

Psychological Statistics

PSY 302 01E | Fall 2015 | T-R 11:00am - 12:15pm | Field House 103

Professor

Dr. Maria Carlson

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Office Hours:

Wednesday & Friday 11:00am - 1:30pm

& by appointment.

Textbook

Statistics for Psychology (6th ed.) Aron, A., Aron, E. N., & Coups, E.

ISBN: 978 - 0205924174

Questions about Grades

Any questions about a grade for a particular assignment or exam should be brought to the professor's attention within **one week** of the grades for that assignment or exam being posted.

Grades

Final course grades are based on:

- 3 mid-semester exams (390 points)
- 10 Quizzes (100 points)
- 21 Homework Assignments (210 points)
- Final Exam (300 points)

❖ Grades will be calculated as follows:

- A: 89.5 - 100%
- B: 79.5 - 89.4%
- C: 69.5 - 79.4%
- D: 59.5 - 69.4%
- F: below 59.5%

There will be NO rounding in this course!

Course Overview

Statistics plays an integral role in interpreting the results of research. You should exit this course knowing how and when to compute descriptive statistics (e.g. mean, variance, z-score, and correlation), and, how and when to compute inferential statistics (e.g. t-tests, ANOVA) to test hypotheses.

Catalog Description of Course

The logic and methods of descriptive and inferential statistics and their relation to experimental design in psychology are studied.

REQUIREMENTS

- 1) The textbook listed in the margin.
- 2) A calculator (TI - 30Xa or other model pending instructor approval).

HOMEWORK ASSIGNMENTS

There will be 21 homework assignments during the semester. These assignments are designed to increase your understanding of the topics being covered and give you the opportunity to apply course material to *real world* situations.

1. Assignments are to be turned in *at the start* of class.
2. Assignments should be hand written *neatly*, with all pages *stapled* (not paper clipped) together.
3. Show your work when working a problem involving formulas. At the minimum you should show each complete formula in its basic form filled in with numbers, at least one intermediate step, and the final answer.
4. Include your name and lab section on each assignment.
5. Assignments are due at the start of each class. If your assignment is more than 5 minutes late you will earn 0 points for that assignment. I will accept emailed assignments on an emergency basis only. Assignments sent through email must be received before the start of class.
6. **ABSOLUTELY NO LATE ASSIGNMENTS** will be accepted.
7. Homework assignments are intended to be completed individually. **DO NOT WORK TOGETHER ON**

HOMEWORK ASSIGNMENTS.

8. ***Homework assignments will be graded as follows:***
- a. Each homework assignment is worth 10 points.
 - b. Late assignments or assignments with no work will earn 0 points.
 - c. 1 point will be deducted for each of the following:
 - i. Pages not stapled together.
 - ii. No name.
 - iii. No lab section.

QUIZZES

It is helpful for you to **read the assigned chapters in the textbook before class**. To “encourage” that behavior, you will be required to complete **10 POP quizzes**. These will be given at the start of class and **will cover all of the readings**. Quizzes will be evenly spaced throughout the semester but it is possible to have no quizzes in a week or two quizzes in one week.

Note: There will be no make up quizzes. Students who can demonstrate a legitimate University-excused absences, religious holiday or major illnesses are allowed to miss one quiz during the term. Their grade for that quiz will be the average of the other quizzes.

EXAMS

There will be three mid-semester exams and one final exam. **Exams will be cumulative. On each exam, there will be questions relating to material covered on the previous exam(s).** The questions will require not only recognition of concepts and correct answers, but will be designed to test comprehension and application of concepts as well. Material for the exams will be drawn from the text, and the lectures. There will be no make-up exams except as mandated by University policy for University-excused absences, religious holidays and major illnesses. Students should contact the professor **prior** to the scheduled exam if possible, or within 24 hours of missing the exam due to accident or illness. **Students who can demonstrate a legitimate University-excused absences, religious holiday or major illnesses are allowed to miss one exam during the term. Their grade for that exam will be the average of the other exams (not counting the final).**

Note: Unless specifically approved by me prior to the exam, use of electronic devices (e.g., cell phones, PDAs, iPods, and the like) during the exam is strictly prohibited and will result in your exam being taken from you immediately.

RESEARCH PARTICIPATION

As part of your course requirement, you will need to complete a total of **6** credit hours of research participation. **HOWEVER**, if you do not have any unexcused no-shows (i.e. you do not show up for a study) you will be required to complete only **4** credit hours. Students who have completed their required credit hours will be allowed to complete additional credit hours for extra credit (not to exceed **10** total credit hours). You are ***only allowed to complete 50% of your research credits via online studies***, the remaining credits need to be completed via laboratory studies.

Failure to complete the required number of credits will result in the reduction of your final grade by one letter grade. That is, if you have an "A" and do not complete the required credits, your final grade will be a "B."

You will be able to sign up for various studies through the SONA system. Instructions on how to do this will be provided in a separate handout. Studies are worth different amounts of credit depending upon how long it takes to complete the study. You may sign up for any combination of studies you wish as long as you complete the required number of credits.

A pre-screening questionnaire is required before participating in many of the studies. You may earn .5 credits by completing the pre-screening within the first two weeks of the semester.

The alternative to the research experiment participation will be to complete an original 2-page article summary for each credit hour. Instructions for completing the alternative research assignment can be found in the docsharing on ecollege. If you choose to do the research alternative instead of the research experiments the **article summaries will be due by 11:59pm Friday, December 11th, 2015** and should be turned in to the dropbox in ecollege. More information about research participation and the alternative article summaries can be found on the eCollege website.

GENERAL SUGGESTIONS AND CLASS GUIDELINES

Students are expected to:

1. Read the assigned material, which includes following the numeric examples closely and writing down questions about anything not entirely clear to you. Reading statistics requires close study and re-reading, not just reading through once as you might

an ordinary book. You will also find it helpful to complete the How Are You Doing? sections.

2. Completing the assigned homework problems (and turning them in on time). Statistics is a skill – it is necessary to DO statistics, not just read and understand.
3. Attending lectures, listening closely, asking questions – being sure to have done the reading first. DON'T fall behind!
4. Attending lab sections led by the teaching assistants – be sure to bring questions from the reading with you. This is your chance to get real help with what is not completely clear and to pursue deeply whatever has excited you. (Yes, there can be exciting things in statistics!)
5. Studying for, taking, and reviewing answers for exams.
6. Optional – testing your knowledge and reviewing lectures using the online supplement, MyStatLab, at <http://www.pearsonhighered.com/aron> and <http://www.mystatlab.com>.

CLASS CONDUCT

Please remember to turn off your cell phone or set it to silent (not vibrate). If you are expecting an urgent call (e.g., family member is having surgery, partner serving overseas is expected to call, etc.), please let me know before the class starts about the issue and we can make arrangements. **Do NOT text message or instant message in class.** Although you may think that you are just multitasking, this is discourteous to your instructor and is distracting to classmates. If you bring a laptop to class, you must limit it to class-relevant use (e.g., typing notes). *I will ask you to leave the classroom if you are engaging in off-task behaviors.*

STUDENT CONDUCT

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

All students enrolled at the University shall follow the

tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student's Guide Handbook, Policies and Procedures, Conduct).

ACADEMIC INTEGRITY

By accepting this syllabus, the student pledges to uphold the principles of Academic Integrity expressed by the Texas A&M University - Commerce community and the Psychology, Counseling, and Special Education Department. The student agrees to observe these principles and to defend them against abuse by others.

- Students in this course are expected to exhibit academic integrity at all times. Be aware that plagiarism is presenting someone else's work as your own. Whether the act is deliberate or unintentional is irrelevant. You must take great care to give credit to an author when you borrow either exact words or ideas. Generally, if you use 4 or more words in a row you should use quotation marks and a proper citation. The instructor reserves the right to submit your work to Turnitin®, SafeAssign®, or similar plagiarism detection services, for an integrity assessment as needed.
- Copyright rules also apply. Use of graphics or data must also be cited, giving credit to the sources. This material includes but is not limited to journal articles, books, popular press articles, e-mail (don't cite or forward someone else's email without permission), newsgroup material, and information from websites. Even if you give credit, you must get permission from the original source to use any data, graphic, or material that you did not create.
- Any attempt to circumvent the integrity of the demands of class assignments is an unethical manner constitutes cheating. This can mean looking on another student's exam or assignment, copying another student's work, consulting notes or books during an exam unless specifically permitted by the instructor, turning assignments in during another section of the course, stealing an exam and circulating it among other students, all constitute forms of academic dishonesty that amount to

cheating. Any offense wholly or partially touching the above definition constitutes cheating for the purposes of this class.

- Academic dishonesty **will not** be tolerated. Any act of academic dishonesty may result in earning a “0” in the course. All acts of dishonesty will be reported to the applicable program coordinator and department chair.

EMAIL POLICY

In addition to traditional face-to-face office hours, the instructor is available virtually by email during posted office hours. If you would like to schedule an appointment, the best way is to email. We can then set up a time to chat when it is convenient for you. During posted office hours, the instructor will return emails upon receipt. Outside of these times, please allow 24 hours to receive a response on weekdays. If you email me and do not receive an email response within, 48 hours, most likely, your email was not received.

EMAIL GUIDELINES

In an attempt to provide a framework for professional communication, emails must contain the following:

- Subject Line: Course (e.g. PSY 322); additional information if desired (e.g. Hypothesis testing)
- Address the Reader: Open with Dr. Carlson
- Adhere to writing mechanics rules
- If asking for assistance with an issue, please list at least 3 things you have done to try and remediate the issue prior to contacting me (these should probably include looking at the syllabus/ course reubrics/ eCollege, contacting a colleague, and checking your text, etc.)
- Close with your name
- Please send emails from your University accounts. The instructor will not discuss grades over email. If you would like to discuss your grade, please make an appointment during office hours.

STUDENTS WITH DISABILITIES

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library

Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Psychological Statistics

PSY 302

Fall 2015

Dr. Maria Carlson

Week	Dates	SCHEDULE OF TOPICS AND EXAMS		
		TUESDAY	THURSDAY	LAB
1	9/1 & 9/3	Introduction and Syllabus	Some Basics and Frequency Tables Chapter 1: 1 - 10	No Lab
2	9/8 & 9/10	Describing a Distribution Chapter 1: 10 - 24	Central Tendency Chapter 2: 34 - 43	Ch 1: 1, 2, 4, 5, 7
3	9/15 & 9/17	Variability Chapter 2: 44 - 58	Z scores, Sample, and Population Chapter 3: 68 - 73, 84 - 89	Ch 2: 1, 2, 5ab
4	9/22 & 9/24	Normal Curve and Probability Chapter 3: 74 - 84, 89 - 99	Exam Review	Ch 3: 1 - 7, 10a
5	9/29 & 10/1	Exam 1 Due	Core Logic and Steps of Testing Hypotheses Chapter 4: 108 - 120	Ch 3: 1 - 7, 10a & Ch 4: 2, 3, 4, 5, 6a, 7a, 8a
6	10/6 & 10/8	One- and Two-Tailed Tests Chapter 4: 120 - 125	Hypothesis Tests with Means of Samples Chapter 5: 139 - 158	Ch 4: 2, 3, 4, 5, 6a, 7a, 8a
7	10/13 & 10/15	Hypothesis Tests with Means of Samples, Continued Chapter 5: 139 - 158	Decision Errors Chapter 6: 177 - 180	Ch 5: 2, 6ab, 8ab
8	10/20 & 10/22	Exam Review	Exam 2 Due	Ch 6: 1, 2
9	10/ 27 & 10/29	One-Sample <i>t</i> Test Chapter 7: 226 - 240	Dependent Means <i>t</i> Test Chapter 7: 240 - 258	Ch 7: 1, 2ab, 3ab, 4, 5ab, 6ab
10	11/3 & 11/5	Dependent Means <i>t</i> Test, Continued	Independent Means <i>t</i> Test Chapter 8: 275 - 301	Ch 7: 1, 2ab, 3ab, 4, 5ab, 6ab
11	11/10 & 11/12	Independent Means <i>t</i> Test, Continued	One-Way Analysis of Variance Chapter 9: 316 - 358	Ch 8: 1, 2, 3, 4ab, 5ab
12	11/17 & 11/19	One-Way Analysis of Variance, Continued	Exam Review	Ch 9: 1, 2ab, 3abef, 7 <i>*Tuesday Labs Only*</i>
13	11/24 & 11/26	Exam 3 Due	No Class - Thanksgiving Break	Ch 9: 1, 2ab, 3abef, 7 <i>*Thursday Labs Only, meet on Tuesday*</i>
14	12/1 & 12/3	Factorial Designs and Interaction Effects Chapter 10: 377 - 393	Two - Way Analysis of Variance Chapter 10: 393 - 418	Ch 10: 1 - 3, 6
15	12/8 & 12/10	Two - Way Analysis of Variance, Continued	Exam Review	Ch 10: 1 - 3, 6

***Final Exam Tuesday, December 15th 10:30am - 12:30pm.**

**This syllabus and course description is provided as a general guideline to assist in your planning. Various circumstances may result in changes to the syllabus or course schedule, and such changes are at the instructor's discretion. A reasonable attempt will be made to communicate such changes to students in advance; however, it is the student's responsibility to keep up with such changes.

Homework Assignments & Due Dates:

1. Syllabus Review (9/3)
2. Ch 1: 11, 12, 14a, 16ab (9/10)
3. Ch 1: 14bc, 16cd, 19 (9/10)
4. Ch 2: 11ab, 13ab, 17a (9/17)
5. Ch 2: 11cde, 13cde, 17bc (9/17)
6. Ch 3: 13, 14 (9/24)
7. Ch 3: 16, 17, 18, 21ab, 25abcde (9/24)
8. Ch 4: 13abc, 14a, 15a, 16 (10/8)
9. Ch 4: 13d, 14bc, 15bc, 17a (10/8)
10. Ch 4: 18a (10/8)
11. Ch 5: 13, 14, 19ab, 21ab (10/15)
12. Ch 5: 20ab (10/15)
13. Ch 6: 13 (10/20)
14. *No Assignment*
15. Ch 7: 13, 14ab, 15ab (11/5)
16. Ch 7: 16, 17, 18ab, (11/5)
17. Ch 8: 14, 15, 16 (11/12)
18. Ch 8: 17ab, 18ab (11/12)
19. Ch 9: 14a, 15abd (11/19)
20. Ch 9: 16abefghik (11/19)
21. Ch 10: 12 -14, 17 (12/10)