Syllabus

PSYC 3435 - Principles of Research for the Behavioral Sciences

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Course description

This laboratory course is designed to introduce students to the philosophy of scientific inquiry with an emphasis on experimental methodology. This will be accomplished via a combination of traditional lectures along with an application of principles through laboratory experimentation and demonstration. Essentially, we will cover the "nuts and bolts" of putting together and completing a research project in psychology. To this end, we will cover all fourteen chapters of the textbook. All students enrolled in this course are required to have **previously taken** PSYC 3309 (Writing in Psychology) and PSYC 3330 (Statistics).

Course materials

- The Process of Research in Psychology (3rd ed.) by McBride (2015) (Amazon link)
- APA Publication Manual (6th ed.) (Amazon link)
- JASP statistical software (free download from jasp-stats.org)

Student learning outcomes

- 1. Describe advantages of the scientific method compared to other approaches
- 2. Identify various research designs and uses of each
- 3. Conduct library research
- 4. Paraphrase and cite material from primary sources
- 5. Develop a research question and write hypotheses appropriate for it
- 6. Design and conduct a research project to test hypotheses
- 7. Analyze data collected from research using computer software
- 8. Communicate the findings of research as a complete APA style manuscript

Requirements and grading

- Exam 1 (100 pts)
- Exam 2 (100 pts)
- Exam 3 (100 pts)
- Unit quizzes (100 pts)
- Lab assignments (100 pts)
- $Total = 500 \ points$

Grades will be assigned based on the percentage of points you accumulate out of these 500 points. I will use the standard grading scale of A=90%, B=80%, etc.

Exams (60% of grade)

There will be three exams throughout the semester. Exams are due by 11:59 pm on the due date. Each exam will have a time limit and may only be attempted once. Note that the final exam (Exam 3) is comprehensive.

Exam dates:

- Exam 1 (Chapters 1,2,3,5,8), due Sunday, October 9
- Exam 2 (Chapters 4,6,11), due Sunday, November 13
- Exam 3 (Chapters 1-14), due Sunday, December 11

Unit quizzes (20% of grade)

At the completion of each unit, there will be a short quiz covering the main content. Each quiz is worth 10 points (for a total of 100 possible quiz points for the semester). Each quiz will be timed and may only be attempted once, and is due by 11:59 pm on the due date.

Lab assignments (20% of grade)

There will be four lab assignments this semester. Each assignment is designed to give you first hand experience with essential research skills, such as conducting an experiment, collecting data, and writing up an APA manuscript. Except for Lab 1 (an APA exercise), each of you will administer a short experiment, collect some data, analyze the collected data for the class, and compose an APA manuscript based on the experiment and the results.

Lab Assignments and dates

- Lab 1 APA formatting (10 points), due Friday, September 9
- Lab 2.1 Correlational design, data collection (10 points), due Friday, September 16
- Lab 2.2 Correlational design, analysis and report (20 points), due Friday, September 30
- Lab 3.1 Independent groups design, data collection (10 points), due Friday, October 7
- Lab 3.2 Independent groups design, analysis and report (20 pts.), due Friday, October 21
- Lab 4.1 Factorial design, data collection (10 points), due Friday, October 28
- Lab 4.2 Factorial design, analysis and report (20 points), due Friday, November 11

Course Communication

I am your primary resource for this course. I AM an experimental psychologist, so I do the stuff I teach about daily. Hence, my primary interest is for you to learn this material and do well in the course. You may contact me using any means necessary (email and Twitter are the best). That being said, many people prefer to use Blackboard messages. I don't mind these, but keep in mind that I may not receive your message until I actually open Blackboard. With email/Twitter, if you send me a message at 9:00 pm, I may actually respond pretty quickly.

University Policy on "F" Grades

Beginning in Fall 2015, Tarleton will begin differentiating between a failed grade in a class because a student never attended (F0 grade), stopped attending at some point in the semester (FX grade), or because the student did not pass the course (F) but attended the entire semester. These grades will be noted on the official transcript. Stopping or never attending class can result in the student having to return aid monies received. For more information see the Tarleton Financial Aid website.

Academic Honesty

Cheating, plagiarism (submitting another person's materials or ideas as one's own), or doing work for another person who will receive academic credit are all disallowed. This includes the use of unauthorized books, notebooks, or other sources in order to secure of give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

In particular, any exam taken online must be completed without the aid of any unauthorized resource (including using any search engine, Google, etc.). Authorized resources are limited only to the official textbook and any lecture notes from the course. Any other authorized resources will be provided to you before the exam. The minimum sanction for violation of this policy is a grade of 0 on the affected exam.

Students with Disabilities Policy

It is the policy of Tarleton State University to comply with the Americans with Disabilities Act and other applicable laws. If you are a student with a disability seeking accommodations for this course, please contact the Center for Access and Academic Testing, at 254.968.9400 or caat@tarleton.edu. The office is located in Math 201. More information can be found at www.tarleton.edu/caat or in the University Catalog.

Note: any changes to this syllabus will be communicated to you by the instructor!

Semester schedule

Unit	Dates	Topic
0	Aug 29-Sep 4	Statistics review
1	Sep 5-11	Knowing in psychological science
2	Sep 12-18	Reading the literature / APA style
3	Sep $19-25$	Basic research methods
4	Sep 26-Oct 2	Ethics in psychological science
	Oct 3-9	Exam 1 (due Oct 9)
5	Oct 10-16	Experiments: selecting and manipulating variables
6	Oct 17-23	Experiments: sampling methods
7	Oct 24-Nov 6	Experiments: classic designs
	Nov 7-13	Exam 2 (due Nov 13)
8	Nov 14-20	Non-experiments: survey and correlational designs
	Nov 21-27	No coursework during week of Thanksgiving holiday (Nov 24-25)
9	Nov 28-Dec 4	Non-experiments: quasiexperiments and developmental designs
	Dec 5-11	Exam 3 (due Dec 11)