

## NECU 5101, WINTER 2016

# QUANTITATIVE METHODS IN ENVIRONMENTAL AND CULTURAL RESEARCH (WINTER 2015)

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**Text:** Roberts, Kampen and Peter (2010), *The Statistics Coach: Learning Through Practice*, Oxford University Press.

**An additional text on the practice of statistics should also be acquired.**

### **Objectives**

The central goal of this course is to explore and analyze quantitative research methodologies in the context of environmental studies. The intentions are to assist students in identifying obstacles and limitations that frequently arise when conducting quantitative research, and to encourage them to interact with other graduate and faculty researchers who may have expertise that can prove valuable to their career. Students will develop renewed confidence in their ability to incorporate these concepts into their theses.

A secondary goal is assisting in the development of the thesis research plan. Students are expected to participate in the LU Graduate Student Conference on the week of March 7. Formal research plans will be presented as part of faculty presentations in late March.

### **Workload**

Course material will be put into practice through the completion of assignments and the context of developing research plans. *It is expected that students will be in regular contact with their thesis advisors in developing their plan.* Included in the regular course meetings will be lab sessions for exploring software such as SPSS, Excel and ArcGIS.

<b>Evaluation Scheme</b>	<b>Weight</b>	<b>Due Dates</b>
Assignment 1	5%	January 25
Assignment 2	5%	February 8
Assignment 3	5%	February 22
Graduate Student Conference	5%	March 7-11
Assignment 4	5%	March 14
Assignment 5 (GIS)	5%	March 21
Assignment 6	10%	April 4
Participation	10%	
Proposal Presentation	20%	TBA
Examination	30%	TBA

## Resources

In addition to the course text, lecture slideshows and assignment material will be posted to Courselink (Desire2Learn). Software is available in the computer labs on the third floor of ATAC and can be acquired for personal use; the HelpDesk can provide software and maintains a schedule of lab availability.

## Syllabus (*subject to change*)

Date	Topic(s)
January 4	Introduction and discussion of thesis topics and goals. Discuss objectives for this semester.
January 11	Review of Descriptive Statistics.
January 18	[3009] Introduction to SPSS.
January 25	Probability, Distributions, and Sampling.
February 1	Bivariate Analysis and Crosstabulation.
February 8	Correlation and Regression.
February 15	Reading Week. <b>No session this week.</b>
February 22	Generalizing from Samples to Populations.
February 29	Thesis Proposal Preliminary Presentations*
March 7	<i>LU Graduate Student Conference. No session this week.</i>
March 14	[3009] Geographical Information Systems.
March 21	Hypothesis Testing and Parametric Distributions
March 28	Easter holiday. <b>No session this week.</b>
April 4	Working with Small Samples: Non-Parametric Tests.

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**Sessions marked [3009] will take place in ATAC 3009.**

\*Formal (evaluated) presentations with the faculty and students will be scheduled at a later date.