LINCOLN UNIVERSITY

BA 45 – Statistics
Summer 2017 Course Syllabus

Course Number: **BA 45**

Course Title: **Statistics**

Units: 3 (45 lecture hours)

Semester Offered: Summer 2017

Course Meeting Days: Mondays and Wednesdays

Course Meeting Time: 3:30-6:15pm

Course Meeting Place: Room 304

Instructor Information:

Name: Daniel Sevall

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Office Location: Fourth Floor Faculty Office

Office Hours: Mondays and Wednesdays at 11:30 to 12:30

Course Description

This course is designed for both the business major and for the non-business students without previous knowledge of statistics. Emphasis is on descriptive statistics and inferential statistics with relevant applications to solving problems, hypothesis testing and decision-making. Important statistical models and distributions will be discussed.

Required Texts

Levine, David, and Szabat, Katherine. ***Business Statistics: A First Course, 7th Edition***. (2017) Prentice Hall. ISBN-13: 978-0321979018.

Earlier editions of this course text are acceptable for students to use.

Overview

Understanding statistics and statistical methods is a fundamental requirement for an educated mind. This course assumes no prior knowledge of statistics, but at a minimum, students need to have a basic background in algebra. The course will rely heavily on using Microsoft Excel and potentially other software applications to assist in basic calculations. With that said, there will be much emphasis on mathematical theory and business applications that cannot be assumed away with using a computer.

Course Objectives

- Enable students to internalize the three measures of central tendency
- Familiarize students with techniques on presenting and analyzing statistical information
- Calculate Covariance and Correlation and articulate their meaning
- Introduce Students to Conditional Probability– and Bayesian Analysis
- Create a deep understanding of the essential elements of the Normal Distribution
- **Emphasize the importance of applying the Student T-distribution with regard to Confidence Intervals and Hypothesis Testing**
- Understand the Chi-Distribution and ANOVA
- Obtain an understanding of the use of spreadsheets in the calculation of statistical problems

Academic Honesty, Plagiarism Policies and Procedures:

Lincoln University intends to be a community of educators and learners with shared values. Accordingly, Lincoln expects the highest standards of honesty and integrity from all members of the academic community.

What is considered academic dishonesty? It is generally taking credit for work which is not your own or attempting to receive credit or improve a grade through fraudulent or deceptive means. Examples include taking information from or providing information to another student, or plagiarism (the intentionally or knowingly representing the word or ideas of another as one's own in any academic exercise).

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Course Requirements

1. Textbook Assignments

Students should read all assignments and be prepared to discuss the material covered. Assigned problems should be worked out in advance as a basis for review in class. Students should pinpoint major concepts and procedures in each chapter, understand their meaning and application, and raise questions in class on areas of complexity or ambiguity. Study in teams is recommended both to accelerate the learning process and to obtain feedback on individual interpretations. Homework may be collected for purposes of extra credit.

2. Projects/Cases

Through the completion of selected end of chapter cases, each student will show the application of concepts covered in the course, such as study of annual reports, ratio and other analysis including comparison with other companies, and bond and stock valuation. Students are encouraged to work in teams, and each team will select a topic. Grades will be based on content, innovative ideas, and presentation. Instructors may require students to make an oral presentation in class based on their paper.

3. Midterm and Final Exam

There will be a midterm and final exam. The purpose of these tests is to evaluate the student's understanding of the concepts and how to apply them. This includes learning how to perform the calculations and use the techniques that are an integral part of a course in finance. The tests also serve to let the student know how he or she is doing and what areas need further emphasis.

Evaluation Criteria

Midterm Exam	25%
Attendance and Class Participation	15%
Case Analyses	20%
Final	40%

Total	100%

Letter grades will be given based on the following scaling:

A 90 - 100
B 80 - 89
C 70 - 79
D 60 - 69
F 0 - 59

Class Sessions 1 and 2	Chapter 1 (Introduction and Data Collection) Chapter 2 (Presenting Data in Tables and Charts)
Class Sessions 3 and 4	Chapter 3 (Numerical Descriptive Measures) Chapter 4 (Bayes Theorem)
Class Sessions 5 and 6	Chapter 5 (Discrete Probability Functions)
Class Sessions 7 and 8	Chapter 6 (Introduction to Normal Distribution) and Midterm
Class Sessions 9 and 10	Chapter 7 (Sampling and Sampling Distribution)
Class Sessions 11 and 12	Chapter 8 (Confidence Interval Estimation)
Class Sessions 13 and 14	Chapter 9 (Hypothesis Testing)
Time Permitting	Chapter 10 (ANOVA) Chapter 11 (Chi-Square Distributions)
	Review and Final Exam

Last Update: 6/2/2017