

# PSY 6130-Design and Evaluation of Psychological Research

University of Toledo - Department of Psychology - Fall 2017

Mondays & Wednesdays 9:35-10:55am

University Hall Room 5000

<b>Instructor:</b> Dr. Jason Rose Office: UH 6516 Telephone: (419) 530-2278 E-mail: <a href="mailto:Jason.Rose4@utoledo.edu">Jason.Rose4@utoledo.edu</a> Office Hours: M/W 11am-2pm or by appointment	<b>TA:</b> Alissa Anderson Call Office: UH 1900H E-mail: <a href="mailto:Alissa.Anderson@utoledo.edu">Alissa.Anderson@utoledo.edu</a> Office Hours: M/W 2pm-4pm or by appointment
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## Required Texts and Materials

- Leong, F.T., & Austin, J.T. (Eds.) (2005, 2<sup>nd</sup> edition). *The psychology research handbook: A guide for graduate students and research assistants*. Thousand Oaks, CA: Sage Publications.
- *Publication manual of the American Psychological Association* (6<sup>th</sup> ed.). (2009). Washington, DC: American Psychological Association.
- Additional articles listed on the syllabus and posted on blackboard.
- The course blackboard site will contain a variety of materials and track your grades ([www.dlutoledo.edu](http://www.dlutoledo.edu))

## Course Description

Research Methods is the foundation of psychological science. While all of you have had at least some coursework and/or experience related to research design and methods, your experiences are likely different from one another. Thus, the purpose of this course is to get us all on the same page with regard to design and evaluation of psychological research. Some of what is covered will be review; other things will be quite new and challenging. By the end of this course, you will hopefully develop: (1) a better understanding of how to design, analyze, evaluate, and effectively communicate good research in psychology, (2) a better appreciation for how design relates to statistics, and (3) a passion to conduct research that will hopefully carry over into your own laboratory work.

## Learning Objectives

1. Students should identify various design methodologies to analyze research questions in psychology.
2. Students should identify and describe statistical procedures used to analyze research questions.
3. Students should effectively critique scientific journal articles in psychology.
4. Students should conduct a literature review and empirical study proposal in their area of psychological research.

## **Course Requirements & Evaluation**

**Attendance and Class Participation.** Required, but email if you have to miss due to illness, religious reasons, conference, etc. Arrive on time and do not leave early. Students are expected to contribute to class discussion – including asking questions of other students presenting their work. Attendance and participation are worth 20% of the final grade (100 points total).

**CITI Ethics Training.** Any involvement in research at UT requires first requires completion of the University of Miami's established Collaborative Institutional Training Initiative (CITI) program online. This program can be accessed through UT's website:

<http://www.utoledo.edu/research/RC/HumanSubs/training.html>. Specifically, the Social and Behavioral version of the course should be selected which is most appropriate for the discipline of psychology. This course may take 3-4 hours to complete (but not necessarily in one sitting). And the course should be completed after research ethics is discussed in class. A completion certificate should be downloaded and provided to the Instructor by the due date listed on the course schedule below. Completion of the training is included as part of your attendance and class participation grade (see above).

**Assignments.** There will not be exams during the course, but there will be five assignments throughout the semester. These assignments are posted on Blackboard. Students should type and send their assignments to the teaching assistant by 5pm on the due date listed on the course schedule below. Assignments are worth 20% of the final grade (20 points per assignment; 100 points total).

**Research Project.** A primary ultimate goal of this course is for students to independently develop knowledge in a specific area within their research area and propose an empirical study in that area. This will be accomplished using the following steps: 1) discuss and select an appropriate, narrowly focused research topic/area in psychology; 2) review and succinctly summarize the recent literature that has analyzed the research topic; 3) formulate a research question(s), and hypothesis/hypotheses within the research topic (based on the literature review's findings); 4) design a prospective empirical study (not a review or meta-analysis; considering specific procedures and instruments) to test the hypothesis; 5) think about how you will statistically analyze your research question; and 6) consider the implications of your proposed study from a theoretical and applied perspective. After step #2 (but before step #3) – at mid-semester (**see course schedule below for due date**) - each student must submit a brief, article-length **Introduction/Literature Review** (roughly 3 to 7 double-spaced pages) (worth 20% of the final grade; 100 points total). Subsequently, by the semester's end (**see course schedule below for due date**), each student should submit a **Final Research Project paper**, which is a revised Introduction that includes step #3, along with a new Methods section that covers step #4, an anticipated results section that covers step #5, and an implications section that covers step #6. In total, these would add roughly 4-8 additional double-spaced pages in total (worth 30% of the final grade; 150 points total).

Topics must be approved by the Instructor; and the students should consult with their advisors along the steps outlined above for additional guidance in the research area selected. Thus, this project is a specifically intended for this course, but is also meant to jump-start the student's collaborative research with his/her advisor. Papers should be typed with 12 pt font, double-spaced, with 1 in. margins, submitted via email to the Instructor by 5pm on the due dates listed on the course schedule below. Late papers will be deducted 10% per day late. APA format (6<sup>th</sup> Ed.) must be used for structuring the paper and for citing and referencing.

The class sessions will involve generally discussing methodology and statistical issues in psychology research, to provide students with training on how to conceptualize and conduct their studies. Class sessions will also involve discussion and questions pertinent to the particular studies being developed.

**Final Research Project Presentation.** At the end of the semester, every student will present his/her project to the class. Presentations should be 10 minutes and provide a literature review, research question/hypothesis, methods, and anticipated results/analyses. Presentations will be worth 10% of your final grade (50 points total).

### **Grading Policy**

Each component of the course will contribute toward your final grade as follows:

Assignment	Approx. Weight	Total Possible Points
Attendance and Participation	20%	100
Assignments (5 total)	20%	100 (20 pts each)
Introduction/Literature Review	20%	100
Final Research Project Paper	30%	150
Final Research Project Presentation	10%	50
<b>Total</b>	<b>100%</b>	<b>500</b>

Course grades are determined using the following system:

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

### **Class Policies**

- No cell phones or other electronic devices (except calculator). Please turn them off.
- Arrive on time and do not leave early.
- The computers on the desks are to remain off unless we are working on an in-class exercise that requires the use of computers (e.g., SPSS).
- Do not talk in class unless it is part of an assignment (or asking the instructor questions).
- The Instructor will communicate to students by email about class announcements, changes to the course schedule (including class cancellations), and grades. Students should check their UT email accounts daily for such announcements.
- Grade disputes should be submitted in writing to the instructor within 2 weeks of the assignment being handed back.

### **University of Toledo Policy Pertaining to Academic Integrity**

Academic dishonesty will not be tolerated. Among the aims of education are the acquisition of knowledge and development of the skills necessary for success in any profession. Activities inconsistent with these aims will not be permitted. Students are responsible for knowing what constitutes academic dishonesty. If students are uncertain about what constitutes plagiarism or cheating they should seek the instructor's advice. Examples of academic dishonesty include, but are not limited to:

- Plagiarizing or representing the words, ideas or information of another person as one's own and not offering proper documentation;
- Giving or receiving, prior to an examination, any unauthorized information concerning the content of that examination;
- Referring to or displaying any unauthorized materials inside or outside of the examination room during the course of an examination;
- Communicating during an examination in any manner with any unauthorized person concerning the examination or any part of it;
- Giving or receiving substantive aid during the course of an examination;
- Commencing an examination before the stipulated time or continuing to work on an examination after the announced conclusion of the examination period;
- Taking, converting, concealing, defacing, damaging or destroying any property related to the preparation or completion of assignments, research or examination;
- Submitting the same written work to fulfill the requirements for more than one course.

### Students with Disabilities

Reasonable accommodations will be made for anyone with a disability that may require some modification of seating, testing, or other class requirements. Students must contact the Office of Accommodations (Rocket Hall 1820) for an evaluation and a form specifying what accommodations are judged reasonable.

The contact information for the Office of Accommodations is as follows:

Campus Address: Rocket Hall 1820, Mail Stop #342

Phone Number: 419.530.4981

Web: <http://www.utoledo.edu/utlc/accessibility/>

### Tentative Course Schedule

(Subject to change based on in-class announcements)

Week	Date	Topic	Reading	Assignment
1	8/28	Introduction & Research Process		
	8/30	Scientific method in psychology	L&A 1	
2	9/4	<b>No Class – Labor Day</b>		
	9/6	Variables & theory		
3	9/11	Developing ideas	L&A 2	
	9/13	Finding Psychological Research	L&A 3	Assignment 1 due
4	9/18	Evaluating Psychological Research	L&A 4	
	9/20	Writing, APA style	L&A 23-24	
5	9/25	Writing, APA style	APA manual Chs. 1-2	
	9/27	Measurement	L&A 7	Assignment 2 due
6	10/2	Measurement	L&A 8-9	
	10/4	Design – Basics & Simple Designs	L&A 6	Assignment 3 due
7	10/9	Design – Basics & Simple Designs	Campbell & Stanley P1	
	10/11	Design – Complex Designs	Campbell & Stanley P2	
8	10/16	<b>No class – Fall Break</b>		
	10/18	More designs & Mode	L&A 13-14, 17, 21-22	Introduction/Literature Review Due
9	10/23	IRB & Ethics	L&A 12	
	10/25	IRB & Ethics		
10	10/30	Sampling	L&A 10	
	11/1	Power & effect size	L&A 11	CITI Training due
11	11/6	Data cleaning; preliminary analyses	L&A 16	
	11/8	Statistics and Design	L&A 18-19	
12	11/13	Statistics and Design	L&A 20; Cohen article	Assignment 4 due
	11/15	Scientific bias and reporting results	Simmons article	
13	11/20	<b>No class – Happy Thanksgiving!</b>		
	11/22	<b>No class – Happy Thanksgiving!</b>		
14	11/27	Running your study –tips & Q/A -		
	11/29	Demographics, Culture, & Grants -	L&A 30-31	Assignment 5 due
15	12/4	Presenting psychological research	Conference Presentation Articles	
***	12/6	Peer Review Process	L&A 25-26; Lovejoy article	

**\*\*\*Final Project Due:** 12/8 by 5pm via email to the TA/Instructor

**Note: Final Research Project Presentations will be during finals week (8-10am on Dec. 13)**