**STATISTICS (Econ 215-001)**

Fall 2014

CBA 24, CITY

**INSTRUCTOR:** Sylvia Mwamba

Sylvia.mwamba@huskers.unl.edu

**OFFICE HOURS:** CBA 374

Mondays and Wednesdays, 9:45-10:45 AM,

Other times: by appointment.

**CLASS HOURS**: Mon, Wed, Fri, 08:30-09:20 AM.

**PREREQUISITE:** Math 104 or 106, BSAD 150, 27 or more credit hours, 2.5 GPA. If you have not met the prerequisites, the Economics department will drop you from the class. Economics 215 cannot be taken concurrently with its prerequisite courses.

**COURSE DESCRIPTION:** This course provides students with the basic tools for evaluating data from the business and the economics literature. Students will gain familiarity with data description, variance and variability, correlation and linear regression, inference, and other related topics.  The goal is to learn the application of statistical reasoning to decision making.

**LEARNING OUTCOMES:** The intent of this course is to introduce you to statistics. By the end of this course you should be able to:

* Realize the importance of understanding statistics.
* Use practical applications of statistics.
* Identify various forms of data collection.
* Recognize poor data.
* Use and interpret the following statistical procedures:
  + Plots and graphs.
  + Descriptive statistics (including mean, median, variance, etc).
  + Hypothesis tests.
  + Confidence intervals.
  + Correlation and regression.
  + Sampling.
* Understand the basics of probability, randomness, and variability.
* Read and communicate information involving statistics.

**TEXTBOOK:** Essentials of Statistics for Business and Economics; Anderson, Sweeney, and Williams.

Seventh Edition (Revised), 2012 (recommended)

Solutions Manual to Accompany Essentials of ….; Seventh Edition (recommended).

# OTHER MATERIALS: Naked Statistics: Stripping the Dread from the Data; **Charles Wheelan.** ISBN-13: 978-0393347777 (required).

**ATTENDANCE:** I expect everyone to come to class prepared. If you will be absent, please notify me; it is your responsibility to catch up on any notes that you miss.

**COURSE REQUIREMENTS:**

*Class Participation:*Students are expected to contribute to class discussion and participate in group activities. Several of your grades will depend on in class activities. Moreover, I will explain assignments in class, hand out related materials, discuss and clarify assigned readings. Students are expected to refrain from behavior that disrupts other students such as use of electronic devices (Cell phones, laptops/tablets).

*Homework:* There will be at least 4 to 6 homework assignments. Late homework assignments will be accepted, ***but 10% of the score will be automatically deducted for each day after the deadline***.

*Quizzes:*Quizzes will be administered at the discretion of the instructor. While most quizzes will be announced one class period before the quiz, the instructor does reserve the right to give pop quizzes.

*Final*: The final exam will cover all material discussed in the course. There will be an emphasis on material not covered during the three first exams, but all material from the course could appear on the final exam. The exam will be on **Monday, December 15,2014, 7:30 to 9:30 am.**

Note: All work must be legible, and, when appropriate, all work must be shown to receive credit. If you miss class, it is your responsibility to obtain the assignments missed. All exams and quizzes must be taken at the scheduled time. **A missed exam or quiz will result in a zero unless you contact me** **ahead of time with adequate documentation (instructor, physician, or organization note).**

**GRADING:**

Homework: 20%

Quizzes: 12.5%

3 Midterm Exams: 15% each

Final Exam: 15%

Attendance and participation: 7.5%

Readings: 10% (extra credit)

Note: **You will need to submit written reports to earn the extra credit**.

**Grading SCALE:**

A+:97.5-100%                        B+:87.5-89.99%        C+:77.5-79.99%         D+:67.5-69.99%

A: 92.5-97.49%         B: 82.5-87.49%          C: 72.5-77.49%            D: 62.5%-67.49%

A-:90-92.49%                        B-:80%-82.49%         C-:70%-72.49%          D-:60%-62.49%

F: 59.99% or below

**EXAM DATES (tentative):**

***Mid-term 1:*** *September 22nd,* 2014 (Monday)

***Mid-term 2:*** October 24th, 2014 (Friday)

***Mid-term 3:*** November 17th, 2014 (Monday)

**Final**: December 15th**,** 2014 (Monday)

**CALCULATOR:** You will need a calculator for homework, quizzes, and exams. However, this class is not a math class. We will not focus on memorizing formulas and doing complex calculations. You may use any calculator that contains basic statistical functions; an advanced calculator is not needed to be successful in this course. However, cell phones and computers may not be used to perform calculations on quizzes and exams.

**ACADEMIC DISHONESTY:** You are encouraged to work together on homework problems, but the work you turn in must be your own (unless the assignment specifically states otherwise). Work on exams, quizzes, and writing assignments must be your own (unless the assignment specifically states otherwise). Any act of academic dishonesty will result in a score of zero on the item in question and notification of department and university officials. Further action may be taken as warranted. Subsequent offenses will result in an F in the class.

**DISABILITIES:** Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of UNL to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3783 voice or TTY.

**DISCLAIMER:** Information contained in this syllabus was, to the best knowledge of the instructor, considered correct and complete when distributed at the beginning of the term. However, the instructor reserves the right, acting within the policies and procedures of UNL, to make changes in course content or instructional technique without notice or obligation. However, any changes will be explained to the class as a whole including reasons for the change.

**ACHIEVEMENT-CENTERED EDUCATION (ACE) DESIGNATION**

Institutional Objective and Learning Outcome **#3**: Use mathematical, computational, statistical, or formal reasoning (including reasoning based on principles of logic) to solve problems, draw inferences, and determine reasonableness.

**TENTATIVE COURSE OUTLINE:**

A. Introduction; Data and Statistics (Chapter 1)

B. Descriptive Statistics (Chapter 2 and 3)

C. Probability and Probability Distribution (Chapter 4-7)

D. Sampling and Sampling Distribution (Chapter 7)

E. Interval Estimation and Hypothesis Tests (Chapter 8 and 9)

F. Comparison involving Means, Experimental Design, Analysis of

Variance; Comparison involving Proportion and Test of Independence

(Chapter 10, 11)

G. Regressions (Chapter 12, 13)