

Texas A&M University – Commerce
Department of Economics & Finance Summer I 2016

Course Title ECO 502 Quantitative Analysis for Managers
Course Location/Time Online
Instructor **Ken Bandy, Ph.D.** Office Hours: By Appointment
Office Home Office
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Required Text: Lind, Marchal, & Wathen, *Statistical Techniques in Business & Economics*, McGraw-Hill Irwin, 16th Ed.

Course Description: This course satisfies the MBA background requirements for quantitative analysis & production management techniques. The course will cover descriptive statistics, inferential statistics & math models with business applications to analyze management & organizational problems. Specific topics include: measures of central tendency & variation, probability distributions, estimation, hypothesis testing, regression & correlation, decision theory, linear programming, transportation & assignment models, & inventory management & queuing theory models. Prerequisites: Math 175 or 141.

Course Learning Objectives: The *Bloom Learning Taxonomy* was used to guide the design of course learning objectives. By successfully completing this course you will:

1. *Appreciate* the value of data collection, analysis, & presentation/reporting as a means to support a wide range of business decisions.
2. *Recall* the definitions of specific data analysis terms & principles.
3. *Explain* statistical techniques used to support business decisions.
4. *Apply* formulas & techniques to access useful data & produce numeric values to support decisions.
5. *Compare* outcomes of applied formulas & techniques to produce solutions to business problems.
6. *Compare* characteristics of cases & scenarios to *devise* an appropriate plan to address stated challenges.
7. *Assess* the impact of quantitative & qualitative factors in specified business scenarios to identify the limits of statistical techniques in supporting business decisions.

Earning Grades:

Activities	Quantity	Value	Extended	Your Score
Exams	2 each	100	200	
Quizzes	12 each	50	600	
Audio Lecture Attendance	100 each	1	100	
Discussion Participation	5 each	20	100	
Total			1000	

Homework problems: Specific textbook problems will not be assigned as homework. You are encouraged to solve as many problems as is necessary to prepare for the quizzes & the exams. Solutions to the odd-numbered chapter problems are provided in the appendix to the textbook. You are welcome to post questions about these problems in the corresponding discussion forum found in the online learning management system (LMS). Audio Lectures address 100 even-numbered problems, explaining solutions, and incorporate related concepts from the textbook. Listening to each problem is worth 1 point, for up to a total of 100 points. You will be asked to complete a weekly report of your “attendance” of these audio lectures.

Quizzes: One quiz will be assigned for each chapter. The quiz can be accessed via the McGraw-Hill Higher Education web address provided on the eCollege LMS.

Discussion/Group Area in eCollege: A discussion area for each chapter covered in this class is available in eCollege. ALL QUESTIONS related to chapter problems must be posted to their appropriate discussion area. DO NOT send questions about specific chapter problems to the instructor via email. The discussion areas are used to answer questions so that all students may benefit from both the question & the response. YOU WILL RECEIVE EXTRA CREDIT when you quickly, accurately, & originally answer questions posted to the discussion areas. In this manner you can help one another. If you merely repeat another student’s correct response I will not assign extra credit – be first. In addition to topics of your concern, five (5) discussion questions will be assigned throughout the course to support personal application of course material.

Course Policies:

Grading Scale:

- A = 90 – 100%
- B = 80 – 89%
- C = 70 – 79%
- D = 60 – 69%
- F = 59% or less

Academic Integrity: Academic integrity is the pursuit of scholarly free from fraud & deception & is an educational objective of this institution. Academic dishonesty included, but is not limited to, cheating, plagiarizing, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Students involved in academic dishonesty will fail the course.

Software Piracy: Students may use University Microcomputer Laboratories & software designed to run on personal computers. Much of this software is of a proprietary nature, & its duplication is strictly prohibited. Unauthorized copying is prohibited by the University, & violates the University’s software licensing agreements & various federal & state laws. Any student who engages in unauthorized software copying will fail the course & will be referred to university officials for further disciplinary action.

Conduct: “All students enrolled at the University shall follow the tenets of common decency & acceptable behavior conducive to a positive learning environment” (Student Guide Book, pp. 67-73).

Late Assignments: Assignments/quizzes are due on specific dates, as assigned. Assignments/quizzes will not be accepted after the due date, unless previously authorized by the instructor.

Tentative Course Schedule

FIRST DAY OF CLASS Monday, June 06, 2016!

Week of:		Topics	Chapter/Activities
Unit 1: 6/6-9	Due Thur	What is Statistics Describing Data	Chs. 1,&2 Read Only
Unit 1: 6/6-9	Due Thur	Describing Data: Numerical Measures Audio Lecture Problems: 14, 16, 18, 26, 28, 36, 38, 44, 46, 50, & 52	Ch. 3 Quiz Discussion 1
Unit 2: 6/10-12	Due Sun	Describing Data: Displaying & Exploring Data Audio Lecture Problems: 8, 12, 14, 16, 20, 22, 24, & 26	Ch. 4 Quiz
Unit 2: 6/10-12	Due Sun	Probability Audio Lecture Problems: 4, 6, 8, 12, 14, 18, 22, 24, 28, 32, 36, 38, & 40	Ch. 5 Quiz Discussion 2
Unit 3: 6/13-16	Due Thur	Discrete Probability Distributions Audio Lecture Problems: 6, 10, 12, 14, 22, 26, 32, & 34	Ch. 6 Quiz
Unit 3: 6/13-16	Due Thur	Continuous Probability Distributions Audio Lecture Problems: 10, 14, 16, 18, 20, 22, 24, 30, 32, & 38	Ch. 7 Quiz Discussion 3
Unit 4: 6/17-19	Due Sun	Sampling Methods & the Central Limit Theorem Audio Lecture Problems: 16, 18, 22, 28, & 30	Ch. 8 Quiz
Unit 4: 6/17-19	Due Sun	Exam Preparation	Midterm Exam
Unit 5: 6/20-23	Due Thur	Estimation & Confidence Intervals Audio Lecture Problems: 4, 6, 10, 12, 16, 18, 22, 26, & 28	Ch. 9 Quiz
Unit 5: 6/24-26	Due Thur	One-Sample Test of Hypothesis Audio Lecture Problems: 4, 6, 10, 14, & 16	Ch. 10 Quiz
Unit 6: 6/27-30	Due Sun	Two-Sample Test of Hypothesis Audio Lecture Problems: 4, 6, 8, 14, & 18	Ch. 11 Quiz Discussion 4
Unit 6: 6/27-30	Due Sun	ANOVA Audio Lecture Problems: 2, 4, 8, 12, 16, & 20	Ch.12 Quiz
Unit 7: 7/01-5	Due Thur	Linear Regression & Correlation Audio Lecture Problems: 4, 6, 8, 14, 18, 20, 22, 26, & 32 Multiple Regression (No Quiz, Reading/Listening Only) Audio Lecture Problems: 2, 4, 6, & 8	Ch. 13 Quiz Ch 14 Read/Listen Only Discussion 5
Unit 7: 7/01-5	Due Thur	Chi Square Applications Audio Lecture Problems: 2, 14, 16, 20, 28, & 30	Ch. 15 Quiz
Unit 8: 7/6-7	Due Thur	Exam Preparation Final Exam	Final Exam

