## **GEOGRAPHY 328 - A01**



UNIVERSITY OF VICTORIA
Spring Term 2017
Kristen Kilistoff

# COURSE OUTLINE GIS Analysis

## **GENERAL INFORMATION**

Office: DTB B111 (Landscape and Wildlife Ecology Lab)

Email: kkilistoff@gmail.com

Office hours: Tues 2-3, or by appointment (on Tuesdays and Wednesdays)

## **Lecture Info:**

Time: Tues, Wed – 12:30 pm -1:20 pm

Location: COR A125

**Laboratory Info:** (Section, Weekday, Time, Location, Instructor)

B01	W	3:30 - 5:20 pm	DTB A251	Steeve Deschenes
B02	R	8:30 - 10:20 am	DTB A251	Siobhan Darlington
B03	F	12:30 - 2:20 pm	DTB A251	Siobhan Darlington

Contact information for TAs will be provided on CourseSpaces.

## **Geography Department Info:**

Geography Department website: http://geog.uvic.ca

Undergraduate Advisor: Dr. Phil Wakefield – geogadvisor@uvic.ca

## **COURSE DESCRIPTION**

This course focuses on analysis for digital mapping and modelling, developing and using geographic data to answer spatial research questions, conducting basic spatial interpolations, and carrying-out multi-criteria modelling.

**Key Themes**: Spatial Analysis Building Blocks, Terrain Analysis, Spatial Interpolation, Suitability Analysis and Modelling in GIS.

#### **COURSE OBJECTIVES**

- 1. To understand the capabilities and limitations of GIS
- 2. To know how to solve spatial problems (theoretically and practically) using GIS
- 3. Communicate GIS issues and solutions
- 4. To read and write about GIS

## **PREREQUISTIES**

GEOG 222 and GEOG 228 and one of GEOG 226, STAT 255, 260

## **EVALUATION CRITIERIA**

Labs (5 x 10% each) =	50%
Term Test (Tue Feb 7 <sup>th</sup> ) =	15%
Final Exam (Date/Time TBA )=	35%

**Exam format** will include a combination of short-answer and multiple-choice questions. The questions for the term tests and final exam will be based on lectures and lab material, assigned readings, learning resources and class discussion. The term tests will cover only the topics discussed immediately preceding it. The final exam is comprehensive, although may be weighted more heavily on material not previously tested on.

## **FINAL GRADE ALLOCATION**

Grade	Grade point value	Grade scale	Description
A+ A A-	9 8 7	90-100% 85-89% 80-84%	Exceptional, outstanding and excellent performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.
B+ B	6 5 4	77-79% 73-76% 70-72%	Very good, good and solid performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
C+ C	3 2	65-69% 60-64%	Satisfactory, or minimally satisfactory. These grades indicate a satisfactory performance and knowledge of the subject matter.
D	1	50-59%	Marginal Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
F	0	0-49%	Unsatisfactory performance. Wrote final examination and completed course requirements; no supplemental.
N	0	0-49%	Did not write examination or complete course requirements by the end of term or session; no supplemental.

#### COURSE READINGS AND LEARNING RESOURCES

Assigned readings for this course will come from a free online e-resource entitled, **Geospatial Analysis - 5th Edition, 2015 by: de Smith, Goodchild, Longley.** 

http://www.spatialanalysisonline.com/HTML/index.html

In addition a list of supplemental readings and learning materials will be posted on CourseSpaces.

#### **COURSE COMMUNICATION**

CourseSpaces learning management systems (LMS) will serve as the main avenue of communication in this course (<a href="http://coursespaces.uvic.ca">http://coursespaces.uvic.ca</a>). Please monitor the page on a regular basis for course announcements, readings assignments and lecture handouts. If you are having difficulty logging in or password problems, contact the Computer Help Desk Email: <a href="https://helpdesk@uvic.ca">helpdesk@uvic.ca</a>, Tel: 250-721-7687

#### **LECTURE HANDOUTS**

Topic handouts *based* on lecture presentations will be provided. They will be posted on CourseSpaces before the next lecture. Topic handouts will be removed *2 weeks after the posting date*. Students are responsible for downloading/saving and completing notes packages. If you miss any material, make arrangements to get handouts from a fellow student, not from the instructor.

## **IMPORTANT COURSE POLICIES**

- Students must complete all evaluation components to obtain credit
- You must obtain a passing grade (i.e., ≥ 50%) in both the lecture and lab components to pass the course
- Failure to complete an assignment or exam (midterm or final), without permission from the instructor, will result in an 'N' grade, which equals a Grade Point Value of 0
- Unless otherwise stated students are expected to complete assignments independently.
- Conflicts with holidays or travel plans are not considered an acceptable reason to apply for a deferred examination or an assignment extension.

#### Missed exams:

- Students will not be permitted to write make-up tests except for documented medical or compassionate reasons. Please inform the instructor of your situation promptly and present written proof within five working days.
- Any make-up test or examination may not follow the same format as the in-class one.

## **Assignments:**

- Late assignments/papers will be penalized 20% per day (including weekends and holidays). Exceptions will only be granted for documented medical or compassionate reasons. Written proof must be provided within five working days.
   Only the course instructor can grant exceptions.
- Lab assignments are due at the beginning of your lab session.
- Details regarding your labs and their marks are managed by the course TA. Please discuss any issues on labs with your TA first.
- Please attend only the laboratory section for which you are registered. If you must miss a lab for exceptional circumstances please make arrangements with your TA in advance to attend another section.

#### **STUDENT RESPONSIBILITIES**

- A high level of student cooperation and participation, involving asking and answering questions during the lectures.
- Cell phones and portable music players must be turned off or silenced during lectures. Students are also required to remove earphones.
- Students are expected to be punctual for classes.
- Students are expected to attend all lectures and take notes. Not all material provided in the lecture handouts is covered in assigned readings and learning resources. In addition, not all assigned readings and learning resources will be covered in the lectures but may be covered in the exams.

#### **CLASS CLIMATE**

The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members. The University of Victoria has made a conscientious effort to increase diversity in the student, staff and faculty member populations. To ensure that all class members feel welcomed and equally able to contribute to class discussions, we will all endeavour to be respectful in

our language, our examples, and the manner in which we conduct our discussions and group work. If you have any concerns about the climate of the class, please contact me.

#### **ACADEMIC INTEGRITY**

Academic dishonesty (plagiarism, cheating) is a very serious matter in any academic institution and is dealt with severely at the University of Victoria. *The responsibility of the institution:* Instructors and academic units have the responsibility to ensure that standards of academic honesty are met. By doing so, the institution recognizes students for their hard work and assures them that other students do not have an unfair advantage through cheating on essays, exams, and projects. *The responsibility of the student:* Plagiarism sometimes occurs due to a misunderstanding regarding the rules of academic integrity, but it is the responsibility of the student to know them. If you are unsure about the standards for citations or for referencing your sources, ask your instructor.

Infractions will be dealt with in accordance with University policy. Commonly, the penalty for any form of cheating/plagiarism is a grade of F on the tests or laboratory assignments, or a final grade of F in the course. However, depending on the severity of the case other penalties may include a record on the student's transcript or expulsion. Please familiarize yourself with the University policy on academic integrity found in the Undergraduate Calendar at the following website. Please contact me if you have any questions.

## **UVic policy on Academic Integrity**:

http://web.uvic.ca/calendar2015-01/FACS/UnIn/UARe/PoAcI.html

## UVic Learning and Teaching Centre resources on academic integrity:

http://www.uvic.ca/learningandteaching/students/resources/expectations/

## STUDENTS WITH DIVERSE LEARNING STYLES AND NEEDS

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a documented disability/health consideration that may require accommodations, please feel free to approach me and/or the Resource Centre for Students with a Disability (RCSD) as soon as possible. The RCSD staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (<a href="http://rcsd.uvic.ca/">http://rcsd.uvic.ca/</a>). The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

## **COURSE EXPERIENCE SURVEY (CES)**

I value your feedback on this course. Towards the end of term, as in other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to the department improve the overall program for students in the future. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

## **TENTATIVE LECTURE SCHEDULE\***

Week	Dates	Lecture Topic
1	Jan 2 – 6	Topic 1: Introduction and Review
2	Jan 9 – 13	Topic 1 continued  Topic 2: Spatial analysis building blocks
3	Jan 16 – 20	Topic 2 continued
4	Jan 23 – 27	Topic 3: Terrain mapping and analysis
5	Jan 30- Feb 3	Topic 3 continued
6	Feb 6 – 10	Mid-term exam (Tue Feb 7 <sup>th</sup> ) and guest lecture
7	Feb 13 – 17	READING BREAK
8	Feb 20 – 24	Topic 4: Modelling in GIS
9	Feb 27 – Mar 3	Topic 4 continued
10	Mar 6 – 10	Topic 5: Interpolation
11	Mar 13 – 17	Topic 5 continued
12	Mar 20 – 24	Topic 6: Special Topics in GIS
13	Mar 27 – 31	Topic 6 continued
14	Apr 3 – 4	Review, Course evaluation

<sup>\*</sup> dates and topics may change

#### **IMPORTANT ACADEMIC DATES**

January 20<sup>th</sup> – Last day for adding courses that begin in the second term

February 28<sup>th</sup> – Last day for withdrawing from full year and second term courses without penalty of failure.

For a complete list of all important academic dates please see the UVic 2016-2017 calendar: <a href="http://web.uvic.ca/calendar2017-01/general/dates.html">http://web.uvic.ca/calendar2017-01/general/dates.html</a>

#### **GEOG 328 - LAB INFORMATION**

## LAB MANUAL ACCESS

http://labs.geog.uvic.ca/geog328/ username: geog328 password: gis328

#### LAB ACCESS POLICY

The lab is open Monday through Friday from 8:30 am to 4:30 pm. For evenings and weekends and after-hours a keyfob can be purchased from Rick Sykes (DTB A250). The keyfob costs \$10 and is not refundable. The keyfob is deactivated at the end of the term

You will have space on our servers to complete assignments – only materials relating to GEOG 328 can be stored – no personal or private material allowed.

#### LAB ASSIGNMENT SCHEDULE

Week	Dates	Lab Topic	Due (at beginning of lab)
1	Jan 2 – 6	No Labs	
2	Jan 9 – 13	Lab 1: Spatial Queries and Data Summaries	
3	Jan 16 – 2	Lab 1 continued	
4	Jan 23 – 27	Lab 2: Projections and Data Collection	Lab 1
5	Jan 30- Feb 3	Lab 2 continued	

6	Feb 6 – 10	Lab 3: Terrain Analysis	Lab 2
7	Feb 13 – 17	READING BREAK	
8	Feb 20 – 24	Lab 3 continued	
9	Feb 27 – Mar 3	Lab 4: Least Cost path	Lab 3
10	Mar 6 – 10	Lab 4 continued	
11	Mar 13 – 17	Lab 5: Interpolation	Lab 4
12	Mar 20 – 24	Lab 5 continued	
13	Mar 27 – 31	No Lab	Lab 5
14	Apr 3 – 4	No Lab	

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