

Quantitative Methods in Business – ACCT 369

Business Administration Program

Course Outline

COURSE IMPLEMENTATION DATE: OUTLINE EFFECTIVE DATE: COURSE OUTLINE REVIEW DATE: Pre 1998 September 2016 March 2021

GENERAL COURSE DESCRIPTION:

This course is designed to help students learn to express organizational problems in mathematical terms. Topics include linear programming; transportation, assignment and transshipment problems; project scheduling (PERT/CPM); inventory and waiting line models; simulation; decision theory; and forecasting. Microsoft Excel will be used for solving various business problems.

Program Information: This is a required course for a Business Administration Diploma with a major in either Accounting or Aboriginal Financial Management. It may also be used as an elective for other BUAD programs.

Delivery: This course is delivered in both face-to-face and online formats.

COTR Credits: 3

Hours for this course: 45 hours

Typical Structure of Instructional Hours:

Instructional Activity	Duration
Lecture Hours	45
Seminars / Tutorials	
Laboratory / Studio Hours	
Practicum / Field Experience Hours	
Other Contact Hours	
Total	45

Practicum Hours (if applicable):

Type of Practicum	Duration
On-the-job Experience	N/A
Formal Work Experience	N/A
Other	N/A
Total	

James Wishart, BA, MA

Signature

APPROVAL SIGNATURES:

Department Head Ildi Walkley E-mail: <u>walkley@cotr.bc.ca</u> Dean of Business and University Studies Darrell Bethune E-mail: <u>bethune@cotr.bc.ca</u>

Department Head Signature

Dean Signature

EDCO

Valid from: September 2016 – March 2021

Education Council Approval Date

COURSE PREREQUISITES AND TRANSFER CREDIT:

Prerequisites: STAT 106, COMP 153 or COMP 154

Students require a minimum grade of "C-" in a prerequisite course to progress to the subsequent course. A grade of "D" grants credit. Students require a minimum grade of "C" for credit towards the BBA degree

Flexible Assessment (FA):

Credit can be awarded for this course through FA

☑ Yes □ No

Learners may request formal recognition for flexible assessment at the College of the Rockies through one or more of the following processes: External Evaluation, Worksite Assessment, Demonstration, Standardized Test, Self-assessment, Interview, Products/Portfolio, Challenge Exam. Contact an Education Advisor for more information.

Transfer Credit:For transfer information within British Columbia, Alberta and other institutions, please visit <u>http://www.cotr.bc.ca/Transfer</u>.

Students should also contact an academic advisor at the institution where they want transfer credit.

Prior Course Number:BUAD 220 ⇔⇔ACCT 369Date changed:June 2010

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Helbaek, Morten and Brock McLellan (2010), *Essentials of Management Science*, Essex: Prentice-Hall.

Requires Access to Microsoft Excel

Please see the instructor's syllabus or check COTR's online text calculator <u>http://www.cotr.bc.ca/bookstore/cotr_web.asp?IDNumber=164</u> for a complete list of the currently required textbooks.

LEARNING OUTCOMES:

Upon the successful completion of this course, students should be able to

- define quantitative methods for business;
- define and use various types of models;
- set up and analyze linear programming problems;
- set up, analyze and apply transportation, assignment, and transshipment problems;
- define and apply project scheduling using PERT and CPM;
- define and apply inventory models;
- define and apply waiting line models;
- explore simulation techniques;
- apply decision analysis;
- explore forecasting techniques;
- use Microsoft Excel to solve specific business problems;
- use forecasting techniques related to environmental indicators and sustainability;
- apply decision analysis to environmental decisions; and
- critique the effectiveness/appropriateness of using forecasting technique related to environmental indicators and sustainability.

COURSE TOPICS:

- Linear Programming structure, concepts, sensitivity analysis and applications in business
- Distribution and Network Models
- Project Scheduling (PERT/CPM)
- Inventory Models
- Waiting Line Models
- Simulations using Excel
- Forecasting

See instructor's syllabus for the detailed outline of weekly readings, activities and assignments.

EVALUATION AND ASSESSMENT - Face-to-Face and Online Delivery:

Assignments	% Of Total Grade		
Assignments	40%		
Term Test	20%		
Final Exam	<u>40%</u>		
Total	100%		

Please see the instructor's syllabus for specific classroom policies related to this course, such as details of evaluation, penalties for late assignments and use of electronic aids.

EXAM POLICY:

Students must attend all required scheduled exams that make up a final grade at the appointed time and place.

Individual instructors may accommodate for illness or personal crisis. Additional accommodation will not be made unless a written request is sent to and approved by the appropriate Department Head prior to the scheduled exam.

Any student who misses a scheduled exam without approval will be given a grade of "0" for the exam.

COURSE GRADE:

Course grades are assigned as follows:

Grade	A+	А	A-	B+	В	B-	C+	С	C-	D	F
Mark (Percent)	≥ 90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	< 50

A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

ACADEMIC POLICIES:

See <u>www.cotr.bc.ca/policies</u> for general college policies related to course activities, including grade appeals, cheating and plagiarism.

COURSE CHANGES:

Information contained in course outlines is correct at the time of publication. Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment and marketing needs. The instructor will endeavour to provide notice of changes to students as soon as possible. The instructor reserves the right to add or delete material from courses.