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: **January 2013**   **PREVIOUS OUTLINE DATED:**   **January 2012**

APPROVED: **"Colin Kirkwood"**   **Jan 3/13**

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                              DEAN   **DATE**

TOTAL CREDITS: **3**

PREREQUISITE(S):   **None**

HOURS/WEEK: **3**

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.   Apply fractional and decimal operations with and without the use of a calculator.

This learning outcome will comprise approximately **20%** of the course.

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.   Apply fractional and decimal equivalents to percent and vice versa.

This learning outcome will comprise approximately **20%** of the course.

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
- use fractions, decimals and percents to solve problems involving sales tax, currency conversions, commissions, increase and decrease, cash discounts, and trade discounts

3.   Understand the usefulness of spreadsheet software.

This learning outcome will comprise approximately **30%** of the course.

Elements of the performance:

- use the common components of Excel spreadsheets
- use Excel to automate the concepts discussed in outcomes 1 and 2 above

4.   Apply spreadsheet (Excel) concepts to solve business problems.

This learning outcome will comprise approximately **30%** of the course.

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 of Fractions and Decimals   (09 hours)
2.   Percentages   (09 hours)
3.   Introduction to Excel Spreadsheets   (12 hours)
4.   Business Applications with Excel   (15 hours)

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. 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.

3. USB storage device.

4. Any additional information will be provided by the instructor or be available on the Internet

V. EVALUATION PROCESS/GRADING SYSTEM:

Evaluation Methods	Weight
Tests/Practical Tests/Quizzes	70%
Assignments	30%
	100%

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

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00
A	80 – 89.9%	
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 placement or non-graded subject area.
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X	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.   <u>OTHER EVALUATION CONSIDERATIONS</u>

1.   In order to pass this course the student must obtain an overall test/quiz average of **50%** or better, as well as, an overall assignment average of **50%** or better. A student who is not present to write a particular test/quiz, and does not notify the professor beforehand of their intended absence, may be subject to a zero grade on that test/quiz.

2.   Assignments must be submitted by the due date according to the specifications of the professor. Late assignments will normally be given a mark of zero. Late assignments will only be marked at the discretion of the professor in cases where there were extenuating circumstances.

3.   Any assignment/projects submissions, deemed to be copied, will result in a **zero** grade being assigned to **all** students involved in that particular incident.

4.   It is the responsibility of the student to ask the professor to clarify any assignment requirements.

5.   The professor reserves the right to modify the assessment process to meet any changing needs of the class.

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

The professor reserves the right to adjust the number of tests, the final exam, assignments and quizzes as warranted. Any modifications will be discussed in class. Students with special needs and/ or circumstances are required to identify their special needs with the professor.

Attendance is mandatory and the quizzes, in class and assigned work will only be marked when completed in class.

It is the students' responsibility to notify the professor in advance of any absences and it will be at the professor's discretion to allow rewrites, retakes, modified assignments or quizzes where warranted.

Work is to be completed by the assigned dates and times. Failure to do so may result in zero grades for the assigned work.

Some of the assigned work may be provided and/or completed through the internet via MathXLsoftware or MyMathtest software or LMS.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

The professor reserves the right to use other tools and/or techniques that may be more applicable. These other tools/techniques for effective communication will be discussed, identified and presented throughout the delivery of course content.

VII   COURSE OUTLINE ADDENDUM:

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