

Grande Prairie Regional College  
Department of Arts, Commerce and Education

FEB. 07 2003

MANAGEMENT SCIENCE 3120  
Applied Statistics for Business and Economics II

Winter 2003

Instructor: Rick Beeson  
Office: C306  
Phone: 539-2864  
Office Hours: 10:00-11:30 MW

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**Course Description:**

Statistical inference for variance; statistical inference for the means; proportions and variances from two populations; analysis of variance; non-parametric statistics; joint probability distributions; covariance; correlation and independence; contingency tables; simple linear regression; multiple linear regression; non-linear regression; and time series analysis are topics covered in the course.

**Text:**

Paul Newbold, *Statistics for Business & Economics, Fifth Edition*, Prentice Hall, 2003

**Labs:**

There is a strong emphasis on the microcomputer and the statistical software, **SPSS for Windows**. This software is available in lab. Students are expected to become familiar with statistical analyses using SPSS. To integrate the computer use into the course, a term-paper is planned (data collection, data entry, model building, statistical calculation & output, output interpretation).

**Prerequisite:**

MS3010 or ST1510

**Grading:**

Term Paper	20 %
Examinations	80 %
First Exam	25%
Second Exam	25%
Final Exam	30 %

**Course Outline:**

Review:

Text Reading

Week 1 Jan6-10

Why Study Statistics:

Ch. 1

Week 2 Jan13-17

Describing Data:

Ch. 2

Week 3 Jan20-24

Summarizing Descriptive Relationships:

Ch. 3

Week 4 Jan27-31

Sampling and Sampling Distributions:

Ch. 7

Week 5 Feb3-7

Estimating with Confidence Intervals:

Ch. 8

Week 6 Feb10-14

Hypothesis Testing:

Ch. 9

Week 7 Feb24-28

Simple Linear Regression:

Ch. 10

Week 8 Feb17-21

Simple Reading Week:

Ch. ?

Week 9 Mar3-7

Multiple Linear Regression

Ch. 11

Week 10 Mar10-14

More on Regression

Ch. 12

Week 11 Mar17-21

Some Nonparametric Tests

Ch. 13

Week 12 Mar24-28

Goodness of Fit Tests and Contingency Tables

Ch. 14

Week 13 Mar31-Apr4

Tests of Variance & Analysis of Variance

Ch. 15

Week 14 Apr7-11

Time Series Analysis and Forecasting

Ch. 17

Week 15 Apr14-16

Additional Topics in Sampling

Ch. 18