WILLIAM PATTERSON UNIVERSITY OF NEW JERSEY
COTSAKOS COLLEGE OF BUSINESS
DEPARTMENT OF ECONOMICS, FINANCE, AND GLOBAL BUSINESS

BUSINESS STATISTICS II – Winter 2018-2019
COURSE NUMBER: ECON – 2110-81

INSTRUCTOR:

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COURSE TEXTBOOK: STATISTICAL TECHNIQUES IN BUSINESS AND ECONOMICS BY LIND, MARCHAL AND WATHEN, Seventeenth EDITION

COURSE OBJECTIVE: TO DEVELOP STATISTICAL CONCEPTS THROUGH LECTURE, SUGGESTED PROBLEMS, AND TECHNOLOGY APPLICATIONS IN ORDER TO APPLY ANALYTICAL DECISION MAKING TOOLS TO SOLVE BUSINESS PROBLEMS AND REACH LOGICAL DECISIONS.

SUBJECTS / TOPICS TO BE COVERED

Chapter	Topics – Tentative Outline
10	One – Sample Tests of Hypothesis
11	Two – Sample Tests of Hypothesis
12	Analysis of Variance
13	Correlation and Linear Regression
14	Multiple Regression Analysis
15	Nonparametric Methods: Nominal level Hypothesis tests
16	Nonparametric Methods: Analysis of Ordinal Data
19	Statistical Process Control and Quality Management (time permitting)

STUDENT LEARNING OBJECTIVES:

- Constructing a hypothesis
- Conducting a test of hypothesis about population parameters, using the process
- Understanding the p-value
- Understanding the Type I and Type II errors
- Organizing data into ANOVA tables
- Carry out a hypothesis test for the equality of two population variances
- Understanding dependent and independent variables
- Calculating and interpreting the coefficient of correlation, the coefficient of determination, regression coefficients, the regression line, and the standard error of estimate
- Conduct a test of hypothesis to determine whether regression coefficients are statistically significant (different from zero)
- Describe the relationship between several independent variables and a dependent variable using a multiple regression equation
- Utilize the chi-square distribution for goodness-of-fit tests
- Apply non parametric methods to analyze ranked data
- Use MS Excel to carry out the above techniques as applicable.

SUGGESTED PROBLEMS ARE AS FOLLOWS:

CHAPTER 10	**1, 3, 7, 11, 13, 19, 33, 41**
CHAPTER 11	**1, 5, 7, 11, 15, 19, 27, 29, 41, 43**
CHAPTER 12	**5, 7, 9, 11, 15, 17, 21, 31, 35, 43**
CHAPTER 13	**5, 7, 9, 13, 15, 25, 29, 31, 41, 51, 59, 63**
CHAPTER 14	**3, 5, 7, 9, 11, 15, 19, 21, 35**
CHAPTER 15	**1, 3, 5, 9, 11, 13, 15, 17, 21, 23, 29, 33, 51, 59**
CHAPTER 16	**3, 5, 15, 17, 19, 21, 23, 31, 37, 39**
CHAPTER 19	**1, 3, 5, 7, 11, 13, 15, 17, 19, 23, 25, 31**

APPENDIX D HAS ALL OF THE SOLUTIONS TO ODD SUGGESTED PROBLEMS.

APPENDIX E HAS ALL SELF REVIEWS WORKED OUT.

To succeed in this class, go through the examples in the book, then try to complete the self-reviews. If your stuck, look to the answers appendix E. Then tackle the suggested problems. Again, the answers are in the back of the book.

COURSE GRADING –

50% Final – Last Day of Class

40% Quizzes – Quizzes will be sent out as assignments in Blackboard with Due Dates and Times. Each Quiz will be based on the above suggested problems. Late Quizzes will not be graded. All material must be submitted through Blackboard. I will not be taking emails with attachments. Quiz solutions will be provided after the Quiz assignment Due Date and Time have passed.

10% Discussion – Discussions will include any questions regarding suggested homework for each module and any questions regarding the topics assigned within the module. The discussions will remain open when topics are presented in module material. They may remain open 1 or 2 days after. Credit will be awarded for those who collaborate and support each other. Please be respectful to each other.

MS EXCEL – I ENCOURAGE THE USE OF MICROSOFT EXCEL FOR ANALYSIS DURING THE ENTIRE COURSE. MAKE SURE YOU HAVE THE DATA ANALYSIS TOOL PACK INSTALLED AND READY TO GO.