ANTHROPOLOGY 5041.001
Quantitative Methods in Anthropology
Chilton 274
Thursdays, 6-9pm

INSTRUCTOR: Dr. Doug Henry
OFFICE HOURS: Mon, Wed 12:00 – 2:00; Chilton 330M, or by
                    appointment 565-3836 email: dhenry@unt.edu

COURSE DESCRIPTION AND OBJECTIVES:
This course will cover basic principles and techniques of research design, sampling, and elicitation for collecting and comprehending quantitative behavioral data, particularly in Anthropology. Procedures for data analysis and evaluation will be reviewed, and students will get hands-on experience with SPSS in order to practice organizing, summarizing, and presenting data. The goal is to develop a base of quantitative and statistical literacy for practical application across the social sciences, in the academy and the world beyond.

REQUIRED READINGS AND SOFTWARE:
Bernard, Russell
2011 Research Methods in Anthropology: Qualitative and Quantitative Approaches. AltaMira
        Press Publications, 5th edition.

SPSS GradPack (try to get Version 15 or higher). You guys have several options here:
1) You can buy the full-on GradPack version, though it's a bit pricey- $229 from http://www.studentdiscounts.com . (you can buy for Windows or Mac- it also allows you to put it on 2 machines, so you could be mobile).

2) SPSS just last year came out with a rental version (available for Mac or PC), that you can download OR get a disk from. You could download a temporary SPSS at: http://www.onthehub.com/spss/, or at http://www.studentdiscounts.com. Click on "statistics grad pack 21)," and then choose the "PASW Statistics Standard GradPack 21 or 22 for Windows or Mac (12 Mo Rental)." It should be around $80 for a year; $60 for the 6 month. The only dilemma with this is: about ½ of our graduate students seem to find clients who want basic survey data as part of their practica. If you're part of that 50%, then the 6 month window is short, and you'll end up having to re-download SPSS later, which will cost you more (depending on the version you download).

3) Alternately, you don't HAVE to buy it AT ALL—it's available in the Chilton computer lab.

The bulk of OTHER readings for this course will be available electronically through the course website. You should be able to access it by entering your student ID through UNT's "E-Campus," and the Blackboard Learn site.

You can print the articles on any standard printer, either at home, in the library (where you need a copy card), or in a UNT computer lab (print for free).

You will need access to a computer with Microsoft PowerPoint on it.

COURSE REQUIREMENTS
Weekly assignments: There will be several short homework assignments and a final class project/ presentation. Assignments will be weekly homework to be types up and turned in, either by email or in person, AT THE BEGINNING of each class. Data analysis projects during the second half of the course need to be emailed by 5:00 the day before class.

Final project: More about this later, but this will be an analysis you perform on a subset of your choosing of the "World Values Survey" (http://www.worldvaluessurvey.org/). You'll have to choose a subset of countries and questions, do the analysis in consultation with me, give an 8-10 minute presentation to the class, and submit a written report on the same material.

Student Evaluation:

Class participation	25%
Assignments:	40%
Final:	35% (12% class presentation, 23% written)

Your evaluation of me.
The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT; Please do it!! Feedback (good and bad!) is always good.

Professionalism
The Department of Anthropology considers graduate students to be new members of the community of professional anthropologists, who are thus held to the high ethical standards of a practicing professional. They are expected to follow the American Anthropological Association's code of ethics: *"Anthropological researchers bear responsibility for the integrity and reputation of their discipline, of scholarship, and of science. Thus, anthropological researchers are subject to the general moral rules of scientific and scholarly conduct: they should not deceive or knowingly misrepresent (i.e., fabricate evidence, falsify, plagiarize), or attempt to prevent reporting of misconduct, or obstruct the scientific/scholarly research of others"* (http://www.aaanet.org/committees/ethics/ethcode.htm). Any work not meeting this standard will not be tolerated; infractions will merit dismissal from the master's program.

COURSE SCHEDULE AND READING ASSIGNMENTS

Week 1 (January 22): Introductions and Background

Week 2 (January 29): Basic Principles of Measurement

Bernard <u>skim</u> Chapter 1, read in detail Chapter 2.

Murtonen, M., and R. Lehtinen. (2003). Difficulties Experienced by Education and Sociology Students in Quantitative Methods Courses. Studies in Higher Education 28 (2): 171-185.

*** Assignment due at the beginning of class: Read the Murtonen and Lehtinen article, and write a 2-3 page response. In it, summarize the findings of the study concerning difficulties the students had. Don't be paranoid if you don't understand every graph- just look at the them broadly, then examine the results. Do these apply to you? Do you have any fears going into this course? What experience, if any, have you had with quantitative methods? What types of problems do you think you might encounter?

Week 3 (February 5): Developing Research Topics; Developing Ethical Research
Bernard Chapter 3 ("Preparing for Research")

Fluehr-Loban, Carolyn (1994). Informed consent in Anthropological Research: We are not exempt Human Organization 53 (1): 1-10.

*** Assignment due at the beginning of class: Use Bernard's Table 3.1 (internal states, external states, reported behavior, etc.) to help you think up 2 distinct research questions. In 2-3 pages, first describe the research questions one at a time. One question at a time, what 2 cells does that question relate to, what variables will be involved, and what kinds of relationships among variables will you be looking at? Generate one hypothesis for each of your questions, making them narrow enough to have explicit variables that you could actually recognize (through observed behavior, reported behavior, reported internal states, external states, etc.), and research. Operationalize all the variables thoroughly. Do this for both research questions. <u>Don't design the study or talk about methods</u>, just explicate and <u>operationalize</u> your variables and how they will relate to each other (HINT: there are 2 important parts here: a tight hypothesis that relates the interaction of the two items on the table, and clearly operationalizing the variables in your hypothesis).

Week 4 (February 12): Study Design and Evaluation

Bernard Chapter 4 ("Research Design")

Henry, D., R. Bales, and E. Graves (2007). Ethnography in Evaluation: Uncovering Hidden Costs and Benefits in Child Mental Health. *Human Organization* 66 (3): 315-326.

Skim Anonymous- Proposal for Continuing Education Needs Assessment for the Paper Industry. Read <u>in detail</u> section 4.

> **** Assignment due: Look through any newspaper or popular magazine (i.e., NOT an academic journal!) to find a report about some innovative social/ organizational program (this can be within your topic of applied interest, or anything- a new bilingual education reading program, a program to introduce some new technology, a recycling program, health-education program, a business corporation's new management plan, etc- as long as your part would be demonstrably anthropology). Now imagine that you get hired by an agency to evaluate the success or failure of the innovative program. In 2-3 pages, briefly describe the program and how you would go about evaluating it. As part of this you should <u>specify one key dependent variable that the program seeks to affect</u>. Describe how you would measure this dependent variable, and how you would assess whether the program had any affect on it. What confounds or threats to validity might your study face? Hint: <u>Make sure you've read</u> the Bernard chapter about experimental research design, and can relate what you'd do to Figures 4.1a – 5.1h <u>before attempting this</u>!*

Week 5 (February 19): Sampling

Huff, Darrell (1993) (1954). Introduction and Chapter 1, The Sample With the Built-In Bias, *How to Lie With Statistics*, pages 9-28. New York: Norton and Company.

Bernard Chapter 6 ("Sampling I: the Basics")

Babbie- The Practice of Social Research Pp. 218-227

> **** Assignment due: After having read Bernard and Babbie, imagine you work for a research firm that gets a small grant to study the job satisfaction of working women in Washington State. Because money is tight, your team can't interview (or survey) more than 500 women total. So the research question is: "Are women satisfied in all respects with their jobs?" In 2-3 pages (NOT >3), explain how you would draw a multistage cluster sample that would be representative of all "the working women" in Washington State. <u>Be specific in your detail, and frugal in your design</u>. Remember that the most accurate samples are both <u>representative</u> and <u>randomly</u> drawn. Finally, make sure to operationalize "working women," and realize who you're leaving out! The following have websites that can help you dig around for your first steps: US Census Bureau's American Community Survey, US Census Bureau quick facts, US Census Bureau Local Employment Dynamics, US Census Bureau Occupation by Sex and Median Earnings, the Bureau of Labor Statistics, The Economic Opportunities Institute, Municipal Research Services Center of Washington, and the Office of Financial Management. One more note: be realistic. Realize that any*

methodology that would require you to show up at a place of employment and ask to talk to their female employees (about job satisfaction) is not likely going to happen.

Week 6 (February 26): Designing Questions and Doing Interviews

In Bernard Chapter 8, read sections "Interview Control," "Learning to Interview," "Presentation of Self," "Using a Voice Recorder," "Response Effects," and "Accuracy."

Bernard Chapter 9 (Interviewing II- Questionnaires) (all).

Fowler, Floyd J. Jr. (1995). Chapter 2: Designing Questions to Gather Factual Data, Pp. 8-45. *In* Improving Survey Questions. Thousand Oaks: Sage Publications.

*** Assignment due: Imagine you're doing interviews (quantitative or qualitative) for your Program Evaluation from Week 4. In 2-3 pages, what do you think will be gender-response-effects of your face-to-face interviews? Would there be race/ ethnicity effects? Age effects? Why or why not? If there are problems, how would you get around them? What would you gain or lose from other styles of interviewing, such as telephone interviews, computer-assisted interviews, or Internet chat-room interviews?

Week 7 (March 5): Introduction to Data Analysis: Creating Datasets, running frequencies

Read through the World Values Survey (on course reserve), and the background for it: http://www.worldvaluessurvey.org

Bernard, *__skim__* Ch. 15 ("Introduction to Qualitative and Quantitative Analysis")

Bernard Ch. 20 ("Univariate Analysis"), from the beginning up to "Box and Whisker Plots" (p 475 in the 5th edition) (*note: DON'T get caught up in the math! It's more important to me that you understand concepts, not their mathematical derivation*). Be able to distinguish univariate from bivariate and multivariate analysis, how to construct a list of codes, how to clean data, the difference between string, nominal, and numerical variables, the difference between mode, median, and mean, and the different kinds of graphs.

Julie Pallant- 16-46 (from Chapters 3, 4, and 5)

***Homework due this week*:** *Make sure that SPSS is installed on your computer (or that you can open the version at school). Read through the World Values survey, and the associated website. Read through the actual questionnaire, that I'll email you. From the questionnaire, write a paragraph of 200 words about "what variables look interesting to explore" in it from your point of view. Realize that the best research papers usually involve exploring ONE dependent variable or concept, and seeing what things are significantly associated with that.*

_____

For <u>next</u> week, use the complete (and cleaned) dataset of "Teen Drug Use" to answer the following questions:

How many Latinos were in this group? What percentage of the sample reflected African Americans? What was the most commonly used drug? What percentage of teens had used it in the last year? What percentage of teens reported having ever been to college? Do basic math to figure out the following number: What percentage thought it was either "unlikely" or "very unlikely" that they were infected with the Hepatitis C virus? Do a series of pie-charts/ graphs of "Groups of Cases," putting your race/ ethnicity variables in one at a time to represent the "Slices" (figure out why you can't accurately represent ethnicity in a single pie-chart). Do a simple bar chart of levels of education, putting "highest level of education completed as the Category axis. Cut and paste these charts into your homework to turn in.

Week 8 (March 12). Data Analysis and Presentation – I (Selecting out groups, creating and computing new variables, running frequencies)

Bernard Chapter 20 ("Univariate analysis"), from where you left off, through the end *again, <u>concepts</u>, not math*).

Pallant, Chapter 8.

Huff, Darrell (1993) (1954). Chapter 5, The Gee-Whiz Graph, Chapter 6, The One-Dimensional Picture, *How to Lie With Statistics*, Pages 62-75, and 102-123. New York: Norton and Company.

*** Homework due for <u>next</u> week (due by 5:00 the day before class) TBA

Prepare 6-10 slide PowerPoint presentation in which you graphically and textually illustrate your findings. You can use either PowerPoint or SPSS graphs. At least ½ of your slides should include graphical illustrations.

MARCH 16-20   SPRING BREAK

Week 9 (March 26): Data Analysis II- PowerPoint data presentation, bivariate data analysis, and significance. *CLASS WILL MOVE 'ONLINE' THIS WEEK, as I'll be away at the Sfaa conference*. More info on this later-

Bernard Chapter 21 ("Bivariate Analysis"), from the "Intro" to the end of "Fisher's Exact Test" (p. 508 in the 5th edition) (*concepts, not math derivations*)

Pallant, Chapter 11.

Huff, Darrell (1993) (1954). Chapters 9 and 10, How to Statisticulate, and How to Talk Back to a Statistic. *How to Lie With Statistics*, New York: Norton and Company.

*** *Group Homework for next week (due by 5:00 the day before class): dataset work TBA. 10 minute group presentations using PowerPoint, and the World Values Survey*

Week 10 (April 2) Data Analysis III: T-tests, ANOVA, and more significance.
Greenhalgh, Trisha 1997 Statistics for the non-statistician. II: Significant relations and their pitfalls. British Medical Journal Vol. 315, No. 7105: 422-425

Pallant Chapters 16 and 17

*** *Homework for next week: TBA*

ALSO for next week:

In 3-4 pages, outline your plan of attack in analyzing the dataset for the final World Values Survey project. Be specific. What hypotheses are you going to test, among dependent and independent variables? What univariate (descriptive), bivariate, and/or multivariate analyses will you do? What specific variables will you be considering for testing for significant relationships? What specific tests and procedures within SPSS will you use? Realize that the best projects are structured simply: pick one idea (composed of several variables) or even one variable (e.g., "happiness") that will become your dependent variable(s). Then, test MANY other variables as Independent variables to see what is significantly correlated with your dependent, and how much variation in the dependent you can explain.

Week 11 (April 9): CORRELATION

Assignment and reading TBA!

Week 12 (April 16): Multivariate Analysis: the Linear Regression

Pallant, Pp. 140-155 (from Chapter 13)

*** *Homework: Rough drafts of results are due next week! This should be 3-5 pages telling me descriptively what you've found. This doesn't have to be beautifully formatted as yet, but should include tables and descriptions showing significant relationships and tests performed.*

Week 13 (April 23): Debating Methodologies; Wrap up and Review

READING TBA.

There's no homework for next week other than to work on your projects. Get moving on your project data analysis and write-up! Call or email me if you have any questions or if I can help.

Week 14 (APRIL 30, May 7): Class presentations (all written presentations will be due May 4th by 5:00pm).