

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ON**

**COURSE OUTLINE**

**COURSE TITLE:** Mathematics

**CODE NO:** MTH 104-2

**SEMESTER:** Two

**PROGRAM:** Hotel & Restaurant Management

**AUTHOR:** J. McGauley

**DATE:** August 1997

**PREVIOUS OUTLINE DATED:** August 1996

**APPROVED:**

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**TOTAL CREDITS:**

**PREREQUISITES:** None

**SUBSTITUTE(S):** MTH 111, MTH 117, MTH 120, MTH 142

**LENGTH OF COURSE:**

**TOTAL CREDIT HOURS:** 32

Mathematics  
**Course Name**

MTH 104-2  
**Code No.**

### **I. COURSE DESCRIPTION:**

The goals of this course are that the students understand fractions, decimals, percents, and the application of these in business problems. Using metric system efficiently, understanding ratio and proportion and its applications, and constructing graphs and interpretation of them are also important.

### **II. STUDENT PERFORMANCE OBJECTIVES:**

The basic objectives are that the student develop an understanding of the methods studied, demonstrate a knowledge of the facts presented and show an ability to use these in the solution of problems. To accomplish these objectives, exercises are assigned. Test questions will be of near equal difficulty to questions assigned in the exercises. The level of competency demanded is the level required to obtain an overall passing average on the tests. The material to be covered is listed below.

### **III. TOPICS TO BE COVERED:**

#### **Approximate Time Frame**

- |   |          |
|---|----------|
| 1. Whole Numbers, Fractions, and Decimals                       | 10 hours |
| 2. Percents - Conversion to and from Fractions and Applications | 5 hours  |
| 3. Interest Calculations  | 5 hours  |
| 4. Metric Conversion  | 5 hours  |
| 5. Graphs and Tables  | 5 hours  |

**IV. LEARNING ACTIVITIES:**

TOPIC NUMBER	TOPIC DESCRIPTION	REFERENCE CHAPTER ASSIGNMENTS
1.0	WHOLE NUMBERS, DECIMALS AND FRACTIONS	Text: Questions
1.1	Reading and writing large numbers Place value	pages 1-37
1.2	Rounding off numbers	
1.3	Adding and subtracting fractions	pages 82-98
1.4	Multiply and divide fractions and mixed fractions	
1.5	Decimal fractions	
1.6	Operations with decimals	
2.0	PERCENTS	
2.1	Percent to decimal	pages 98-128
2.2	Decimal to percent	
2.3	Ratios and proportions	
2.4	Application	pages 271-300
3.0	INTEREST CALCULATIONS	
3.1	Compiling simple interest	pages 301-319 and pages 326-337
3.2	Use of interest tables	
3.3	Compiling exact interest	
3.4	Computing compound interest	pages 339-351 and pages 355-363
4.0	METRIC CONVERSIONS	Handout
4.1	Changing metric to metric units	
4.2	Changing metric to English units	
4.3	Application of metric and English conversions	
5.0	GRAPHS AND TABLES	
5.1	Reading and constructing graphs: bar graph, line graph and pie chart	pages 129-166
5.2	Statistics	

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## V. REQUIRED RESOURCES / TEXTS / MATERIALS:

1. Text: Brief Edition Business Math, Fourth Edition, (1996), Cleaves and Hobbs, Prentice Hall.
2. Calculator: (Recommended) SHARP Scientific Calculator EL-531G. The use of some kinds of calculators may be restricted during tests.

## VI. EVALUATION PROCESS/GRADING SYSTEM:

### MAJOR ASSIGNMENTS AND TESTS

While regular tests will normally be scheduled and announced beforehand, there may be an unannounced test on current work at any time. Such tests, at the discretion of the instructor, may be used for up to 30% of the overall mark.

At the discretion of the instructor, there may be a mid-term exam and there may be a final exam, each of which can contribute up to 30% of the overall mark.

The instructor will provide you with a list of test dates. Tests may be scheduled out of regular class time.

### ATTENDANCE

It is your responsibility to attend all classes during the semester. Research indicates there is a high correlation between attendance and student success.

If you are absent from class, it is your responsibility to find out from your instructor what work was covered and assigned and to complete this work before the next class. Your absence indicates your acceptance of this responsibility.

**Unexcused absence from a test may result in a mark of zero ("0").** Absence may be excused on compassionate grounds such as verified illness or bereavement. On return from an excused absence, you should ask your instructor to schedule the writing of a make-up test. Failure to do so will be considered as an unexcused absence.

**VI. EVALUATION PROCESS/GRADING SYSTEM (Continued):****METHOD OF ASSESSMENT (GRADING METHOD)**

A+	Consistently outstanding	(90%-100%)
A	Outstanding Achievement	(80% - 89%)
B	Consistently above average achievement	(70% - 79%)
C	Satisfactory or acceptable achievement in all areas subject to assessment	(55% - 69%)
X or R	A temporary grade, limited to situations with extenuating circumstances, giving a student additional time to complete course requirements <b>(See below)</b>	(45% - 54%)
R	Repeat - The student has not achieved the objectives of the course, and the course must be repeated	(0% - 44%)
CR	Credit exemption	

The method of calculating your weighted average will be defined by your instructor. Since grades are based upon averages, it follows that good marks in some tests can compensate for a failing mark in another test.

**Make-Up Test (if applicable)**

An "X" grade may be assigned at the end of the regular semester if you have met **ALL** of the following criteria:

- an overall average between 45% and 54% was achieved
- at least 50% of the tests were passed
- at least 80% of the scheduled classes were attended
- all of the topic tests were written

If you are assigned an "X" grade, you may convert it to a "C" grade by writing a make-up test on topics agreed to by the instructor. This test will be available at the time agreed to by your instructor.

At the end of the regular term, it is your responsibility to obtain your results from your instructor and, in the event of an "X" grade, to inquire when the make-up test will be available.

The score you receive on this make-up test will replace your original test score and be used to re-calculate your weighted average. If the re-calculated average is 55% or greater, a "C" grade will be assigned. If the re-calculated average is 54% or less, an "R" grade will be assigned.

## VI. EVALUATION PROCESS/GRADING SYSTEM (Continued):

### "R" and "X" Grades at the end of the Semester

If an "X" grade is not cleared by the specified date, it will become an "R" grade. Except for extenuating circumstances, an "X" grade in Math will not be carried into the next semester.

### "R" Grades during the Semester

A student with a failing grade and poor attendance (less than 80% attendance) may be given an "R" at any time during the semester.

## VII. SPECIAL NOTES:

### Special Needs

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.

### Advanced Standing

Students who have completed an equivalent post-secondary course must bring relevant documents to the Coordinator, Mathematics Department.

### Retention of Course Outlines

It is the responsibility of the student to retain all course outlines for possible future use in gaining advanced standing at other post-secondary institutions.

Substitute course information is available at the Registrar's office.

The instructor reserves the right to alter the course as he/she deems necessary to meet the needs of the students.

## VIII. PRIOR LEARNING ASSESSMENT:

There is a MTH 104 Challenge exam in place.

Students who wish to apply for advanced credit in the course should consult the instructor or the Prior Learning Assessment Office (E2203).