

**UNIVERSITY OF MASSACHUSETTS DARTMOUTH**  
**Department of Psychology**  
**Fall 2005**

**PSY 505 Research Methods and Design (3 credit hours)**  
**Mon 4:30 – 7:00 p.m.**

**Instructor Information:**

Michael Cleveland, Ph.D.  
Group I-358  
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Office Hours: MWF 10:30 am – 12:00 pm

**Course Description:**

“Integrates research design, data analysis, data interpretation, and APA format report writing across the use of SPSS statistical software for univariate parametric and some non-parametric models. The course contains a strong experiential component to prepare students for thesis writing.” (2003-2005 Graduate Catalogue, p. 137).

**Prerequisite:**

Psychology graduate student status and a statistics course.

**Required Texts:**

Kazdin, A.E. (2003). *Research Design in Clinical Psychology* (4<sup>th</sup> ed.). Boston: Allyn and Bacon.

Pyrczak, F. (2005). *Evaluating Research in Academic Journals* (3<sup>rd</sup> ed.). Glendale, CA: Pyrczak Publishing.

**Other Recommended Readings:**

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 will provide an overview of the issues in design, measurement, analysis, and interpretation as they relate to psychological research. The two overarching objectives of this course are: (1) to provide a foundation of the basic skills needed to conduct psychological research, specifically to hone your skills in formulating, designing, and carrying out your own research ideas, and (2) to help you further develop the sophistication and ability to understand, evaluate, and critique the quality of research studies and the scientific literature.

## Course Format:

This course will involve a variety of class activities and requirements. Primary activities include class discussions, debates, didactic presentations, and classroom problems. Class participation (questions, comments, discussion) is an integral part of this course and is encouraged and expected.

## Course Requirements:

Participation/Attendance	30 points
HW #1: Research proposal <i>topic</i>	5 points
HW #2: Research proposal <i>reference list</i>	10 points
HW #3: Research proposal <i>outline</i>	10 points
Research proposal <i>in-class presentation</i>	25 points
Research proposal <i>final written paper</i>	75 points
Final Exam	<u>75 points</u>
	<b>230 points total</b>

## Grading:

There are **230 points** available. Final grades will be based on the total number of points accumulated during the semester, *using the following percentage scale:*

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

## I. PARTICIPATION/DISCUSSION details:

Each class session will involve active class participation and collaborative involvement as we work our way through the concepts involved in scientific research. As part of that process, part of each class session will involve specific discussion derived from the Pycszak textbook, which is designed to facilitate your skills in becoming an informed consumer of scientific literature.

Following the schedule on page 6, you will be responsible each week for reading the assigned chapters in this book. **You will then bring with you to class the homework exercises assigned at the end of each chapter.** These exercises will serve as the basis for that portion of class. Each weekly assignment will be worth 5 points, for a total of 30 points possible in this domain.

## II. WRITTEN RESEARCH PROPOSAL details:

The second component of the course involves a written research proposal prepared by each student. Because each of you has different interests and goals, the topic of your project is up to you. Please note that this should be for an **original project** in psychology. If you have not written a thesis proposal or started work on your thesis, you can use this as an opportunity to get moving! To reiterate: this **CANNOT** be on a project that already has been done, defended, or submitted as a proposal for another class.

*To facilitate the preparation of your proposal, 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., Developmental Psychology, Journal of Consulting and Clinical Psychology, Journal of Personality and Social Psychology, etc.) that concern your topic. For the second homework, you will turn in a **tentative reference list** (prepared according to APA guidelines) that contains at least 5 potential articles you will use.

### HW #3

After choosing a topic and reviewing the scientific literature, you should be ready to begin work on your project. For the third homework, you will prepare an **outline of your entire research proposal**. That is, the outline should contain all of the elements that will be contained in your final draft, though not fully developed. Use the outline to organize your thoughts as you think through your project, making certain that you cover all of the necessary points.

### Presentation of Proposals

Each student will present his or her research proposal during class time during the last weeks of the semester. These class periods will be devoted to in-class design practices (i.e., defending a thesis proposal) and your task will be to present highlights of the proposal you have written. The order of presenters will be determined by random selection within the first few weeks of the semester so you can plan accordingly.

For the presentation, you should prepare a 15-20 minute oral presentation that summarizes your project including a brief review of the literature, what gaps in the literature your study will fill, your hypotheses, your methods and expected results. Your oral presentation will be graded using the following criteria: clarity of presentation, logic, coherence, and conciseness. For your proposal, discussion with other students is not only permissible, but is encouraged.

### **Written Paper**

The final component of the research proposal is to prepare a formal APA-style paper. The final written proposal must conform to **APA format** and must include the following sections:

1. Title page
2. Abstract
3. Introduction/review of the literature—Include a review of published material relevant to your study, identification of gaps in the literature, and your research hypotheses, stated very specifically. For example, describe the aims of your project and hypotheses. What specifically you will be studying and what do you predict will happen. For example, “The aims of this proposal are: (1) To examine the effects of A on B. It is expected that ...; (2) to examine if C moderates the effects of A on B. We expect that ....”
4. Methods—This is the most important and detailed section and should include a detailed narrative of your study including procedures and measures used, population to be studied, proposed statistical procedures, and other elements discussed in class.
5. Results/Discussion—In this section you should remind the reader of the original purpose of the paper and describe what you expect to find. You may also want to discuss how to interpret the data if they came out as expected (i.e., supported your hypotheses) and how to interpret if they came out differently (hypotheses not supported). Finally, any methodological limitations of the study should be mentioned and possible practical and/or theoretical implications of the study should be discussed.
6. References (Literature cited)

The final paper should about 15-20 double-spaced pages (12 point font, one-inch margins) including references. Just as a rough guideline: title page, abstract (1 page or less), 4-5 pages of introduction, 4-5 pages of methods, 2-3 pages of results/discussion, 2-3 pages of citations.

The final written papers must be handed in by 5:00 p.m. of Monday, December 5. 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, December 7 will lose 20 points. Specific grading criteria for the written paper will be distributed during the first few weeks of the course.

### **III. FINAL EXAM details:**

The final component of the course is a written final exam that will be held on the last day of class (December 12). The exam will be comprehensive and will include material drawn from both of the textbooks as well as course lectures and discussions. Some portions of the final exam may be in the form of a “take-home” component, while others may be given during the scheduled time at the discretion of the instructor. Further details on the exam will be given later in the course. Please note that **NO MAKE-UP** exams will be allowed, unless a valid note indicating a serious illness from a physician is provided.

### Other course information:

- Students are expected to attend class every day. 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.

DATE	TOPIC	ASSIGNMENT		
		Kazdin (2003)	Pyrczak (2005)	Research Proposal
Sept 12	Introduction to course		In-class exercise	
Sept 19	Ethics in Research	Chapters 1, 17	Chapters 2, 3	
Sept 26	Reliability & Validity I	Chapters 2, 3, 13	Chapters 4, 5	
Oct 3	Reliability & Validity II	Chapters 2, 3, 13	Chapters 6, 7	<b>HW #1 due</b>
Oct 10	--NO CLASS--			
Oct 17	Research Design I	Chapters 5, 6	Chapters 8, 9	
Oct 24	Research Design II	Chapters 7, 8	Chapters 10, 11	<b>HW #2 due</b>
Oct 31	Observational Research	Chapter 9	Chapters 12, 13	
Nov 7	Statistics/Data Analysis	Chapters 15, 16		<b>HW #3 due</b>
Nov 14	Class Presentations			
Nov 21	Class Presentations			
Nov 28	Class Presentations			
Dec 5	REVIEW, course wrap-up	Chapter 18		<b>Final Paper Due</b>
Dec 12	<b>Final Examination</b>			