

### DEPARTMENT OF GEOGRAPHY COURSE OUTLINE

# Geog 226 – Introduction to Quantitative Methods in Geography January 2017

**Instructor** Dr. Mark Flaherty

flaherty@mail.geog.uvic.ca

**Lecture Hours** Monday 9.00 AM – 9.50 AM

Thursday 9:00 AM – 9.50 AM

Class Room: Cornett B135

Office Hours Monday 10-11 AM, 1:30-3:30 PM

Thursday 10-11 AM, 1:30-3:30 PM

Office - Turpin B352

Lab Section Hours

and Teaching Assistant You **MUST** be registered in a Lab Section! Lab questions/problems should be addressed to your TA. Contact the Senior Lab Instructor (Kinga Menu) if your TA is unavailable.

M 2:30 – 5:20 PM Cafarella, Silvie scafarel@uvic.ca HSD A150
T 8:30 – 11:20 AM Paquette-Struger, Ben baps@uvic.ca HSD A160
T 15:30 – 18:20 PM Paquette-Struger, Ben baps@uvic.ca HSD A160

W 2:30 - 5:20 PM Cafarella, Silvie scafarel@uvic.ca CLE A105 except for January

11, CLE A010

#### **Course Objectives**

This course will introduce you to some of the most widely used methods for summarizing and analyzing different types of data. Topics include descriptive statistics, probability distributions, hypothesis testing, confidence intervals, difference of means tests, analysis of variance (ANOVA), correlation, and simple linear regression. Lab exercises will involve applying these techniques to real world problems.

The main objectives of this course are to provide you with the skills for:

- Organizing and describing data in an informative way;
- Drawing inferences and constructing convincing arguments based on data analysis;
- Evaluating arguments based on data analysis that appear in the geographic literature as well as the media.

#### **Learning Outcomes**

- An ability to choose and apply appropriate statistical tests based on their underlying assumptions and limitations.
- An ability to interpret, summarize and report the results from different statistical analyses.
- Greater appreciation of statistics as tool for scientific research.

#### Late

Lab assignments are due at the beginning of the following lab. Penalty for assignments handed in more than 24 hours late is 10% of the value of the assignment. Assignments

**Assignment Policy** 

that are one week late will not be graded. Only the course instructor can grant exceptions.

#### **Course Evaluations**

Mid-term Test 14% Thursday, February 10 Lab Exercises 32%

Mid-term Test 14% Monday, March 13

Final Examination 40%

A+	A	A-	B+	В	B-	C+	С	D	F
90-100%	85-89%	80-84%	77-79%	73-76%	70-72%	65-69%	60-64%	50-59%	0-49%

The schedule presented below is subject to change should more time be required for some topics.

Date	Monday	Thursday)	LAB
<b>Jan</b> 2/5		Course Introduction	
9/12	Measurement	Descriptive Statistics	No Credit Assignment
16/19	Probability	Conditional Probability and	1 – Descriptive Stats
		Odds	
23/26	Sampling	Normal Curve and Z Scores	2 - Probability
30/ <b>Feb</b> 2	Large Sample Confidence	Small Sample Confidence	3 – Sampling/Z scores
	Intervals	Intervals	
6/10	Hypotheses	TEST 1	4 - Confidence Intervals
13/16	READING BREAK	READING BREAK	
20/23	Goodness of Fit Tests	Multi-sample tests	NO LAB
22/ <b>Mar</b> 2	t –tests	Paired t	5 – Chi-square and K.S.
6/9	ANOVA	Correlation	6 – t tests
13/16	TEST 2	Correlation	7 – ANOVA
20/23	Correlation and Regression	Regression	8 - Correlation
27/30	Regression	REVIEW	9 - Regression
April 3	REVIEW		

## **Readings and Course Help**

**Course Textbook** 

A textbook is not required. Recommended texts available from the library or online are noted in the course introduction notes, as are other online resoures.

Lab Logon Username: your UVic Netlink-ID

Password: your student number

Lecture Notes, and Lab Assignments

Lecture notes containing most, but not all, of the PPT slides presented in the lectures, lab assignments and other course materials can be downloaded from

UVic's Coursespaces website.

Username: your UVic Netlink-ID

Password: your UVic Netlink-ID password

These materials are intended as supplements to the lectures. They are not intended to replace the lectures.

Laboratory operating hours can be found at <a href="http://www.sfg.uvic.ca/hours.php">http://www.sfg.uvic.ca/hours.php</a>

**Printing** Self-serve printing and photocopying are available using a prepaid-vend card that

can be bought at all Student Computing Facilities.

**Academic Standards** Academic integrity requires commitment to the values of honesty, trust, fairness,

respect, and responsibility. Plagiarism will be dealt with in accordance with university policy. Please review University Calendar for details (pages 33-34). If you have any type of disability, there are support systems, resources, and

accommodation actions available to you. If you wish to access any of these, contact the Resource Centre for Students with a Disability (RCSD) (http://rcsd.uvic.ca/). Please note: You are under no obligation to disclose your

disability.

**Advice** Some students have found lab assignments in this course to be challenging and/or

time intensive. Please make sure that you schedule enough time to complete

them.

Further Assistance MATHEMATICS AND STATISTICS ASSISTANCE CENTRE

http://www.math.uvic.ca/~msassist/index.html

Drop-in locations: Learning Commons location:Room 135, Mearns Centre for Learning AND Social Sciences & Mathematics (SSM) building location: A202,

Main level.

Other Contacts Geography Departmental web site: <a href="http://geography.uvic.ca/">http://geography.uvic.ca/</a>

GEOGPLAN planning guide: http://www.geog.uvic.ca/moodle/ [Login as a guest]

Undergraduate Advisor: Dr. Phil Wakefield (pwakef@geog.uvic.ca))

#### **Course Experience Survey (CES)**

Students with a Disability

Towards the end of term, as in all 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 help the department improve the overall programme 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 as we approach the end of term.

THE UNIVERSITY OF VICTORIA IS COMMITTED TO PROMOTING, PROVIDING AND PROTECTING A POSITIVE AND SAFE LEARNING AND WORKING ENVIRONMENT FOR ALL OF ITS MEMBERS.