SYLLABUS

ECONOMICS 156 A

ECONOMICS AND BUSINESS STATISTICS

FALL TERM 2014

Instructor: Dr. Linda L. Ravelle
Comenius 217
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Hours: M,T,W,Th 9:00 – 10:00 AM
Also by appointment

Textbook: STATISTICS FOR MANAGEMENT AND ECONOMICS ABBREVIATED, 9th Edition, Gerald Keller, South-Western Cengage Learning, 2012.

Catalog Description: Introduction to statistical concepts and methods. This course reviews descriptive measures of location and dispersion, provides an overview of probability concepts and distributions, and focuses on statistical inference, hypothesis testing, and simple and multiple linear regression analysis. Additional topics may include quality control and time series analysis. Economics 156 may not be taken for credit by students who have earned credit for Mathematics 107 or 231. Prerequisite: Sophomore standing and three years of secondary mathematics through college-level algebra or consent of instructor. (F2)

Course Objectives: This course is designed to introduce you to the field of statistics and its many applications in economics and management. The course uses lectures, class discussion, lab work, assignments and exams to help you develop critical thinking skills that will allow you to recognize, describe, and analyze economic problems using statistical tools. By the end of the course you should be able to solve a variety of problems incorporating a three step approach used in the textbook: identify the appropriate statistical technique, compute the value of the statistic(s), and interpret the results. You will also learn to use statistical programs such as Excel and Minitab to help you solve these problems.

Class Times: M,W,F 10:20 to 11:30

Classroom: Comenius 101

Grades: The course grade is determined by the following formula:

Exams	60%
Assignments	20%
Project	10%
Class Participation	10%

Exams: There are three midterm exams and one final exam. Each exam makes up 15% of your final grade. The exam dates are noted on the syllabus and will not be changed. Exams consist of problems and short answer questions. Formula sheets and tables will be provided, but you must bring calculators to all exams. Your calculator should perform basic statistical functions, and you should know how to use it before you take an exam. You cannot share calculators, and you cannot use cell phones as calculators. Makeup exams are given only in EMERGENCY situations and are significantly different than the original exam. Cell phones must be turned off and kept out of sight during all exams.

Project: The project will be distributed in class.

Assignments: Homework assignments for each of the chapters are listed on the syllabus, and are due upon completion of the relevant material on due dates announced in class. All homework will be graded, and if you turn in an assignment late (after the class period in which it is due) the grade will be reduced one letter grade per day late. Missing assignments will receive a zero, which can significantly lower your overall assignment grade. Exercises and cases typed in bold must be completed using Excel or Minitab, as announced in class, and all other problems must be completed manually. The data sets for the Excel and Minitab problems and cases can be found on the textbook web site and also on the p:drive under "econ/Ravelle/Stat Files".   For problems completed manually, you must SHOW OR EXPLAIN ALL WORK for full credit. You must do your own work.

PLEASE NOTE: The dates, chapters, and assignments listed here are subject to change. If you miss class, you are responsible for finding out about due dates and changes in assignments. Failure to attend class is NOT a valid excuse for turning in assignments late.

HELPFUL HINTS: Answers to selected even-numbered problems can be found in Appendix C at the end of the textbook. If you do not understand an assigned odd-numbered problem, try a similar odd-numbered problem first. Please feel free to ask me questions about these assignments in person or via email, but be sure to do so well in advance of the due dates. The Economics and Business department also provides a tutor for this class.

Attendance and Participation: I take attendance at the beginning of each class. If you come in late you are responsible for letting me know that you are in class. You should read the assigned chapter before coming to class so that you can participate in classroom discussions and do computer work. Bring the textbook to every class. This class will make extensive use of computers, but you may only use the computers when we are working on problems. Do not use computer for non-classroom purposes (email, internet browsing, etc.) during class time or you will be asked to leave class. You may not use cell phones in class. You must be able to log onto the College's network and to save your work onto your Google drive or a flash drive.

Honesty: All students are expected to adhere to the College's Policy on Academic Honesty as outlined in the Student Handbook. Students who violate the Policy must accept the consequences dictated by this policy. If you have any questions about this policy, please see me.

Disabilities: Students who wish to request accommodations in this class for a disability must contact Ms. Elaine Mara, assistant director of academic support services for academic and disability support, at the lower level of Monocacy Hall or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.

DATE		TOPIC	CHAPTER	ASSIGNMENTS
Aug	25	What is Statistics?	1	
	27	Graphical Descriptive Techniques 1	2	7, **11**, **12**, **33**, **47**
	29			
Sept	1	Graphical Descriptive Techniques 2	3	3, 5, 11, **21, 37, 43, 59, 81, 89**
	3			
	5	Numerical Descriptive Techniques	4	1, 7, 21, 27, **39, 55, 69**
	8			
	10			
	12	Data Collection and Sampling	5	2, 6, 7, 14, 17
	15			
	17	EXAM 1		
	19	Probability	6	3, 11, 33, 37, 43, 47, 65, 79
	22			
	24	Random Variables and Discrete Probability Distributions	7	3, 55, 63, 97, 115, 117, 127, 129
	26			
	29			
Oct	1	Continuous Probability Distributions	8	5, 9, 37, 51, 53, 81
	3			
	6	Sampling Distributions	9	7, 13, 17, 21, 33, 39, 41, 53
	8			
	10	EXAM 2		
	13	FALL RECESS		

DATE	TOPIC	CHAPTER	ASSIGNMENTS
Oct 15	Introduction to Estimation	10	9, 11, 21, **33, 35**, 43, 53
17			
20	Introduction to Hypothesis Testing	11	1, 5, 7, 11, 15, 19, 31, **37, 39**, 63, 65
22			
24			
27	Inference about a Population	12	9, 15, 25, **39**, 57, 61, **67**, 75, 83, **93**
29			
31	Inference about Comparing Two Populations	13	TBA
Nov 3			
5	EXAM 3		
7	Analysis of Variance	14	1, 7, **11**, 33, **61**, 69, **75**
10			
12	Chi-Squared Tests	15	3, **9, 15**, 29, **35**
14			
17	Simple Linear Regression And Correlation	16	1, 3, **9**, 23, 25, **31**, 56, **83, 99**
19			
21			
24			
26,28	THANKSGIVING BREAK		
Dec 1	Multiple Regression	17	**3, 13**, 26, **45**
3			
5			
8	FINAL EXAM		8:30 AM