

COURSE IMPLEMENTATION DATE: January 1996  
 COURSE REVISED IMPLEMENTATION DATE: February 2013  
 COURSE TO BE REVIEWED: February 2019  
*(six years after UPAC approval)* *(month, year)*

**OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION**

Students are advised to keep course outlines in personal files for future use.  
 Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

GEOG 252	GEOGRAPHY	4
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS
Explanation in Geography: Quantitative Methods		
COURSE DESCRIPTIVE TITLE		

**CALENDAR DESCRIPTION:**

This course focuses on the use of numbers as an aid to problem-solving in geographical analysis. Students will be introduced to methods in the collection, description, analysis, and presentation of quantitative data. Techniques in the collection and recording of primary and secondary data will be covered and methods of statistical description, inference, and display will be surveyed. This course makes extensive use of computer software. Students are advised to take this course during the same academic year as GEOG 253 and/or GEOG 250, due to the complementarity that exists in these second year techniques courses.

PREREQUISITES:  
 COREQUISITES:  
 PRE or COREQUISITES: One of STAT 104 (formerly MATH 104), STAT 106 (formerly MATH 106), or PSYC 110

**SYNONYMOUS COURSE(S):**  
 (a) Replaces: GEOG 352  
 (b) Cross-listed with: \_\_\_\_\_  
 (c) Cannot take: \_\_\_\_\_ for further credit.

**SERVICE COURSE TO:** *(department/program)*  
 \_\_\_\_\_  
 \_\_\_\_\_

<b>TOTAL HOURS PER TERM:</b> <u>75</u>	<b>TRAINING DAY-BASED INSTRUCTION:</b>
<b>STRUCTURE OF HOURS:</b>	Length of course: _____
Lectures: <u>45</u> Hrs	Hours per day: _____
Seminar: _____ Hrs	
Laboratory: <u>30</u> Hrs	<b>OTHER:</b>
Field experience: _____ Hrs	Maximum enrolment: <u>25</u>
Student directed learning: _____ Hrs	Expected frequency of course offerings: <u>Fall and Winter semeste</u>
Other (specify): _____ Hrs	<i>(every semester, annually, every other year, etc.)</i>

**WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)**  Yes  No  
**WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)**  Yes  No  
**TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:**  Yes  No

Course designer(s): <u>John Belec</u>	Date approved: <u>November 2010</u>
Department Head: <u>Ken Brealey</u>	Date of meeting: <u>November 5, 2010</u>
Campus-Wide Consultation (CWC)	Date approved: <u>November 12, 2010</u>
Curriculum Committee chair: <u>John Carroll</u>	Date approved: <u>November 12, 2010</u>
Dean/Associate VP: <u>Jacqueline Nolte</u>	Date of meeting: <u>January 28, 2010</u>
Undergraduate Program Advisory Committee (UPAC) approval	

**LEARNING OUTCOMES:**

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

- Apply descriptive statistics and regression methods to problem solving in geography.
- Critically assess both the possibilities and limitations of statistical methodologies in geography.
- Review quantitative data management techniques through the use spreadsheets.
- Convert geographical questions into testable propositions and research designs.
- Develop a basic working ability with relevant computer software.

**METHODS:** *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lecture: 1.5 hours/week

Computer lab: 3 hours/week

**METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):**

Examination(s)                       Portfolio assessment                       Interview(s)

Other (specify):

PLAR cannot be awarded for this course for the following reason(s):

**TEXTBOOKS, REFERENCES, MATERIALS:**

*[Textbook selection varies by instructor. An example of texts for this course might be:]*

- D.C.Montello and P.C.Sutton, An Introduction to Scientific Research Methods in Geography, Sage, 2006.  
T.W. Pavkov and K.A. Pierce, Ready, Set, Go: A Student's Guide to SPSS 11.0 for Windows, Mc-Graw Hill, 2003  
K. N. Berk and P. Carey, Data Analysis with Microsoft Excel, Thomson, 2004.  
R.A.Donnelly, The Complete Idiot's Guide to Statistics, Alpha, 2004.

**SUPPLIES / MATERIALS:**

**STUDENT EVALUATION:**

*[An example of student evaluation for this course might be:]*

Assignments	25%
Tests:	40%
Final exam	35%

**COURSE CONTENT:**

*[Course content varies by instructor. An example of course content might be:]*

1. Exploring the nature of geographical questions and the role of quantitative data.
2. What is quantitative data and where does it come from: issues of scale, measurement, and collection.
3. Samples, sampling, probability, and hypothesis testing.
4. Devising testable propositions in Geography.
5. Research design considerations.
6. Uncertainty in measurement.
7. How to build and manage a database for geographical analysis.
8. Applications of descriptive statistics and descriptive spatial statistics in geographical problem solving.
9. Searching for spatial relationships: applications of correlation and regression.
10. Mapping pattern: overview and capabilities of GIS as an analytical tool.
11. Research ethics.
12. The limitations of quantitative methods.
13. Putting it all together: the role of quantitative methods in the pursuit of geographical knowledge.