

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

BUSINESS STATISTICS II – Econ2110-81 – Winter 2017-2018

INSTRUCTOR:

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

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
17	Index Numbers (time permitting)
18	Time Series and Forecasting (time permitting)
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.

COURSE GRADING –

50% Final – 14JAN2015

40% Homework – Homework will be assigned with every module. Homework will be due one day after the closure of each module. ONLY MS WORD OR MS EXCEL WILL BE ACCEPTED. There is no credit for late homework. Solutions will be provided after homework session has been closed on blackboard.

10% Discussion – Discussions will include any questions regarding current 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.

THIS IS A CLASS WHERE THE MORE PROBLEMS YOU PRACTICE THE BETTER YOUR UNDERSTANDING WILL BE. AS A RULE OF THUMB – REVIEW THE EXAMPLES AND SELF REVIEWS EACH DAY. THESE WILL BE DISCUSSED. AS A WINTER SESSION OFFERING, THERE WILL ONLY BE A FINAL. UNDERSTANDING HOW TO SOLVE THE PROBLEMS WILL BE PARAMOUNT TO SUCCESSFUL COMPLETION OF THE COURSE. DO NOT LET THIS SLIDE!

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.