

Quantitative Research Methods COMM 5185

Wednesday 6-8:50pm GAB 327

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Office Hours: M & W 11am-noon or by appointment

Course Overview

This class seeks to apply the logic of scientific method to develop and test theories of relations among social science actors. It deals with the general logic of scientific inquiry, research design, sampling, measurement, and the techniques of certain "structured" methods of data collection. This course also exposes students to the use of statistical analysis. The pedagogy will be equally focused on in-class meetings and discussions, and problem solving for research projects. By the end of this course, you should be able to conceptualize a research problem and develop a number of complementary design, measurement, and data collection approaches to bring evidence to bear on the problem. You should be able to prepare a research proposal, and critically evaluate the quality of evidence in published social research.

Reading Assignments

Quantitative research methods for communication: A hands-on approach, 2nd edition, (2013) by Jason Wrench, Candice Thomas-Maddox, Virginia Peck Richmond, & James McCroskey, Oxford Press.

Course Goals

There are multiple objectives intended for a wide variety of student background and goals including:

1. Understand the significance of paradigms in research and how they influence approaches to scientific inquiry
2. Understand the varied approaches to research
3. Understand the process of deciding how best to answer a research question given potential practical and ethical concerns
4. Understand the importance of methodological congruence in research
5. Understand the features of a variety of quantitative research designs and the basic statistical analyses
6. Apply the understanding to develop beginning quantitative research proposals

Software

The class involves using SPSS, which is available at the college's General Access Lab. The class will have some classes conducted in lab for demonstrating how to use SPSS.

Requirements & Grading

Evaluations of student performance will be based on the following criteria:

Class attendance 5%

General in-class participation 5%
Assignments 20%
Exam 30%
Group project & paper 40%

Class Attendance (5%)

Attendance at every class is expected. Beyond one absence, 2 points will be deducted off your final grade per absence. Absences need never be discussed with the instructor unless you are providing a documented note.

General In-Class Participation (5%)

ALL students will be expected to participate fully in the seminar by both asking questions and answering them. While a reasonable quantity of verbal participation is a necessary condition for a positive evaluation, it is not sufficient. The quality of questions and answers will be considered when evaluating student participation. Students are welcome to bring questions from their own research projects to the classroom for discussion.

Participation will be measured against the following criteria:

1. Contribute original thoughts or ideas to discussions
2. Cite relevant resources to validate points made
3. Demonstrate openness to divergent points of view
4. Be respectful of the perceptions of others
5. Integrate materials from previous units to formulate ideas and generate dialogue
6. Provide great feedback to others' projects

Assignments (20%)

There are two assignments for this course. Each assignment consists 10% of the grade.

In assignment 1, you will identify a research question and begin to develop a "Rationale" section of a quantitative research proposal using experiment, focusing on the significance of your research question.

In assignment 2, you will develop the Methods section of a quantitative research proposal. You will use the feedback provided from Assignment 1 to continue writing your research proposal by identifying the research design and procedures for data collection and analysis.

Exam (30%)

There will be one open-book exam testing the materials covered in the textbook and in the lecture. The exams consist of multiple-choice questions.

Group Project & Paper (40%)

Based on the ideas proposed in Assignment 1, the instructor will assign students to work on different projects in groups. The group will work as a team to carry out the project by collecting, entering, analyzing data, and writing a team paper. The paper needs to be an (23-25 double-spaced pages) empirical paper following APA style. The final paper needs to be submitted via turnitin.com and also an electronic copy of it needs to be email to the instructor before the deadline. The

paper is due no later than midnight December 7th. Details on the paper will be given in class.

SPOT Course Evaluation

The SPOT course evaluation period is from November 19 to December 6. During this period, please go to my.unt.edu to complete the course evaluation.

Acceptable Student Behavior:

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.unt.edu/csrr

Academic Integrity

Each student in this course is expected to abide by the University of North Texas Code Of Conduct. Any work submitted by a student in this course for academic credit will be the student's own work.

Tentative Schedule of Topics by Week

Aug 29: Course Introduction and Overview, Introducing a sample project

No readings.

Lab exercise: take the online tutorial on human subjects and obtain the certificate at <http://phrp.nihtraining.com/users/login.php> (email the certificate to the instructor by midnight Aug 31)

Sept 5: Chapter 5, 6 and turn in Assignment 1 on ideas of a quantitative research project using experimental design **(by midnight Sept 7)**

Chapter 5: Research structure and literature review

Chapter 6: Variables

Lab exercise: introducing SPSS and data view

Sept 12: Chapter 7, 11, 15 Feedback on Assignment 1

Chapter 7: Measurement

Chapter 15, Descriptive Statistics

Chapter 11: Experimental design

Lab exercise: SPSS data entry

Sept 19: turn in Assignment2, brainstorming on final project (e.g., topic, experimental design, instruments, stimuli)

Lab exercise: running descriptive statistics using SPSS

Sept 26: Chapter 8, 14, feedback on Assignment2; feedback on each other's design; continue working on the experimental stimuli of final project

Chapter 8: Reliability and validity
Chapter 14: Hypothesis testing
Lab exercise: running reliability test in SPSS

Starting in Oct, each team will work on data collection and work with the instructor on the data analysis to complete the project:

Oct 3 Chapter 17, t-Test;

Lab exercise: running t-test (independent sample t test, pair-sample t test) using SPSS

Oct 10: Chapter 18, ANOVA, putting experiment instruments on Qualtrics

Lab exercise: running ANOVA using SPSS

Oct 17: Chapter 19, Correlation, pilot testing experiments on Qualtrics

Lab exercise: running correlation using SPSS

Oct 24: revising experiments on Qualtrics

Oct 31: Review data collection status

Nov 7: Literature draft due; data analysis meeting with instructor; pin down results and discussion points

Nov 14: Exam in class, answer questions on data analysis & results

Nov 21: Results & Discussion write-up due

Dec 5: Individual group meeting with instructor for feedback on Results & Discussion

Dec 12: Group project paper due by 11:59pm on Dec 12