

PSY 6130-Design and Evaluation of Psychological Research

University of Toledo - Department of Psychology - Fall 2021

Mondays noon-2:45pm

Remote/Synchronous Online

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Required Texts and Materials

- Leong, F.T., & Austin, J.T. (Eds.) (2006). *The psychology research handbook: A guide for graduate students and research assistants*. Thousands Oaks, CA: Sage Publications.
- *Publication manual of the American Psychological Association* (6th 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)

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.

Class “Meetings” in Blackboard

The course will be run synchronously online. This means that we will have a “live” meeting during normal class time in Blackboard using Collaborate Ultra. To join the course meeting, you log into Blackboard and click the link on the left-hand side of our Blackboard site labelled “BB Collaborate Ultra for Live Class Meetings”. Once inside that link, you should click on the icon labelled “Blackboard Collaborate Ultra” (with the video camera icon). Next, you should click on the link called “2021:4 Fall, PSY6030:001 Design and Eval-Psych Resrch – Course Room”. This should allow you to join the meeting. You should be able to “join” the live meeting/course room 15 minutes before the start of class. Please make sure to login on time. If you have questions during the meeting, please use the chat function to either ask your question or use the “raise hand” function to indicate that you would like to ask a question. More information on how to join the live sessions and access recordings of the live sessions can be found here: <http://utlv.screensteplive.com/s/student/m/56924>

Class Format

Our class is scheduled for one ~3-hour block of time. The first half of this time block will typically be lecture format. The second half of this time block will involve some combination of class discussion, demonstration/tutorial (e.g., Open Science Framework, SPSS), and/or individual meetings about your projects.

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 10% of the final grade (50 points total).

CITI Ethics Training. Any involvement in research at UT 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: <https://www.utoledo.edu/research/rsp/irb/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 (see “Assignments” folder) and should be submitted through Blackboard by 5pm on the due date listed on the course schedule below (submitted via the “Completed Assignments and Papers” folder). Assignments are worth 20% of the final grade (20 points per assignment).

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 and describe 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; 6) consider the implications of your proposed study from a theoretical and applied perspective, and 7) discuss potential limitations of your study. 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). The introduction/literature review should involve 1) a statement of the problem, 2) a detailed and theoretically-driven overview of the relevant background literature on the topic, 3) details about the current research and its significance, and 4) an overview of conceptual/operational variables and hypotheses. Again, the introduction/literature review should read like the introduction to an empirical paper from a journal. The introduction/literature review paper should be submitted in Blackboard (submitted via the "Completed Assignments and Papers" folder). A rubric for the introduction/literature review is posted in Blackboard (see "Assignments" folder).

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/literature review, along with a new Methods section that covers step #4, an anticipated results section that covers step #5, an implications section that covers step #6, and a limitations sections that covers step #7. In total, these would add roughly 4-8 additional double-spaced pages in total (worth 30% of the final grade; 150 points total). The final research project paper should be submitted in Blackboard (submitted via the "Completed Assignments and Papers" folder). A rubric for the final research project paper is posted in Blackboard (see "Assignments" folder).

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 their 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 (6th 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 psychological research in order 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 their project to the class. Presentations should be 10-12 minutes and provide a literature review, research question/hypothesis, methods, anticipated results/analyses, and implications/conclusions. Presentations will be worth 20% of your final grade (100 points total). More details are provided on a document in Blackboard, including a rubric for grading (see "Assignments" folder).

Class Policies

- No cell phones or other electronic devices (except calculator). Please turn them off.
- Arrive on time and do not leave early.
- If applicable, 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.

Grading Policy

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

Assignment	Approx. Weight	Total Possible Points
Attendance and Participation	10%	50
Assignments	20%	100
Introduction/Literature Review	20%	100
Final Research Project Paper	30%	150
Final Research Project Presentation	20%	100
Total		500

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%

Tentative Course Schedule
(Subject to change based on in-class announcements)

Week	Date	Topic	Reading	Assignment
1	8/30	-Introduction & research process; Scientific method in psychology	L&A 1	
2	9/6	No Class – Labor Day		
3	9/13	-Variables & theory; Developing ideas -Work on Project (develop ideas)	L&A 2	
4	9/20	-Finding psychological research; Evaluating Psychological Research -Endnote, Zotero, etc. -Work on Project (develop ideas/lit search)	L&A 3, L&A 4	Assignment 1 due
5	9/27	-Writing/APA style -Work on Project (lit search)	L&A 23-24; APA manual Chs. 1-2	
6	10/4	-Measurement -Work on Project (lit search/measures)	L&A 7; L&A 8-9	Assignment 2 due
7	10/11	-Measurement & basic designs -Work on Project (lit search/measures/design)	L&A 6	
8	10/18	-Basic and complex designs -Work on Project (measures/design)	Campbell & Stanley P1; Campbell & Stanley P2	Assignment 3 due
9	10/25	-More designs & mode -Work on Project (help with introduction)	L&A 13-14, 17, 21-22	
10	11/1	-IRB and ethical considerations -Open Science Framework -Work on Project (ethical considerations for your study)	L&A 12	Introduction/Literature Review Due
11	11/8	-Sampling, Power, and Effect Size -G*Power -Work on Project (method; sampling/power considerations for your study)	L&A 10, L&A 11	CITI Training due
12	11/15	-Data cleaning & preliminary analyses; Statistics and design -SPSS, PROCESS macro -Work on Project (work on method/results; statistical considerations for your study)	L&A 16, 18-20; Cohen article	Assignment 4 due
13	11/22	No Class – Thanksgiving Break		

14	11/29	-Running your study (tips and Q/A); scientific bias and reporting results; demographic & cultural considerations -Null results and what to do when studies don't work -Work on Project (work on method/results for paper; considerations for running your study)	Simmons article; L&A 27, 31, & 33	Assignment 5 due
15	12/6	-Presenting research; peer review process -Work on Project (help with final paper and presentation)	Conference Presentation Articles; L&A 25-26; Lovejoy article	*Final Project Paper
16	12/13	Finals Week Final Research Project Presentations		**Final Project Presentation

***Final Research Project Paper:** Due 12/10 by 5pm via email to the TA/instructor

****Final Research Project Presentations:** Done during finals week (Starting Monday, Dec. 13 at 12:30pm)

Collegiate/University Policies

Policy Statement on Non-Discrimination on the Basis of Disability (ADA)

The University is an equal opportunity educational institution. Please read [The University's Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance](#).

Students can find this policy along with other university policies listed by audience on the [University Policy webpage \(http://www.utoledo.edu/policies/audience.html/#students\)](http://www.utoledo.edu/policies/audience.html/#students).

Academic Accommodations

The University of Toledo embraces the inclusion of students with disabilities. We are committed to ensuring equal opportunity and seamless access for full participation in all courses. For students who have an Accommodations Memo from the Office of Accessibility and Disability Resources, I invite you to correspond

with me as soon as possible so that we can communicate confidentially about implementing accommodations in this course.

For students who have not established accommodations with the Office of Accessibility and Disability Resources and are experiencing disability access barriers or are interested in a referral to health care resources for a potential disability, please connect with the office by calling 419.530.4981 or sending an email to StudentDisability@utoledo.edu.

Institutional Classroom Attendance Policy

Please be aware that the university has implemented an attendance policy, which requires faculty to verify student participation in every class a student is registered at the start of each new semester/course. For this course, if you have not attended/participated in class (completed any

course activities or assignments) within the first 14 days, I am required by federal law to report you as not attended. Unfortunately, not attending/participating in class impacts your eligibility to receive financial aid, so it is VERY important that you attend class and complete course work in these first two weeks. Please contact me as soon as possible to discuss options and/or possible accommodations if you have any difficulty completing assignments within the first two weeks.

University of Toledo Policy Pertaining to Academic Integrity

Academic dishonesty is not tolerated. Among the aims of education are the acquisition of knowledge and the development of skills necessary for success in any profession. Activities inconsistent with these aims are not 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 credit or documentation to the other person;
- 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;
- Starting 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 exams;
- Submitting the same written work to fulfill the requirements for more than one course.

Other Policies

Your safety and well-being as a University of Toledo student is important to the faculty, staff, and administration; as such please take time outside of class to review the code of conduct and non-discrimination policies that apply to you as a student: <https://www.utoledo.edu/title-ix/policies.html>. You can use this URL to view a more comprehensive list of student policies: <https://www.utoledo.edu/policies/audience.html/#students>.

Academic and Support Services

Please follow this link (<http://www.utoledo.edu/studentaffairs/departments.html>) to view a comprehensive list of [Student Academic and Support Services](#) available to you. UT also provides a variety of academic and support services on campus to help you succeed and reach your fullest potential. Whether you need to ask a question, get help with an assignment, seek advice from a counselor, find a job or join a club, UToledo offers some help:

Tutoring: <http://www.utoledo.edu/success/lec/>

Library: <http://www.utoledo.edu/library/>

Success Coaching: <https://www.utoledo.edu/successcoach/>

Student Affairs: <http://www.utoledo.edu/studentaffairs/>

Career Services: <http://www.utoledo.edu/success/career/>

Safety and Health Services for UT Students

Please use the following link to view a comprehensive list [Campus Health and Safety Services](#) available to you as a student. It covers services related health, mental health, emergencies, and discrimination, among other things. In addition, UT provides assistance via a Food Pantry: <http://www.utoledo.edu/studentaffairs/food-pantry/>.

Special Course Expectations During COVID-19

Maintaining a safe campus during the ongoing COVID-19 pandemic remains a top priority. UToledo continues to follow the guidance of the U.S. Centers for Disease Control and Prevention and Ohio Department of Health to keep our campus safe.

ATTENDANCE

The University of Toledo has a missed class policy. It is important that students and instructors discuss attendance requirements for the course. Before coming to campus each day, students should take their temperature and complete a self-assessment for symptoms of COVID-19, such as cough, chills, fatigue or shortness of breath. Anyone with a temperature at or above 100.0 degrees Fahrenheit or who is experiencing symptoms consistent with COVID-19 should not come to campus and contact their primary care physician or the University Health Center at 419.530.5549. For more information on the symptoms of COVID-19, please go to <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

COVID-19 testing for sick students is available on both Main Campus and Health Science Campus. Call 419.383.4545 for an appointment. Absences due to COVID-19 quarantine or isolation requirements **are** considered excused absences. Students should notify their instructors and follow the protocols summarized in this document on [Navigating COVID-Related Course Concerns](#).

In the event that you have tested positive for COVID-19 or have been diagnosed as a probable case, please review the [CDC guidance](#) on self-isolation and symptom monitoring, and report the disclosure to the Division of Student Affairs by emailing StudentAffairs@utoledo.edu or by connecting with their on-call representative at 419.343.9946. Disclosure is voluntary and will only be shared on a need to know basis with staff such as in the Office of Student Advocacy and Support, The Office of Residence Life, and/or the Office of Accessibility and Disability Resources to coordinate supportive measures and meet contact tracing requirements.

FACE COVERINGS

Face coverings are required while on campus, except while eating, alone in an enclosed space, or outdoors practicing social distancing. Students will not be permitted in class without a face covering. If you have a medical reason preventing you from wearing a face covering due to a health condition deemed high-risk by the CDC, submit an [online application](#) to request an accommodation through the Office of Accessibility and Disability Resources. Students will need to provide documentation that verifies their health condition or disability and supports the need for accommodations. Students already affiliated with the Office of Accessibility and Disability Resources who would like to request additional accommodations due to the impact of COVID-19, should contact their accessibility specialist to discuss their specific needs. You may connect with the office by calling 419.530.4981 or sending an email to StudentDisability@utoledo.edu.

VACCINATION

Doctors and other health care professionals agree that the best way to protect ourselves and each other is to get vaccinated. Case data clearly show that vaccines remain highly effective at preventing serious illness from COVID, including the highly contagious delta variant. If you have not yet received your COVID vaccine, the University encourages you do so as soon as possible. No appointment is needed to get the shot at the UTMC Outpatient Pharmacy, University Health Clinic or Main Campus Pharmacy. Once you receive the COVID vaccination, please register on the COVID Vaccine Registry site at:

<https://utvaccinereg.utoledo.edu/>.

SPECIAL NOTES

It's important to note, that based on the unpredictability of the COVID-19 virus, things can change at any time. So please be patient and understanding as we move through the semester. I also ask that you keep me informed of concerns you may have about class, completing course work/assignments timely and/or health concerns related to COVID.