



Lincoln University

Course Title	Special Topics in Business: Data Analysis and Decision Making	
Course No.	BA 298	Instructor: Walter Kruz
Units	3 (45 lecture hours)	Contact: wrkruz@lincolnuca.edu
Class Hours	Thurs 6:30-9:15 PM	Office Hours: By arrangement
Semester	Fall 2014	

Textbook:

Data Analysis and Decision Making, Albright, Winston, Zappe, 4th Edition, South Western, Cengage Learning, ISBN-10: 0538476125

Course Description:

This course offers topics of specialized interest in the major fields of study. Case studies and independent research may be included. Topics vary each term; so students should not include this in a concentration unless they know it will be available. Prerequisite: BA 45 Statistics

Learning Objectives:

Industry is challenged today by the explosion of digital data acquired from web sites, mobile devices, and more. Today's massive data sets require new statistical methods, new computer software, and practitioners trained in data analysis methods. By taking this course students will start acquiring those analytical skills necessary to succeed in the "Big Data" world of social media companies. The software tool used in this course is M/S Excel.

Methodology:

This is a highly interactive learning environment. All students will participate in class discussions, research findings, and computer laboratory and class exercises. Short oral presentations may also be assigned. Assignments will be given weekly and may consist of textbook exercises and research questions. Attendance is highly encouraged as exams include questions from class discussions. Students will benefit from using a laptop containing M/S Excel although electronic devices are not allowed during exams.

Standards:

Standards for this class are similar to those found in professional organizations. All assignments are due on the date indicated and collected during the first 10 minutes of the class. Late assignments will not be collected or graded. Make-up exams are allowed only due to a documented medical excuse. Students are encouraged to study and work in groups for enhanced learning.

Testing:

Typically, the class will consist of two or three exams of equal weight as well as homework and quizzes throughout the semester. All exams are individual deliverables. They consist of short answers related to the material being discussed and some mathematical problems. The exam format is usually closed book with no electronic devices allowed.

Grading:

Quizzes, homework assignments, exams, and the project (when available) allow students to accumulate points throughout the semester. These are added and compared against the total possible for the semester to calculate a percentage.

Exams and Project are typically worth 100 points each (~ 75% of the total points). Homework and quizzes from 5-10 points (~ 25% of the total points). Assuming that 2 exams, one project, and 10 homework assignments are given, this will mean a total possible of 400 points can be accumulated. The student grade will be calculated as follows:

$$\text{Grade} = (\text{Student's score earned} / \text{Total possible points}) * 100 = \%$$

A final grade is then assigned as follows:

95 – 100%	A
90 – 94%	A-
87 – 89%	B+
84 – 86%	B
80 – 83%	B-
76 – 79%	C+
70 – 75%	C
66 – 69%	C-
60 – 65%	D
Less than 59%	F

Classroom Protocol:

Classroom protocol is similar to the one students will find in a professional environment. Students are expected to arrive on time and be prepared to participate. Laptop use is allowed only for a class purpose. No cell phones allowed.

Schedule:

This is a proposed schedule. It will change according to class progress or student interests.

Module 1	Exploring data <ul style="list-style-type: none"> • Distribution of single variables • Finding relationships among variables 	Lecture, class exercises, computer lab
Module 2	Decision making under uncertainty <ul style="list-style-type: none"> • Probability distributions • Decision making under uncertainty 	Lecture, class exercises, computer lab. Exam 1

Module 3	Statistical Inference <ul style="list-style-type: none"> • Sampling and sampling distributions • Hypothesis testing 	Lecture, class exercises, computer lab
Module 4	Regression Analysis <ul style="list-style-type: none"> • Estimating relationships • Forecasting. 	Lecture, class exercises, computer lab
Module 5	Optimization and Simulation modeling <ul style="list-style-type: none"> • Optimization models • Simulation modeling 	Lecture, class exercises, computer lab Exam 2

Faculty Information:

Dr. Kruz is an industry consultant. His expertise includes operations, engineering, and project management in various industries. He actively conducts business research, is a published author, and a member of various industry organizations.

Update:

4 August, 2014