EDP f480C 6-Statistical Analysis of Experimental Data (WB)
Unique #73905, Summer 2020

Instructor
Dr. Lindsey Smith
lwolff@utexas.edu

Instructor Office Hours
see Canvas

TA
see Canvas

TA Office Hours
see Canvas

Course Description
This course focuses on the analysis of variance and includes one-way, factorial, and repeated measures designs along with the analysis of covariance.

The goal of this course is to provide students with an understanding of the principles underlying commonly used experimental design and analysis approaches. Specifically, students will learn to select an appropriate experimental design given a research question of interest, develop a conceptual understanding of the experimental design and analysis model, develop a working knowledge of how to analyze data arising from commonly used experimental designs, and be able to properly interpret and communicate analysis results.

Prerequisite
This course requires the use of several intermediate level mathematical/statistical skills and understanding. The prerequisite for the course is EDP 380C 2-Fundamental Statistics. The instructor may approve equivalent graduate level courses.

Canvas: https://utexas.instructure.com
Announcements, lecture materials, assignments, assessments, and grades will be posted on the course Canvas site.

Required Materials
- **Textbook**
  Readings for this class have been aligned with Stevens (2007) though you are encouraged to use a variety of resources to support your mastery of the topics covered in this course.
  Stevens, J. P. (2007) *Intermediate statistics: A modern approach* (3rd ed.) New York: Lawrence Erlbaum Associates.
- **Calculator**
- **SPSS**
  There are different versions of SPSS available and they might look somewhat different from the version demonstrated and the screenshots in the course handouts. As these versions change, please be flexible about the location of the relevant SPSS functions.
  Access to SPSS:
  - CoE Desktop (https://desktop.edb.utexas.edu)
  - Purchase a license through the UT Campus Computer Store, UT Software Distribution and Sales, OnTheHub, etc.

Graded Assignments/Evaluations

This course is designed with the hope that students recognize the need to become actively involved with the material to improve their mastery of it. There are many and frequent assignments but they are designed to provide you with the practice necessary to become fluent in this subject area. The only way to master these techniques (as is the case with most mathematical topics or techniques) is to use them. Thus, each of the assignments is designed to provide you with the opportunity to apply these techniques. There will be three types of assessments. Each type is listed below with a brief description.

1. **Homework** (100 points total). Watching the instructor perform and interpret analyses can result in the illusion of understanding. Only by running analyses yourself can you ensure your mastery of the material. Computational and interpretation practice will be provided in the form of homework.
2. **Labs** (100 points total). Labs are designed to enhance your SPSS competence.
3. **Quizzes** (300 points total). There will be weekly quizzes. Each quiz will consist of conceptual, computational, and application questions.

Grading Scale

Final grades will be assigned based on the percentage of accumulated points.

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

Regrade Policy

If you think there may be an error in grading or grade input in Canvas, you should bring it to the instructor or TA's attention. Be prepared to discuss what problems you see with the grading. There is a two-day window (up to the last class day of the session) from the time the grade is posted to make the instructor or TA aware of a grading or input error. After that, the grade is final.

Late Policy

Late assignments (homework and labs) are **not** accepted.

Missed quizzes may not be made up unless arrangements have been made prior to the quiz day and the reason for missing the quiz falls into one of the following categories:

- a UT-sponsored activity → provide the appropriate documentation to the instructor ***before*** the quiz
- an emergency or illness → contact Student Emergency Services (SES) (http://deanofstudents.utexas.edu/emergency/). SES will collect the appropriate documentation and provide appropriate resources as well as inform all of your instructors as to what day(s) you have been excused. Once you have spoken with SES, contact the instructor directly to discuss any impact the situation has on this class.
- religious holy day → contact the instructor at least 14 days prior to the absence

If the instructor is not contacted about the event prior to the quiz, a grade of 0 will be recorded for the missed quiz.

Assignment/Assessment Deadlines (all in CST)

All of your work must be submitted **before** the deadline. For example, if an assignment/assessment is due at 11:59pm and you submit your work at exactly 11:59pm, it will not be accepted (even if it is one second after the deadline).

Suggestions:

- Start your work early
- Plan to turn in your work *at least* an hour before the deadline so that you can manage issues that may arise

Canvas Submissions
Assignments and assessments will be submitted/completed via Canvas. It is **your** responsibility to ensure that the correct file has been uploaded and your submissions are fully uploaded to Canvas by the deadline.

If you experience a Canvas issue and cannot upload an assignment through the system before the deadline, contact Canvas directly for technical help *and* email the assignment as well as a screenshot of the Canvas error to the instructor **prior** to the deadline. If this is done, the assignment will not be considered late. Emailing to state you are experiencing a problem, without including the assignment as an attachment, will still count as a missed assignment and will not be accepted.

University Policies and Resources

Academic Honesty
Team-based learning is important and a powerful way to learn thus you are encouraged to study together often. However, **any work you turn in must be your own.** Students can work on labs together, but everything turned in under your name must be from your brain. Simply copying another student's answers is always unacceptable. Homework assignments and quizzes, on the other hand, are individual assignments/assessments. You are not allowed to discuss or share the questions with any other person (inside or outside of this class) during or after its completion nor are you allowed to duplicate these materials in any way.

Students who violate these expectations can expect to receive a failing grade, be referred to the appropriate university officials, and may receive a maximum penalty of suspension or even expulsion from the University. For more information on scholastic dishonesty, students may review the Student Judicial Services website: http://www.utexas.edu/depts/dos/sjs/.

The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on a test or other class assignment, and submission of essentially the same written assignment for two courses without the prior permission of faculty members.

Use of Class Materials
The materials used in this class, including, but not limited to, lecture and lab materials, quizzes, and homework assignments are copyright protected works. Any unauthorized copying of the class materials is a violation of federal law and may result in disciplinary actions being taken against the student. Additionally, the sharing of class materials in any form, including the assignments/assessments you submitted, without the specific, express approval of the instructor may be a violation of the University's Student Honor Code and an act of academic dishonesty, which could result in further disciplinary action. This includes, among other things, uploading class materials to websites for the purpose of sharing those materials with other current or future students.

Accessible, Inclusive, and Compliant Statement
The university is committed to creating an accessible and inclusive learning environment consistent with university policy and federal and state law. Please let the instructor know if you experience any barriers to learning adjustments can be made to ensure you have equal opportunity to participate fully in this course.

If you are a student with a disability, or think you may have a disability, and need accommodations please contact Services for Students with Disabilities (SSD). Please refer to SSD's website for contact and more information: http://diversity.utexas.edu/disability/. If you are already registered with SSD, please deliver your Accommodation Letter to the instructor as early as possible in the semester so your approved accommodations and needs in this course can be discussed.

Counseling and Mental Health Center
Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep, and taking some time to relax. This will help you achieve your goals and cope with stress.

Everyone benefits from support during times of struggle. You are not alone. There are many helpful resources available through the university and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, you are strongly encouraged to seek support. http://www.cmhc.utexas.edu/

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A tentative schedule is presented below. You are responsible for any announced changes.

Note. Deadlines are in Central Standard Time

Dates	Lecture Topics	Textbook Chapters	Lab (open one week, due TUE 11:59pm)	Homework (open one week, due WED 11:59pm)	Quiz (open all day, due FRI 11:59pm)
June 4-7	Course Introduction Statistics Review	 1			
June 8-14	One-Way ANOVA	2.1-2.3, 2.4-2.11, 2.13-2.14, 2.18, 2.20	Introduction to SPSS		Quiz 1
June 15-21	One-Way ANOVA Power Factorial ANOVA	2.1-2.3, 2.4-2.11, 2.13-2.14, 2.18, 2.20 3.1-3.6, 3.8 4.1-4.4, 4.7-4.8	One-Way ANOVA	Homework 1	Quiz 2
June 22-28	Factorial ANOVA Repeated Measures ANOVA	4.1-4.4, 4.7-4.8 5.1-5.7, 5.9, 5.11	Factorial ANOVA	Homework 2	Quiz 3
June 29-July 5	Repeated Measures ANOVA ANCOVA / ATI	5.1-5.7, 5.9, 5.11 7.1-7.2, 7.4-7.7, 7.11	Repeated Measures ANOVA	Homework 3	Quiz 4
July 6-9	Synthesis		ANCOVA	Homework 4	Quiz 5 **due THUR 11:59pm**