Syllabus

PSYC 3330 - Elementary Statistics for the Behavioral Sciences

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Course description

Statistical methods are the primary tool for research in psychology. They are what allow us as researchers to make consistent, data-driven decisions. As such, this is an extremely important course and one that I take very seriously as your professor.

The topics we will cover this semester will include descriptive statistics (how we describe data) and inferential statistics (how we make decisions about data). Specifically, this includes central tendency, variability, correlation, the distinction between populations and samples, hypothesis testing, statistical significance, and a variety of inferential tests that we can apply to data, including t-tests and analysis of variance.

Course materials

- Statistics for the Behavioral and Social Sciences: A Brief Course (5th ed.) by Aron, Coups, and Aron
- Note: You can obtain the above book as a hardcopy, but the better deal is to purchase an access code for MyStatLab (includes e-book with purchase). We will use MyStatLab for homework practice, so you have to buy this anyway; you might as well go ahead and just use the ebook and save some money. Instructions for registering on MyStatLab can be found on Blackboard.

Student learning outcomes

1. Identify variables under study (including independent and dependent variables)
2. Choose appropriate measures of descriptive statistics
3. Select and perform appropriate inferential statistics
4. Draw appropriate statistical conclusions from results of analyses

Requirements and grading

- Exam 1 (100 pts)
- Exam 2 (100 pts)
- Exam 3 (100 pts)
- Final exam (150 pts)
- Weekly quizzes (100 pts)
- MyStatLab exercises (50 pts)
- *Total = 600 points*

Grades will be assigned based on the percentage of points you accumulate out of these 600 points. I will use the standard grading scale of A=90%, B=80%, etc.

Exams (75% of grade)

There will be four total exams throughout the semester, occurring approximately once every three to four weeks. They will cover material from lectures and quizzes. Exam questions will be a mix of multiple choice and short answer. Exams are due by 11:59 pm on Sunday of the given week. Each exam will have a time limit and may only be attempted once

Due dates:

- Exam 1 (Feb 5 at 11:59 pm)
- Exam 2 (Mar 4 at 11:59 pm)
- Exam 3 (Apr 15 at 11:59 pm)
- Final exam (April 29 at 11:59 pm)

Unit quizzes (17% of grade)

At the end of each unit, you will complete a quiz over the content of that unit. Each quiz counts for 10 possible points. Since there are 10 units, you will earn up to 100 points for your quiz grade.

MyStatLab exercises (8% of grade)

In order to practice the statistical concepts you learn this semester before you take quizzes, you will complete weekly homework assignments on MyStatLab. To do this, you will need an access code for MyStatLab. This code can be purchased from the bookstore or directly from Pearson at pearsonmylabandmastering.com. The access code will allow you to view an electronic copy of the textbook (and/or download the ebook to a tablet). Instructions for getting set up in MyStatLab will be provided in the introductory video on the first day of class.

Specific problems from the textbook will be assigned for each unit on MyStatLab. You will have unlimited attempts to finish the exercises, so if you work hard enough, you can earn a 100% on every assignment. Your overall MyStatLab grade will be scaled to 50 points for final grade computation; for example, if you have an average of 96% on your MyStatLab homework, this will be worth 48 points toward your final grade (max of 50).

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.

Tarleton's Spring Service Week

In support of Tarleton's core value of service, each student is expected to participate in a service learning experience as a part of the Spring term week of service (April 4-8). This experience will challenge students to be engaged in the local community, address a community need, connect course objectives to the world around you, and involve structured student reflection. In this service learning experience you will not only enhance your knowledge and skills, but actively use those skills as you serve your community.

Students with Disabilities Policy

It is the policy of Tarleton State University to comply with the Americans with Disabilities Act (ADA) and other federal, state, and local laws relative to the provision of disability services. Students with disabilities attending Tarleton State University may contact the Office of Disability Services at (254) 968-9478 to request appropriate accommodation. Furthermore, formal accommodation requests cannot be made until the student has been officially admitted to Tarleton State University.

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

Semester Schedule

Unit	Dates	Topic
1	Jan 11-15	Displaying data
2	Jan 18-22	Descriptives 1: central tendency, variation, and z-scores
3	Jan 25-29	Descriptives 2: correlation
.	Feb 1-5	**Exam 1 (due February 5)**
4	Feb 8-12	The normal distribution: measuring likelihood
5	Feb 15-19	The logic of hypothesis testing
6	Feb 22-26	Testing means of samples of *known* populations (z-tests)
.	Feb 29-Mar 4	**Exam 2 (due March 4)**
.	Mar 7-11	**Spring Break!**

Unit	Dates	Topic
7	Mar 14-18	Testing means of samples of *unknown* populations (t-tests)
8	Mar 21-25	More t-tests (independent samples, etc.)
9	Mar 28-Apr 1	Analysis of variance (ANOVA): one independent variable
10	Apr 4-8	Analysis of variance (ANOVA): two independent variables
.	Apr 11-15	**Exam 3 (due April 15)**
.	Apr 18-22	Study for final exam,
.	Apr 25-29	**Final exam (due April 29)**