

ANTHROPOLOGY 5041.810, 820  
**Quantitative Methods in Anthropology**

**INSTRUCTOR:** Dr. Lisa Henry  
**OFFICE HOURS:** Monday 11:00 – 2:00 CST; Chilton 330P, or by  
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**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/ SOFTWARE:**

Bernard, Russell

2011 Research Methods in Anthropology: Qualitative and Quantitative Approaches.  
AltaMira Press Publications, 5<sup>th</sup> edition. (used copies of these run around \$55). Try to get this edition!

Pallant, Julie

2010 SPSS: Survival Manual, 4<sup>th</sup> edition or later! McGraw Hill: Open University Press.  
(the spiral bound 4<sup>th</sup> edition is \$20) (there are also 5<sup>th</sup> and 6<sup>th</sup> editions that are not very different, but they do cost more) (I use the 4<sup>th</sup> edition and it's great).

SPSS GradPack (get Version 20 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 came out with a rental version (available for Mac or PC), that you can download OR get a disk for, for 2 computers. You could download a temporary SPSS at: <http://www.onthehub.com/spss/>, or at <http://www.studentdiscounts.com>. Click on “students buy now,” choose your platform, and then choose the “IBM SPSS Statistics Standard GradPack 25 (12 Mo Rental).” It should be around \$85 for a year; \$55 for the 6 months. 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 thesis. This would require you to use SPSS.

Other weekly readings for this course will be available electronically through the course Blackboard Learn website. You should be able to access it by entering your student ID through UNT's “E-Campus,” and the Blackboard Learn site.

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

## **COURSE REQUIREMENTS**

### **The Week**

The course runs on a weekly cycle, with one “lesson” for each week, Sunday through Saturday. Lessons will always be made available by the Wednesday before (and if I forget to make something “available,” someone email me a gentle reminder!). Everybody must read the lesson, the assigned articles, and the discussion leader's comments no later than Tuesday evening of each week. We'll have a synchronous class meeting via Adobe Connect and Conference Call phone either (as of the typing of this syllabus) Tuesday or Thursday evenings. I'll send you the conference call line to call in for audio. Everybody must start posting to the Discussion Board by Wednesday of each week at the latest. Online discussions for each lesson will last through Saturday night.

### **More on the Discussion Leader**

On the home page you'll find a “Discussion Leader Sign-up.” In this folder, you will find a sheet where you are required to sign up to lead one weekly discussion topic. Each week will have a “discussion leader.” The student who is the discussion leader for a given week should read ahead, and post their comments and discussion-questions to the Discussion Board by Monday evening at 8 pm central time. The topics will all be graded equally, so don't worry about trying to choose the easiest topic. If one of them looks particularly interesting to you, take that one. Or you can choose a topic according to the time that fits best with your work schedule. Important note: even though each discussion week has the capacity for 2 leaders, you cannot take the 2<sup>nd</sup> spot of a discussion week until all the weeks are full.

The job of the discussion leader is to post a summary of the week's lesson (think about 500 words) and then ask two or three questions for the class to answer. The questions should be ones that draw all the readings or activities for the week together. They should be thought provoking. Answering the questions should require the students to have read the assignments.

If the lessons includes instructions for SPSS, explain it. You can substitute a 3-5 slide PowerPoint presentation if you are providing instruction. The discussion leader should:

1. Keep the discussion flowing.
2. Encourage substantive comments. (Not just “I liked it too!” or “Good point!”)
3. Continue to participate in the discussion with questions that integrate all the articles.
4. Explain how the week's readings and/or activities can be tied together.
5. Keep the discussion on track.
6. Take the responsibility of summing up several of your classmates' messages and pointing out the trends in their comments.
7. Encourage diverse points of view.
8. Be respectful.

### **Weekly class discussion via Adobe Connect and conference call**

Our course includes a weekly, synchronous, 30-60 minute class conference, hopefully Thursday evening (CST). These virtual meetings will help jump-start and continue our conversations on the discussion board for that week. At each week's class, the discussion leader will briefly summarize her/his presentation on the readings (think 5-8 minutes) and then lead a discussion on the big issues/ topics/ questions the readings raise. I will help facilitate the discussion. The conference will run over UNT's bridge line. What this means is that everyone calls the same phone number for audio. You will then automatically be connected to each other. You don't need a password. (The first person who calls will simply hear a phone ringing until the second person dials in). We'll use Adobe Connect for

video. Make sure you mute your computer's microphone (otherwise, there will be weird audio-feedback). I'll send you the link via email.

### **Weekly Assignments**

You will have eleven assignments in this course, which are due Saturday at 11:59 p.m. CST. Assignments will be accepted after this date but will be marked as late. No assignments will be accepted after Wednesday of the following week, unless you've worked something out with me ahead of time. Many assignments (particularly in the second half of the course) will be GROUP assignments, where you'll have to coordinate with someone else in the 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 7-10 minute presentation to the class, and submit a written report of 6-10 pages based on what you find. You'll get a grade on BOTH the oral and written parts.

Your team's written report should include the following sections:

INTRO (2 paragraphs)- give some background about the issues involved that led to your choosing of the data that you did. This can include some references to literature, but don't overdo it with an extensive literature review. For example, is there some problem within the population that was polled? Then, "set up" the report by telling who designed the survey/ study you're using (use information from the website), for what populations you chose, when, etc. Finally, set up the information that your report will talk about.

METHODS (1 paragraph)- Research what you can find out about the World Values Study methods (there are several websites you'll find if you Google or go to Wikipedia). Write them as if you were the director of the study.

RESULTS (3-5 pages). Here's where you insert graphs, tables, etc. Make sure they convey significant information in ways that are simple, concise, professional, and easy to understand! Highlight statistically significant relationships if they exist. You don't have to scale questions, but I fully expect you to do at least bivariate data analysis with chi-squared significance testing.

DISCUSSION (1-2 pages). What was relevant about what you found? Can you think of any limitations of the study data? What would a more in-depth, anthropological/ social science follow-up study/ survey involve?

The oral presentations will be PowerPoint presentations of the angle or issue you've chosen. Aim for around 7-10 minutes, and 8-12 slides, as if you were professionally presenting your findings to a corporate boardroom or an academic conference. Then each group will take 3-4 minutes of questions. We'll do it all in "Adobe Connect."

### **Student Evaluation:**

Class Participation/Discussion	50 points		276+ = A
Assignments	133 points		245-275 = B
Final	125 points		215-244 = C
<b>Total Points</b>	<b>308 points</b>		

**Your evaluation of me.**

The Student Evaluation of Teaching Effectiveness / “SPOT” evaluation at the end of the course is a requirement for all organized classes at UNT; Please do it!! Feedback (good and bad!) is always good.

**Some Guidelines for Online posts:**

In case you don't have much experience with asynchronous discussion boards--these tips can help the communication process flow smoothly! The goal of any online discussion in our program is to have a good back-and-forth among class participants. This is a seminar-style class, so much of your learning will come from each other, and what you discover from the lesson and the readings. I will be assessing you for the overall quality of the whole conversation, rather than the magnificence of an individual posting. Try to post a first message(s) by Tuesday of every week. Check the discussions daily; focus on contributing to just a few threads if your time is limited. Try to limit yourself to one idea per message! Otherwise ideas get lost.

Frequent small posts are better than humongous messages at rare intervals. This will enable more back-and-forth between you and your classmates. If you have a new thought that you want to share, start a new conversational thread by clicking “Create Message” this will promote the topic, and if there's a subject line, fill it! Change the subject line when you are replying to a message but shifting the focus. If other people have already said what you wanted to say about one topic, move on to a different topic. Don't put your thoughts in a Word attachment; write them directly in the message field. Each week, the discussion leader should create a thread called Questions/Clarification in their topic area, where anyone can post.

While online interaction can enhance learning, it has some limitations; non-verbal cues are missing. Make sure to keep a respectful tone in all messages; everyone should feel encouraged to participate. This isn't so much of an issue in this class, but disagreements over points of view often happen in learning, but personal attacks on the motivations and intelligence are never OK. Remember that there are people behind the words that we see and treat others with the respect that you would want for yourself.

**Some Guidelines for Group Work:**

At least 4 weeks for the class will involve group work with group sizes of 2 people. Learning how to work together in groups is a necessity of life, and working with online collaborators around the globe is a skill every anthropologist needs to learn. I'll have a place in the course for everyone to leave their contact information, but the most important things to remember with group work is to establish channels of communication early in the week, establish reasonable individual and group goals along a time frame, and to keep those lines of communication open. I'll give more specifics in class.

**Graduate Student Statement on Professionalism and Plagiarism**

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 practicing professionals. 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 be evaluated in a hearing before the student; infractions will merit dismissal from the master's program.

**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 Dean of Students 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.deanofstudents.unt.edu](http://www.deanofstudents.unt.edu)

**Sexual Discrimination, Harassment, & Assault**

UNT is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these acts of aggression, please know that you are not alone. The federal Title IX law makes it clear that violence and harassment based on sex and gender are Civil Rights offenses. UNT has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

UNT's Dean of Students' website offers a range of on-campus and off-campus resources to help support survivors, depending on their unique needs:

[http://deanofstudents.unt.edu/resources\\_0](http://deanofstudents.unt.edu/resources_0). Renee LeClaire McNamara is UNT's Student Advocate and she can be reached through e-mail at [SurvivorAdvocate@unt.edu](mailto:SurvivorAdvocate@unt.edu) or by calling the Dean of Students' office at 940-565-2648. You are not alone. We are here to help.

## COURSE SCHEDULE AND READING ASSIGNMENTS

### **Week 1 (January 16-20): Introductions and Background**

### **Week 2 (January 21-27): Thinking Like a Positivist: Basic Principles of Measurement**

Bernard skim 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 end of Week 2: 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 (Jan 28-Feb 3): Conceptualizing Research; Researching Ethically**

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 end of Week 3: 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 (fewer number is usually better). Do this for both research questions. Don’t design the study or talk about methods, just explicate and operationalize 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. The best hypotheses are those that clearly state precisely how the variables inside them interact).*

### **Week 4 (February 4-10): Research Design I: Evaluations, and Operationalizing Outcome**

Bernard Chapter 4 (“Research Design”)

Barkman, Susan (2002) A Field Guide to Designing Quantitative Instruments to Measure Program Impact. West Lafayette, IN: Purdue University (on Blackboard)

Berkowitz, Bill, and Jeanette Nagy (2004). Chapter 3, Section 7. Conducting Needs Assessment Surveys. University of Kansas: The Community Tool Box/ Work Group for Community Health and Development. <http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/conducting-needs-assessment-surveys/main>  
**(read main section, checklist, and examples)**

*\*\*\* Assignment due at the end of Week 4: Look through any newspaper, popular magazine, or social media site (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 specify one key dependent variable that the program*

*seeks to affect. Describe how you would measure this dependent variable, and how you would assess whether the program had any effect on it. What confounds or threats to validity might your study face? Hint: Make sure you've read the Bernard chapter about experimental research design, and can relate what you'd do to Figures 4.1a – 5.1h before attempting this!*

## **Week 5 (February 11-17): Research Design II: 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 at the end of Week 5: 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 single spaced pages, explain how you would draw a multistage cluster sample that would be representative of all "the working women" in Washington State. Be specific in your detail, and frugal in your design (i.e., actual steps with actual numbers, not just abstract ideas). Remember that the most accurate samples are both representative and randomly 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: [factfinder.census.gov](http://factfinder.census.gov), 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, and the Municipal Research Services Center of Washington. **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 18-24): 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 at the end of Week 6: Imagine you're doing interviews (quantitative or qualitative) for your Program Evaluation from Week 4. Start by doing what Fowler recommends, by generating a 2 column chart or table. On the left, come up with 3 question TOPICS, or things you'll need to know about. On the right, generate 6-9 total survey questions (they can be open ended or closed), with 2-3 specific questions per topic. Next, imagining that you were conducting this survey with your research population. What do you think would be the response-effects for face-to-face interviews? Gender, Age, or Race/ ethnicity 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 some other style of internet/ technology mediated interviews?*

### **Week 7 (Feb 25-March 3): Introduction to Data Analysis: Creating Datasets, running frequencies**

Read through the World Values Survey (online), and the background for it:  
<http://www.worldvaluessurvey.org>

Dressler, William (2015) Chapters 1-2: Measures of Central Tendency: the Arithmetic Mean, and Measures of Dispersion: the Standard Deviation. Pp. 31-46. Walnut Creek, CA: Left Coast Press.

Bernard Ch. 20 (“Univariate Analysis”), from the beginning up to “Box and Whisker Plots” (p 475 in the 5<sup>th</sup> 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)

2 Part Homework due at the end of Week 7:

- 1) *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 final project papers usually involve exploring ONE dependent variable or concept, and seeing what things/ variables are significantly associated with that.*
- 2) *ALSO: use the complete (and cleaned) dataset of “Teen Drug Use” to answer the following questions: (you can use the same Word doc as your 200 word paragraph, above).*

*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 Word doc to turn in.*

**Week 8 (March 4-10). Univariate, Descriptive 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 last week (“*Box and Whisker Plots,*”) through the end (*and again, concepts, not math*).

Pallant, Chapter 8, Pp 90-96 only (“*Collapsing the Number of Categories*”)

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.

*\*\*\* GROUP Homework due at the end of Week 8: I’ll put this in the Weekly Lesson*

*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 11-17      SPRING BREAK**

**Week 9 (March 18-24): Bivariate Beginnings: the chi-square.**

Bernard Chapter 21 (“Bivariate Analysis”), from the “Intro” to the end of “Fisher’s Exact Test” (p. 508 in the 5<sup>th</sup> edition) (*concepts, not math derivations*)

Pallant, Julie, Chapter 16 Pp. 217-221.

Huff, Darrell (1993) (1954). Chapter 9 How to Statisticulate. *How to Lie With Statistics*, New York: Norton and Company.

*\*\*\* Group Homework for the end of Week 9 (I’ll put this in the lesson):*

*Like last week, group presentations using PowerPoint, and the World Values Survey*

## **Week 10 (March 25-31) Bivariate Tests II: T-tests, ANOVA, and more significance.**

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

Pallant Chapters 17 and 18

*\*\*\* Group Homework for the end of week 10: I'll put this in the Lesson*

*ALSO for the end of Week 10:*

*Get with your final project group member, and 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 variable (e.g., "satisfaction"), or one idea, 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. Look through the survey doc and include the actual question numbers of the variables you're interested in, and plan to test for associations among.*

## **Week 11 (April 1-7): Bivariate Analysis III: One more t-test, and the "Correlation."**

Dressler, William Chapter 5: the Logic of the Correlation Coefficient. In *The 5 Things You Need to Know about Statistics*. Walnut Creek, CA: Left Coast Press.

Pallant, Chapter 11 ("Correlation")

*Individual Assignments due at the end of Week 11: Working more with continuous variables From the (11) Pallant correlation/ t-tests/ ANOVAs dataset, does optimism seem to be correlated with more self-esteem? Is age correlated with self-control? For both of these, record the Pearson r coefficient. Who has more stress, men or women? What are those differences, and are they significant? What kind of test did you use for this? Does marital status seem to impact levels of optimism? How about levels of self-esteem? What are those differences, and what tests did you use for these? Submit these as a Word doc.*

## **Week 12 (April 8-14): Multivariate Analysis: the Linear Regression**

Pallant, Chapter 13 (“Multiple Regression” through page 162. )

*\*\*\*Homework due at the end of Week 12: Rough drafts of results! This should be 3-5 pages of “in progress results” telling me descriptively what you’ve found so far. This doesn’t have to be beautifully formatted as yet, but should include tables and descriptions showing tests performed and significant relationships found (if any).*

## **Week 13 (April 15-21): Wrap Up/ Being a Professional/ Debating Methodologies/ Review**

Dressler, William (2015). Integrating Quantitative Research into Anthropological Research Design. In The 5 Things You Need to Know about Statistics. Walnut Creek, CA: Left Coast Press.

*There’s an “In-class assignment” due at the end of this week, that should take you about 2 hours. Otherwise, nothing 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 (APR 22- May 5): Class presentations (all written presentations will be due Wed May 2 by 5:00pm CST).**