SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	Algebra		
CODE NO. :	MTH 121	**SEMESTER:**	2
PROGRAM:	Liberal Arts and Science		
AUTHOR:	Updated by: J. Sufady for the Mathematics Department		
DATE:	December 7, 2004	**PREVIOUS OUTLINE DATED:**	February 2004
APPROVED:			

_____ _____

DEAN **DATE**

TOTAL CREDITS:	5
PREREQUISITE(S):	MTH 143
HOURS/WEEK:	5

I. COURSE DESCRIPTION:

The objectives of this course are to develop the student's skill in manipulating algebraic terms with enough dexterity to be able to solve linear, fractional and quadratic equations and to be able to solve for a specified variable in literal equations.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. *Add, subtract ,multiply and divide : positive and negative integers fractions and algebraic expressions
   *perform calculations using the Order of Operations
   * evaluate algebraic expressions

2. *solve all forms of linear equations
   *rearrange formulas
   *sole worded problems

3. *add, subtract, multiply and divide polynomials
   *work in scientific notation
   *use negative exponents

4. *common factor
   *factor a difference of two squares
   *factor a quadratic
   *solve a quadratic by factoring

5. *add, subtract, multiply and divide algebraic fractions
   *solve fractional equations

6/7 *graph linear equation
   *find the slope of a line
   *determine lines that are parallel or perpendicular to another line
   *use functional notation

8. *solve a system of equations
   *solve worded problems involving a system of equations

9. *Add, subtract , multiply and divide radicals
   *apply the Pythagorean Theorem

10. *solve quadratic equations
    *graph quadratic equations

III. TOPICS:

1. The Language of Algebra
2. Signed Numbers
3. Equations
4. Polynomials
5. Factoring
6. Algebraic Fractions
7. Graphing Linear Equations
8. Systems of Linear Equations
9. Radicals
10. Quadratic Equations

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Beginning Algebra, Fourth Edition, Form A. Streeter and Alexander

2. Calculator: SHARP Scientific Calculator EL-531G. *The use of some kinds of calculators may be restricted during tests.*

V.

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	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. 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 703 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.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities*. Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

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.

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

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 successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.