ORIGINAL COURSE IMPLEMENTATION DATE: January 1996
REVISED COURSE IMPLEMENTATION DATE: September 2018
COURSE TO BE REVIEWED: (six years after UEC approval) October 2023
Course outline form version: 09/15/14

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: GEOG 252	**Number of Credits:** 4 Course credit policy (105)
Course Full Title: Explanation in Geography: Quantitative Methods **Course Short Title (if title exceeds 30 characters):** Quantitative Methods	
Faculty: Faculty of Social Sciences	**Department (or program if no department):** Geography and the Environment

Calendar Description:

A numerical approach to problem-solving in geography. Methods in the collection, description, analysis, and presentation of quantitative data will be addressed.

Prerequisites (or NONE):	None.
Corequisites (if applicable, or NONE):	
Pre/corequisites (if applicable, or NONE):	

Equivalent Courses (cannot be taken for additional credit)
Former course code/number: **GEOG 352**
Cross-listed with:
Equivalent course(s):
Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.

Transfer Credit
Transfer credit already exists: ☒ Yes ☐ No
Transfer credit requested (OReg to submit to BCCAT):
☐ Yes ☒ No (if yes, fill in transfer credit form)
Resubmit revised outline for articulation: ☐ Yes ☒ No
To find out how this course transfers, see **bctransferguide.ca**.

Total Hours: 75
Typical structure of instructional hours:

Lecture hours	45
Seminars/tutorials/workshops	
Laboratory hours	30
Field experience hours	
Experiential (practicum, internship, etc.)	
Online learning activities	
Other contact hours:	
Total	**75**

Special Topics
Will the course be offered with different topics?
☐ Yes ☒ No
If yes, different lettered courses may be taken for credit:
☐ No ☐ Yes, repeat(s) ☐ Yes, no limit
Note: The specific topic will be recorded when offered.

Maximum enrolment (for information only): 25
Expected frequency of course offerings (every semester, annually, every other year, etc.): twice per year – fall and winter semester

Department / Program Head or Director: Steven Marsh	**Date approved:**	September 2017
Faculty Council approval	**Date approved:**	September 15, 2017
Campus-Wide Consultation (CWC)	**Date of posting:**	October 13, 2017
Dean/Associate VP: Jacqueline Nolte	**Date approved:**	September 15, 2017
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	October 27, 2017

Learning Outcomes

Upon successful completion of this course, students will be able to:

- Apply methods in descriptive, inferential and relational statistics to the task of problem solving in geography.
- Create quantitative data through use of measurement techniques.
- Use quantitative methods to test hypotheses.
- Critically assess both the possibilities and limitations of statistical methodologies in geography.
- Create spreadsheets to manage quantitative data entry.
- Convert geographical questions into statistically testable propositions and research designs.
- Develop a basic working ability with statistical software, such as SPSS.

Prior Learning Assessment and Recognition (PLAR)

☒ Yes ☐ No, PLAR cannot be awarded for this course because

Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)

Lectures, guest presentations, computer lab assignments, class discussions.

Grading system: Letter Grades: ☒ Credit/No Credit: ☐ Labs to be scheduled independent of lecture hours: Yes ☒ No ☐

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials (if more space is required, download Supplemental Texts and Resource Materials form)

	Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1.	Roberts, :Lance W., Karen Kampen and Tracey Pete	The Statistics Coach: Learning Through Practice	☒	Oxford	2010
2.	Harris, Richard and Claire Jarvis	Statistics for Geography and Environmental Science	☒	Prentice Hall	2011
3.					
4.					
5.					

Required Additional Supplies and Materials (software, hardware, tools, specialized clothing, etc.)

None

Typical Evaluation Methods and Weighting

Final exam:	35%	Assignments:	25%	Midterm exam:	%	Practicum:	%
Quizzes:	%	Lab work:	%	Field trip assignment	%	Shop work:	%
Tests:	40%	Other:		Other:	%	Total:	100%

Details (if necessary):

Typical Course Content and Topics

1. Introduction: A quantitative approach to social and physical Geography.
2. What is quantitative data and where does it come from: issues of scale, measurement, and collection.
3. The normal curve and its role in statistics.
4. Probability, and hypothesis testing.
5. Devising testable propositions in Geography
6. Survey design and sampling
7. The ethics of data collection and use.
8. How to detect and measure relationships in quantitative data
9. How to build and manage a spreadsheet for geographical analysis.
10. Applications of correlation and regression.
11. Detecting and mapping spatial dependency: an introduction to spatial autocorrelation..