Research Design and Analysis  
PSY 6313-010  
Fall 2017  
Course Syllabus

Instructor: Cheryl Stenmark

Office Location: A104E  
Office Hours: M: 12pm-4pm; T/Th: 12:15pm-3:15pm  
E-mail address: cstenmark@angelo.edu

REQUIRED READINGS:


Additional Materials: There may be additional readings for you to read and discuss and/or datasets for analysis throughout the semester. They will be posted on Blackboard for you to download.

Course Materials Online: The syllabus, announcements, and grades for this class may be found on Blackboard. I encourage students to access this site regularly for important information pertaining to the course.

To Contact Me: The most reliable way to contact me is via e-mail. I try to respond to e-mail within 24 hours. If students need to speak with me “in person,” I am available to meet with students during office hours. If a student is unable to attend office hours due to a scheduling conflict, the student must make an appointment.

COURSE DESCRIPTION
This course is intended to provide you with an understanding of the use and interpretation of basic statistics for psychological research. Students will learn a variety of descriptive and inferential statistical techniques. Throughout the semester, we will review statistical procedures, including a brief introduction to descriptive statistics, t-tests, power, correlation and regression, and ANOVA (through two-way mixed designs). The course includes practical applications of the procedures, including the use of statistical software and interpretation of the results produced by the software.

STUDENT LEARNING OBJECTIVES:
- Exposure to statistical techniques
- Proficiency in these techniques
- Understanding of the underlying theory in the application of the techniques
- Knowledge of when and where to apply the statistical techniques
- Exposure to different analytic strategies and philosophies

GRADING:

Homework Assignments: Homework pertaining to the current topic will be assigned throughout the semester. These are designed to help students keep up with and apply the material. There will be 13 homework assignments, each worth 10 points. The highest ten scores will be used to calculate a student’s final homework grade (for a total of 100 points).

Exams: There will be two (2) exams: the midterm and the final, covering material from the textbook as well as class lectures and discussions. The exams are worth 100 points each. These exams may include multiple choice, matching, true/false, short answer, and calculation items.

Course Project: During the course of Overlap, you will design a proposal for a study. If you intend to conduct a Master’s thesis, I would highly suggest that you design a study which could be used for your thesis. Each week, during the overlap of this course with the second year students, we will discuss a different element of the study (which will serve as graded
deliverables for class). You will team up with second year students who will serve as advisors in the design of your study. At the end of this course, you will present your project proposal in its entirety to the class.

**Available Points:**

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
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<tbody>
<tr>
<td>100</td>
<td>10 Overlap project deliverables @ 10 pts. each</td>
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<tr>
<td>100</td>
<td>Final project proposal</td>
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<tr>
<td>100</td>
<td>10 homework assignments @ 10 pts. each</td>
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<tr>
<td>200</td>
<td>2 exams @ 100 pts. each</td>
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<tr>
<td>500</td>
<td>Total points available</td>
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*Note: At the instructor’s discretion final grades will be reviewed to ensure a student’s overall performance is well-represented.*

**Attendance and Class Policies:** Attendance is expected and required to do well in the course. Included in the syllabus is a tentative class schedule. Students should read the pertinent chapter(s) **prior** to class. Students will be responsible for and tested over both text and lecture material. Consequently, to benefit fully from this course it is important for students to read the text, stay current with the material and attend class. If a student misses a class for a pre-excused or unexcused absence it is the student’s responsibility to request/obtain material/information (e.g., notes, schedule modifications, announcements, etc.) from a classmate.

Please note that tardiness and early departure is disruptive to others in class; therefore students should arrive on time for each class session and remain until class dismissal. In addition, the ringing or use of cell phones is disruptive to others; consequently it is requested that students mute cell phones prior to the beginning of class. Violation of these policies may results in a grade decrement.

**Notice on Disability Accommodation:** If a student has a disability that may prevent the student from fully demonstrating his/her abilities, the student must contact me as soon as possible so we can discuss reasonable accommodations necessary to ensure full participation and facilitate his/her educational opportunity. It is the student’s responsibility to notify me and provide authorized documentation processed through the designated administrative channels.

**ACADEMIC INTEGRITY AND CONDUCT**

For information on ASU’s honor code, please visit the following website: [http://www.angelo.edu/forms/pdf/honorcode5.pdf](http://www.angelo.edu/forms/pdf/honorcode5.pdf). If you have any doubts or questions about what constitutes misconduct—inform yourself. Not knowing—is not an excuse! Academic dishonesty will not be tolerated in my class. Students involved in misconduct will be prosecuted according to University regulations and procedures.

**STUDENT ABSENCE FOR OBSERVANCE OF RELIGIOUS HOLY DAYS**

“A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence.”
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>1</td>
<td>August 28</td>
<td>Introduction</td>
<td>1</td>
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<tr>
<td>2</td>
<td>September 4</td>
<td>Labor Day: No Class</td>
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<td>3</td>
<td>September 11</td>
<td>Frequency Tables, Graphs, and Distributions</td>
<td>2</td>
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<td></td>
<td></td>
<td>Measures of Central Tendency and Variability</td>
<td>3</td>
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<td>4</td>
<td>September 18</td>
<td>Standardized Scores and the Normal Distribution</td>
<td>4</td>
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<td>5</td>
<td>September 25</td>
<td>Introduction to Hypothesis Testing: The One-Sample z Test</td>
<td>5</td>
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<tr>
<td>6</td>
<td>October 2</td>
<td>Interval Estimation and the t Distribution</td>
<td>6</td>
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<td>7</td>
<td>October 9</td>
<td>The t Test for Two Independent Sample Means</td>
<td>7</td>
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<tr>
<td>8</td>
<td>October 16</td>
<td>MIDTERM</td>
<td>1-7</td>
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<td>9</td>
<td>October 23</td>
<td>Statistical Power and Effect Size</td>
<td>8</td>
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<td>10</td>
<td>October 30</td>
<td>Linear Correlation</td>
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<td>11</td>
<td>November 6</td>
<td>Linear Regression</td>
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<td>November 13</td>
<td>The Matched t Test</td>
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<td>13</td>
<td>November 20</td>
<td>One-Way Independent ANOVA</td>
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<td>14</td>
<td>November 27</td>
<td>Two-Way ANOVA</td>
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<td>15</td>
<td>December 4</td>
<td>Repeated Measures ANOVA</td>
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<td>16</td>
<td>December 11</td>
<td>FINAL</td>
<td>8-12, 14, 15</td>
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