

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

**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.  
URL: <https://brightspace.carleton.ca/d2l/home/222186>  
Course offering code: 12994.202410

Course Calendar:

In-person lecture Session:  
Tuesdays 2:35 PM to 4:25 PM

In-person lab Session:  
Fridays 8:35 AM to 10:25 AM

Course 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 Learning 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* is 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 Textbook

**(available at Amazon or through the MacOdrum Library):**

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 **Older versions are out of date!** You can purchase this textbook on amazon: 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.

#### Suggested Textbook

**(available at Amazon or online through the MacOdrum Library):**

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)

Any additional course material will be made available on Brightspace.

#### Costs:

Monmonier Text: \$33.95

Krygier and Wood text: \$84.00

Price subject to change.

#### Assignment and Project Schedule

Lab 1: January 24<sup>th</sup>

Lab 2: January 31<sup>st</sup>

Lab 3: February 7<sup>th</sup>

Midterm Quiz: February 13<sup>th</sup>

Lab 4: February 14<sup>th</sup>

Lab 5: March 21<sup>st</sup>

Lab 6: April 4<sup>th</sup>

Group Project: April 3<sup>rd</sup>

## Course Evaluation:

The grade weighting will be as below:

|  |             |
|--|-------------|
| Lecture, lab and online participation: | 12%         |
| Laboratory assignments:                | 48%         |
| Mid-term quiz:                         | 10%         |
| <u>Final project and presentation</u>  | <u>30%</u>  |
| <b>Total</b>                           | <b>100%</b> |

## 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.

### *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:**

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes, including information about the Academic Consideration Policy for Students in Medical and Other Extenuating Circumstances, are outlined on the Academic Accommodations website ([students.carleton.ca/course-outline](https://students.carleton.ca/course-outline)).