

PSY 3600: Statistics in Psychology (Summer 2020, #10605)

TR 9:30 AM – 12:10 PM, Synchronous Via Zoom

General Information

Professor: Sarah Herrmann, Ph.D.

Email: sarahherrmann@weber.edu

Office Location: LH 374

Office Hours: By appointment

Course Overview

WELCOME to Statistics! Statistics is how we make meaning out of numbers. This course will help you understand the major concepts of statistics. We do use some math in statistics, but you will only need basic math skills (high school algebra), and I am happy to help you refresh any skills as needed (see also textbook Appendix A). Many students feel anxiety about math. Don't panic; it will be okay. You won't have to memorize formulas or do mental arithmetic. If you put in the effort and take advantage of my help, you can definitely pass this course.

Course Purpose

This is an introductory course in statistics, as applied in the behavioral sciences. The material we will cover includes: 1) the application of descriptive and inferential statistics to behavioral data, 2) principles and methods of summarizing data, 3) basic concepts of probability, hypothesis testing, and decision making, 4) tests of significance and analysis of variance, and 5) correlation and regression.

Note: Statistics is a topic that builds upon itself starting from day 1. If you are struggling or falling behind **do not wait** to speak with me. It will only become increasingly difficult to catch up once you have fallen behind. Ask questions in class, come and speak with me after class or send me an email as soon as you feel that you do not understand a concept.

Format

Class meetings will include lectures, demonstrations, exercises, and discussions. To be successful in this course, you must carefully read the course materials and consistently attend lectures.

For this class, you will need access to a computer or tablet with a reliable internet connection to watch course lectures via Zoom (<https://apps.weber.edu/wsuiimages/online/Zoom%20For%20Students.pdf>). Problem sets and exams must be completed digitally (i.e., on an iPad or tablet) or pencil and paper with the ability to take and upload a photo to Canvas for me to grade. If you do not have access to a computer, please visit <https://weber.edu/ComputerLabs/laptopcheckout.html> for instructions on laptop checkout.

Make sure to log on regularly to the course website for important announcements and useful resources. I am most available and will respond as soon as I can via **email**. I encourage you to use office hours to discuss class or exam material, to ask general questions, or provide comments.

Textbook (Optional)

Gravetter, F. J., & Wallnau, L. B. (2002). *Essentials of statistics for the behavioral sciences*. Pacific Grove, CA. Wadsworth. Any version of the text (e.g., hardback, paperback, e-book) is acceptable.

The book will serve as a supplement to lectures and handouts. From time to time, material in the book will be inconsistent with material presented in class. In particular, some formulas in the book differ from material presented in class (in statistics, multiple forms of the same formula lead to a single final answer). In such cases, my lecture and handouts will supersede the book.

Grading

Final grades will be calculated based on the following:

Exams (3 x 100 points)	= 300 points
Problem Sets (10 x 10 points)	= <u>100 points</u>
TOTAL:	= <u>400 points</u>

370 – 400 pts.	93 – 100%	A
358 – 369 pts.	90 – 92%	A-
346 – 357 pts.	87 – 89%	B+
330 – 345 pts.	83 – 86%	B
318 – 329 pts.	80 – 82%	B-
306 – 317 pts.	77 – 79%	C+
290 – 305 pts.	73 – 76%	C
278 – 289 pts.	70 – 72%	C-
266 – 277 pts.	67 – 69%	D+
250 – 265 pts.	63 – 66%	D
238 – 249 pts.	60 – 62%	D-
0 – 237 pts.	0 – 60%	E

Grades are earned, not negotiated, and all students receive every possible consideration to ensure that their final grade reflects their performance in the course. Course grades will be adjusted (if necessary) for the difficulty of the class, based on overall performance. Therefore, borderline grades will not be “bumped up” to the next grade, so please do not ask. This consideration is automatic, so negotiations and appeals to the professor are neither necessary, nor accepted, to ensure fairness to all students.

Tests. There will be three exams that account for 75% (300 points) of your final grade. There will NOT be a cumulative final; all exams are non-cumulative and cover material presented in class and on Canvas. Note, however, that statistical knowledge is inherently cumulative in nature, and thus a working knowledge of all previously covered material will be necessary throughout the semester. Exams will include multiple choice, short-answer and fill-in questions, as well as problem-solving computations. I will provide relevant formulas for all exams.

The exams will be completed at home and you will have 3 days to complete the exam. For each exam, you must complete it digitally (i.e., on an iPad or tablet) or pencil and paper with the ability to take and upload a photo to Canvas for me to grade.

As a general rule, **there will be no make-up exams**. Under extraordinary circumstances (e.g., death of family member), or if you are seriously ill on the day of an exam, you must inform me the day of and must produce documentation of your circumstances (i.e., physician’s note).

Problem Sets. Throughout the course there will be 10 problem sets, each worth 10 points, which will account for 25% (100 points) of your total score. These problem sets are directly tied to the course material and are designed to help you keep up with the class and prepare for exams.

All assignments must be completed digitally or on pencil and paper with the ability to take and upload a photo to Canvas for me to grade. For late assignments, I will deduct 10% per day late. Exceptions may be made providing there is documented evidence that warrants an exception (e.g., medical emergency) and is at the professor's discretion.

Course Norms

Attendance. Students are expected to be present and on time for all class meetings. I do not formally record attendance, nor do I grade based upon attendance. Keep in mind, however, that: (a) in all cases, content delivered in lecture takes precedence over the textbook and other supplementary materials for homework, exams, and so forth; (b) all students are expected to be aware of any announcements made in class; and (c) we practice applying and discussing course material in lecture in ways that will show up on exams, so if you miss class often, you can expect to have considerable trouble on tests. There is no need to contact me if you miss a day of class. If you need to leave class early, please do so quietly.

Classroom Atmosphere. I encourage active participation in the classroom and asking questions to contribute to class discussions. Everyone needs to respect each other and refrain from any disturbances.

E-mail Response Policy & E-mail Etiquette. I will respond to all e-mails within 24 hours on weekdays and within 48 hours on weekends. It is essential to practice proper e-mail etiquette, especially early in your education and career. When sending emails, please include the following: (1) an appropriate subject line (e.g., PSY 3600—reason for e-mail), (2) Address the recipient (e.g., Hello, Dr. Herrmann), (3) state your question in a full sentence (e.g., Today in lecture you mentioned..., I was wondering about...), and finally (4) End off the e-mail with your name (e.g., Best/Thanks/Sincerely, Jane Doe).

How To Do Well in This Course

1. Attend class

- Lecture presentations will be posted on Canvas so you don't have to write everything down. Use shorthand clarifications.
- Note emphasized items and attend to concepts that are repeated or described in several ways.

2. Ask questions of the instructor and your classmates

- Be in regular contact with me. I am committed to your success and here to help.
- Attend office hours.
- Form study groups; another student's input can really help clarify confusing topics.

3. Don't delay in working on course requirements.

- Do *not* wait until the last minute (e.g., 3 AM before an assignment is due) to get help.
- Do *not* wait until you have scored poorly on multiple assignments/tests before you seek help. If you are not doing well after the first few (2-3) weeks, you need to seek help immediately.

University and Course Policies

Specific Accommodations. Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in Room 181 of the Student Services Center (or Room 221 at the Davis Campus). SSD can also arrange to provide course materials in alternative formats upon request. For more information, please see: <http://www.weber.edu/ssd>.

Academic Integrity. Any academic dishonesty will not be tolerated. If a student is caught engaged in academic dishonesty in this course, they risk failing the course and being subject to academic discipline including the imposition of university sanctions. Please see the university policy on cheating, which can be found in the WSU Student Code, Section IV, Part D, Paragraph 2.

For the purposes of this course, students are encouraged to work together. Discussing the assignment together will not be considered cheating. However, all submitted work should be original. Any student caught submitting identical or closely related work will at the minimum receive zero (0) credit for the assignment and at a maximum a failing grade in the course and be turned in to the appropriate university personnel. The types of activities that would be considered academic dishonesty are as follows: actively copying answers or otherwise using the work of another student on an exam; using the answers of another student on an assignment without having done the work yourself; soliciting other students or agencies to complete and submit work for you.

Inclusivity Statement. Pivotal to Weber State University's mission is the need to embrace and value the diversity of its members. Acknowledging the uniqueness of each individual, we seek to cultivate an environment that encourages freedom of expression. Because the University is a community where inquiry is nurtured and theories are tested, every individual has the right to feel safe to express ideas that differ from those held by other members of the community. However, all persons who aspire to be part of our campus community must accept the responsibility to demonstrate civility and respect for the dignity of others. Recognizing that the proper balance between freedom of expression and respect for others is not always apparent or easy to achieve, we must continually challenge ourselves and each other in an atmosphere of mutual concern, good will and respect. Therefore, expressions or actions that disparage an individual's or group's ethnicity, gender, religion, sexual orientation, marital status, age or disability are contrary to the mission of Weber State University and will be not acceptable in classroom discussion.

Emergency Closure Statement. Due to the applied nature of this course, if for any reason the university is forced to close for an extended period of time, class will be cancelled and assignments will be adjusted accordingly. This may include dropping an assignment altogether or rearranging delivery of course topics to cover more in any one class. Look for announcements from the university on Weber e-mail or the website and from the instructor on the course Canvas page. Code Purple is a good way to be alerted to campus closures, and you are encouraged to sign up for it.

***The syllabus provides a general plan for the course; deviations may be necessary. By continuing in the course after reading the syllabus, you indicate that you accept the terms of the syllabus.**

Course Timeline*

<u>Class</u>	<u>Date</u>	<u>Lecture Topic</u>	<u>Readings</u>	<u>Due Dates</u>
1	6/23	Introduction, Frequency Distributions	Chapters 1-2	
2	6/25	Measures of Central Tendency & Variability	Chapters 3-4	PS 1 Due
3	6/30	Correlation	Chapter 15	PS 2 Due
Test 1 Open Wednesday 7/1-Friday 7/3				
4	7/2	Z-Scores and Standardized Distributions	Chapter 5	PS 3 Due
5	7/7	Probability and the Normal Distribution	Chapter 6	
6	7/9	Sampling and the Distribution of Sample Means	Chapter 7	PS 4 Due
7	7/14	Hypothesis Testing	Chapter 8	
8	7/16	<i>t</i> -statistics and Single Sample <i>t</i> -test	Chapter 9	PS 5 Due
Test 2 Open Friday 7/17-Tuesday 7/20				
9	7/21	Independent samples <i>t</i> -test	Chapter 10	PS 6 Due
10	7/23	Dependent Samples <i>t</i> -test	Chapter 11	PS 7 Due
11	7/28	One-way Analysis of Variance	Chapter 12	PS 8 Due
12	7/30	Two-Way Analysis of Variance	Chapter 14	PS 9 Due
13	8/4	No Class		PS 10 Due
Test 3 Open Wednesday 8/5-Friday 8/7				

***This schedule is subject to change.**