# SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

## **SAULT STE. MARIE, ONTARIO**



## **COURSE OUTLINE**

COURSE TITLE: Business Mathematics

CODE NO.: MTH125-3 SEMESTER: 2

PROGRAM: Parks and Recreation

AUTHOR: The Mathematics Department

DATE: June 2014 PREVIOUS OUTLINE DATED: January

2014

APPROVED: "Colin Kirkwood" June/14

DEAN DATE

TOTAL CREDITS: 3

PREREQUISITE(S): None

HOURS/WEEK: 3

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#### I. COURSE DESCRIPTION:

Students will study business math concepts such as statistics, graphing, percentage applications, currency exchange, simple and compound interest, annuities, income/expense statements, balance sheets, and cash flows. Students will use these concepts in applications using spreadsheet software.

### II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Perform basic operations.

## Elements of the performance:

- understand and apply the mathematical order of operations
- read and write decimal numbers
- round decimal numbers
- add, subtract, multiply and divide decimal numbers
- determine equivalent fractions
- determine common denominators
- add, subtract, multiply and divide fractional numbers
- convert fractions to decimals
- calculate the exponent of whole numbers
- estimate and approximate results
- 2. Solve problems by applying fractions, decimals, and percents.

## Elements of the performance:

- convert decimal numbers to percentages and vice versa
- convert fractional numbers to percentages and vice versa
- determine percentages using a formula
- determine percentage increases and decreases using a formula
- solve problems involving sales tax, currency conversions, commissions, cash discounts, and trade discounts

3. Use spreadsheet software, efficiently and effectively, to perform calculations and manipulate data.

## Elements of the performance:

- use the common components of Excel spreadsheets
- employ methods that allow changes in data to be made without have to adjust actual formulas
- use Excel to automate the concepts discussed in outcomes 1 and 2 above
- 4. Apply spreadsheet (Excel) concepts to solve business problems.

## Elements of the performance:

- construct and interpret line graphs, bar graphs, and pie charts using Excel
- solve problems involving simple interest calculations, including finding interest, principal, or time, future values, and present values
- calculate loan repayment schedules
- determine future values and present values with compound interest
- determine future value, present value, periodic rent (payment), and term of a simple annuity
- calculate an amortization schedule for a simple annuity
- calculate and interpret simple descriptive statistics including mean, median, mode, and standard deviation
- perform using Excel a linear regression

### III. TOPICS:

- 1. Basic Concepts
- 2. Percentages
- 3. Business Math
- 4. Statistics

### IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- My Math Test CD from the Bookstore ISBN 0321557077 Prentice Hall Publishing
- 2. Calculator: (Recommended) SHARP Calculator EL-531W. The use of some kinds of calculators and other devices may be restricted during tests.

## V. EVALUATION PROCESS/GRADING SYSTEM:

Evaluation Methods	Weight
MyMathTest Class Activities and Assignments Tests	20% 40% <u>40%</u> 100%

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u> <u>Definition</u>	<u>Grade Point</u> <u>Equivalent</u>
A+ 90 – 100%	4.00
A 80 – 89.9%	4.00
B 70 – 79.9%	3.00
C 60 – 69.9%	2.00
D 50 – 59.9%	1.00
F (Fail) Below 50%	0.00

CR (Credit)	Credit for diploma requirements has been awarded.
S	Satisfactory achievement in field/clinical
U	placement or non-graded subject area. Unsatisfactory achievement in
	field/clinical placement or non-graded
	subject area.
Χ	A temporary grade limited to situations
	with extenuating circumstances giving a
	student additional time to complete the
	requirements for a course.
NR	Grade not reported to Registrar's office.
W	Student has withdrawn from the course
	without academic penalty.

#### VI. SPECIAL NOTES:

### Attendance:

Sault College is committed to student success, There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session

### VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.