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

<table>
<thead>
<tr>
<th></th>
<th>14%</th>
<th>14%</th>
<th>Lab Exercises</th>
<th>32%</th>
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<tbody>
<tr>
<td>Mid-term Test</td>
<td>Thursday</td>
<td>Monday</td>
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<tr>
<td>Mid-term Test</td>
<td>February</td>
<td>March</td>
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<td>Final Examination</td>
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The schedule presented below is subject to change should more time be required for some topics.

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<thead>
<tr>
<th>Date</th>
<th>Monday</th>
<th>Thursday)</th>
<th>LAB</th>
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<tbody>
<tr>
<td>Jan 2/5</td>
<td>Course Introduction</td>
<td></td>
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<tr>
<td>9/12</td>
<td>Measurement</td>
<td>Descriptive Stats</td>
<td>No Credit Assignment</td>
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<tr>
<td>16/19</td>
<td>Probability</td>
<td>Conditional Probability and Odds</td>
<td>1 – Descriptive Stats</td>
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<tr>
<td>23/26</td>
<td>Sampling</td>
<td>Normal Curve and Z Scores</td>
<td>2 - Probability</td>
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<tr>
<td>30/Feb2</td>
<td>Large Sample Confidence Intervals</td>
<td>Small Sample Confidence Intervals</td>
<td>3 – Sampling/Z scores</td>
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<tr>
<td>6/10</td>
<td>Hypotheses</td>
<td>TEST 1</td>
<td>4 - Confidence Intervals</td>
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<tr>
<td>13/16</td>
<td>READING BREAK</td>
<td>READING BREAK</td>
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<tr>
<td>20/23</td>
<td>Goodness of Fit Tests</td>
<td>Multi-sample tests</td>
<td>NO LAB</td>
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<tr>
<td>22/Mar 2</td>
<td>t –tests</td>
<td>Paired t</td>
<td>5 – Chi-square and K.S.</td>
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<tr>
<td>6/9</td>
<td>ANOVA</td>
<td>Correlation</td>
<td>6 – t tests</td>
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<tr>
<td>13/16</td>
<td>TEST 2</td>
<td>Correlation</td>
<td>7 – ANOVA</td>
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<td>20/23</td>
<td>Correlation and Regression</td>
<td>Regression</td>
<td>8 - Correlation</td>
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<td>27/30</td>
<td>Regression</td>
<td>REVIEW</td>
<td>9 - Regression</td>
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<td>April 3</td>
<td>REVIEW</td>
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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 resources.

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.
Lab Access

Laboratory operating hours can be found at [http://www.sfg.uvic.ca/hours.php](http://www.sfg.uvic.ca/hours.php)

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).

Students with a Disability

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/](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
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: [http://geography.uvic.ca/](http://geography.uvic.ca/)
GEOGPLAN planning guide: [http://www.geog.uvic.ca/moodle/](http://www.geog.uvic.ca/moodle/) [Login as a guest]
Undergraduate Advisor: Dr. Phil Wakefield ([pwakef@geog.uvic.ca](mailto:pwakef@geog.uvic.ca))

Course Experience Survey (CES)

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.*