

**Carleton Resources:**

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

**Off Campus Resources:**

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

*Academic Accommodations:*

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

**Informal accommodation due to short-term incapacitation:** provide information on your requirements for short-term informal accommodations. If you require supporting documentation, you may only request the Self-Declaration for Academic Considerations form (<https://carleton.ca/registrar/wp-content/uploads/self-declaration.pdf>) which replaces medical notes.]

**Pregnancy obligation:** write to me 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 accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

**Religious obligation:** write to me 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 [click here](#).

**Academic Accommodations for Students with Disabilities:** The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation. If you are already registered with the PMC, please request your accommodations for this course through the [Ventus Student Portal](#) at the beginning of the term, and no later than two weeks before the first in-class

scheduled test or exam requiring accommodation (*if applicable*). Requests made within two weeks will be reviewed on a case-by-case basis. For final exams, the deadlines to request accommodations are published in the [University Academic Calendars](#). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

**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 where 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: <https://carleton.ca/equity/sexual-assault-support-services>

**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 will be provided to students who compete or perform at the national or international level. Write to me 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>