Psychological Statistics - PSY 302 - 51E

Fall 2015

Wednesdays: 4:30 - 7:10; Lab 7:30 - 8:20 p.m.

CHEC

Instructor: Dr. Benton H. Pierce

Benton Pierce

Office: 232 – Henderson Hall – Texas A&M University-Commerce campus

Phone: 903-886-5444

E-mail: benton.pierce@tamuc.edu

Office Hours: To be announced

Lab Instructor: Nancy Lamphere

Email: nancy.lamphere@tamuc.edu

Office Hours: By appointment

Course Description. This course will cover the logic and methods of descriptive and inferential statistics and their relation to experimental design in psychology.

Textbook. Aron, A., Coups, E. J., & Aron, E. N. (2013). *Statistics for Psychology*, (6th ed.)

Calculator. Any pocket calculator with a square and square root function will be acceptable. Please bring your calculator to each class.

Lab Sessions. The majority of lab time will be devoted to reviewing concepts, answering questions, and going over homework assignments. In addition, students will learn how to use Excel to do basic statistical analyses and generate graphs.

Homework Assignments. There are 13 homework assignments (one for each chapter we cover) worth 10 points each, as well as an Excel project worth 20 points.

- Unless instructed otherwise, assignments are to be turned in at the end of the lab session as noted on the syllabus.
- Assignments should be hand written neatly, with all pages stapled (not paper clipped) together. Use graph paper for all graphs.
- To receive full credit, show your work when solving 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.
- ABSOLUTELY NO LATE ASSIGNMENTS will be accepted.

Quizzes. A short quiz will be given on each of the first 10 lectures during the lab worth 10 points each. **These cannot be made up** except for University-excused absences.

Attendance. Because this course meets once a week, it is essential that you not miss class. We will be covering a considerable amount of material each week, and missing class will guarantee that you will fall behind. Missing class also means that you will miss lab and that lecture's quiz.

Exams. There will be three (3) exams during the semester plus a final exam. <u>Exams</u> will be cumulative. On each exam, there will be questions relating to material <u>covered on the previous exam(s)</u>. Exams <u>must</u> be taken at the time indicated on the syllabus. There will be no make-ups except for University-excused absences.

Grades. Grades will be based on a total number of points earned through various activities.

<u>Final course grades are based on:</u> <u>Grades will be calculated as follows:</u>

Three semester exams (300 points)
Quizzes (100 points)

Homework Assignments (150 points)

Final Exam (150 points)

Total = 700 points

A = 89.5% - 100% B = 79.5% - 89.4% C = 69.5% - 79.4% D = 59.5% - 69.4% F = Less than 59.5%

There will be NO rounding in this course.

Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal antidiscrimination 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

Halladay Student Services Building

Room 303 A/D

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

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Cell Phones/Laptops/Other Electronic Devices. Cell phones must be turned off or placed on silent during class. If you have an emergency and may need to take a call during class, please see me before class and leave your cell phone on top of your desk. Otherwise, I expect to see **no** cell phones during class. Students using cell phones without permission during class will be asked to leave the classroom. If you want to bring a laptop to class to take notes, I expect that you use it for that purpose, and not to "surf".

Student Conduct and Class Policy:

From the Student Handbook:

Students are expected to conduct themselves at all times in a manner that does not disrupt teaching or learning. Faculty members have the authority to request students who exhibit inappropriate behavior to leave the class and may refer serious offenses to the University Police Department and/or the Dean of Students for disciplinary action.

Class Policy: I expect you to be on time for class and to stay for the entire lecture. If you expect to be late, please notify me ahead of time. If you need to leave class early, let me know before class begins. It is disrespectful to me and discourteous to your fellow students to get up and walk out during a lecture.

Schedule (Tentative)

Week	Date	SCHEDULE OF TOPICS AND EXAMS				
		CLASS	LAB			
1	9/2	Introduction and Syllabus Chapter 1: Displaying Your Data	Quiz 1			
2	9/9	Chapter 2: Central Tendency and Variability	HW1 due Quiz 2			
3	9/16	Chapter 3: Introduction to Inferential Statistics (Z Scores, Normal Curves, Probability)	HW2 due Quiz 3			
4	9/23	Exam 1	HW3 due Excel project – Part 1			
5	9/30	Chapter 4: Introduction to Hypothesis Testing	Quiz 4			
6	10/7	Chapter 5: Hypothesis Tests with Sample Means	HW4 due Quiz 5			
7	10/14	Chapter 6: Statistical Significance (Decision Errors, Effect Size, and Power)	HW5 due Quiz 6			
8	10/21	Chapters 7 & 8: Introduction to t Tests (Single Sample, Dependent, and Independent Means)	HW6 due Quiz 7			
9	10/28	Exam 2	HW7 & HW8 due Excel project – Part 2			
10	11/4	Chapter 9: Introduction to Analysis of Variance	Quiz 8			
11	11/11	Chapter 10: Factorial ANOVAs	HW9 due Quiz 9			
12	11/18	Chapters 11 & 12: Correlation and Prediction	HW10 due Quiz 10			
13	11/25	No Class (Thanksgiving Holiday)				
14	12/2	Exam 3	HW11 & HW12 due Excel project due			
15	12/9	Ch 13: Chi-Square Tests and Review	HW13 in lab			
16	12/16	Final Exam				

Participation in Research

Supporting Psychological Science: Research Participation Requirement

As part of your course requirement, you will need to complete a total of **3** credit hours of research participation. These research studies will be available for you to take online. Once you have completed your 3 credit hours, you may complete an additional 2 credits for extra credit.

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.

Your participation in these studies is vital in order for the department to accomplish its research goals, make its contribution to the development of psychological science, and demonstrate what Texas A&M University-Commerce does in the national and international frontier of knowledge. Furthermore, the studies will give you an opportunity to learn about some of the things we do in this field and may turn out to be fun for you as well!

Should you elect not to participate in experimental research, there will be alternative assignments that will satisfy this portion of your course grade. Please see me about these alternative assignments.

Nondiscrimination Statement: 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, 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.