# PSY 681.01W: Intermediate Statistics (Spring 2016)

Instructor: Maria A. Carlson, Ph.D., maria.carlson@tamuc.edu

Office Hours: Due to the online nature of this course, it would be best to email me questions or post them in the discussion sections of eCollege.

Textbook: *Discovering Statistics Using IBM SPSS Statistics*, 4th edition, by Andy Field
(ISBN: 9781446249178)

## CATALOG DESCRIPTION OF THE COURSE:

This course, a Level III research tools course, will emphasize the understanding of intermediate level statistical concepts and their application to the social sciences and education. Content will include one-way, factorial, and repeated measures analysis of variance, simple analysis of covariance, and advanced correlational methods, bivariate regression and an introduction to multiple regression, selected nonparametric methods, and introduction to multivariate analysis of variance. Prerequisites: Level I and Level II research tools or equivalent or permission of the instructor.
Note: Students will be required to use computational software to assist in the analysis and interruption of data.

## GENERAL INFORMATION:

This is an online course, which is not to be interpreted as self-paced. Rather, you are required to log on regularly (preferably every day) in order to succeed. You may consume the material at a more rapid pace than set by the below schedule, but assignments and exams will still take place according to the schedule. Exams will be open for 1-2 days, and if you are unable to complete the exam in this timeframe, you must contact me ahead of time to re-schedule.

The time and effort required for this course is equivalent for any upper-level graduate statistics course that you could take face-to-face. A high level of both will be necessary to succeed.

## REQUIRED MATERIALS:

1) The textbook mentioned above.
2) A calculator or knowledge of using formulas in 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. If necessary, early in the term I will specify the type of file to which to export your work, but it will likely be .rtf or .pdf.

## REQUIREMENTS:

There will be three assignments, each worth 10 points, adding up to 30% of your grade. You may work with others in the class on these assignments, but quizzes and exams are to be taken individually.

**GRADING**:
Assignments add up to 30% of your grade. There are four quizzes, each worth 10%, and there are two exams, each of which is worth 15% of your final grade.

---

**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

---

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).

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.

---

There are 100 points available. You need 90 points or better for an 'A', 80 points or better for a 'B', 70 points or better for a 'C', and 60 points or better for a 'D'. A total below 60 points will result in an 'F'.

---

**COURSE OUTLINE / CALENDAR**

This schedule is to be used as a guide. It is possible that it will change.

| **Days** | **Topic** |
|---|---|
| January 19 | Topic 1: Syllabus; Introductions |
| January 20-22 | Topic 2: Chapter 8 - Regression |
| January 25-29 | Topic 2 (continued): Chapter 8 – Regression |
| February 1 - February 5 | Topic 3: Chapter 11 – Analysis of Variance (ANOVA) |
| February 8-12 | Topic 3 (continued): Chapter 11 – Analysis of Variance (ANOVA)<br>**Homework Assignment 1; *Quiz 1*** |
| February 15-19 | Topic 4: Chapter 12 – Analysis of Covariance |
| February 22-26 | Topic 4 (continued): Chapter 12 – Analysis of Covariance<br>**Midterm Exam – February 26th** |
| February 29- March 4 | Topic 5: Chapter 13 – Factorial ANOVA |
| March 7-11 | Topic 5 (continued): Chapter 13 – Factorial ANOVA<br>**Homework Assignment 2, *Quiz 2*** |
| March 14-20 | ***SPRING BREAK*** |
| March 21-25 | Topic 6: Chapter 14 – Repeated Measures ANOVA |
| March 29-April 1 | Topic 6 (continued): Chapter 14 – Repeated Measures ANOVA<br>***Quiz 3*** |
| Arpil 4-8 | Topic 7: Chapter 15 – Mixed Design ANOVA |
| April 11-15 | Topic 7 (continued): Chapter 15 – Mixed Design ANOVA,<br>**Homework Assignment 3**, ***Quiz 4*** |
| April 18-22 | Topic 8: Chapter 18 – Categorical Data |
| April 25-29 | Topic 8 (continued): Chapter 18 – Categorical Data |
| May 2 - 6 | **FINAL EXAM – May 6th** |