

BUS 222 BUSINESS STATISTICS II

COURSE OUTLINE

Prerequisites

BUS 221 or equivalent.

Course Description

Continues study of inferential statistics and application of statistical techniques and methodology in business. Includes analysis of variance, regression and correlation measurement of business and economic activity through the use of index numbers, trend, cyclical, and seasonal effects and the Chi-Square distribution and other non-parametric techniques. Uses the computer package, Minitab, to solve case studies.

Semester Credits: 3

Lecture Hours: 3

Lab/Recitation Hours: 0

**VIRGINIA WESTERN COMMUNITY COLLEGE
PO Box 14007
Roanoke, VA 24038
(540)-857-7273**



BUS 222 STATISTICS II

Course Objectives

At the completion of this course, the student should be able to use, interpret and critique the following methods:

- 1. Regression, including multiple and polynomial as well as simple linear regression.**
- 2. Contingency tables, multinomial experiment tests utilizing chi-square.**
- 3. Linear programming, including sensitivity analysis.**
- 4. Network analysis (graph theory) particularly in transportation models.**
- 5. Project scheduling including both deterministic (CPM) and stochastic (PERT) methods.**
- 6. Use a computer to obtain appropriate statistics for use in applied problems.**

BUS 222 STATISTICS II

Textbook

Discovering Business Statistics + Minitab Bundle, Nottingham, 9th edition, Hawkes Learning Systems.
ISBN 9781941552582

Topical Description

	<u>Topics</u>	<u>Chapter</u>
I.	ANOVA for Randomized Block Designs	14
II.	Contingency Tables and Goodness of Fit	15
III.	Simple Linear Regression and Correlation	16
IV.	Multiple Regression	17 & 18

The following topics will be taught from Introduction to Management Science, Bernard Taylor, 11th Edition, Prentice-Hall Publishing Company.

V.	Linear Programming	2-4
VI.	Integer Programming	5
VII.	Transportation and Assignment Methods	6
VIII.	Networks, PERT, and the Critical Path Methods	7 & 8
IX.	Decision Analysis	12
X.	Queuing Models	13
XI.	Inventory Management	16

Computer usage is stressed throughout the course. Students will use Minitab and Excel throughout the course.