PSY 302- 31E
Psychological Statistics
Tuesday & Thursday 11:00am - 12:15pm
Fall 2015

Instructor: Dr. DeMarquis Hayes   **Telephone:** 903-886-5418
Office: Henderson 224   **Email:** demarquis.hayes@tamuc.edu
Office Hours: Thursday 12:30-2:00   **Class:** Rockwall
          or by appointment   **Lab:** Tuesday 12:30-1:20
Lab Instructor: **Email:**

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

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

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.

Requirements:
1) The textbook listed in this syllabus (Please do not ask me if you need to buy the book, the answer is YES).
2) A calculator and access to Excel.

Required Textbook:
Aron, A., Coups, E. J., & Aron, E. N. (2013). Statistics for Psychology (6th Edition).

Lab Sessions. Lab is a required portion of this course. 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. Lab syllabus will be provided.

Research Participation:
As part of your course requirement, you will need to complete a total of **3 credit hours of research participation**. Failure to complete the required number of credits will result in the reduction of your final grade by one letter grade.

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 0.5 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. All research experiments or research alternative assignments will be due by **Tuesday, December 1, 2015**. If doing the research alternative please turn them in on eCollege under the Doc Sharing (make sure to just send the assignment to me and not the entire class).

Administrative Policies and Requirements:

Attendance. Attendance in this course and lab are mandatory. There will be class demonstrations and discussions 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 up to 3 unexcused absences; if you have **more than 3 unexcused absences** your grade will be reduced by one full letter grade. For every 3 additional unexcused absences your grade will be reduced by one full additional letter grade. All absences will be considered unexcused except as mandated by University policy for University-excused absences, religious holidays and major illnesses. In addition, students that are **15 or more minutes late** for class will be considered absent.

Professional Conduct. Students are expected to conduct themselves as mature and responsible adults while enrolled in this course. Be cognizant that side conversations in class can be distracting to the instructor and your classmates. Please show respect for others when they speak. Behavior meant to demean or belittle a class member will not be tolerated. Students engaging in unacceptable behavior will be directed to leave the classroom. (See Student's Guide Handbook, Policies and Procedures, Conduct).

Finally, please turn off all phones or put them on silent. Laptops are permitted in class but should be used to enhance learning only.

Email. All Students should activate and regularly check their Leo Mail (e-mail account) and eCollege accounts associated with this class. All class communication will be done through Leo Mail/eCollge. I **WILL NOT** send communication about the class to personal email accounts.

If you email me and do not receive an email response within 48 hours, most likely, your email was not received. I will attempt to respond to all emails within 24 hours on weekdays.

Late Assignments: Late assignments will **NOT** be accepted unless you have provided adequate documentation allowing your absence to be excused. Also, students will **NOT** be allowed to make up assignments or exams unless the absence is considered excused. In the event your absence is excused, the missing assignment or exam must be completed **within 1 week** of the original due date or the student will receive a grade of 0.

Academic Integrity. All students are expected to conform to the Texas A&M University-Commerce's Code of Student Conducted Procedures as it relates to academic integrity (http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf). This states in part that all instances of cheating, fabrication and plagiarism are prohibited and will be reported. Any student who assists in any form of dishonesty is equally as guilty as the student who accepts such assistance. Any work submitted to me with your name alone on it should represent your work alone. Even in the event you are assigned group projects each student is still expected to complete their own part of the assignment. To the extent that others contribute ideas, suggestions, they must be directly credited by name (and fully cited as appropriate). Disciplinary action will be taken against any student found in violation of the Code, which may include failure of the given assignment, failure in the course, and possible expulsion from the University. In the event a student fails to abide by the rules set forth in the TAMUC policy, they will receive a grade of 0 on that assignment with no opportunity to make that grade up and the student will be reported to the appropriate university officials. In the event of a 2nd offense the student will automatically receive a grade of F in the course and again be reported to the appropriate university officials.

Drop Policy. Students are responsible for officially dropping/withdrawing themselves from the course; failure to do so will result in a performance grade of "F". Please refer to the academic calendar in order to be aware of drop dates.

Grading:

1) **4 in Class Exams:** Although each exam will stand alone, meaning they each will focus on the material covered since the previous exam, due to this being statistics many concepts covered previously build on newer concepts. Thus it is critical that you grasp early concepts and continue to practice them if you have difficulties.
   a. Each test is 100 points; Total 400 points

2) **Homework Assignments (lab):** Throughout the semester you will be given homework assignments in lab. This work will be completed outside of class and are due in lab on the given date assigned.
   a. Total 100 points

3) **In-Lab Activities (lab):** Lab is a requirement because you will be given in class assignments to help you understand the material covered in class.
   a. Total 100 points

Class Schedule (Subject to Change)

Week 1
September 1ˢᵗ   Introduction & Class Overview

September 3ʳᵈ   Ch. 1 Displaying Order (Tables & Graphs)

Week 2
September 8ᵗʰ   Ch. 2 Central Tendency & Variability

September 10ᵗʰ   Ch. 3 Z scores & Normal Curve (pp. 68-84)

Week 3
September 15ᵗʰ   Ch. 3 Sample & Population, Probability (pp. 84-98)

September 17ᵗʰ   Review

Week 4
September 22ⁿᵈ   **EXAM 1**

September 24ᵗʰ   Ch. 4 Hypothesis Testing

Week 5
September 29ᵗʰ   Ch. 4 Hypothesis Testing

October 1ˢᵗ   Ch. 5 Hypothesis Test with Means of Samples (pp. 139-157)

Week 6
October 6ᵗʰ   Ch. 5 Estimation & Confidence Intervals (pp. 158-165)

October 8ᵗʰ   Ch. 6 Decision Errors, Effect Size, & Statistical Power (pp. 177-192)

Week 7
October 13ᵗʰ   Ch. 6 Determining Power, Role of Power (pp. 193-217)

October 15ᵗʰ   Review

Week 8
October 20ᵗʰ   **EXAM 2**

October 22ⁿᵈ   Ch. 7 *t* Test for Single Sample & Dependent Means (pp. 226-250)

Week 9
October 27ᵗʰ   Ch. 7 *t* Test (Assumptions, Effect Size, & Power) (pp. 251-257)

October 29ᵗʰ   Ch. 8 *t* Test for Independent Means (pp. 275-293)

Week 10
November 3rd   Ch. 8 *t* Test for Independent Means (pp. 293-300)

November 5th   Ch. 9 ANOVA (pp. 316-337)

Week 11
November 10th   Ch. 9 ANOVA (pp. 337-357)

November 12th   Review

Week 12
November 17th   **EXAM 3**

November 19th   Ch. 10 Factorial ANOVA (pp. 377-391)

Week 13
November 24th   Ch. 10 Factorial ANOVA (pp.391-417)

November 26th   **NO CLASS THANKSGIVING BREAK**

Week 14
December 1st   Ch. 11 Correlation, Correlation Coefficient (pp. 439-461)

December 3rd   Ch. 11 Correlation & Causality, Effect Size & Power (pp. 462-475)

Week 15
December 8th   Ch. 12 Prediction (Linear Prediction & Regression Line) (pp. 493-511)

December 10th   Ch. 12 Multiple Regression (512-524)

FINALS WEEK

             EXAM 4
             Tuesday December 15th
             10:30-12:30