



**GEOGRAPHY COURSE OUTLINE: WINTER 2014
Geog 437 H (3-3)**

Cartography and Geovisualization

Section	Days	Time	Location
LEC 01	TuTh	17:00 - 18:15	ES 342
LAB 01	Tu	08:00 - 10:45	ES 307

Instructor: Dan Jacobson	Office: ES 306
Telephone: 220 6192	Email: dan.jacobson@ucalgary.ca
Technical Lab Support: Bart Hulshof	Office: ES 402
Email: bhulshof@ucalgary.ca	
Cartographic Support: Robin Poitras	Office: ES 424
Email: rpoitras@ucalgary.ca	

Please note: The appropriate emergency evacuation assembly point for all classes taught in Earth Sciences is ICT Food Court.

Course Description

The role of cartography and geographic visualization is explored both theoretically and practically in the communication of spatial data. Topics will relate to major issues in advanced map design and spatial data interaction with examples from the geographic literature. Sample approaches will be critically examined within lecture and laboratories. Computer software packages will be used for laboratories.

Prerequisites

Geography 231, plus either Geog 333 or 357 or consent of the department.

Course Content

Geography 437 covers production of maps from start to finish; digital data compilation and manipulation; working with graphic and Geographic Information system (GIS) software (e.g. ESRI's ArcGIS), Adobe Illustrator and Map Publisher; thematic map design theory and practice; communication theory for both physical and human geography; geovisualization and final computer-based map production, including website development. The course is primarily lecture and lab based, and includes hands-on map work in most sessions. This course focuses on the communication, theory, power and visualization aspects of mapping.

Sample Lecture Topics

Design process in mapping; cartographic communication and geographic visualization; generalization; map projections; thematic maps; map production for different media; new developments in cartography.

The course will involve

- Developing an advanced understanding in fundamental core concepts in cartography
- Exploring these concepts in a technical lab based setting
- Promoting critical thinking and reasoning with data in a spatial application based setting
- Developing methodologies and procedures for independent research projects

Context and wider aims of the course:

The goals are to integrate the wider theoretical background of cartography with technical contexts, and to explore these throughout the duration of the course, as they relate to specific applications or data.

Lab Activities and Student Projects:

Lab activities will run for the first portion of the course. The purpose of the lab exercises is to complement the material presented in the lectures, and to provide students hands-on experience with cartographic design, information communication and data handling. The remaining lab time will be flexible. Students are free to explore topics of interest relating to work on their final project.

Required texts:

Kraak, J., & Ormeling, F. (2010). *Cartography: Visualization of Spatial Data* (3rd ed.). New York: Guilford Publication.

Northey, M., Knight, D. B., & Draper D. (2012). *Making Sense in Geography and Environmental Sciences: A Student's Guide to Research and Writing*. (5th Edn.) Oxford: Oxford University Press.

The text below is **recommended** as a general reference resource.

Slocum, T. A.; McMaster, R.B.; Kessler, F.C.; Howard, H. H. (2005 / 2009) *Thematic Cartography and Geographic Visualization*, 2nd or 3rd Edition, Upper Saddle River, NJ, Prentice Hall,

Grading (Weighting)

Students will be evaluated in three areas: (1) their knowledge of lecture materials, including classroom participation and discussion (2) laboratory work and (3) the extended lab project. The extended lab project is expected to demonstrate knowledge of the conceptual issues and research applications in cartography. The application of this knowledge will be evaluated through laboratory exercises and individual research projects. The distribution of marks will be:

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Laboratory exercises	(5 x 10%)	50%
Project		50%
Comprised of:		
Written Proposal		10%
Sketch map (graphic outline)		10%
Project Presentation and Discussion:		10%
Product & Report		20%
		<u>100%</u>

Note: It is not necessary to pass each course component in order to pass the course. However each element of the course is closely inter-related.

Assignments

All assignments must be submitted by the specified due date and time

The only acceptable reasons for missing and examination or assignment in this class, as listed in the Deferral of final Examinations section of the University of Calgary Calendar are illness, domestic affliction or religious conviction. If you miss an assignment or examination and you provide me with the appropriate documentation, you will have one opportunity to make arrangements for the missed work. Without appropriate documentation, you will receive a zero for that portion of your grade.

Grading System:

96-100 A+	77-80 B	59-61 C-
90-95 A	71-76 B-	55-58 D+
86-89 A-	65-70 C+	50-54 D
81-85 B+	62-64 C	0-49 F

For additional detailed course information posted by the Instructor see Blackboard at:
<http://blackboard.ucalgary.ca/>

Writing across the Curriculum

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Centre in the Effective Writing Office can be utilized by all undergraduate and graduate students who feel they require further assistance.

Principles of Conduct

The University of Calgary Calendar includes a statement on the Principles of conduct expected of all members of the University community (including students, faculty, administrators, any category of staff, practicum supervisors and volunteers) whether on or off the University's property. This statement applies in all situations where the members of the University community are acting in their University capacities. All Members of the University Community have a responsibility to familiarize themselves with this statement which is available at:
<http://www.ucalgary.ca/pubs/calendar/current/j-2.html>

Plagiarism

Academic dishonesty is not an acceptable activity at the University of Calgary and students are **strongly advised** to read the Student Misconduct section in the University Calendar. Quite often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are 1) presenting another student's work as your own 2) presenting an author's work or ideas as your own without proper referencing and 3) using work completed for another course. This activity will not be tolerated in this course and students conducting themselves in this manner will be dealt with according to the procedures outlined in the calendar.
<http://www.ucalgary.ca/honesty/plagiarism>

Student Accessibility Services Accommodations

If you are a student with a documented disability who may require academic accommodation and have not registered with Student Accessibility Services, please contact their office at 220-8237. Students who have not registered with Student Accessibility Services are not eligible for

formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

Freedom of Information and Protection of Privacy

FOIP: The Freedom of Information and Protection of Privacy (FOIP) legislation disallows the practice of having students retrieve assignments from a public place, e.g., outside instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

Re: Posting of Grades and Picking-up of Assignments

- All assignments will be handled through Blackboard or personally.
- Their own grades will be available to each student on Blackboard by password access. Grades will **not** be available at Geography's main office.

Contact Information for Student and Faculty Representation

- SU VP Academic Phone: 220-3911 and e-mail: suypaca@ucalgary.ca
- SU Faculty Rep. Phone: 220-3913 and e-mail: arts1@ucalgary.ca

The students ombudsman office information can be found at:

<http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info>

Campus Safewalk

Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day, to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at 220-5333 or use a help phone, and Safewalkers or a Campus Security officer will accompany you to your Campus destination.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The new Faculty of Arts Program Information Centre (PIC) is your information resource for everything in Arts! Drop in at SS110, call us at 403-220-3580 or email us at artsads@ucalgary.ca. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.
- For program planning and advice, contact the Student Success Centre (formerly the Undergraduate programs Office) at (403) 220-5881 or visit them in their new space on the 3rd Floor of the Taylor Family Digital Library.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.

Contact for Students Union Representatives for the Faculty of Arts:

arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
