



A: Division: **INSTRUCTIONAL** Date: **JANUARY 1998**  
 B: Faculty: **COMMERCE AND BUSINESS ADMINISTRATION** New Course:  
 Program: **ACCOUNTING MANAGEMENT** Revision of Course Information form: **MAY 1997**

C: **BUSN 431** D: **BUSINESS STATISTICS II** E: **3**  
 Subject & Course No. Descriptive Title Semester Credit

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.	Summary of Revisions: 1998-01 Sections: H 1997-05 Sections: H,N,O,P,R
---	---

G: Type of instruction: Hrs per week

Lecture:	3	Hrs.
Laboratory:		Hrs.
Seminar:	1	Hrs.
Clinical Experience:		Hrs.
Field Experience:		Hrs.
Practicum:		Hrs.
Shop:		Hrs.
Studio:		Hrs.
Student Directed Learning:		Hrs.
Other (Specify):		
Total:	4	Hrs.
Semester Total (4 x 15 wks):	60	Hrs.

H: Course Prerequisites:  
**BUSN 430 or BUSN 429**

I: Course Corequisites:  
nil

J: Course for which this Course is a Prerequisite:  
nil

K: Maximum Class Size:  
**35**

L: College Credit Transfer   
 College Credit Non-Transfer   
 Non-Credit

M: Transfer Credit: Requested:  X  
 Granted:

Specify Course Equivalents or Unassigned Credit as appropriate:

BCOU  
 SFU  
 UBC  
 UNBC  
 UVIC  
 Other: **CGA:QM2 (with BUSN 429 or BUSN 430)**

Course Designer(s): *D. Waddington*  
 Dean: **J. Sator**

Vice-President, Instruction: *J. McKendry*  
 Registrar: **P. Angus**

**N: 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

**O: COURSE OBJECTIVES**

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.

**P: COURSE CONTENT**

1. Review of Statistics: Chi-squared distribution, interval estimation and hypothesis testing, 2 populations.
2. Inference About Population Variance: Multinomial population, contingency tables, Poisson 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.

**Q: METHOD OF INSTRUCTION**

Lectures and Computer Seminars.

**R: COURSE EVALUATION**

Final Examination	30%
Term Examination (1-3)	40%-50%
Computer Lab Test	5%-10%
Assignments	15%-25%
Participation	<u>0%-5%</u>
	<u>100%</u>