STATISTICS 500: Applied Statistics, Spring 2005
214 Boucke

Instructor: Dr. Andrew (Andy) Wiesner
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Office Hours: Tuesday and Thursday 12:00 to 1:00, and by appointment

Objective: This course is designed as a introduction into applied statistics at the graduate level. Students are expected to have some base knowledge of statistics from a prior course. This course is also designed to assist students in the fundamentals of statistics in preparation for future graduate level statistics courses.

Textbook: *An Introduction to Statistical Methods and Data Analysis by R. Lyman Ott and Michael Longnecker* (5th edition). The textbook is on reserve in Physical and Math Science Library (PAMS) at 201 Davey Lab**.**

Software: MINITAB will be the statistical software required for this course. MINITAB for Windows is available in all University public computer labs. A Student Minitab version is also available for purchase at the computer stores. You are NOT required to purchase the Student version.

Assessment Plan: The assessment of students will be determined by their performance on four assignment areas: weekly quiz, weekly homework, methodology paper, and exams.

Quizzes: The quizzes will be delivered through ANGEL (https://cms.psu.edu) and will be due each Monday by noon. Quiz one will be delivered in class during the first week of the semester. The ANGEL quizzes will be active for at least the week prior to the due date. The quiz question(s) will reflect material for the upcoming week of instruction. Fifteen (15) quizzes will be delivered with the lowest score being dropped. The average quiz score on the best 14 of 15 quizzes will count 10% toward the final grade.

Homework: The assigned homework problems can be found on ANGEL. They will be due each Friday **in class** and the assigned problems will be made available at least a week in advance. The problems will reflect material covered that week. Similar to the quizzes, there will be 15 homework assignments with the best 14 scores being kept. The average of these 14 will count 10% toward the final grade. The grading of homework will be done using a "+ / -" method. If all problems are attempted and all work is shown the student will receive a "+", or a "-" if they are not. Some problems will involve using MINITAB. A Guide to MINITAB Basics can be found on ANGEL. **All handed in assignments involving MINITAB must include the output with the answers highlighted**. Solutions to homework will be available on ANGEL following the due dates.

Late Assignments: Since solutions will be available and the lowest score will be dropped, no late quizzes or homework will be accepted.

Methodology Paper: The methodology paper will consist of four parts: theme/topic to be researched, the data collection methods, the hypothesis to be researched, and the data analysis to be used to test the hypothesis. NO ACTUAL DATA WILL BE COLLECTED. The purpose of this paper is to assist you in writing a statistical piece for a paper. The length requirement will be at least 6 pages and no more than 10 pages. You will be expected to follow current APA style and include at least 4 references. Each part will have a separate due date to help you stay on course with this assignment. More information regarding due dates and expectations will be provided during class. The methodology paper will constitute 15% of the final grade.

Exams: Five (5) exams will be given during the semester, with two (2) being take home tests, two (2) during class, and one (1) during the University scheduled final exam period. Although each exam will reflect material most recently covered, the material is cumulative in nature. The take home exams will each count 10% toward the final grade, and the remaining exams will each count 15% toward the final grade. The taking of exams prior or post the exam date will not be allowed without legitimate excuse.

Exam Schedule:

Exam I: Friday, January 28, IN CLASS
Exam II: Friday, February 18, TAKE HOME – due Wednesday, February 23
Exam III: Friday, March 18, IN CLASS
Exam IV: Friday, April 8, TAKE HOME – due Wednesday, April 13
Exam V: During Finals Week per University Schedule

Grading Scale (subject to change): The final letter grading will follow the standard University guidelines and are as follows:

F	D	C	C+	B-	B	B+	A-	A
0	60	70	77	80	83	87	90	93

Collaboration: Although you are expected to complete the work on your own, I understand that a certain amount of collaboration may occur. However, you must turn in your own work which presumable reflects your understanding of the material. Also, my hope is that you complete the take home exams on your own merits. I advise all of you to consult the Penn State Academic Integrity Policy at:

http://www.science.psu.edu/academic/Integrity/index.html