

CJT 665-001

Quantitative Methods in Communication Research

Fall 2011

TR 12:30-1:45

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This course is concerned with the methods and philosophy of quantitative scientific research into the origins, nature, and effects of communication processes. Although it is recognized that for many of you this course is your initial graduate level exposure to research methodology, you will be asked to attain a relatively sophisticated grasp of a wide variety of quantitative research methods, principles of research design, and methods of analyzing data—from chi-square to structural equation modeling. If that seems a lot to absorb in one semester, that's because there *is* a lot to absorb to prepare you for other graduate communication courses, more advanced methods courses, and for any quantitative research in which you will become involved.

The primary emphasis will be on theoretical research; i.e., research whose goal is the formulation and/or testing of theories of communication in a variety of contexts. However, for those of you with a less theoretical bent, the research knowledge acquired will be highly useful in a wide variety of applied research contexts (e.g., advertising, marketing, public health, public relations, program evaluation, etc.).

The majority of the course will be concerned with quantitative research methods and associated statistical procedures. *Number crunching, however, will not be emphasized.* Rather, we will focus on achieving a thorough understanding of: experiments, surveys, field experiments and other research designs; the strengths and weaknesses of these designs; and different methods of statistical analysis.

The approach to *statistical methods* will be both theoretical and practical: *theoretical* in the sense of understanding **how** a particular statistical procedure works and the kinds of information it yields about the phenomena under study; *practical* in terms of recognizing the conditions and situations in which this procedure may be most fruitfully applied, and how results should be interpreted. In the final stages of the course you will be asked to apply these different kinds of knowledge in evaluating and critiquing actual research studies representing a wide range of methodologies.

Grading and Assignments

There will be *two* examinations. The *first* exam will test your knowledge of various methods of quantitative statistical analysis, and will count 35% toward your course grade. The *second* exam will concern research methods, and will count 30% (less material covered).

A Research Article Critique paper will account for the remaining 35% of your grade. In this paper you will offer a constructive critique of a communication research study as presented in a journal article. You will be asked to critique, among other things, the research methods

employed, including design features; operationalization of concepts; internal and external validity; methods of data analysis; study inferences and conclusions, etc. You will also be asked to offer revisions which address what you consider to be the major flaws/problems in the study. More detailed information will be forthcoming, but *quality of ideas, reasoning, and writing will be major criteria in grading this paper.*

All assignments and exams will receive a letter grade ranging from A+ to E-. The number of points you earn on a particular assignment can be calculated by multiplying the number of points for a particular grade (see table below) by the weighting for that test/assignment.

<u>LETTER GRADE</u>	<u>POINTS</u>	<u>LETTER GRADE</u>	<u>POINTS</u>
A+	140	C-	60
A	130	D+	50
A-	120	D	40
B+	110	D-	30
B	100	E+	20
B-	90	E	10
C+	80	E-	0
C	70		

If, for example, you make a “B” on Exam #1 (which counts 35% of your grade), you have earned $(100 \times .35) = 35$ points. A total of 120 points is required to earn an “A” in the course, 90 points are required for a “B” and 60 points for a “C”. Because “D” grades are not awarded to graduate students as a final grade, below 60 points is an “E”. Don’t worry—I *rarely* award this grade. I also curve the grades on each of the exams, utilizing the distribution of scores on the exam in comparison to distributions from previous semesters.

Text and Readings

Text: Williams & Monge, *Reasoning With Statistics: How to Read Quantitative Research* (5th ed.)

Additional Readings: All other readings (including several chapters from Watt and van den Berg, *Research Methods for Communication Science*) are available on the course website. To get there go to my website at <http://www.uky.edu/~pcpalm1>. Click on: “CJT 665 Course Page”. UserID is: CJT665 (all caps, no spaces). Password is: methods (lower case). *The website also contains my class notes. It will help if you bring each day’s notes to class.*

Attendance

Although attendance generally is not required (we are all more or less mature folk who know our responsibilities), you *cannot miss class and expect to do well* on the tests and other assignments. Attendance is, of course, *required for exams.*

Cheating and Plagiarism

Cheating and plagiarism continue to be significant problems on campus. For definitions of these offenses and associated sanctions (which vary from reduced grades to suspension) see the

Student Handbook of Rights and Responsibilities or go to: <http://www.uky.edu/studentaffairs/code/>. See Part II, section 6.3.0.

A Brief Bio

Just so you'll know something about your professor's background, especially regarding research, I earned both my B.A. (English) and M.A. (Communication) at UK (that's right—UK), and my Ph.D. (Mass Communication) from the University of Michigan (exactly when is not important). I've spent a good many years doing research funded by the National Institute on Drug Abuse on developing more effective drug abuse prevention campaigns, especially televised PSA campaigns aimed at high sensation seeking youth. Partly as a result, I served as a member of a scientific panel appointed by the Office of National Drug Control Policy (ONDCP) to help guide the agency's National Youth Anti-Drug Media Campaign. I've also done similar research on using the mass media to combat HIV and other STD's, and am currently Co-PI on a study which involves media campaigns aimed at delaying sexual initiation by at-risk adolescents. All of this has been a lot of fun, believe it or not!

My research has involved me in a broad spectrum of quantitative research methodologies, including laboratory experiments, cross-sectional and panel surveys, field experiments, and time-series designs. This research has required me to use, or become familiar with, a wide variety of quantitative data analysis techniques in various contexts. This semester we will be dealing with most of these research methods and statistical techniques. I promise I will do my best to help you acquire this information in the least painful manner possible, as long as you are willing to help!

COURSE SCHEDULE AND ASSIGNED READINGS

<i>DATE</i>	<i>TOPIC</i>	<i>READINGS</i>
	<u>Statistical Methods</u>	
8/25	The Scientific Study of Communication	W & V, Chs. 1, 2; Williams, Chs. 1, 2
8/29-9/2	Theoretical Research; Applied Research; Measurement	W & V, Ch. 3; Williams, Ch. 3
9/5	Labor Day	
9/6-9/9	Distributions: Estimating Parameters	Williams, Chs. 4, 5
9/12-9/16	Hypothesis Testing; T-test; One-Way analysis of Variance	Williams, Chs. 6, 7, 8
9/19-9/23	Factorial Analysis of Variance; Correlation; Simple Regression	Williams, Chs. 9, 11, 12

9/26-9/30	Statistical Control & Causal Inference; Multiple Regression	W & V, Ch. 4; Williams, Ch.13
10/3-10/7	Factor Analysis; Structural Equation Modeling	Williams, Ch. 14; Hoyle; Raykov & Marcoulides
10/11	Nonparametric Statistics; Review for Exam	Williams, Ch. 10
10/13	Exam #1	

Quantitative Research Methods

10/17-10/21	Discuss Exam 1; Validity, Reliability; Experimental Method	Review Ch. 4 in W & V
10/24-10/28	Research Designs; Survey Research; Field Experiments	W & V, Chs. 14, 15, 16
10/31-11/4	Cross-sectional vs. Longitudinal Studies; Time Series	W & V, Ch. 17; Williams 16
11/8	Sampling; Research Procedures	Crano & Brewer, Ch. 10; W & V, Ch. 18
11/10	Review for Exam #2	
11/15	Exam #2	
11/17-11/20	NCA Convention – No Class	Convention Program

Research Study Critiques

11/22	Discuss Exam 2; Research Critique Discussion—Article #1	Article #1
11/24	Thanksgiving	
11/29	Research Critique Discussion—Article #2	Article #2
12/1	Research Critique Discussion—Article #3	Article #3
12/6	Discussion of Article for Research Critique Paper; Course Evaluations	Article #4.
12/8	No Class	
12/12	Due date for Research Article Critique paper	