SYLLABUS

ECONOMICS 156 A

ECONOMICS AND BUSINESS STATISTICS

SPRING TERM 2016

Instructor: Dr. Linda L. Ravelle
                    Comenius 217
                    861-1453
                    mellr01@moravian.edu

Hours: M, W, F   10:30 – 11:30 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 linear regression analysis. Additional topics may include multiple regression, 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 Excel to help you solve these problems.

Class Times: M, W, F 8:55 to 10:05

Classroom: Comenius 101

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

Exams	65%
Assignments	25%
Class Participation	10%

Exams: There are three midterm exams and one final exam. The highest grade makes up 20% of your final grade, and the other three exam grades each make 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 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.

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. Problems typed in bold must be completed using Excel and all other problems must be completed manually. The data sets for the Excel problems can be found on the public (p) drive under "econ/Ravelle/Stat Files". (Please email me if you would like me to share these files with you on your Google Drive.) All assignments will be graded and you must show all work for full credit. 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. If you do not turn in an assignment you will receive a zero for that assignment.

The dates, chapters, and assignments 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 an excuse for turning in assignments late.

I have assigned odd numbered problems but the answer to most even numbered problems can be found in Appendix C of the textbook. If you have trouble with an assigned problem, try a similar even numbered problem and check your answer. Please feel free to ask me questions about the assignments in person or via email, but be sure to do so before the assignment is due. The Academic Support Center in Monocacy Hall also provides tutors for this class.

The material covered in this class is cumulative. It is important that you keep up with the readings and assignments. If you have trouble with any of the material you should seek help as soon as possible to avoid falling behind.

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 and try to do the required assignments before coming to class so that you can ask questions and participate in classroom discussions. This class will make extensive use of computers, but you may only use the computers when we are working on problems. Keep computers closed at other times. 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.

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 should contact the Academic Support Center, located on the lower level of Monocacy Hall, by calling 610-861-1401, or by emailing disabilitysupport@moravian.edu.

Accommodations cannot be provided until authorization is received from the Academic Support Center.

DATE	TOPIC	CHAPTER	ASSIGNMENTS
Jan 18	What is Statistics?	1	
20	Graphical Descriptive Techniques 1	2	3, 9, **31**, **35**, **45**
22			
25	Graphical Descriptive Techniques 2	3	7(b-d), 10, **23**, **25,** 49**, 61 73**, **75**
27			
29			
Feb 1	Numerical Descriptive Techniques	4	3, 5, 9, **15**, 21, 27, 29, **33**, 48, **99, 101**
3			
5			
8			
10	EXAM 1		
12	Data Collection and Sampling	5	1, 3, 9, 13, 17
15	Probability	6	1, 7, 27, 29, 41, 49, 61, 81
17			
19			
22	Random Variables and Discrete Probability Distributions	7	1, 19, 37, **73-76**, 107, 109, 113, 131
24			
26			
29	Continuous Probability Distributions	8	5, 9, 35, 45, 55, 79
Mar 2			
4	EXAM 2		

7,9,11   SPRING BREAK

DATE	TOPIC	CHAPTER	ASSIGNMENTS
Mar 14	Sampling Distributions	9	5, 11, 15, 19, 27, 31, 37, 43, 51
16			
18			
21	Introduction to Estimation	10	13, 15, 23, **31, 37**, 41, 51
23			
25	EASTER BREAK		
28	Introduction to Hypothesis Testing	11	3, 5, 9, 15, 33, **35, 43**, 63, 65
30			
Apr 1	Inference about a Population	12	3, 13, 23, **37**, 57, 59, **65**, 71, 81, **91**
4			
6			
8	EXAM 3		
11	Inference About Comparing Two Populations	13	TBA
13			
15	Analysis of Variance	14	1, 7, **11**, 33, **61**, 69, **75**
18			
20	Chi-Squared Test	15	3, **9, 15**, 29, **35**
22	Simple Linear Regression And Correlation	16	1, 5, **7**, 27, **29**, 56, 81, **101**
25			
27	Multiple Regression	17	**3, 13**, 26, **45**
29			
May 2	FINAL EXAM		11:30 – 1:30