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University of Manitoba
Faculty of Environment, Earth, and Resources
Department of Environment and Geography

COURSE DETAILS

Course Title & Number: Introduction to Thematic Cartography
GEOG 2200 with Lab

Number of Credit Hours: 3

Prerequisite: A grade of C or better in a minimum of three credit hours from Geography courses numbered at the 1000 level, or permission of department head.

Class Times & Days of Week: M-W-F, 10:30 – 11:20; Lab Wed., 2:30 5:15

Location for class and lab:

Class 218 Wallace

Lab 321 Wallace

Instructor Contact Information

Instructor(s) Name: Peggy Harper

Office Location: 220 B Sinnott

Office Hours or Availability: Monday and Wednesday 11:30 -12:30

Email: Peggy.Harper@umanitoba.ca

Contact: For office hour appointments, please schedule an appointment time during class or by email. Additionally, questions can be sent via email. Questions regarding lab exercises can also be addressed during lab hours.

Course Description

(Lab Required) An introduction to the principles of map compilation and reproduction, including analysis and cartographic display of spatially referenced data. Emphasis will be placed on cartographic data manipulation, generalization, and symbolization, map design, visualization and communication. Not to be held with GEOG 2221. Prerequisite: a grade of C or better in a minimum of three credit hours from Geography courses numbered at the 1000 level, or permission of department head.

General Course Information

In this course, we will study the science and design of map creation. Maps can be powerful communication tools. Maps can also be aesthetically pleasing information portals that convey information about place. However, when designed poorly they can be misleading or worse, devoid of all meaning.

Through readings and lab exercises we will study the fundamentals of cartography design and explore GIS mapmaking technology. The final project for the course gives the students the opportunity to apply the knowledge gained through this course to create a map that is of interest to you.

Course Goals

To develop:

- An understanding of fundamental cartographic concepts
- A familiarity with geographic data
- Skills in computer-assisted map design and construction

Intended Learning Outcomes

By satisfactorily completing the course you should be able to produce and design professional maps. These skills can also be used in advanced geography and GIS courses.

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.

Recording Class Lectures

Peggy Harper 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 from the instructor, *Peggy Harper*. Course materials (both paper and digital) are for the participant's private study and research.

Textbook, Readings, Materials

Required Textbook:

- Tyner, J.A. 2014. Principles of Map Design. New York, NY: Guilford Press. Available in the bookstore.

Recommended Books:

- Slocum, Terry; McMaster, Robert; Kessler, Fritz; Howard, Hugh. 2009. *Thematic Cartography and Geovisualization*. Person Prentice Hall, 3rd ed. (ISBN: 9780132298346)
- Brewer, Cynthia A. Brewer. 2016. *Designing Better Maps, A Guide for GIS Users*. ESRI Press, 2nd ed.
- Marble, Dwayne. 2012. *GIS and Cartographic Modeling*. ESRI Press.

Course Technology

It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Disability Services. 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 and leave the classroom before using it. (@[S Kondrashov](#). Used with permission)

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

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). You are required to obtain and use your U of M email account for all communication between yourself and the university.

Instructor Expectations of Students

- 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 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 text. If you miss a lecture, make arrangements to get notes from a fellow student, not from instructor! Lecture slides will not be provided on UMLearn (the learning management tool). Failure to attend lectures will result in a poor class participation grade.
- Not all the textbook will be covered in the lectures but may be covered on the quizzes or exam.
- 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)

Class Schedule

This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students.

Planned lecture topics and corresponding textbook sections

<i>LECTURE TOPIC</i>		<i>READINGS</i>
Introduction	Introduction to Cartography History of Cartography Cartographic Design	pp. 3 – 13 pp. 18 – 42
Principles of Thematic Cartography	Typography Color Symbolization	pp. 43 – 56 pp. 57 – 70 pp. 131 – 145
Geographic Framework	Scale and Generalization Graticule Projection	pp. 73 – 77; 82 – 90 pp. 91 – 96 pp. 98 – 128
Mapping Techniques	Area Mapping Linear Mapping Point Mapping Multivariate Mapping Cartograms	pp. 159 – 169 pp. 157 – 158; 169 – 176 pp. 146 – 157 pp. 178 – 186 pp. 189 – 199
Map Production	Map Compilation Map Misuse	pp. 78 – 82
Modern Cartography	Recent Developments Critique of Maps	pp. 200 – 210 pp. 213 – 222

Laboratory Expectations

Labs are scheduled in the GIS Lab, 321 Wallace. Students have access to the lab Monday-Friday from 8:30 to 4:30. Priority is given to scheduled classes. If there is a class in session. Please seek permission before working at that time.

Lab Schedule

This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students. You will have approximately two weeks to complete each assignment. Assignment 6 is the final project.

Assignment	Due Date
Assignment 1	January 24, 2018
Assignment 2	February 7, 2018
Assignment 3	February 14, 2018
Assignment 4	March 7, 2018
Assignment 5	March 21, 2018
Assignment 6	April 6, 2018

Course Evaluation Methods

Final grade will be calculated on 5 lab assignments, final project, final exam and class participation.

Assignment 1	5%
Assignments 2-5	7.5% (ea)
Assignment 6	15%
Participation	10%
Final Exam	40%

Grading

Final grade will be calculated on 5 lab assignments, final project, final exam and class participation.

Letter Grade	Percentage out of 100
A+	95 - 100
A	86 - 94
B+	80 - 85
B	70 - 79
C+	65 - 69
C	60 - 64
D	50 - 59
F	Less than 50

Referencing Style

Assignments should use the APA reference style as outlined in the text:
 American Psychological Association. (2009). Publication manual of the American Psychological Association (6th ed.). Washington, DC: Author.

Assignment Grading Times

Lab assignments will be returned within two weeks of submission. Labs will be returned digitally to student's lab 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 receive a zero. In the event an assignment cannot be completed on time, students are expected to be notified and make arrangements with the instructor (or TA) before the assignment is due.