COMM 550
Quantitative Research Methods in Communication
Annenberg School for Communication and Journalism
Fall Semester 2012
Wednesday 6:30-9:20, ASC G38

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Overview of the Course. COMM 550, Quantitative Research Methods in Communication, is designed to introduce you to the process of conducting quantitative research in communication. This process begins with the development of an initial focal point or idea (based on everyday observation, prior research, and theory), proceeds through a variety of decisions made regarding problem selection, problem development, data collection, data analysis, inferences about what the findings mean, and decisions about how to "write them up" (using the *Publication Manual of the American Psychological Association* (6th edition). The focus therefore is on: (1) providing a "road map" for thinking about and doing research (2) assessing (via homework assignments, quizzes, paper drafts) your emerging more granular quantitative knowledge and skills and providing feedback and opportunities to improve that knowledge/skill base, and (3) most importantly, giving you a step-by-step "hands on" scaffolded experience of generating research questions and hypotheses, designing studies, acquiring IRB approval for studies, reviewing studies of others; conducting studies over the web, analyzing, interpreting, and writing up *your own research project in teams (2 students per team)*. You will learn about a variety of methods (e.g., experiments, observational studies, survey/questionnaire design) and critical issues in designing and assessing studies (e.g., epistemological assumptions, ethical issues; operationalization of concepts, independent and dependent variables; survey/questionnaire construction; internal and external validity; reliability). You will also be introduced to a variety of basic descriptive and inferential statistics and how to think about and use these tools. The course is designed to insure a solid foundation in basic parametric and non-parametric statistics: In doing so, students will do many *basic* statistical analyses both by hand and via statistical software (SPSS)…that is, you'll be asked to understand where those numbers in SPSS are coming from!

Required Texts (PLEASE BUY THESE OVER THE WEB ASAP)

Merrigan G., & Huston, C. L. (2009). Communication Research Methods (2nd edition). New York: Oxford University Press (ISBN: 978-0-19-531482-3). (referred to as CRM). You can find it at Amazon (new and used). http://www.amazon.com/gp/product/0195314824/ref=pd_lpo_k2_dp_sr_1?pf_rd_p=486539851&pf_rd_s=lpo-top-stripe-1&pf_rd_t=201&pf_rd_i=0534581404&pf_rd_m=ATVPDKIKX0DER&pf_rd_r=0A7G3F1E07F02BN5EHWD

Field, A. (2009). *Discovering statistics using SPSS*. Thousand Oaks, California: Sage Publications Inc. (ISBN: 978-1-84787-906, paper) (referred to as F) Below is a site with a range of vendors for this text. http://www.google.com/products/catalog?client=safari&rls=en&q=andy+field+discovering+statistics+using+spss+third+edition&oe=UTF-8&um=1&ie=UTF-8&cid=13479178513047666414&ei=KaRQTIGyI5ScsQPP-Mm5Bw&sa=X&oi=product_catalog_result&ct=result&resnum=3&ved=0CDAQ8wIwAg#ps-sellers

Publication Manual of the American Psychological Association (6th ed.). (2009). Washington, D.C.: American Psychological Association. (ISBN 1-4338-0561-8, ppk). A variety of vendors for this including the bookstore. http://www.google.com/products/catalog?q=APA+manual+6th+edition&cid=15027362713777938099&ei=16VQTKa0BKrMiwSOrfTLBQ&sa=title&ved=0CAcQ8wIwADgA&os=reviews

Additional Readings (as noted below will be either available on blackboard or via a link weekly)

Pavitt, C. (2010). **Alternative approaches** to theorizing in **communication science**. In C. R. Berger, M. E. Roloff, & D. Roskos-Ewoldsen (Eds.), *Handbook of* ***communication science*** (2nd ed.; pp. 37-54). Thousand Oaks, CA: Sage Publications.

Other Electronic Resources

Power point slides, spreadsheets, quick time movies and modules, visuals, articles, and resource links, etc. on Blackboard for the course.

Class Date	Topics	Read for Today	Written/Oral Assignment/Test Due
Part One: The What and Why of Communication Research			
August 29th	**Introductions; Overview and introduction to communication research; Science and Ways of Knowing; Developing Testable Questions and Hypotheses; Ethics and Making Claims**	**CRM Preface; 1 - 4 (focus on Discovery Paradigm); Buss Readings and Response (on blackboard); Communication Challenges (on blackboard)**	**None**
September 5th	**Developing Research Hypotheses and Questions; What Counts as Communication Data? Warrants for Research Arguments; Reliability and Validity, Demonstrating Causality; Statistical Beginnings…**	**CRM 5,6 (pgs.** 79-87; 97; 99-100)**; Pavitt (2010) F Preface; F 1**	**A1** Critique Powerpoint Presentation Due
Part Two: The How of Communication Research			
September 12th	**Critiquing Studies for Reliability and Validity; Causality; Survey Research and Sampling**	**Reread CRM2; CRM7; Readings as assigned**	**A2** Initial Description of Project Hypotheses and Questions; **T1 by class time September 12th; Your team should schedule an appointment with Dr. Miller this week.**

September 19th	**Survey Research (continued); Experiments; Building Simple Statistical Models**	**CRM7-8; Readings as assigned; F2**	**A3** Introduction Outline; Approved Hypotheses & Questions; Specification of the Sample and Sampling Procedures **T2 by class time September 19th**
September 26th	**Experimental Design; SPSS Environment**	**CRM8; F3 Readings as assigned**	**A4** Draft of Operationalizations (Initial Survey and other Scale Items); **T3 by class time September 26th**
October 3rd	**Content Analysis Design (feasibility) APA Style Overview; Introductions and Methods; Exploring Data with Graphs**	**CRM9; Re-review CRM2; APA 1, 2; F4; Readings as assigned**	**A5** iStar Registered; IRB Test Completed and Passed (certificate copy submitted to Lab Instructor); Experimental Design Due (Relationship to Hypothesis Clear); **T4 by class time October 3rd; Team schedule Appt Dr. Miller this week**
October 10th	**Statistical Assumptions (& why they matter) and Data Clean Up**	**F5**	**A6** Content Analysis Coding Scheme and Plan (Relationship to Hypothesis/Question Clear); **T5 by class time. October 10th; INTRO DRAFT Due**

Project IRB and Implementation			
October 17th	**IRB materials developed; Method Sections Detailed; Correlation and Regression**	**F6, F7**	**A7** Survey Instrument; Experimental and Content Coding Finalized; IRB Mat. Submitted to Dr. Miller (Instructor approval needed before submission) **T6 Test by class time October 17th**
October 24th	**Comparing means; t-tests; Between-Subjects One-Way and Two-Way ANOVA Designs**	**F9, F10**	**A8** Submission of IRB Materials after feedback from Dr. Miller **T7 by class time October 24th**
October 31st	**Factor Analysis; Data Analysis Plan; Some Tests for Non-Parametric Data; Categorical Data;**	**F15, 17, 18 (review earlier chapters)**	**A9 METHOD DRAFT T8 by class time, October 31st**
November 7th	**Data Analysis and Writing Workshop Results/Discussion APA; Oral Presentation Instructions; Choosing Among Methods**	**APA 3-8**	**A10** Data Analysis Plan; **T9 by class time, November 7th. All Repeat Tests Must be completed T1-T9 by this Friday (16th). Team Schedule appoint with Dr. Miller this week**
November 14th	**Methods Exam (In Class Portion) Receive Take home Portion of the Exam Due by November 20th.**		**ALL DATA MUST BE COLLECTED**
November 21st	**Thanksgiving Holiday ENJOY!!!**		

November 28th	**Data Analysis and Writing Workshop; Exam Redo completed by November 30th.**		**A11 RESULTS & Discussion (provide overhead slides)**
December 5th	**Oral Presentations**		**Oral Presentations (power point slides turned in) A12 Results and Discussion Draft**
December 12th **EXAM Period**	**Final Project Due**		

Evaluation

Your grade in this class will consist of the components as follows:

Final Research Paper Project	25%
Final Research Presentation:	5%
Weekly Assignments	12% (1 each; 12 assignments (A))
Tests (almost weekly):	27% (3 each; 9 tests (1 retake of each possible with highest grade counting)
In Class and Take Home Exam	15% + 10% (1 retake possible)
Class Participation	5%
Total	100%

Research Paper Project

Designing, conducting, and writing up a research project is a major focus of the course. You will (1) do a literature review leading up to your hypotheses and questions, (2) develop new hypotheses or research questions, (3) design the study, (4) develop or modify the research materials and measures, (5) gather the data, (6) analyze the data, and (7) write up the research report. **You may not use existing data sets for this project. All projects will involve a team (2 people) since so much research is done on a team (and in my experience students typically learn best, and have the most support, in conducting research on teams).**

In order to give you experience with a variety of approaches, all projects will include **all three of the following components:**

a. a survey/scale instrument (as an IV and/or DV) with at least one set of items suitable for examining means, standard deviations, pearson correlations and factor analysis.
b. an experimental component (in which you have randomly assigned participants to 2 or more conditions)
c. developing or including materials that will be content coded.

Papers will be submitted in 5 stages using APA style (6th edition): (1) Title Page and Introduction, (2) Revised above plus Method, (3) Revised above plus Results, (4) Revised above plus Discussion and Abstract, (5) Final Draft. IRB forms must be completed for full IRB submission (so you could potentially publish your findings). See due dates in syllabus. You will provide an oral presentation the last day of class with the final draft due at the time of the Final Examination. Papers/assignments (including separate section drafts), and tests and integration exam should be submitted electronically.

Assignments

There are 12 Assignments **plus final paper/presentation. These assignments are designed to insure that students are working towards their project's completion in a timely way as we proceed.** ***All Lab Assignments are due by 5PM on Wednesday (the day of class).*** **Later assignments will incorporate earlier material. All assignments are due as noted (1/2 credit for late labs). All assignments must be turned in to receive a passing grade in the course. You may redo labs (A assignments) to master material (but these must be turned in within one week after feedback). Full credit is 1 point per A assignment.**

Assignment 1 *for next week: Find a social science/communication journal article from the "discovery paradigm" (check with your TA that no one else has chosen it; Notify your TA so she can make a record of it and put the article you are reviewing on blackboard for the class). Create powerpoint slides of the* ***abstract*** *of this article. In a series of slides point out the following that should be apparent from the abstract (except point 5; if it isn't, say so and get that information from the rest of the article and inform us about it when you present these slides next week).*

1. ***What are the researchers' hypotheses and questions?***
2. ***How are these questions tied to theory? What theory? Does this make sense? Is there relevant alternative theory/research that is not adequately addressed?***
3. ***What are the independent and dependent variables?***
4. ***What research methods (such as experiment, survey, content analysis) did the authors use? How are their variables operationalized exactly?***
5. ***How did the authors collect the data?*** (e.g., did they recruit the research subjects? (if so, What are the characteristics of these subjects? Is the choice of sample appropriate to answer their research questions/test their hypotheses?) how did they recruit and sample subjects? (how will this affect their inferences?))
6. ***What did the authors find? What claims (descriptive, explanatory, causal) do they make and what inferences do they draw about their findings?*** Do these seem appropriate? Why/why not?
7. ***What did the authors say about informed consent*** (this is not going to be in the abstract – provide a separate slide explaining this). Given what the authors did, use the information in your text to provide an initial "informed consent form" (provide as separate slide). If the study does not report informed consent is this appropriate? (why/ why not?) Evaluate relative risks/benefits to participants)?
8. ***Please send a digital copy of the article to your TA who will post this for the class.. Be sure to also submit all powerpoint slides to your TA***

Tests and Exam

There are 9 tests that are designed to cover the material from class the prior week. This is done to help you focus on mastering the material more deeply and to insure you are keeping up and "on track" (a 550 student in an earlier class suggested this idea of weekly tests. I think it's a good one).

To further insure mastery of this material on an individual basis there is an integration exam of the basic material towards the end of the course. That exam has an in-class portion and also a take home portion.

You will have an opportunity to take re-takes of all tests and the Exam. Try your best to do well the first time so you don't need to do this. But, we allow a retake (with different questions of course) to (1) reduce your anxiety – you can retake it, and (2) to increase mastery of the material.

It is critical that you are on schedule in getting your IRB materials in. This is because IRB takes a while and I want to be sure all teams get their studies done and all teams complete the course successfully.

IRIRB Test. USC requires all investigators working with participants to go through an IRB test procedure. **ALL OF YOU MUST TAKE THIS TEST TO RUN PARTICIPANTS and COMPLETE YOUR PROJECT for this COURSE. Although it is a requirement, there are no course points associated with this test.**

Teamwork. Teams are very typical in science. Occasionally, however, teams have difficulties…if there is an issue on your team (e.g., one or both of you feels you need more of our input and/or help/guidance) please contact us early in the process. Dr. Miller will be meeting with all teams in and out of class both as noted in the syllabus and also when you want to run ideas past us.

Academic Integrity

The School of Communication is committed to the highest standards of ethical conduct and academic excellence. Any student found guilty of plagiarism, fabrication, cheating on examinations, purchasing papers or other assignments, or any other form of academic dishonesty will receive a failing grade in the course from the instructor and the School will recommend that the student be dismissed from the Communication program. There are no exceptions to this policy.

Note: Teams are expected to work together on their projects/paper. Outside of the paper/project however, all other work (e.g., exams, tests) are expected to be completed by students working on their own. If you need help ask me or your TA.