

**UNIVERSITY OF MASSACHUSETTS DARTMOUTH**  
Department of Psychology  
Spring 2006  
**PSY 210 Research Methods (4 credit hours)**

**Instructor Information:**

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Office Hours: Tu Th 10:00 – 11:00  
Wed 10:00 – 12:00

**Course Description:**

“An introduction to the design, administration and analysis of psychology experiments, and other types of research including computer applications. Emphasis also on evaluation of research and scientific report writing.” (2003-2004 General Catalogue, p. 172).

**Required Text:**

Elmes, D.G., Kantowitz, B.H., & Roediger, H.L. (2006). *Research methods in psychology* (8<sup>th</sup> ed.). Belmont, CA: Thomson Wadsworth.

**Optional Texts:**

Koch, C., & Hall, M.D. (2006). *Study guide for Research Methods in Psychology* (8<sup>th</sup> Ed). Belmont, CA: Thomson/Wadsworth.

Szuchman, L.T. (2005). *Writing with style: APA style made easy* (3<sup>rd</sup> ed.). Belmont, CA: Wadsworth.

American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5<sup>th</sup> Ed.). Washington, DC: author.

**Student Learning Outcome Objectives:**

This course is designed to serve as an introduction to the fundamental principles of research in psychology. At the end of the semester, students should be able to:

- understand the fundamental concepts used in behavioral research.
- demonstrate an understanding of the differences between experimental and non-experimental research designs.
- show understanding of the issue of ethics in behavioral research, and be mindful of ethical considerations when designing, conducting, and communicating the results of scientific studies.
- demonstrate proficiency in reporting research according to the standards of the APA Publication Manual.
- read, comprehend, and summarize technical psychological research reports.
- integrate knowledge of research design by reporting the results of an individually-conducted research project in the form of a research paper.

**Course Format:**

This course will utilize a variety of teaching methods—primarily lectures, reading assignments, in-class activities, and class discussion. Class participation (questions, comments, discussion) is an integral part of this course and is therefore encouraged and expected.

## Course Requirements:

In-class activities	25 points
Exams (50 points each)	100 points
Article Presentation	25 points
HW #1: Research paper <i>topic</i>	5 points
HW #2: Research paper <i>reference list</i>	10 points
HW #3: Research paper <i>outline</i>	10 points
<i>Final</i> research paper	<u>100 points</u>
	<b>275 points total</b>

## IN-CLASS ACTIVITIES:

There will be periodic in-class activities throughout the semester. This is a hands-on class; therefore, it is important that you learn by doing. You **MUST** be present to take part in these activities and earn points—there will be **NO MAKE-UP** opportunities.

## EXAMS:

There will be two exams to test your comprehension of the material covered in the first half of the course. Each exam will be worth 50 points and may be comprised of multiple-choice, short-answer, and essay questions. The exams will cover material from both the textbook and the course lectures. **NO MAKE-UP** exams will be allowed, unless a valid note indicating a serious illness from a physician is provided. There will be no final exam—the material covered in the second half of the course will be directly applied in your final research paper.

## ARTICLE PRESENTATION:

On your assigned date, you will come to class prepared to lead the class in discussion of a self-chosen **empirical article** (defined below). The discussion should include an oral presentation that: (1) summarizes, (2) critically analyzes, and (3) interprets and/or applies the article. Therefore, it is important that you think critically about the article and go beyond merely restating what the authors say. That is, you may ask such questions as: Are there logical inconsistencies or research flaws? or How else could this research question be addressed? Finally, think about how the article may be applied. How does it relate to your own chosen field or to other applied settings? You may use any visuals you wish—the document camera and projector for PowerPoint presentations are available.

\*An **empirical article** is one in which the authors set out to test a hypothesis using data that they have either collected or analyzed. In contrast, review articles (such as those found in *Psychological Review* or *Psychological Bulletin*) are almost *never* empirical articles—they may describe data that has been collected or analyzed by the authors, but the focus of the article is to present a new theory or to review a field rather than reporting new data. Chapters in books are not empirical articles either; if you have any questions about the appropriateness of your article, it is best to ask me before proceeding.

\*Please note that our library may not carry the article that you choose and you may need to request an interlibrary loan. This process may take several weeks. Therefore, my suggestion is to start early. As you have been forewarned, I will NOT accept the excuse, “I could not find the article at the library.”

\*For your class presentation, it is recommended that you choose to present on one of the articles that you will use in your research paper (described below).

The purpose of the class presentations is to develop your critical interpretation skills and give you practice in presenting research. Here are some guidelines to help you with this assignment:

Introduction:

What is the research question?

What specifically needs to be known?

What is already known about the question/issue/concepts?

Methods:

Who are the subjects? (age, gender, ethnicity, etc.)

How were the subjects tested/surveyed, etc.?

Are the methods appropriate to the research questions?

Are there issues of reliability or validity?

Results/Discussion:

What are the major findings?

What do the authors interpret the findings/conclusions to mean?

Are there alternative interpretations that should be made about the results?

What do the results mean for our understanding of the topic?

What are the practical implications of the article?

Critique—add your own ideas beyond those of the authors

Presentations should be about 15 to 20 minutes in length and will be *peer-evaluated* based on the following criteria:

- **concise summary** of the article
- **critical analysis** of the article
- **application** to real world/implications for parents, educators, etc.
- **organization** of presentation
- **accurate timing** of presentation (not too short or long)

## **RESEARCH PAPER:**

The final component of the course involves a written research paper prepared by each student. The goal of the class project is to provide you with the experience of conducting your own psychological study. You will begin by choosing a topic that you are interested in and together we will work through all the steps involved in the research process, leading to a formal APA-style research paper. The final paper will include a title page, an abstract, a short literature review, a methods section, a results section, and a discussion section. The TA and I will be available to help you along the way and answer questions during this process.

To facilitate the preparation of your course project, three homework assignments will be completed prior to your final paper:

### **HW #1**

You will turn in a brief description (1 paragraph) of your topic of choice. In the paragraph you should describe what you will be researching and why you believe it is an important topic.

### **HW #2**

Your research needs to be based on scientific, empirical literature. That is, you will need to review the theoretical or empirical background by finding articles published in scientific journals (e.g., Journal of Abnormal Psychology, Child Development, Journal of Personality and Social Psychology) that concern your topic.

For the second homework, use psycINFO to find at least five (5) recent studies that are relevant to your topic (you will have to cite at least five references in your final paper, but those five don't necessarily have to come from the five you choose for this assignment). These sources must be **empirical articles** (described above) from peer-reviewed scientific journals **NOT POPULAR MAGAZINES OR GENERAL SOURCES (E.G., WEBSITES)**.

Once you have identified the articles on psycINFO, and established that they are available in our library (or through other sources), go find the actual articles and photocopy the ones that look good (you will need them later for your paper). Type up an ***APA-style reference section*** of at least 5 potential articles you will use.

### **HW #3**

After choosing a topic and beginning to review the scientific literature, you should be ready to begin work on developing your paper. For the third homework, you will prepare an outline of your *entire* research paper. That is, the outline should contain all of the elements that will be contained in your final draft, though not fully developed. **Particular attention should be paid to the methods that you will use to test your hypotheses.**

### **Written Research Paper**

The final component of the research paper is to prepare a formal APA style written paper. The final written papers must be handed in by 5:00 p.m. of Tuesday, May 16. Late final papers will lose 10 points for each day after the due date and will not be accepted later than one week after the due date. Thus, a paper turned in on Wednesday, May 17 will lose 10 points. Specific grading criteria for the written paper will be distributed at a later date.

### **Grading:**

There are 275 points available. Final grades will be based on the total number of points accumulated during the semester, using the following percentage scale:

- ♦ 93-100 = A   ♦ 90-92 = A-
- ♦ 87-89 = B+   ♦ 83-86 = B   ♦ 80-82 = B-
- ♦ 77-79 = C+   ♦ 73-76 = C   ♦ 70-72 = C-
- ♦ 67-69 = D+   ♦ 63-66 = D   ♦ 60-62 = D-
- ♦ Below 60 = F

### **Other course information:**

- The deadline for withdrawing from classes is April 14.
- Tutorial assistance is available at no cost through the Writing/Reading Center, located within the Academic Resource Center. The WRC is located in rooms 220 of Group-I. The telephone extension is 8710.
- Attendance and participation are vital to this course and thoughtful participation in classroom discussion enhances the course for everyone. Therefore, talking on cell phones, listening to headphones, and other disruptive behaviors will not be allowed. Students displaying these “off-task” behaviors may be asked to leave the class and excessive disruptive behavior may result in a student being dropped from the course.
- University policies regarding academic dishonesty, as described in the student handbook, will be enforced in this class. Cheating on an examination or using another author’s work as your own will (plagiarism), at minimum, earn you a score of ‘zero’ and may result in failure of the class. Any incidents of cheating will be reported to University officials. The APA Publication Manual (2001) discusses plagiarism, and offers this guidance:

Psychologists do not claim the words and ideas of another as their own; they give credit where credit is due. Quotation marks should be used to indicate the exact words of another. Each time you paraphrase another author (i.e., summarize a passage or rearrange the order of a sentence and change some of the words) you will need to credit the source in the text (p. 349).

- In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please meet with the instructor at the beginning of the semester and provide the appropriate paperwork from the Disabled Students Services Office. The necessary paperwork is obtained when you bring proper documentation to the Disabled Students Services Office (DSS), which is located in Group I, Room 016, phone: 508-999-8711.

### **Calendar:**

The following outline is a *tentative schedule* of the topics that will be covered during each class meeting. Every attempt will be made to adhere to this schedule, but revisions may be made at the instructor’s discretion.

<b>DATE</b>	<b>READING</b>	<b>TOPIC</b>	<b>Homework</b>	<b>Research Project Steps</b>
Tu – Jan 31 Th – Feb 2	Chapter 1	Overview of Scientific Research		Begin thinking about the topic of your research paper
Tu – Feb 7 Th – Feb 9	Chapter 12 Chapter 3	Ethical Research Exploring the Literature		Step 1: Select the topic of interest
Tu – Feb 14 Th – Feb 16	Chapter 3	Exploring the Literature	<b>HW #1 Due (topic)</b>	Step 2: Conduct literature search on topic of interest
Tu – Feb 21 Th – Feb 23	<b>NO CLASS</b> Chapter 2	<b>(Follow Monday Schedule)</b> Explanation in Scientific Psychology		Step 3: Form hypotheses Step 4: Operationalize
Tu – Feb 28 Th – Mar 2	<b>EXAM #1 (Chapters 1, 2, 3, 12)</b> Chapter 4	Observations in Psychological Research		Step 5: Predict relationship
Tu – Mar 7 Th – Mar 9	Chapter 7	Validity and Reliability in Psych Research	<b>HW #2 Due (ref list)</b>	Step 6: Specify design
Tu – Mar 14 Th – Mar 16	Chapter 10	Small-n Design		Step 7: Specify method of data analysis
<b>Tu – Mar 21</b> <b>Th – Mar 23</b>	<b>SPRING BREAK</b> <b>SPRING BREAK</b>			Step 8: Collect data
Tu – Mar 28 Th – Mar 30	Chapter 5 <b>EXAM #2 (Chapters 4, 5, 7, 10)</b>	Relational Research		
Tu – Apr 4 Th – Apr 6	Chapter 6 Chapter 8	Basics of Experimentation Experimental Design		
Tu – Apr 11 Th – Apr 13			<b>HW #3 Due (outline)</b>	Step 9: Analyze data
Tu – Apr 18 Th – Apr 20	Chapter 9	Complex Design		Step 10: Report findings
Tu – Apr 25 Th – Apr 27	Chapter 14	Presenting Research Results		
Tu – May 2 Th – May 4	In-Class Workshops: Analyzing Data and Writing up Your Results			Step 11: Solicit and receive feedback from peers
Tu – May 9 Th – May 11	In-Class Workshops: Analyzing Data and Writing up Your Results			Step 12: Revise final version of manuscript
Tu – May 16	Course Wrap-up		<b>Final Paper Due (5:00 pm)</b>	