Grande Prairie Regional College

School of Business

Department: Business Administration and Commerce

COURSE OUTLINE – WINTER 2008

MG 3120 3(3-0-0) UT

Applied Statistics for Business and Economics II

Instructor	Sukhvir Sandhu	**Phone**	539 - 2234 (office) 539 - 9787 (Home)
Office	C310	**E-mail**	SSandhu@gprc.ab.ca
Office Hours	M & W: 10:00 – 11:00 pm or by appointment		

Prerequisite(s):

MS3010 or ST1510

Required Text/Resource Materials:

Berenson, Leviine, Krehbiel, Basic Business Statistics, Tenth Edition, Prentice hall, 2004.
THE TEXT WILL BE USED EXTESIVELY. A calculator with Stats functions, preferably the Sharp EL-733A. A microcomputer and the statistical software, SPSS for windows, and is available in J131.

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.

To integrate the computer use into the course, demonstrations will be done during the class time and assignments will be given throughout the semester. At the end of the course, the students should have the skills of data entry, model building, statistical calculation & output, output interpretation.

Credit /Contact Hours:

This is a 3 credit course with 3 hours of lecture per week. Total 45 hours are assigned for this course. Students are expected to attend all lectures.

Delivery Modes:

For each topic listed, there will be a classroom lecture/ discussion and a demonstration of related statistical procedures. I will assign relevant textbook readings and problems, review key topic points regularly. Assignments and class tests will be scheduled to test your knowledge, understanding, and application of the material.

Regular classroom attendance is expected. Please do not be late. You should **study** each assigned reading both before and after it is discussed in class; apply your understanding by class participation and solving the required problems; ask questions in the class; come and see me during my office hours or make an appointment to clear up any misunderstandings or uncertainties about material covered in the class; and demonstrate your mastery of the subject matter whenever you get the chance – exams, assignments, and class participation.

For strong understanding of the concepts in this course requires a great commitment of time and team-work. Plan your schedule accordingly. Do not fall behind in the assigned readings and problems because it is difficult to catch up.

Transferability:

University of Alberta; University of Calgary*; University of Lethbridge; Athabasca University; Concordia University College; Canadian University College; King's University College*; Augustana University College.

An asterisk* beside any transfer institution indicates important transfer information. Consult Alberta Transfer Guide.

Objectives:

To understand the objectives of statistics, the information that it generates, and how the information can be used in students' business careers.

To create an awareness of different types of situations where it can be used to excel and compete in the field of business.

To develop the ability to use computer and computer software(s) in order to present the information in a standard professional format.

Grading Criteria:

Assignments	20%

- **(There will be total three or four assignments; one for sure before each final exam)**

First Exam	25%
Second Exam	25%
Final Exam	25%
Class participation/attendance	5%

Assignment and Exam Policies:

1. Assignments will be handed in at the beginning of class on the due date.
2. Exams will be written as scheduled.
3. Final examinations will be scheduled by the Registrar during the period of the 3rd week of April, 2008. **Do not plan any activities during this period.**

Grades will be assigned on the Letter Grading System.

Department of Business and Commerce

Grading Conversion Chart

Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A+	4	90 – 100	EXCELLENT
A	4	85 – 89	
A–	3.7	80 – 84	FIRST CLASS STANDING
B+	3.3	76 – 79	
B	3	73 – 75	GOOD
B–	2.7	70 – 72	
C+	2.3	67 – 69	SATISFACTORY
C	2	64 – 66	
C–	1.7	60 – 63	
D+	1.3	55 – 59	MINIMAL PASS
D	1	50 – 54	
F	0	0 – 49	FAIL

Course Schedule/Timeline:

Text Chapters 1 through 6 content except Chapter 4 will be reviewed and amplified through the use of computer applications. Chapter 7 through 14 will be studied in depth through the concept understanding, problem solving, and computer use.

Week	Text Reading
Week # 1 (Jan. 7 & 9) Introduction and Data Collection	Chapter 1
Week # 2 (Jan. 14 & 16) Presenting Data in Tables and Charts: Numerical Descriptive Measures	Chapter 2 & 3
Week # 3 (Jan. 21 & 23) Simple Linear Regression	Chapter 13
Week # 4 (Jan. 28 & 30) Some Important Discrete Probability Distribution The Normal Distribution	Chapter 5 & 6
Week # 5 (Feb. 4 & 6) Sampling Distributions Confidence Interval Estimation	Chapter 7 & 8
Week # 6 (Feb. 11 & 13) **First Exam (Week#1 to #4)** Fundamental of Hypothesis Testing One-Sample Tests	Chapter 9
Week #7 (Feb. 18 & 20) Reading Week	
Week # 8 (Feb. 25 & 27) Two Sample Tests	Chapter 10
Week # 9 (March 3 & 5) Analysis of Variance	Chapter 11

Week # 10 (March 10 & 12) Chapter 12
Chi-Square Tests and Non-Parametric Tests

Week #11 (March 17 & 19) Chapter 14
2nd Exam (Week #5, 6, 7, and 9)
Introduction to Multiple Regressions

Week # 12(March 24 & 26) Chapter 15
Multiple Regression Model Building

Week #13 (March 31 & April 2) Chapter 16
Time Series Analysis and Forecasting

Week # 14 (April 7 & 9) Chapter 18
Statistical Applications in Quality and Productivity Management

Final Exam (Week#10 to #14)
***The instructor reserves the right to change or cancel any of these dates and topics.**