Updated 1/10/23

ADVANCED STATISTICS (PSYC 4317)
SPRING 2023

Instructor:	Dr. Hannah Volpert-Esmond
Office:	103 Psychology Building
Email:	hivolpertes@utep.edu
Class time:	Tuesday/Thursday, 9:00-10:20 am or 1:30-2:50 pm
Office hours:	30 minutes after class

TA INFORMATION

TA:	TBD
Email:	TBD
Office hours:	TBD
Zoom link:	TBD
Meeting ID:	TBD
Passcode:	TBD

OVERVIEW AND GOALS OF THE CLASS

The purpose of this class is to build on the foundation created in PSYC 1303 and extend students' knowledge of inferential statistical tests, including linear and multiple regression, one-way and factorial Analysis of Variance (ANOVA), and repeated measures ANOVA. We will also touch on additional topics, including multilevel modeling, non-parametric tests, chi-square tests, Bayes Theorem, and differences between confirmatory and exploratory data analysis frameworks. I aim for you to finish the class with:

1) An understanding of how research designs are related to statistical tests and how to select the appropriate statistical test according to the experimental design and hypothesis
2) The ability to implement these statistical tests using SPSS (or R)
3) The ability to think critically about the assumptions of different statistical tests and properly interpret the output
4) Improved scientific writing skills, especially writing Results and Discussion sections in APA style.

COURSE MATERIALS

Recommended Text (SPSS):

- An Easy Guide to Research Design and SPSS (2nd Ed) (Schwartz, Wilson, & Goff)

Recommended Text (R):

- Learning Statistics with R (Navarro, available for free online at https://learningstatisticswithr.com/)
  OR
- Discovering Statistics Using R (Field, Miles, & Field)

The recommended texts will be supplemented by outside readings and resources posted on Blackboard.

Statistical Software:
You will need to have access either to SPSS or R to complete your homework assignments.

- SPSS is available for free through UTEP's resources. To download SPSS, go to: https://www.utep.edu/technologysupport/ServiceCatalog/SOFTWARE_PAGES/soft_spssibm.html. If you have any problems, contact helpdesk@utep.edu.
- R is also available for free since it is an open-source software. Download R from https://www.r-project.org/ and RStudio from https://www.rstudio.com/

COURSE REQUIREMENTS

Your grade for the course will be based on homework assignments, exams, and a final paper. All graded work will add up to 500 total points throughout the course. Your final grade will be the percentage of points you earn out of the total number of points possible.

Homework Assignments (200 points total):

- You will have 5 homework assignments. They will focus on computations and the use of SPSS/R. Each will be worth 40 points.

Exams (300 points total):

- You will have 4 exams. The exams will focus on conceptual issues related to statistical tests, associated designs, and other topics covered in class. No computations will be required on the exams. Each will be worth 75 points.

To calculate your grade, simply divide how many points you have earned with how many points are available to be earned to get your grade percentage. The following scale will be used to translate a grade percentage into a letter grade:

A = 90% and above
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% and below

Late Assignments: Homework assignments will be accepted up to 24 hours after the deadline but will be penalized 10% of the total score (5 points will be taken off your score). If you know ahead of time that you will not be able to submit an assignment on time because of personal circumstances, contact me BEFORE the deadline to request an extension. I will not ask you to justify the extension request and will assume that the reason you are asking for an extension is sufficient but you must notify me about it *before* the deadline.

Make-up Exams: If you miss one exam or are unhappy with one of your exam scores, then you can re-take (a version of) that exam on make-up day. You can only take ONE make-up exam and the make-up must occur during our scheduled exam during finals' week. The make-up policy means that you cannot schedule your own exams (it must happen on make-up day) and you may only make-up ONE exam. If you would like to take a make-up exam, please notify me *before* May 4, 2023.

EXPECTATIONS

Attendance: This class will be a synchronous in-person class. You are expected to attend class and participate, including asking questions. I will not be grading your attendance, although typically students who attend class regularly do better than those who do not. Learning how to use SPSS is particularly difficult for students who do not "attend" class. I will attempt to record lectures but lecture recordings are not guaranteed.

Contact: I will primarily use Blackboard announcements and email to contact you. Please check your utep.edu email accounts regularly. If you have questions about the course or need to contact me for any reason, please either 1) see me before or after class, 2) visit my office hours, or 3) email me.

Teaching Associate: We will have a TA for the course. The TA will be responsible for grading the homeworks, and will be available for advice with regularly scheduled office hours. Contact information will be provided when available.

Diversity and Inclusion: I recognize that within the class we each bring forth our own experiences and perspectives from our lived experiences. I aim to create a learning community in which those diverse thoughts and experiences are valued. I aim to value and respect your unique identities (including race, gender, class, sexuality, religion, ability, etc.). If you feel comfortable sharing, please let me know what pronouns you use and/or if you have a name that differs from the official course record. I realize we are living in tumultuous times and there may be times when your life outside the class affects your performance within the class. I encourage you to be open with me about these situations so I can be a resource for you. I want each student to be successful in this class and will do my best to support you.

UTEP POLICIES

Academic Integrity & Scholastic Dishonesty

It is the official policy of the university that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Cheating or plagiarism in this class will result in penalties that may include a letter in the student's file as well as failing the course. The academic honesty code is available online at: http://sa.utep.edu/osccr/academic-integrity/

Incompletes & Add/Drop

Incompletes will not be given in this course except under extremely rare circumstances that require documentation and adherence to university policies. The FINAL drop date without the Deans' approval is **March 30th, 2023**. Students will not be able to drop the course after this date without the Dean's approval.

ADDITIONAL ASSISTANCE	
Classroom Support	If you have a documented disability or need that requires assistance, please contact the Center for Accommodations and Support Services (CASS) by phone at 747-5148 or by email at cass@utep.edu. Students can request accommodations virtually by logging into the Accessible Information Management system (AIM) using their UTEP credentials at cassportal.utep.edu.
Student Support Services	Provides assistance with academic advising.
University Writing Center	Provides writing assistance and editing services. Students get writing coaching on specific course papers or projects.
Financial Assistance	Provides financial assistance (for example, emergency loans to purchase textbooks)
Technology Support	Provides technological support for students. This should be your first contact if you are experiencing problems with Blackboard or other university software.
Counseling Services	We all can feel overwhelmed at times; this is especially true during a global pandemic (and yes, we are still in one). I encourage all students to care for their mental health and visit the counseling services as needed. Services are being offered remotely.

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Course Calendar and Assignments

Day	Topic	Assignment
Jan 17	Introduction	
Jan 19	Intro to SPSS and R	
Jan 24	Linear regression	
Jan 26	Linear regression	
Jan 31	Multiple regression	HW #1 due
Feb 2	Multiple regression	
Feb 7	Multiple regression	
Feb 9	Review	HW #2 due
Feb 14	**EXAM #1**	
Feb 16	One-way ANOVA	
Feb 21	Factorial ANOVA	
Feb 23	Repeated measures ANOVA	
Feb 28	Repeated measures ANOVA	
Mar 2	Mixed ANOVA	
Mar 7	Review	HW #3 due
Mar 9	**EXAM #2**	
Mar 14	SPRING BREAK	
Mar 16	SPRING BREAK	
Mar 21	Non-parametric tests	
Mar 23	Chi-square test	
Mar 28	Multilevel modeling	HW #4 due
Mar 30	Effect sizes	
Apr 4	Review	
Apr 6	**EXAM #3**	
Apr 11	Logistic regression	
Apr 13	Logistic regression	
Apr 18	Null hypothesis significance testing	
Apr 20	Power	HW #5 due
Apr 25	Bayes Theorem	
Apr 27	Review	
May 2	**EXAM #4**	
May 4	TBD	