#### MC 6110

## QUANTITATIVE RESEARCH METHODS

# Spring 2011

Class	Instructor	
Day: M	Name: Jason B. Reineke, Ph. D.	
<b>Times:</b> 6:00 pm – 9:00 pm	E-mail: jreineke@mtsu.edu	
Room: 151 John Bragg Mass Communication Building (COMM) ***155 COMM on 04-04-11***	Office: 271D John Bragg Mass Communication Building (COMM)	
Web Site: <a href="https://elearn.mtsu.edu">https://elearn.mtsu.edu</a> Login using Pipeline username and password, click course link	Office Hours: 2:30 - 4:00 pm M & W 10:00 - 11:30 am F During class break (see below) By appointment & TBA	

#### **Texts**

Baxter, L. A., & Babbie, E. R. (2004). *The basics of communication research*. Belmont, CA: Wadsworth.

Hayes, A. F. (2005). *Statistical methods for communication science*. Mahwah, NJ: Lawrence Earlbaum Associates.

You will also need to determine a way to use at least a student version of SPSS.

I may occasionally upload readings to D2L.

#### **Catalog Description**

Techniques of communication research emphasizing survey and experimental methods. Sampling, questionnaire construction, data gathering, and statistical methods.

#### Reasonable Accommodation for Students with Disabilities

If you have a disability that may require assistance or accommodations, you should speak with me about these issues and contact the Office of Disabled Student Services (0120 KUC, <a href="mail@mtsu.edu">dssemail@mtsu.edu</a>, 615-898-2783) immediately if you have not already done so. I can only make accommodations for a disability with the guidance of DSS.

### **Academic Integrity and Misconduct**

Academic integrity will be maintained in this course and academic misconduct will not be tolerated in this course. If I so much as suspect academic misconduct in this course, I am required by the university to report it to the Office of Judicial Affairs and Mediation Services (<a href="http://frank.mtsu.edu/~judaff/">http://frank.mtsu.edu/~judaff/</a>). Academic misconduct includes plagiarism, cheating, fabrication, and facilitation. See <a href="http://www.mtsu.edu/judaff/integrity.shtml">http://www.mtsu.edu/judaff/integrity.shtml</a>.

All homework assignments, the midterm exam and the final project in this course are to be completed, in their entirety, by you alone as an individual student unless I specifically indicate otherwise in writing. There is no group work in this course. You are not to provide assistance to other students. You are not to request assistance or advice of any kind from anyone other than appropriate university representatives. Appropriate university representatives include writing center staff, library staff, DSS staff (for students dealing with the impact of a disability), and me (of course).

You are not to copy the work of others without quotation or citation. Even if you do quote and cite copied material, your work must be primarily your own rather than composed of the text of others. Even if you do quote and cite copied material, you may only use part of the other work, not the whole either literally or figuratively.

If a student in this course is found responsible for academic misconduct, the task in question will receive a score of zero points. That student will also be subject to any additional disciplinary action deemed appropriate by the relevant academic unit(s).

If you have a question about academic integrity or misconduct, just ask. It will be much easier for everyone involved to talk about it beforehand than to deal with a hearing and punishment later. Since this is a graduate course, I expect mature conduct.

#### **Graduate Student Conduct**

As I am sure you all know by now, graduate school is different from undergraduate studies. The expectations are higher in a number of ways. Your work for this course should be thorough, scholarly, and intellectually rigorous. Be respectful and collegial toward both your fellow students and your instructor. You should not expect to miss any classes. If you must miss a class due to reasonable circumstances beyond your control, let me know why via e-mail ahead of time if at all possible. I realize that adults sometimes must make difficult choices, that things

sometimes happen that are beyond our control, and that we all make mistakes sometimes. But do not make excuses – find a way to get things done, and done to the best of your ability.

## **Coursework and Grading**

Your grade in this course will be determined by your performance on three primary types of coursework: homework assignments, a midterm exam and a final project. Point values for each of these are:

5 homework assignments

TOTAL	200 pts.
Final project	100 pts.
Midterm exam	50 pts.
at 10 pts. Each	50 pts.
5 home work assignments	

Basically, final letter grades will be assigned at 10% increments, with A 90% (180 pts.) or more, B 80-89% (160-179 pts.), C 70-79% (140-159 pts.), D 60-69% (120-139), and F 59% (119 pts) or less. Plus/minus determinations will be based on proximity of % to the cutoffs. I reserve the right to modify this system downward depending on the distribution of grades. In other words, if only 1 student exceeds the 90% criterion but 5 hit 89%, I may choose to move the A cutoff down to 89%. I do not grade "on a curve." You get the grade that you deserve regardless of how the class as a whole performs.

Handouts detailing the specifics of each evaluative tasks will be provided as relevant throughout the course.

#### **Class Format**

We have a three-hour class, and three hours is a long time to talk about research design and statistics. As such, we'll break things up. Generally speaking, we'll meet for about eighty minutes to begin the class. We'll then take about a twenty-minute break. Since we have a night course, and I know it is impractical for many of you to attend my regular office hours, one reason for this break is so that you can ask questions, meet with me one-on-one, or schedule a meeting outside of class. Obviously, we can also use the time to eat, make phone calls, take a deep breath and clear our minds, etc. We'll then typically have about eighty more minutes of class. We can discuss this format on the first night of class, and modify it if it is reasonable to do so.

Readings should be done before the class meeting they are listed under on the course schedule below. The Baxter and Babbie (2004) text is a fairly useful and comprehensive, if

rudimentary, introduction to quantitative (and qualitative) research designs that are frequently employed in communication research (of course, we'll be focused on the chapters relevant to quantitative designs). The Baxter and Babbie (2004) text also includes a couple of chapters on the basics of data analysis that, although you are not required to do so, you might read to familiarize yourself with some of the concepts discussed in greater depth in the Hayes (2005) text. The Hayes (2005) text is the best book on statistics in the field of communication and includes many excellent examples, as well as more in-depth, detailed discussions of the statistical topics we'll discuss in this class. Hayes (2005) is a Ph D-level textbook – it will challenge you. Do the best that you can and we'll clarify things in class. I strongly recommend that you keep both of these text books if you are thinking at all of pursuing a Ph D in a communication-related field.

We will also spend much of our time discussing the use of SPSS. This statistical analysis software is available at labs around campus, or you can obtain a limited student version of the software for a relatively moderate price (the full version is quite expensive).

## Tentative Nature of this Syllabus.

This syllabus represents a contract in the works. Events that occur over the semester may require changes to the administration of the course and therefore the syllabus. Any changes will be announced in class and on the D2L site. It is your responsibility to keep up with any such modifications and be aware of current policies, due dates, etc.

# **Course Schedule**

Week	Topic(s) / Reading	Assignments, etc.
Week 0 January 13-16	Back to School	
Reading and Notes	No class No readings	
Week 1 January 17-23	No class	
Reading and Notes	MLK Day No readings	
Week 2 January 24-30	Introduction	
	Tonight we'll go over administration of course, determine what you know already, and begin our	
	discussion of social science research and statistical analysis.	
	Readings:	
	Baxter and Babbie (2004) Chapters 1, pp. 2 – 16 In chapter 3, pp. 48 – 56	
	Hayes (2005) Chapter 1 pp. 1 - 14	

Week	Topic(s) / Reading	Assignments, etc.
Week 3 January 31 -February 6	Measurement and	
January 31 - February 0	Getting Started with SPSS	Homework 1
Reading and Notes	We'll talk about the process of operationalization	Assigned
_	and take a first look at SPSS.	01-31
	Readings:	Due
	Baxter and Babbie (2004)	02-06
	Chapter 6, pp. 106 - 129	
	Hayes (2005) Chapter 2, pp. 16 – 30	
	Chapter 6, pp. 10 – 30  Chapter 6, pp. 103 - 128	
	Chapter 6, pp. 165 126	
Week 4	Research Design 1: Surveys	
February 7-13	Sampling	
Reading and Notes	We'll start by discussing how units of analysis	
	are sampled. Then, we'll discuss considerations	
	in survey research.	
	Readings: Baxter and Babbie (2004)	
	Chapter 7, pp. 131 – 165	
	Chapter 8, 166 – 202	
	Hayes (2005)	
	Chapter 3, pp. 31 - 44	
W 15		
Week 5	Research Design 2: Content Analysis	Homework 2
February 14-20 Reading and Notes	Descriptive Statistics About half the class will deal with quantitative	Assigned
Reading and Protes	analysis of communication content. Then, we'll	02 - 14
	talk about using SPSS to simplify data using	Due
	descriptive statistics.	02 - 20
	Readings:	
	Baxter and Babbie (2004)	
	Chapter 10, pp. 230 – 254	
	Hayes (2005)	
	Chapter 4, pp. 45 - 81	

Week	Topic(s) / Reading	Assignments, etc.
Week 6 February 21-27 Reading and Notes	Research Design 3: Experiments Bivariate Relationships and Hypothesis Testing I This week's discussion will focus on analyses appropriate for examine the relationship between various combinations of two types of variables, and how to use statistical analysis to determine whether the evidence suggests a significant relationship. Readings: Baxter and Babbie (2004) Chapter 9, pp. 204 -229 Hayes (2005) - Read for familiarity this week Chapter 8, pp. 158 – 182 Chapter 10, pp. 210 – 242 Chapter 11, pp. 244 - 270	Consultation 1 Due 02- 27
Week 7 February 28 - March 6 Reading and Notes	Research Ethics Bivariate Relationships and Hypothesis Testing II Ethical considerations and concerns in social science research. Continued statistical discussion from week 6 Readings: Baxter and Babbie (2004) Chapter 5, pp. 84 - 101 Hayes (2005) Catch up on / re-examine week 6 readings	Homework 3     Assigned     02 - 28     Due     03 - 06
Week 8 March 7-13 Reading and Notes	Spring Break No readings	
Week 9 March 14-20 Reading and Notes	Midterm  You will have the full class time to complete the midterm. The rest of class will be used for consultations/updates on your projects	MIDTERM Consultation 2 Due 03- 20

Week	Topic(s) / Reading	Assignments, etc.
Week 10 March 21-27 Reading and Notes	Mixed Methods ANOVA A brief discussion of how principles of different designs are sometimes combined in research. A look at the basic analytical technique for experiments. Readings: Hayes (2005) Chapter 14, pp. 366 – 406	Homework 4 Assigned 03 - 21 Due 03 - 27
Week 11 March 28 - April 3 Reading and Notes	Searching and Reading the Literature Simple Linear Regression First, we'll cover how to use the ISI Web of Knowledge to find communication research, and what the basic, standard parts of a scientific report are. Then we'll examine to the basic concepts of linear regression. Readings: Hayes (2005) Chapter 12, pp. 271 – 309	
Week 12 April 4-10 Reading and Notes	Multiple Linear Regression  The communication scientist's most important statistical tool.  Hayes (2005)  Chapters 13, pp. 310 - 365	Homework 5 Assigned 04 - 04 Due 04 - 10
Week 13 April 11-17 Reading and Notes	Final Project Demonstration  I'll do an example project presentation so you have an idea what's expected (I'll also post an example response in D2L). We'll have sign-ups for the "formal" final project meetings. The remainder of the time will be for informal project consultation.	Final Project OUTLINE Due 04 – 17

Week	Topic(s) / Reading	Assignments, etc.
Week 14 April 18-24 Reading and Notes	Final Project Meetings 1  Required meetings to discuss the status of your final project. Keep alert for sign-up opportunity.	
Week 15 April 25 - May 1 Reading and Notes	Final Project Meetings 2  Required meetings to discuss the status of your final project. Keep alert for sign-up opportunity.	Final Project PAPER Due 05 – 01
Week 16 May 2-8 Reading and Notes	Presentations  Class is still MONDAY AT 6:00pm  Each student will deliver a 10-minute presentation on her/his project. I will determine the order of presentation. Attendance for all presentations required.	Final Project PRESENTATION Due 05 - 02