

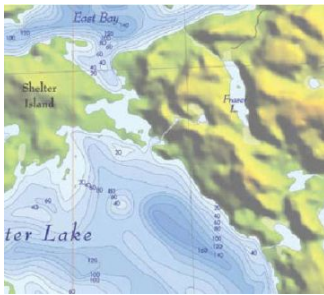
# Cartography

course outline (Geography 3253)  
Faculty of Science & Environmental Studies

January-April 2013  
Lakehead University

**Instructor:** Ms. Gail Murray  
**Email:** [gmurray@lakeheadu.ca](mailto:gmurray@lakeheadu.ca)  
**Office hours:** before lecture 630-7pm Tuesday  
nights in **RC 0005**

**Geography Assistant:** Lisa Harris  
**Email:** [laharris@lakeheadu.ca](mailto:laharris@lakeheadu.ca)



**Welcome to Cartography** This course will be a creative exploration of the science and art of map making. Both the theoretical and the practical side of mapping will be explored in depth, with lectures and labs highlighting the many aspects to this timely and powerful discipline. Your critical eye will be developed, and your skill in visual communication will be enhanced. Half of your mark will be obtained during the lecture sections with exams and presentations, and the other half in the computer lab with assignment and independent project work.

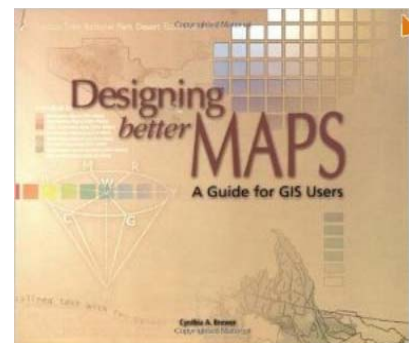
## WHERE & WHEN:

*Lecture:* Tuesday night 7-10pm (beginning January 8, 2013) in room **RC 0005 (basement)**  
& *EITHER Lab 1:* Monday mornings 1030am-1230 (beginning January 14, 2013) in lab **AT 3009**  
*OR Lab 2:* Tuesday mornings 830-1030 (beginning January 15, 2013) in lab **AT 3009**

## REFERENCE MATERIALS:

### 1. MAIN TEXT: Designing Better Maps: A Guide for GIS Users

ISBN: 9781589480896  
Author: Brewer, Cynthia Publisher: Esri Press  
Cover: Paperback



2. other reference materials, readings and weblinks will be provided as the course progresses

## SOFTWARE UTILIZED:

- ESRI's ArcMap 10.0
- Microsoft Office (PowerPoint, Excel, Word)
- CorelDraw 12 & CorelPhotoPaint 12

## NOTE:

Students should familiarize themselves with Lakehead University Regulations:  
<http://vpacademic.lakeheadu.ca/?display=page&pageid=46>

**LECTURES:**

**In the lectures**, we will overview the history, theory and techniques of map making, and cover the types of maps and their specific applications in communicating data. We will review the basics, and dive into conventions and best practices in map design and symbology and learn how the various methods of presentation of data are affected by our perception.

**PRESENTATIONS:** We will spice up the lecture nights with some cartographic research presentations. The first will be a group presentation, where groups of 3-4 people will be formed and will work together to produce a 15 minute presentation to their classmates on a cartographic topic of interest as well as constructing a summary page to be shared with classmates and marked. The second assignment will see each student prepare a short 5 minute presentation & summary sheet for their classmates (details to follow). A student opting not to participate in a presentation will not receive any marks. *Presentations will be 100% peer graded!*

**STRUCTURE:** The structure of the lectures will loosely follow this pattern:

- **7pm - Cartography in the News**
  - Discuss current mapping topics of interest – students are encouraged to contribute. We will look at the prevalence and application of mapping and related technologies in our daily lives.
- **715pm – Lecture**
  - Expanding on topics in assigned readings & covering new material
- **810pm – Break**
- **820pm – Interactive** : One of the following:
  - A. Group or Individual Presentations
  - B. Discussion
  - C. Group work
  - D. Multimedia
  - E. Lecture part 2
- **915pm** – we will talk about this week's lab
- **930pm** – available time: questions about labs, material, individual concerns, etc.

*\* Any material covered, of any media, is eligible to be found on the exams, including student presentations, mapping demonstrations, websites we examine and discussions that occur during our lecture class.*

*\* Lecture slide handout prints (.pdfs) will be posted on the Cartography network folder the day after the lecture.*

LECTURE #	DETAILS:	% of mark:
Lecture 1	Jan 8 Introductions Overview of Course Lecture	
Lecture 2	Jan 15 Lecture, then Groupwork Presentation Assignment– Groups formed	
Lecture 3	Jan 22 Lecture	
Lecture 4	Jan 29 Lecture, then <b>Group Presentations Part 1</b>	<b>8</b>
Lecture 5	Feb 5 Lecture, then <b>Group Presentations Part 2</b>	
Lecture 6	Feb 12 Lecture, then Individual Presentation Assignment handed out	
	Feb 19 <b>READING WEEK</b>	
Lecture 7	Feb 26 <b>Midterm Exam</b>	<b>14</b>
Lecture 8	Mar 5 Lecture	
Lecture 9	Mar 12 Lecture, then <b>Individual Presentations Part 1</b>	<b>8</b>
Lecture 10	Mar 19 Lecture, then <b>Individual Presentations Part 2</b>	
Lecture 11	Mar 26 Lecture, then <b>Individual Presentations Part 3</b>	
Lecture 12	Apr 2 <b>MAP EXHIBITION</b> followed by short review for Final Exam	
FINAL EXAM	Exam Period Apr 12-24 <b>Final Exam – (Date to be announced)</b>	<b>20</b>
<b>LECTURE TOTAL</b>		<b>50%</b>

**READINGS:** *Readings from the textbooks will be assigned week by week to be read prior to the lectures.*

The **Designing Better Maps: A Guide for GIS Users** text book is a superb guide to the practical application of Cartography using GIS software (specifically, ESRI's ArcMap) and good background for understanding the technical intricacies of stylization of data to produce an effective, cartographically sound map. It also has pertinent chapters on colour theory and other aspects of Cartography we will utilize.

**LABS:**

**In the labs**, we will focus on the creation of multiple types of maps from a starting point in GIS software with more than half of our work utilizing ArcMap 10.0. We may also explore the functionality of graphic software for enhancing maps (CorelDRAW 12 & CorelPhotoPaint 12 ) including investigating the functionality in a more flexible environment in adding creative touches to your maps that cannot be obtained solely in GIS software at this time. Also to be covered during the labs is the ins and outs of file management, importing and exporting data, using statistical data to make maps, file formats, and troubleshooting when plotting your maps.

There will be 5 labs worth 3% each, Map Project A worth 10%, and our major map of the term, Map Project B worth 25%. We will conclude the year with a celebratory **MAP EXHIBITION** during our last lecture class: Here, students and guest judges will examine the poster maps created (Map Project B) and vote for which students' maps are the best (to receive bonus marks!) Entry of your map to the exhibition is optional, but all students who enter receive a 1/2 a bonus mark. *Details on all labs and projects will be provided.*

\* Labs and Projects are due at the **beginning** of the lab due (unless otherwise stated). Late labs will be penalized 33%/day (1% of total grade). E.g. a lab worth 3% that is 1 day late will be graded out of 2%. A lab three days late = 0.

LAB #:	DATE	DETAILS	% of mark
LAB 1	Jan 14 or 15	Introduction to the lab; file mgt, get Lab 1	
LAB 2	Jan 21 or 22	<b>Lab 1 due</b> ; get Lab 2	3
LAB 3	Jan 28 or 29	<b>Lab 2 due</b> ; get Lab 3	3
LAB 4	Feb 4 or 5	<b>Lab 3 due</b> ; Map Project A handed out;	3
LAB 5	Feb 11 or 12	Working lab	
	Feb 18	<b>READING WEEK</b>	
LAB 6	Feb 25 or 26	<b>Map Project A due</b> , Map Project B handed out	10
LAB 7	Mar 4 or 5	Get Lab 4 & Lab 5	
LAB 8	Mar 11 or 12	Working lab	
LAB 9	Mar 18 or 19	<b>Lab 4 due</b> , go over Lab 5	3
LAB 10	Mar 25 or 26	<b>Lab 5 due</b> ; working lab (Project B)	3
LAB 11	Apr 1 or 2	<b>Map Project B due at end of Lab Class</b>	25
<b>LAB TOTAL</b>			<b>50%</b>