

## COURSE DETAILS

---

**Course Title & Number:** GEOG 2200 - INTRODUCTION TO THEMATIC CARTOGRAPHY

**Number of Credit Hours:** 3

**Class Times & Days of Week:** M/W/F 10:30 – 11:20, Lab: W 2:30 – 5:15

**Location for classes/labs/tutorials:** 218 Wallace. Lab 321 Wallace

## Instructor Contact Information

---

**Instructor Name:** Brian Miller

**Availability:** Office availability by appointment only. Please email or speak with me after class.

**Email:** [brian.miller@umanitoba.ca](mailto:brian.miller@umanitoba.ca)

Email will usually be answered within the hour

---

## Course Description

Cartography is the fundamental geographic discipline of mapping. Maps are integral tools used to understand the spatial distributions of geographical variables and thus used by physical and human geographers. There are two components to creating an effective thematic map: appropriate treatment of the data to be mapped, and appropriate graphic emphasis within the map. This course will introduce students to the basic principles of cartography as the art and science that deals with conceptualization, production, analysis and dissemination of maps. The primary objective of this course is to help students develop the faculty to think critically about the cartographic process and representation, and to use those skills to develop maps of their own. These principles will be covered in lectures, class discussions, as well as computer-based lab assignments.

## Course Goals

---

Introduce the role GIS of in cartography, and the viewing and manipulating of spatial data

Examine the principles of thematic cartography, including the role type, colour and symbols play in the construction of maps

Explain the geographic framework upon which maps are constructed including scale, graticule and projection

Examine the different techniques used to construct maps using area, point and line data.

Understand the historical and current map misuse in propaganda, development and general use

## Using Copyrighted Material

---

Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the *Copyright Act* applies or written permission has been confirmed. For more information, see the University's Copyright Office website at <http://umanitoba.ca/copyright/> or contact [um\\_copyright@umanitoba.ca](mailto:um_copyright@umanitoba.ca).

## Recording Class Lectures

---

Brian Miller and the University of Manitoba hold copyright over the course materials, presentations and lectures which form part of this course. No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part without permission. Course materials (both paper and digital) are for the participant's private study and research.

## Textbook, Readings, Materials

---

Brewer, C.A. 2016. Designing Better Maps: A Guide for GIS Users. ESRI Press.

- Available in Bookstore

*Lecture material based on:*

Tyner, J.A. 2010. Principles of Map Design. New York, NY: Guilford Press.

- Full text available through UM Libraries website.

## Class Communication

---

The University requires all students to activate an official University email account. For full details of the Electronic Communication with Students please visit:

[http://umanitoba.ca/admin/governance/media/Electronic Communication with Students Policy - 2014 06 05.pdf](http://umanitoba.ca/admin/governance/media/Electronic_Communication_with_Students_Policy_-_2014_06_05.pdf)

Please note that all communication between myself and you as a student must comply with the electronic communication with student policy

([http://umanitoba.ca/admin/governance/governing\\_documents/community/electronic communication with students policy.html](http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html)). You are required to obtain and use your U of M email account for all communication between yourself and the university.

## Expectations

---

- A level of student cooperation and participation, involving asking and answering questions during the lectures.
- Cell phones and portable music players must be turned off during lectures. Students are also required to remove earphones. **NO CELL PHONE USE DURING CLASS**. Students may use laptops/tablets to take course notes in class. Student should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline “gaming” during scheduled class time. If student is on call (emergency) the student should switch his/her cell phone on vibrate mode, notify the instructor and leave the classroom before using it.
- Students are required to attend lectures and take notes. Students are expected to be punctual for classes. Not all material presented in the lectures is covered in the textbook. Lecture slides will not be provided on UMLearn. Failure to attend lectures will result in a poor class participation grade.
- Students are required to complete the necessary assignments individually and on time, unless otherwise stated. Students may consult with other students; however, it is expected that all assignments will be submitted in the student’s own words. Failure to do so will result in a penalty (see section of course outline on Academic Integrity)

## Academic Integrity

---

Academic dishonesty (plagiarism, cheating) is a very serious matter in any academic institution and is dealt with severely at the University of Manitoba. A grade of 0 will be given for any assignment that is suspected as academic dishonesty. If persistent or a major offense, further action will be taken including an F in the course and other university punishment.

Plagiarism or any other form of cheating in examinations, term tests or academic work is subject to serious academic penalty (e.g. suspension or expulsion from the faculty or university). Cheating in examinations or tests may take the form of copying from another student or bringing unauthorized materials into the exam room (e.g., crib notes, pagers or cell phones). Exam cheating can also include exam personation (see below). A student found guilty of contributing to cheating in examinations or term assignments is also subject to serious academic penalty, including a grade of zero on the assignment/exam, a final grade of F in the course or expulsion from the University (based on severity of offense).

To plagiarize is to take ideas or words of another person and pass them off as one's own. In short, it is stealing something intangible rather than an object. Plagiarism applies to any written work, in traditional or electronic format, as well as orally or verbally presented work. Obviously it is not necessary to state the source of well-known or easily verifiable facts, but students are expected to appropriately acknowledge the sources of ideas and expressions they use in their written work, whether quoted directly or paraphrased. This applies to diagrams, statistical tables and the like, as well as to written material, and materials or information from Internet sources. Students must use a recognized reference style.

To provide adequate and correct documentation is not only an indication of academic honesty but is also a courtesy which enables the reader to consult these sources with ease. Failure to provide appropriate citations constitutes plagiarism. It will also be considered plagiarism and/or cheating if a student submits a term paper written in whole or in part by someone other than him/herself, or copies the answer or answers of another student in any test, examination, or take-home assignment.

Working with other students on assignments, laboratory work, take-home tests, or on-line tests, when this is not permitted by the instructor, can constitute Inappropriate Collaboration and may be subject to penalty under the Student Discipline By-Law.

An assignment which is prepared and submitted for one course should not be used for a different course. This is called "duplicate submission" and represents a form of cheating because course requirements are expected to be fulfilled through original work for each course.

## **Students Accessibility Services**

---

### **Student Accessibility Services**

If you are a student with a disability, please contact SAS for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

*Student Accessibility Services* <http://umanitoba.ca/student/saa/accessibility/>

520 University Centre

204 474 7423

[Student\\_accessibility@umanitoba.ca](mailto:Student_accessibility@umanitoba.ca)

## **Referencing Style**

---

Information on the acceptable styles is available through the UM Libraries at:  
<http://libguides.lib.umanitoba.ca/c.php?g=298394>

## **Assignment Grading Times**

---

Labs will be returned within two weeks of submission, or sooner. Labs will be returned digitally to student's user folder or through UMLearn. Assignments will be returned with both formative (comments) and summative (grade) feedback.

## **Assignment Extension and Late Submission Policy**

---

Late assignments without reason will be given mark of 0. In the event an assignment cannot be completed on time, students are expected to give proper notice and make arrangements with the TA

## Class Schedule

---

Planned lecture topics and corresponding textbook sections

| <b>SECTION</b> | <b>LECTURE TOPIC</b>                      |  | <b>READINGS (Tyner)</b>   |
|----------------|---|--|---|
| <b>I</b>       | <b>Introduction</b>                       | Introduction to Cartography<br>History of Cartography<br>Cartographic Design                                 | pp. 3 – 13<br>pp. 18 – 42   |
| <b>II</b>      | <b>Principles of Thematic Cartography</b> | Typography<br>Color<br>Symbolization   | pp. 43 – 56<br>pp. 57 – 70<br>pp. 131 – 145   |
| <b>III</b>     | <b>Geographic Framework</b>               | Scale<br>Generalization<br>Graticule<br>Projection   | pp. 73 – 77<br>pp. 82 – 90<br>pp. 91 – 96<br>pp. 98 – 128                               |
| <b>IV</b>      | <b>Thematic Mapping Techniques</b>        | Data Classification<br>Area Mapping<br>Linear Mapping<br>Point Mapping<br>Multivariate Mapping<br>Cartograms | --<br>pp. 157 – 169<br>pp. 169 – 176<br>pp. 146 – 157<br>pp. 178 – 186<br>pp. 189 – 199 |
| <b>V</b>       | <b>Map Production</b>                     | Map Compilation<br>Map Misuse  | pp. 78 – 82<br>--   |
| <b>VI</b>      | <b>Modern Cartography</b>                 | Recent Developments<br>Critique of Maps  | pp. 200 – 210<br>pp. 213 – 222  |

## Laboratory Expectations

---

Labs are in the GIS lab in 321 Wallace. Students have access to this room Monday – Friday 8:30-4:30. Priority given to classes scheduled. If there is another class using the slot, please seek permission before working at that time.

## Lab & Exam Schedule

---

Dates may change

| Assignment   | Due Date              |
|--------------|-----------------------|
| Assignment 1 | January 23, 2018      |
| Assignment 2 | February 6, 2018      |
| Assignment 3 | February 27, 2018     |
| Assignment 4 | March 13, 2018        |
| Assignment 5 | March 27, 2018        |
| Assignment 6 | April 9*, 2018        |
| Final Exam   | Scheduled through SRO |

*\*Last day of term*

## Course Evaluation Methods

---

|                 |           |
|-----------------|-----------|
| Assignment 1    | 5%        |
| Assignments 2-5 | 7.5% (ea) |
| Assignment 6    | 15%       |
| Participation   | 10%       |
| Quizzes         | 10%       |
| Final Exam      | 30%       |

## Grading

---

| Letter Grade | Percent  |
|--------------|----------|
| A+           | 90 - 100 |
| A            | 80 - 89  |
| B+           | 75 - 79  |
| B            | 70 - 74  |
| C+           | 65 - 69  |
| C            | 60 - 64  |
| D            | 50 - 59  |
| F            | < 50     |