Geography 3221B — Winter 2013
COURSE OUTLINE: Advanced Seminar in Geographic Information Science

Department of Geography, Western University

SEMINAR: Tuesday 10:30 – 1:30 SSC 2322E ("Pleva Room" or alternate TBA)

INSTRUCTOR: Dr. Micha Pazner

OFFICE HOURS:
Instructor will be available for consultation during office hours (see below) and, when warranted, on an individual appointment basis.

Micha Pazner: *Tue 3:00-5:00 in Room 1416 SSC*
e-mail: pazner@uwo.ca

CALENDAR COURSE DESCRIPTION
3221A/B Advanced Seminar in Geographic Information Science. The application of general principles of scientific modeling and visualization to geographic problems using a GIS or other relevant spatial information processing system. Seminar/studio format with individual or team student projects.
Prerequisites: Geography 2220A/B.
3 seminar hours, 0.5 course.

READINGS:
The seminar will involve readings in remote sensing, GIS, cartography, visualization, and related areas based on numerous literature sources.

EVALUATION:

10%	Topic and its Brief Description, Skeletal Outline of Proposed Project, and Annotated Key References.
25%	Project Proposal
5%	Brief Presentation of Project-in-Progress
20%	Draft Seminar Paper
10%	Project Presentation
30%	Seminar Project and Paper

Due dates are given for handing in the deliverables (See Course Schedule table). Late submissions will lose points. Seminar project deliverables include Two (2) hard copies

of the Paper and digital files of the data and results (including key interim derivative files).

COURSE SYLLABUS

The following topics will be covered, touched upon, or discussed in the seminar.

- Introduction to the seminar
- Project topic selection and preparing a skeletal proposal outline and annotated references
- Group topic classroom brainstorm
- Individual topic consultation with each student
- Guided Independent research on your GISci Project: seminar content and *deliverables* milestones provide a 'hand-rail' leading you to your final project goal through a series of incremental steps.
- "GIS Refresher": Re-introduction to Geographic Information Systems (GIS)
- GISci Literature Review
- Geospatial Information — Data
- Conceptual Frameworks
- Guidelines for writing a proposal
- Geospatial Technologies (Tools): Remote Sensing, GIS, Other, Integration
- Digital Terrain Modeling
- Raster Techniques – Operations, Procedures, Models
- Spatial Data Modeling: Analysis, Mining, Synthesis, and Interpretation
- Problem Solving Strategies and Spatial Reasoning
- Visualization, Graphic Elements and Color
- Results: Visualization, Presentation, Communication, and Interpretation
- Student Presentations: How-to and Material covered by the seminar student participants
- Summary of the Seminar

INSTRUCTIONAL OBJECTIVES:
As a result of the course, students will be able to:

Devise and organize a spatial modeling and/or visualization project.

Script abstract models as actual/precise procedures for the Seminar Project. Alternatively, make use of other relevant spatial information processing systems (only with special permission from the instructor)

Demonstrate understanding of a set of spatial image processing operations by applying these operations properly in the Seminar Project.

Develop additional hands-on mapping skills using ancillary software, including, system, web, outlining, drawing/drafting, and word processing software for the Seminar Project.

Create reasonably aesthetic cartographic designs for presenting the results of the Seminar Project.

Accompany the visual project results with a brief narrative containing lucid explanation and commentary.

Create a graphic summary, in the form of a flow diagram, of the Seminar Project.

Provide a group or individual written term paper that describes and assesses the Seminar Project.

Deliver two (2) group or individual in-class presentations related to the Seminar Project.

Prepare interim written assignments: Topic, Proto Proposal and Annotated References, Proposal and Draft Paper.

Attend and participate in the seminar and discussion.

ADDITIONAL INFORMATION:

* For UWO Policy on Accommodation for Medical Illness: http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf Downloadable Student Medical Certificate (SMC): https://studentservices.uwo.ca under the Medical Documentation heading

* Calculator and Drawing materials may be used during tests and examinations. No other electronic devices will be allowed.

* Do NOT commit scholastic offenses, eg. **Plagiarism**:

"Plagiarism: Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar)."

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/handbook/appeals/scholoff.pdf .

Support Services
Registrarial Services: http://www3.registrar.uwo.ca/index.cfm
Student Development Services: http://www.sdc.uwo.ca/

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit http://www.uwo.ca/uwocom/mentalhealth/ for more information on these resources and on mental health.

Geography 3221A Advanced Seminar In GISci— Winter 2013 (Pazner)

Course Schedule

Week of Tuesday...	Seminar Meetings	Project Assignment Due On: (Max Points Worth)
1 **January 8**	**Seminar Meeting**	
2 **January 15**	**Seminar Meeting**	**Topic and its Brief Description, Skeletal Outline of Proposed Project, Annotated Key References (10)**
3 **January 22**	**Seminar Meeting**	
4 **January 29**	**nil**	
5 **February 5**	**nil**	
6 **February 12**	**Seminar Meeting**	**Project Proposal (25)**
7 **February 19**	**nil (Spring Break)**	
8 **February 26**	**Seminar Meeting**	**Brief Presentation of Project-in-Progress (5)**
9 **March 5**	**nil**	
10 **March 12**	**Seminar Meeting**	**Draft Paper (20)**
11 **March 19**	**nil**	
12 **March 26**	**Seminar Meeting**	**Project Presentation (10)**
13 **April 2**	**nil**	
14 **April 9**	**Seminar Meeting**	**Final Project and Paper (30)**