Experimental Projects in (Cognitive Science or Psychology)
Mondays, 7:00-9:45 p.m., JO 3.209/3.210
Fall 2016

Instructor:
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Course Description

Laboratory and field experience in designing and conducting research, with a major emphasis on writing research reports. (This course fulfills the advanced writing requirement for Psychology majors and 3 hours of the Communication component of the Core Curriculum). *Prerequisites:* PSY 3392 or PSY 3490

Required Material

- *PUBLICATION MANUAL OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION, 6th edition* (2010)
- **TURNING POINT CLOUD** classroom polling software: Students would need to purchase 1) a **Turning License,** and 2) a **Turning Technologies RF-LCD Receiver** (also known as a clicker). Both these items are available at the UTD Bookstore. If you had recently purchased an RF-LCD Clicker from the UTD Bookstore, you may be able to obtain a free Turning License. The UTD Bookstore has a limited time offer for legacy students, and it is on a first-come, first-served basis. Please check with the Bookstore for more details. Please visit http://www.utdallas.edu/elearning/resources for more details.

Optional material:
- *APA Style Guide to Electronic References* – Available at amazon.com (for Kindle) or http://www.apastyle.org/products/4210512.aspx (pdf) for about $12
- *IBM SPSS STATISTICS 22* – can be rented for 6 months from onthehub.com for about $55.

Course Objectives

After completing the course, students should be able to:
2   Engage in scientific inquiry and critical thinking:
    2.1   Identify and explain different research methods used by psychologists,
    2.2   Employ critical thinking to evaluate bodies of scientific literature, popular media, and empirical reports in psychology in order to construct an argument,
    2.3   Locate, accurately summarize, and evaluate bodies of scientific literature in psychology in order to construct an argument.
    2.4   Use critical thinking to design and conduct basic studies to address psychological questions using appropriate research methods.
3.1   Apply ethical standards, major theories, and psychological concepts to explain and inform clinical issues, social issues, and public policy.
4   Demonstrate effective writing and oral skills in communicating information related to the scientific study of psychology and its application:
    4.1   Demonstrate effective writing skills in various formats (e.g., summaries, integrations, critiques, technical reports in APA Style) and for various purposes (e.g., informing, teaching, explaining, defending, persuading, arguing).
    4.2   Demonstrate effective oral communication skills in various contexts (e.g., group discussion, presentation) and for various purposes (e.g., informing, teaching, explaining, defending, persuading).
5.1   Demonstrate professional behavior by meeting deadlines and with conscientious completion of responsibilities.

Course Assignments and Evaluation

Original Paper   *10%*

Twelve percent of the grade in this course will come from each student's completed APA-style article based upon an original experimental project. Each student will choose and research an experimental topic, design an experiment, acquire data, analyze that data, and write an APA journal style paper. Because rewriting is an important part of academic writing and research publication, the first drafts of writing assignments—including the first draft of the whole paper—are due relatively early, allowing for rewrite opportunities. Although each section of this paper will receive a separate grade, the grade on the final paper will not necessarily equal the sum of the grades of its parts. ***Many of the sections must be adapted as the experiment evolves.*** Rewrites of the final paper are due at our appointed final examination time, which is two weeks after the first draft is returned with comments. **The final rewrite of the paper must be a hard copy (i.e., printed on paper and handed in).**

Methods Section   *7%*

This assignment is intended to assist students in refinement of research topics and to develop skills for writing a methods section in APA style. Students will be graded on the quality of their methods in addition to the quality of their writing. Students may rewrite their methods sections for a better grade. Rewrites are due nine days after the first draft is returned with comments.

Literature Review   *8%*

This assignment is intended to assist in the generation of an original research idea, the development of an academic literature database, the development of library skills as well as skills for writing in APA style. Students will be expected to locate **five or more articles** from *peer-reviewed* or *refereed* publications. These articles must be chosen according to their relevancy to a central concept or idea. Students will be graded on their ability to locate relevant articles, to develop ideas and concepts in their literature review (summarize, integrate, and critique), and to write clearly and in APA style. It is the literature review that will supply the **Introduction/Background section** of the final paper, the ideas for how to conduct the experiment, and the prism through which the results will be interpreted. Students may rewrite their literature reviews for a better grade. Rewrites are due six days after the first draft is returned with comments.

Results Section   *6%*

Students will be expected to analyze their data and report their findings in APA style. Students are also expected to present their data in a table or graph. Students may rewrite their results sections for a better grade. Rewrites are due five days after the first draft is returned with comments.

Discussion Section   *9%*

The discussion section is where one explains, evaluates, and interprets the results of the experiment in light of previous research, conflicting theories, and the original hypotheses or research questions, much of which would have been introduced in the Introduction/Background Section. The discussion section offers the justification for why others should tend to the findings presented in the paper. Your outline of the discussion section will be evaluated and discussed with you before you write this section, which is turned in with the first draft of the final paper. The rewrite of your Discussion section is submitted with the rewrite of the whole paper, due at our appointed final examination time.

Presentation   *7%*

This assignment is intended not only to give students the opportunity to practice the presentation skills that are necessary as one begins to present his or her research at seminars, talks, and conferences, but also to give students exposure to and to encourage class discussion of other projects done in class. Students will prepare a poster presentation for a poster session. Audience participation counts as part of the presentation grade so **attendance is required during all poster sessions** (April 26). The posters will be presented in two sessions. Each student will complete a rating sheet for the posters that are presented during the session(s) that he or she is not presenting a poster. For example, students who present their posters during Session I will rate the posters presented during Session II. Each student's completion of these poster evaluations will account for 25% of his or her poster grade.

In-Class Exercises   *36%*

       These include a) exercises for assessing analysis concepts and skills when using IBM SPSS Statistics to analyze data (4 x 4%), b) APA Manual class exercise (6%), c) Discussion section class exercises (5%), and d) an exam over the Discussion section, Standard English, and APA style (9%).

Other Assignments   *23%*

       These assignments are to assure that you have done the appropriate foundation work for the next step in your project. These include a) your preliminary bibliography (6%), b) your preliminary description of your measures (6%), c) IRB training certification and submittal (5%), and d) your Discussion section outline (6%).

Policies

Late Assignments: Late assignments will be accepted with a penalty of 5% of the assignment grade per day. Therefore, an assignment will not be accepted after 20 days, at which time the assignment would be worth zero. Any penalty for missing the initial due date will be applied to rewritten papers as well. **Turn in a paper—*at any level of completion*—on its due date to avoid penalty points.**

Attendance: Students are expected to take responsibility for attending class. Attendance is important for receiving a grade on the in-class assignments and quizzes as well. Forty-two of the 106 possible points are accrued during in-class activities. There are reasonable cushions within the grading scheme (i.e., 106 percentage points available, plus ¼ point added to your final grade for participating in another experiment) to account for a normal semester's inconveniences.

Emails: As this is a writing course, students are expected to use good writing in their emails as well. Emails should be in clear, full sentences with proper grammar, punctuation, and spelling.

Grade Assignment

90-100	A	60-69	D
80-89	B	<60	F
70-79	C		

Schedule

1.   8/22   Syllabus Review
                 Review: Experimental and Observational Method, Measurement and Design
                 Sample papers
                 ASSIGNED: Due on 9/5 by 10:00 p.m.: 1) Five or more peer-reviewed references in ***APA Reference List style*** *on your research topic, 2) Evaluation Sheet on each article, 3) WHAT you will* ***measure*** *for your project and HOW you will* ***measure*** *it*

2.   8/29   Institutional Review Board – Amanda Miller from UTDallas IRB
                    IRB submittal **due by 9/14** – Begin collecting data only after IRB approval
                 Library Instruction - Finding refereed articles on your topic
                 Critical thinking and critical reading - Reading an article
                 Generating hypotheses
                 ASSIGNED: Read Chapter 2 of APA Manual; skim Chapters 3, 4, and 6.

                   ~~~~~ LABOR DAY (*but assignment due by 10:00 p.m.*) **~~~~~**

3.   Sat. 9/10   **JO 3.209 LAB 10:00 a.m.–2:00 p.m.**
      OR
    Sun. 9/11   **JO 3.209 LAB 1:00-4:00 p.m.**
      OR
    Mon. **9/12**   **JO 3.209 LAB 6:30–10:00 p.m.**

> Individual time slots to discuss your measurements and Method – ***Required:*** *Come for the 30 minutes when you are scheduled.* ***Bring your IRB Training Certificate.***

Due by 10:00 p.m. Wednesday, 9/14: Submit your completed form(s) to the IRB

4.   9/19   Parts of the Method section
                        Sample Method sections
                        Writing the Method section
                        *ASSIGNED: First draft of Method section **due Wednesday, 9/28**, by 10:00 p.m. via email*
                        Standard Academic English, APA Manual, & APA Style
                        APA Manual Exercise & Quiz – work in groups

5.   9/26   Your Literature Review/Background/Introduction
                            Organizing and outlining
                            Constructing an argument
                        *ASSIGNED: First draft of LitReview/Intro **due Wednesday, 10/5**, by 10:00 p.m. via email*
                            Review of statistics
                        Correlation and Regression in IBM/SPSS
                        In-class exercise

6.   10/03   Method section returned – ***rewrites due by 10:00 p.m. on Wednesday, 10/12**, via email*
                        SPSS – Comparing means between two groups: Independent samples *t*-test,
                              between-subjects analyses of variance (ANOVAs), Mann Whitney *U* test
                        In-class exercise
                        Time for participating in and conducting your experiments

DUE on Wednesday, 10/5, by 10:00 p.m.: **LiteratureReview/Intro**

7.   10/10   LitReview/Intro returned – ***rewrites due via email by Sunday, 10/16, at 10:00 p.m.***
                        Results section – Sample paragraphs
                        SPSS – Comparing means between conditions from the same group or sample:
                              Dependent samples *t*-test, within-subjects ANOVAs, Wilcoxon Rank-Sum,
                        In-class exercise
                        Time for participating in and conducting your experiments

8.   10/17   Method section rewrite returned
                        Tables and Figures in APA paper
                        SPSS – Mixed-measures ANOVA, Chi-Squared
                        In-class exercise
                        Time for participating in and conducting your experiments

9.   10/24   LitReview/Intro rewrites returned
                        CRUNCH and INTERPRET YOUR DATA IN SPSS
                        *Note: <u>**YOU MUST HAVE COLLECTED ALL YOUR DATA**</u>*
        <u>10/22 AND 10/29</u>   *<u>Optional</u> Saturday Lab Session - **JO 3.209/3.210 LAB 10AM–2PM***
                                  CRUNCH and INTERPRET YOUR DATA IN SPSS

DUE: First draft of Results section with figure or table due via email no later than 10:00 p.m. on Saturday, October 29. Send three attachments: 1) <u>Results section with figure or table</u>, 2) <u>SPSS data</u>, 3) <u>SPSS output</u>

10.   10/31   First draft of Results section returned
                        Results section rewrite due on Saturday, 11/5, by NOON.
                        Chance to revisit your analysis
                        The Discussion section
                            The Outline

Sample papers and outlines
Discussion Exercise I
*ASSIGNED: Outline of your Discussion section **due via email by 10:00 p.m. on Wednesday**, 11/9*

11. 11/7 Results rewrites returned
The Discussion section
Discussion section exercise II
Putting the whole paper together
ASSIGNED: Whole paper first draft due via email by 2:00 p.m. on Tuesday, 11/22
Discussion section, grammar, and APA style exam review
Preparing a poster presentation

12. Sat. 11/12 **JO 3.209 LAB 10:00–2:00**
OR
Sun. 11/13 **JO 3.209 LAB 1:00–4:00**
OR
Mon. 11/14 **JO 3.209 LAB 6:30-10:00**

} Individual time slots to discuss your Discussion section
Required: Come for the 30 minutes when you are scheduled.

~~~THANKSGIVING BREAK~~~
DUE by Tuesday, 11/22, by 2:00 p.m.: WHOLE PAPER first draft due via email

13. 11/28 Whole papers first draft returned
Poster session info
Wrap up
Exam: Discussion Section, Standard Written English, & APA Style

14. 12/5 **POSTER SESSION**

15. *The Registrar's office determines final exam dates and schedules. Exam schedules will be available after census day and will be announced in class.* **A good guess would be:**
12/12 JO 3.209/3.210 8:30-10:30 p.m.
DUE by 10:00 p.m.: Final draft of Whole Paper – <u>HARD COPY (i.e., printed on paper and handed in)</u>

These descriptions and timelines are subject to change at the discretion of the Professor.

Student Conduct & Discipline

The University of Texas System (Regents' Rule 50101) and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UT Dallas online catalogs (http://catalog.utdallas.edu). The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Student Code of Conduct, UTDSP5003 (http://policy.utdallas.edu/utdsp5003). Copies of these rules and regulations are available to students in the Office of Community Standards and Conduct, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at https://www.utdallas.edu/conduct/. A student at the University neither loses their rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating its standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Sharing Confidential Information

Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2527 or after hours 972-UTD-TALK or 972-883-8255), the

Women's Center (972-883-8255), a health care provider in the Student Health Center (972-883-2747), the clergyperson (or other legally recognized religious advisor) of their choice, or an off-campus resource (i.e., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-2218. Additional information and resources may be found at http://www.utdallas.edu/oiec/title-ix/resources.

Campus Carry

The University's concealed handgun policy is posted on the campus carry website: https://www.utdallas.edu/campuscarry/

Technical Support

If you experience any issues with your UT Dallas account, contact the UT Dallas Office of Information Technology Help Desk: assist@utdallas.edu or call 972-883-2911. UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Helpdesk: http://www.utdallas.edu/elearning/eLearningHelpdesk.html.

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Academic Dishonesty: Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment. Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: https://www.utdallas.edu/conduct/dishonesty/.

Copyright Notice: It is the policy of the University of Texas at Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, (Title 17, United States Code), including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded. Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. For more information about the fair use exemption, see http://copyright.lib.utexas.edu/copypol2.html. As a UT Dallas student, you are required to follow UT Dallas' copyright policy (UTDPP1043 at http://policy.utdallas.edu/utdpp1043) and the UT System's policy, UTS107 at http://www.utsystem.edu/board-of-regents/policy-library/policies/uts107-use-copyrighted-materials.

Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Office of Information Technology provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to http://netid.utdallas.edu.

Withdrawal from Class

The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (http://www.utdallas.edu/calendar) and in the Academic Calendar http://www.utdallas.edu/academiccalendar). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or other instructor cannot drop or withdraw any student unless there is an administrative drop such as the following:

• Have not met the prerequisites for a specific course
• Have not satisfied the academic probationary requirements resulting in suspension
• Office of Community Standards and Conduct request
• Have not made appropriate tuition and fee payments
• Enrollment is in violation of academic policy
• Was not admitted for the term in which they registered

It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

Incomplete Grade Policy

As per university policy, incomplete grades may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of 'I') must be completed within the time period specified by the instructor, not to exceed eight (8) weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol 'I' may be converted into

a letter grade (A through F). If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

Student Grievance Procedures

Procedures for student grievances are found in university policy UTDSP5005 (http://policy.utdallas.edu/utdsp5005). In attempting to resolve any student grievance regarding disputes over grades, application of degree plan, graduation/degree program requirements, and thesis/and dissertation committee, adviser actions and/or decisions, evaluations, and/or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originated.

AccessAbility Services

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with your professor and allow one week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential discussion. OSA is located in the Student Services Building, SSB 3.200. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities, including examinations and travel time for the observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, of the Texas Tax Code.

Students are encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

Excused students will be allowed to take missed exams or complete assignments within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the President of UT Dallas or from the President's designee. The chief executive officer or designee must take into account the legislative intent of Texas Education Code 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Resources to Help You Succeed

- The Office of Student Success operates the Student Success Center (SSC, http://www.utdallas.edu/studentsuccess), which offers assistance to students in the areas of writing, mathematics, communication, multiple science fields, reading, study skills, and other academic disciplines. These services are available through individual and small group appointments, workshops, short courses, and a variety of online and instructional technologies. All students enrolled at UT Dallas are eligible for these services.
- The Math Lab gives short-term and semester long support for a variety of introductory and advanced mathematics courses. Students may drop in to visit with a math tutor on a regular basis. Comet card is required.
- **The Writing Center offers a collaborative learning environment for one-to-one and small group assistance with general and advanced writing assignments and overall writing skills. Scheduling an appointment is strongly recommended, but walk in appointments are possible if a tutor is available.**
- The Peer Tutoring program offers free tutoring assistance in multiple locations for many of the historically challenging undergraduate subjects at UT Dallas. Tutoring sessions, offered every weekday on a drop-in basis, are one-on-one or in a small group format. The sessions are designed to meet students' individual questions and needs related to course/subject concepts. All peer tutors are current UT Dallas students who made an A- or better in the course and have a strong faculty/staff recommendation. Students should check the Student Success Center website each semester for subject offerings and session times.
- The Peer-Led Team Learning (PLTL) program provides an active, engaged learning experience for students who meet in small groups once a week with a Peer Leader who helps guide them through a potentially difficult gateway course. Students that attend sessions regularly typically earn a half to a whole letter grade higher than students that do not participate in the PLTL program.
- Supplemental Instruction (SI) provides free, peer-facilitated weekly study sessions for students taking historically difficult courses. SI sessions encourage active, collaborative learning based on critical thinking and transferable study skills. SI leaders attend lectures, take notes, and read assigned material just like the enrolled students. Students should check the SSC website for subject and session times.
- The Communication Lab (CommLab) offers one-on-one and group consultations where you will gain practical feedback for improving oral and group presentations.
- Success Coaches are available for individual student appointments to discuss study skills, time management, note taking, test taking and preparation, and other success strategies.
- The Student Success Center's main office is located in the McDermott Library Building and can be contacted by calling 972-883-6707 or by sending an email to ssc@utdallas.edu.