

# Psychological Statistics

PSY 302 001 | Spring 2013 | T-R 11:00 - 12:15 | Henderson Hall Rm 207

## Professor

Dr. Maria Carlson

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Office Hours:

Tues. 1:00pm - 3:30pm (TAMUC)

Wed. 2:00pm - 4:30 pm (CHEC)

& by appointment.

## Textbook

Essentials of Statistics for the Behavioral Sciences, 7<sup>th</sup> edition, by Frederick J. Gravetter & Larry B. Wallnau

ISBN: 978-0-495-81220-3

## Recommended Reading:

A Simple Guide to IBM SPSS for Versions 18.0 & 19.0 by Lee A. Kirkpatrick.

ISBN: 978-1-111-35268-4

## 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:

- 4 exams (40% of your overall grade)
- Attendance (10% of your overall grade)
- 12 Quizzes (20% of your overall grade)
- 12 Homework Assignments (20% of your overall grade)
- Research Participation (10% of your overall grade)

## 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 and access to Excel.
- 3) Access to either the new version of SPSS (called PASW) or an older version of SPSS. One of these is available in Henderson 214 (Psychology department computer lab) and another version is available on library computers (and many academic libraries and computer labs have some version of SPSS). Do keep in mind that many versions of SPSS are not backward-compatible, so you must be very careful when saving/exporting your work. For data files, just save as the default .sav file, which should be accessible in any version of SPSS. However, for output files, the story is different. You must always export these files rather than simply saving them; all output files should be exported as .rtf or .pdf.

## HOMEWORK ASSIGNMENTS

There will be twelve 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.

## QUIZZES

It is helpful for you to review the material presented in this course. To "encourage" that behavior, you will be required to complete 12 online quizzes. These will be due on the days indicated in the schedule of topics listed below.

❖ 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!**

## EXAMS

There will be four exams. *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, to schedule a makeup exam.

## CLASS ATTENDANCE

Attendance in this course is mandatory and will account for 10% of your grade. There will be class demonstrations, discussions, and assignments designed to enrich your learning experience. And further, the text for this course is thick with information: coming to class will help clarify concepts and focus your studying. Each student will be allowed 3 unexcused absences; if you have more than 3 unexcused absences you will receive no credit for attendance. All absences will be considered unexcused except as mandated by University policy for University-excused absences, religious holidays and major illnesses.

## RESEARCH PARTICIPATION

As part of your course requirement, you will need to complete a total of **5** 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 **3** credit hours. Students who complete have completed their required credit hours will be allowed to complete an additional credit hours for extra credit (not to exceed **9** total credit hours).

**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 9-page (single spaced) research project, as specified by your instructor. If you choose to do the research project instead of the research experiments, you must make an appointment and meet individually with the instructor and the written project will be due by May 3, 2013 at 5:00pm.

### **GENERAL SUGGESTIONS AND CLASS GUIDELINES**

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.

#### **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](mailto:StudentDisabilityServices@tamuc.edu)**

#### **EMAIL POLICY**

If you email me and do not receive an email response within **48 hours**, most likely, your email was not received. I will respond to all emails within **48 hours on weekdays**.

**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).**

**Officially Dropping from the Course**

Students are responsible for officially dropping themselves from the course; failure to do so will result in a performance grade of "F". The last day to officially drop the course to qualify for a grade of Q is March 29<sup>th</sup>, 2013.

# Psychological Statistics

PSY 302 - 001

Spring 2013

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Week	Dates	SCHEDULE OF TOPICS AND EXAMS		
		TUESDAY	THURSDAY	LAB
1	1/15 & 1/17	Introduction and Syllabus	Chapter 1: Introduction to Statistics <b>Quiz 1 Due</b>	Appendix A: Basic Mathematics Review
2	1/22 & 1/24	Chapter 2: Frequency Distributions	Boxplots <b>Quiz 2 Due</b>	Basics of SPSS and Excel
3	1/29 & 1/31	<b>NO CLASS</b>	Chapter 3: Central Tendency <b>Quiz 3 Due</b>	Creating Graphs using Excel and SPSS <b>Homework 1 Due</b>
4	2/5 & 2/7	Exam Review	<b>Exam 1 Due</b>	Descriptive Statistics using Excel and SPSS <b>Homework 2 Due</b>
5	2/12 & 2/14	Chapter 4: Variability	Chapter 5: Standardized Scores & Distributions	Standardized Scores <b>Homework 3 Due</b>
6	2/19 & 2/21	Chapter 6: Probability <b>Quiz 4 Due</b>	Chapter 7: Sampling Distributions	Probability <b>Homework 4 Due</b>
7	2/26 & 2/28	Test Chapter 15: Correlation <b>Quiz 5 Due</b>	Chapter 15: Regression	Sampling Distributions <b>Homework 5 Due</b>
8	3/5 & 3/7	Exam 2 Review <b>Quiz 6 Due</b>	<b>Exam 2 Due</b>	Correlation, Regression & Scatterplots using SPSS <b>Homework 6 &amp; 7 Due</b>

9	3/12 & 3/14	<b>NO CLASS: Spring Break</b>	<b>NO CLASS: Spring Break</b>	<b>NO LAB: Spring Break</b>
10	3/19 & /21	Chapter 8: Introduction to Hypothesis Testing	<b>NO CLASS</b>	Testing Hypotheses using SPSS <b>Homework 8 Due</b>
11	3/26 & 3/28	Chapter 9: The $t$ Statistic <b>Quiz 7 Due</b>	Chapter 12: Estimation	One Sample t-test using SPSS <b>Homework 9 Due</b>
12	4/2 & 4/4	Chapter 10: Two Independent Samples $t$ Test <b>Quiz 8 Due</b>	Chapter 11: Two Dependent Samples $t$ <b>Quiz 9 Due</b>	Comparing Two Independent Groups using SPSS <b>Homework 10 Due</b>
13	4/9 & 4/11	Exam Review	<b>Exam 3 Due</b>	Comparing Two Dependent Groups using SPSS <b>Homework 11 Due</b>
14	4/16 & 4/18	Chapter 13: Analysis of Variance	Chapter 13: Analysis of Variance, Cont. <b>Quiz 10 Due</b>	Comparing More Than Two Groups using SPSS
15	4/23 & 4/25	Chapter 13: Post Hoc Tests	Chapter 14: Two-Factor ANOVA <b>Quiz 11 Due</b>	Multiple Comparison Procedures using SPSS <b>Homework 12 Due</b>
16	4/30 & 5/2	Chapter 14: Two-Factor ANOVA <b>Quiz 12 Due</b>	Exam Review	Factorial ANOVA using SPSS