Douglas College

CURRICULUM GUIDELINES

A:	Division:	**Instructional**	Date:		**February 2002**
B:	Department/ Program Area:	**Commerce & Business Admin.** **Business Management**	New Course ☐	Revision	**X**

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

Date Last Revised: **1998-01: H**
1997-05: H,N,O,P,R

C:	**BUSN 431**	**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 Types of Instruction/Learning Settings

Primary Methods of Instructional Delivery and/or Learning Settings:

Lecture and Seminar

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

Lecture:	**3 Hrs.**
Seminar:	**1 Hr.**
Total:	**4 Hrs.**

Number of Weeks per Semester:

15 Weeks X 4 Hours Per Week = 60 Hours

H: Course Prerequisites:

BUSN 429 or BUSN 430 and effective September 2002, English 12 with a grade of "C" or better or approved equivalent.

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

| | College Credit Transfer: | Requested | | Granted | |

SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.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.   analyse 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+ OR Texas Instruments BA35
OR Hewett Packard 10B OR Sharp EL-733a

Q: Means of Assessment

Final Examination	30%
Term Examination (1-3)	40% -50%
Computer Lab Test	05% - 10%
Assignments	15% - 25%
Participation	0% - 05%
	100%

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

nil

Course Designer(s): **Joe Ilsever**   Education Council/Curriculum Committee Representative

Dean/Director: **Jim Sator**   Registrar: **Trish Angus**