SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE:	Math Level 5		
CODE NO. :	MTH050	**SEMESTER:**	n/a
PROGRAM:	Academic Upgrading		
AUTHOR:	Doug Cressman		
DATE:	January, 2010	**PREVIOUS OUTLINE DATED:**	August, 2008
APPROVED:	"Penny Perrier"		Jan. 2010
	CHAIR		**DATE**
TOTAL CREDITS:	n/a		
PREREQUISITE(S):	LBS 4 or Placement Test		
HOURS/WEEK:	5		

I. COURSE DESCRIPTION: A self-directed course in which the learner, under direct supervision of the professor, focuses on basic mathematical foundations including: ratio and percent, fractions and decimals, then progresses to solving and graphing linear and non-linear relationships, concluding with an introduction to probability. Although not assumed, it is entirely possible to complete the requirements for this course in one semester.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Consolidate various numerical skills, and manipulate first-degree polynomials
   Potential Elements of the Performance:
   - Solve mathematical problems involving fractions, decimals, ratio and percent
   - Understand the concept of a variable
   - Add, subtract and multiply polynomials
2. Solve and graph linear relationships
   Potential Elements of the Performance:
   - Interpret a scatter plot and line of best fit
   - Identify dependent and independent variables
   - Determine the rate of change of a line
   - Create a properly labeled and scaled scatter plot and line of best fit
   - Graph both direct and partial variations
   - Problem solve using linear models
3. Solve and graph non-linear relationships
   Potential Elements of the Performance:
   - Explain the difference between linear and non-linear relationships
   - Make a table of values and graph a non-linear relationship
   - Problem solve using non-linear models

4. Calculate and express probabilities, and describe results
   Potential Elements of the Performance:
   - Express the probability of a simple event as a fraction, decimal or percent
   - Interpret probabilities expressed as fractions, decimals or percents
   - Apply principles of probability to simple experiments

III. TOPICS:

1. Percents, fractions and decimals
2. Ratio
3. Variables and Polynomials
4. Linear and Non-linear equations and graphs
5. Statistics and probability

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Independent Learning Centre. Mathematics MFM1P-C Lessons 1-5, 11-15, 16-20, and MEL4E Lessons 1-4

V. EVALUATION PROCESS/GRADING SYSTEM:

At the completion of each unit, a unit test is given. The test must be passed at a minimum of 60%. The final mark is calculated as an average of the unit test marks. The following semester grades will be assigned to students:

As modified from the post-secondary programs.

Grade	Definition
A+	90 – 100%
A	80 – 89%
B	70 - 79%
C	60 - 69%
F	59% and below
W	Student has withdrawn from the course without academic penalty.

VI. SPECIAL NOTES:

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Retention of Course Outlines:
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Course Outline Amendments:
The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Exemption from Topics:
Depending on evidence of prior learning, and at the discretion of the professor, credit may be given for any of the units of this level.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon demonstrating proof of same and at the discretion of the professor.