ACCT-369 – Quantitative Methods in Business

Business

Effective Term & Year: Fall 2022
Course Outline Review Date: 2025-03-01

Program Area: Business Management

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 Management Diploma with a major in either Accounting or Aboriginal Financial Management. It may also be used as an elective for other business programs.

Delivery Methods: On-campus (Face-to-Face), Online

Credit Type: College of the Rockies Credits

Credits: 3

Course type/s: Business Management

Instructional Activity and Hours:

Activity	Hours
Classroom, Directed Studies or Online Instruction	45
Seminar/Tutorials	
Laboratory/Studio	

Practicum/Field Experience	
Co-op/Work Experience	
Other	
Total	45

Course Requisites:

- Complete all of the following
  - Earned a minimum grade of C- (55%) in each of the following:
    - STAT106 – Statistics (3)
  - Earned a minimum grade of C- (55%) in at least 1 of the following:
    - COMP153 – Introduction to Data Processing (3)
    - COMP154 – Computer Applications in Business (3)

Flexible Assessment: Yes

In some cases students may be able to apply for recognition of prior learning outside the classroom. This flexible assessment process provides equivalent course credit. It is a rigorous process that may include external evaluation, worksite assessment, demonstration, standardized test, self-assessment, interview, products/portfolio, and challenge exam, or other measures as appropriate. Tuition fees apply. Contact an education advisor for more information.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at either British Columbia or Alberta institutions, please see https://www.bctransferguide.ca/ or https://transferalberta.alberta.ca . For more transfer credit information, please visit https://www.cotr.bc.ca/Transfer

All requests for course transfer credit from institutions in British Columba or elsewhere should go to the College of the Rockies Enrolment Services office.

Textbook 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 https://textbook.cotr.bc.ca/ for a complete list of the currently required textbooks.

Learning Outcomes:

Upon the successful completion of this course, students will 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 Assessments

Assessment Type: On-Campus (face-to-face) and Online, or Hybrid

Assessment Type	% of Total Grade
Assignments	30%
Term Test	30%
Final Exam	40%
Total	100%

Grade Scheme

A+	A	A-	B+	B	B-	C+	C	C-	D	F
>=90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	<50

Evaluation Notes: Certificate and diploma students are required to maintain a minimum course grade of C- (55%) in all program courses. BBA students are required to maintain a minimum course grade of C (60%) and an average course grade of C+ in all program courses that contribute to the BBA.

Evaluation Notes Comments:

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 Attendance:

Students must attend all scheduled exams at the appointed time and place. Instructors may approve an alternate exam to accommodate an illness or personal crisis. Department heads will consider other written requests. Any student who misses a scheduled exam without prior approval will receive a "0" on the exam.

Academic Policies:

College of the Rockies policies related to courses can be found at https://cotr.bc.ca/about-us/college-policies/ and include the following:

- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
- Policy 2.5.8 Academic Performance
- Policy 2.5.3 Grade Appeal
- Policy 2.4.9 Student Concerns Re Faculty

Equivalent Course(s) and Course Code Changes

Prior Course Code: BUAD 220 >> ACCT 369

Date changed: June 2010

Course Changes:

The College of the Rockies updates course outlines regularly to meet changing educational, employment and marketing needs. The instructor will notify students in writing of any updates to this outline during the semester. The instructor reserves the right to revise, add or delete material while meeting the learning outcomes of this course outline.