

Psychology 7301 . Section 2  
**Research Design and Methods**  
Fall, 2010, Thurs. 9 to 12 am  
J. G. Beck <jgbeck@memphis.edu>  
Psychology 208

Office hours: Noon to 2 pm Monday or by appointment (678-3973 or [jgbeck@memphis.edu](mailto:jgbeck@memphis.edu))  
Office: 448A Psychology building  
TA: Jonathan Burlison, 316 Psychology building ([jdburlsn@memphis.edu](mailto:jdburlsn@memphis.edu))  
Office hours 1-3 pm Wednesday

This course is intended to provide an overview of the issues, methods, and designs involved in research in psychology, as it is currently conducted. My philosophy is that learning research methods is a hands-on endeavor which best can be accomplished via classroom exercises, opportunities to develop research protocols, and work on the design of a study to address an experimental question. Thus, this will not be a lecture course, in the strictest sense; class time will be divided between lecture, discussion of readings, and classroom exercises.

As with many facets of Psychology, research can be infused with our own values and biases. As such, we will discuss two topics (research ethics and sensitivity to cultural diversity issues) intermittently throughout the semester. As you will note in the syllabus, half of two separate classes also will be devoted to each of these two important topics.

Your **final grade** will be based upon:

Mid-term exam - 35%  
Final paper . 35%  
Homework (reviews) . 15%  
Class participation . 15%

Assignments are due as announced. If you have a medical emergency that makes you late on turning in an assignment, I will need to see a note from your doctor. Likewise, if you have a car accident, bring me a copy of the police report. Otherwise, I will penalize for lateness, no matter how creative the reason.

There are 2 required texts and selected articles. The selected articles are marked with a \* on this syllabus. You will be given a CD with pdfs of these articles. **They also are available on UMDrive at \*\*\*\*\* & this link requires your user id/password to access.**

The texts are:

1. A.E. Kazdin (2003). *Research Design in Clinical Psychology*, 4th edition, Allyn and Bacon Publishers. (K)
2. W. Shadish, T.D. Cook, & D.T. (2002) *Campbell Experimental and quasi-experimental designed for Generalized Causal Inference*, Houghton-Mifflin. (S, C & C)

For students who have not previously taken a research methods course (or who have taken one long enough ago that you have forgotten a lot of the material), an optional text is recommended. This book will provide a good review in order to get you prepared for the material that we will discuss in this class. I will not make assignments from this book, nor do I want to know who is using it as an aide and who is not. If you are struggling with the material in this class, your first step should be to buy this book and do a bit of brushing up.

D.H. McBurney & T.L. White. (2007) *Research Methods*, 8<sup>th</sup> ed., Wadsworth.

A paper will be required, in lieu of a final exam. This paper should contain a research proposal, including a background review of the literature, statement of your research question and hypotheses, design, method (subjects, procedure, assessments, etc.) and proposed data analytic approach. Papers will be due on December 2<sup>nd</sup> in the final class.

**Academic Honesty:** If you are considering being less than academically honest, let me suggest that you don't even think about it. At the University of Memphis (like most universities), plagiarism is a serious offense. If you quote from someone else's writing, you need to give page numbers for the quoted material and the reference. However, I do not expect you to rely heavily on quotes, as part of what you are learning in graduate school is how to write for our profession. If there is any question about academic integrity, I will not hesitate to report it to the proper authorities (this includes plagiarism, cheating on exams, and other instances of academic dishonesty). You are expected to be familiar with the academic regulations outlined

in the Graduate Bulletin (see <http://memphis.edu/gradcatalog>) and to observe the policies regarding student conduct as published in the Code of Student Rights and Responsibilities (<http://www.memphis.edu/stuhand2>). Remember, you are in graduate school. You are expected to act like a professional and that includes doing your own work.

**Students with disabilities:** Students with disabilities need to meet privately with me at the beginning of the course, so that we can arrive at how best to adapt the course materials or instructions. If you need additional accommodations, please contact Student Disability Services at 678-2880.

**Electronic devices:** I understand how important your cell phone/PDA/beeper/etc is to you. I also understand how distracting it is to you. Students must turn off all electronic devices during class. If I hear one of these devices ring, vibrate, buzz, chirp, or give any indication that is turned on, you will be asked to leave class and will be penalized in your final grade by 10% for each occurrence (yes, that is a heavy consequence).

**Diversity:** Diversity means the fair representation of all groups of individuals, the inclusion of minority perspectives and voices, and the appreciation of different cultural and socioeconomic group practices. We aspire to foster and maintain an atmosphere that is free from discrimination, harassment, exploitation, or intimidation. Academic courses will aim at providing opportunities for students to discuss issues of diversity including, but not limited to, ethnicity, gender, disability and sexual orientation as they can be related to course content. The University of Memphis has adopted policies prohibiting discrimination based upon race, sex, disability, or sexual orientation. In addition, the American Psychological Association has explicit policies regarding the issues of and writing about race, gender, class, sexual orientation, disability, ethnicity, and religion. You may find information on these standards in the APA Publication Manual or on the APA webpage: <http://apastyle.apa.org/>.

## **Sept 2: Introduction, housekeeping, etc.**

### **Sept 9: Philosophy of Science, statistical inference, principles of experimentation**

Reading: S, C & C, chapter 1

\* Meehl (1967). Theory testing in psychology and physics: A methodological paradox. Philosophy of Science, 34, 103-115.

\* Lykken (1968). Statistical significance in psychological research Psychological Bulletin, 70, 151-159.

\* Cohen (1994). The Earth is round. American Psychologist, 49, 997-1033.

\* Greenwald et al. (1996). Effect sizes and *p* values: What should be reported and what should be replicated? Psychophysiology, 33, 175-183.

### **Sept 16: Selection of research questions and overview of designs**

Reading: K, chapter 5

\* Sternberg & Grigorenko (2001). Unified psychology. American Psychologist, 56, 1069-1079.

### **Sept 23: Validity, Cultural sensitivity in assessment**

Reading: S, C & C, chapters 2, 3

\* Campbell & Fiske (1959). Convergent and discriminant validation by the multitrait - multimethod matrix, Psychological Bulletin, 56, 81-105.

\* Okazaki & Sue (1995). Methodological issues in assessment research with ethnic minorities. Psychological Assessment, 7, 367-375.

### **Sept 30: Design I: Between-groups designs**

Reading: K, chapter 6

S, C & C, chapters 4, 5

### **Oct 7: Design I: continued**

Reading: S, C & C, chapter 6

K, chapter 7

### **Oct 14: Design II: Within-subject and intrasubject replication designs**

Reading:

\* Hayes, Barlow, & Nelson-Gray (1984). The Scientist Practitioner (2<sup>nd</sup> edition). Chapters 5, 6, 7, and 8

### **Oct 21: Nonspecific effects, artifact; Cultural diversity**

Reading: K, chapters 4, 8

\* Gelfand, Raver, & Ehrhart (2002). Methodological issues in cross-cultural organizational research. In Rogelberg (Ed). Handbook of research methods in industrial and organizational psychology.

\* Sue (1999). Science, ethnicity, and bias: Where have we gone wrong? American Psychologist, 54, 1070-1077.

## **Oct 28 Midterm**

### **Nov 4: Issues involved in Intervention studies [fidelity, meta-analysis, normative comparisons, program evaluation]**

Reading:

\* Waltz, Addis, Koerner, & Jacobson (1993). Testing the integrity of a psychotherapy protocol: Assessment of adherence and competence. Journal of Consulting and Clinical Psychology, 61, 620-630.

\* Huffcutt (2002). Research perspectives on meta-analysis. In Rogelberg (Ed). Handbook of research methods in industrial and organizational psychology.

\* Jacobson & Truax (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. Journal of Consulting and Clinical Psychology, 59, 12-19.

\* Kendall, et al. (1999). Normative comparisons for the evaluation of clinical significance. Journal of Consulting and Clinical Psychology, 67, 285-299.

\* Hayes, Barlow, & Nelson-Gray (1984). The Scientist Practitioner (2<sup>nd</sup> edition). Chapter 10

\* Friedman, Furberg, & DeMets (1998). Fundamentals of Clinical Trials (3<sup>rd</sup> edition). Chapter 5

### **Nov 11: Correlational research & longitudinal designs: The study of change**

Reading:

\* Francis et al. (1991). Analysis of change: Modeling individual growth. Journal of Consulting and Clinical Psychology, 59, 27-37.

\* Kraemer & Thiemann (1989). A strategy to use soft data effectively in randomized controlled clinical trials. Journal of Consulting and Clinical Psychology, 57, 148-154.

\* Baron & Kenny (1986). The moderator-mediator variable distinction in social psychological research. Journal of Personality and Social Psychology, 51, 1173-1182.

\* Kraemer, Stice, Kazdin, Offord, & Kupfer (2001). How do risk factors work together? Mediators, moderators, and independent, overlapping, and proxy risk factors. American Journal of Psychiatry, 158, 848-856.

## **Nov 18: Work Day**

## **Nov 25: Happy Thanksgiving**

### **Dec 2: Interpreting results, research ethics, Preparing a manuscript for publication PAPER DUE**

Reading: K, chapters 16, 17, 18

\* Revised code of ethics, APA, 2002

\* Rodgers (2010). The epistemology of mathematical and statistical modeling. American Psychologist, 65, 1-12.

\* Miller & Chapman (2001). Misunderstanding analysis of covariance. Journal of Abnormal Psychology, 110, 40-48.

\* Switzer & Roth (2002). Coping with missing data. In Rogelberg (Ed). Handbook of research methods in industrial and organizational psychology.