Douglas College

EFFECTIVE: SEPTEMBER 2004
CURRICULUM GUIDELINES

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

B. Department / Program Area: Commerce & Business Admin. / Financial Services Studies

Revision [X] New Course [ ]

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

Date of Previous Revision: May 2003

Date of Current Revision: January 2004

C: Subject & Course No.	**D:** Descriptive Title	**E:** Semester Credits
FINC 231	Commercial & Financial Mathematics	3

F: Calendar Description: This course will provide an understanding of time value of money and its applications. Relevant mathematical concepts will be used to solve business problems. After a basic review of underlying mathematical and algebraic methodology, the course covers the mathematics of merchandising, linear break-even analysis, simple and compound interest; annuities, and amortization, sinking funds, bonds and investment decisions. The course will also introduce the student to basic statistics.

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

Number of Weeks per Semester:

15 Weeks X 4 Hours per Week = 60 Hours

H: Course Prerequisites:

English 12 with a grade of "C" or better or approved equivalent, and BC Principles of Math 11 or DVST 410.

I: Course Corequisites:

Nil

J: Course for which this Course is a Prerequisite

ACCT 410 and BUSN 254 and BUSN 380 and BUSN 404 and BUSN 429 and BUSN 470 and FINC 210 and FINC 255 and FINC 340 and FINC 345 and FINC 350 and FINC 420 and MARK 315 and MARK 440 and OADM 347

K: Maximum Class Size:

35

L: PLEASE INDICATE:

[ ] Non-Credit

[ ] College Credit Non-Transfer

[X] College Credit Transfer: Requested [ ] Granted [X]

SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)

M: Course Objectives / Learning Outcomes

At the end of the course, the successful student should be able to:

1. Demonstrate the mathematical and algebraic skills and use of logic to solve business-related problems;
2. solve mathematics of merchandising problems, including cash and trade discounts, mark-up and mark-down;
3. demonstrate competence in the solving of financial problems involving the calculation of simple and compound interest in discount, annuities, investment and management decisions;
4. solve basic linear problems in two variables and determine break-even positions in business;
5. understand and be able to use basic statistics.

N: Course Content:

1. Pertinent mathematical and algebra overview: review ratios, proportions, percent, fractions, exponents, problem-solving logic, introduce logarithms and weighted average.
2. Application of linear functions to a variety of business problems, including percent change, payroll and return on investment, discounts, mark-up, mark-down.
3. Cost Volume Profit Analysis: linear break-even by quantity, dollar amount, percent of capacity.
4. Simple interest: time value of money, equivalent values, promissory notes, T bills, commercial papers demand loans.
5. Compound interest: present, future and equivalent values, continuous compounding, interest rate and number of conversion period calculations, equivalent and effective interest rates.
6. Annuities: ordinary annuities, simple annuities, annuities due, complex annuities; loan amortization, mortgages, sinking fund perpetuities, present and future values, payment, interest rate and number of conversion period calculations, equivalent effective interest rates.
7. Bonds, business investment decisions, including net present value and internal rate of return.
8. Basic descriptive statistics, mean, median, mode, range, standard deviation, coefficient of variation, empirical rule.

O: Methods of Instruction

Material will be presented within an interactive lecture and seminar format.

P: Textbooks and Materials to be Purchased by Students

1. Jerome, Ernest F. Business Mathematics in Canada, latest ed. Toronto: Irwin Publishing.
2. Financial business calculator: Texas Instruments BA II+
   Texas Instruments BA 35
   Hewlett Packard 10B+ or 10B
   Sharp El733A

Q: Means of Assessment

Term Exams (3-4)	50% - 60%
Final Exam	30%
Assignments	5% - 15%
Participation	0% - 5%

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

No.

Course Designer(s): Laura Byrne

Education Council / Curriculum Committee Representative

Dean / Director: Rosilyn G. Coulson

Registrar: Trish Angus