Douglas College

A.	Division:	**Education**	Effective Date:	**January 2009**

B.	Department / Program Area:	**Commerce & Business Admin. Accounting Management**	Revision	**X**	New Course

If Revision, Section(s) Revised: **H**

Date of Previous Revision: **September 2004**
Date of Current Revision: **August 2008**

C:	**BUSN 3431**	**D**:	**Business Statistics II**	**E:**	**3**
	Subject & Course No.		Descriptive Title		Semester Credits

F: Calendar Description:

This course covers advanced topics in quantitative analysis including: analysis of variance, forecasting, trend analysis using linear and multiple regression, probability, decision analysis, and linear programming. Spreadsheets will be utilized in problem-solving.

G: Allocation of Contact Hours to Type of Instruction / Learning Settings

Primary Methods of Instructional Delivery and/or Learning Settings:

Lectures and Seminars

Number of Contact Hours: (per week / semester for each descriptor)

Lecture: **3 Hours**
Seminar: **1 Hour**
Total: **4 Hours**

Number of Weeks per Semester:

15 Weeks X 4 Hours per Week = 60 Hours

H: Course Prerequisites:

BUSN 2429 or BUSN 430

I: Course Corequisites:

Nil

J: Course for which this Course is a Prerequisite

Nil

K: Maximum Class Size:

35

L: PLEASE INDICATE**:**

	Non-Credit
	College Credit Non-Transfer
X	College Credit Transfer:

SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bctransferguide.ca)

M:	Course Objectives / Learning Outcomes

The student will be able to:
1. carry out interval estimation, hypothesis testing and other analyses related to variance;
2. conduct tests related to goodness of fit and independence;
3. find relationships between data sets using regression techniques;
4. develop forecasts using price indices, smoothing and regression;
5. analyze decisions using probability theory;
6. use computer spreadsheets in solving statistical problems.

N:	Course Content:

1. Review of Statistics: Chi-squared distribution, interval estimation and hypothesis testing, 2 populations.

2. Inference About Population Variance: Multinominal population, contingency tables, Poissan and Normal Distributions.

3. Tests of Goodness of Fit and Independence.

4. Analysis of Variance.

5. Linear Regression: Least Squares Method, r and r^2, variance, t and f tests, estimation and prediction, computer solution, residuals.

6. Multiple Regression: Least Squares Method, multiple r^2, t and f tests, multicollinearity, estimation and prediction, qualitative variables, residuals.

7. Index Numbers: price indices, computing an aggregate index, deflating a series.

8. Forecasting and Time Series: components, smoothing, trend projection, seasonality, projection using regression.

9. Decision Analysis: structuring the problem, decision-making with and without probabilities.

10. Linear Programming: formulating problems, graphical solutions, computer solutions, sensitivity analysis.

O:	Methods of Instruction

Lectures and computer seminars.

P:	Textbooks and Materials to be Purchased by Students

Anderson, D.R., Sweeney et al. Statistics for Business and Economics, Latest Ed. West Publishing Company

Supplement: Linear Programming

Excel spreadsheet applications text as selected by instructor:
Berk, K. N. and P. Casey. Data Analysis with Microsoft Excel, Latest Ed. Course Technology, Inc.
Middleton, M.R. Data Analysis Using Microsoft Excel, Latest Ed. Duxbury Press
Neufeld, J. L. Learning Business Statistics with Microsoft Excel, Latest Ed. Prentice Hall

Business Calculator: one of: Texas Instruments BA II+
                                      Texas Instruments BA35
                                      Hewlett Packard 10B
                                      Sharp EL-733a

Date: August 2008

Q:	Means of Assessment	
	Final Examination	30%
	Term Examination (1-3)	40% - 50%
	Computer Lab Test	5% - 10%
	Assignments	15% - 25%
	Participation	0% - 5%
		100%
R:	Prior Learning Assessment and Recognition: specify whether course is open for PLAR	
	Nil	

Course Designer(s): **David Waddington**   Education Council / Curriculum Committee Representative

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Dean / Director: **Robert Buller**   Registrar: **Trish Angus**

Date: August 2008