A.	Division:	**Instruction**	Effective Date:		**September 2004**

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

If Revision, Section(s) Revised:	**C, H**
Date of Previous Revision:	**2002-09 H**
Date of Current Revision:	**2004-09**

C:	**D**:	**E:**
BUSN 3431	**Business Statistics II**	**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 and English 12 with a letter 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 **X** College Credit Transfer: 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. 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

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

Dean / Director: **Rosilyn G. Coulson**   Registrar: **Trish Angus**

Date: September 2004