

THE SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: Algebra

CODE NO. : MTH121-5 **SEMESTER:** One

PROGRAM: General Arts and Science

AUTHOR: Math Department

DATE: August **PREVIOUS OUTLINE DATED:** January
2006 2006

APPROVED:

	DEAN	DATE
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TOTAL CREDITS: 5

PREREQUISITE(S): None

HOURS/WEEK: 5 hours/week

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*For additional information, please contact Colin Kirkwood, Dean,
School of Technology, Skilled Trades, Natural Resources, and Business
(705) 759-2554, Ext. 2688*

I. COURSE DESCRIPTION:

In this introductory algebra course students will learn concepts and skills leading to applications. For those planning to enroll in programs that require technical math, this course establishes a solid foundation. This course is also well suited to those who are entering fields of study where math is not a required component of the curriculum but where a working knowledge of algebra is expected. Topics of study include polynomials, factoring, graphing, solving linear equations and systems, exponents and radicals, and quadratic equations.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Use basic algebraic concepts to solve linear equations.
2. Use factoring techniques to solve fractional linear equations.
3. Graph linear equations and inequalities using a variety of techniques.
4. Solve systems of linear equations using by graphical and algebraic methods.
5. Solve quadratic equations using a variety of techniques.

III. TOPICS:

	Approximate Time Frame (Hours)
1. An Arithmetic Review	5
2. Equations	6
3. Polynomials	9
4. Factoring	8
5. Algebraic Fractions	10
6. An Introduction to Graphing	6
7. Graphing	6
8. Systems of Linear Equations	9
9. Exponents and Radicals	8
10. Quadratic Equations	8

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Beginning Algebra, 6th Edition, Hutchison, Bergman, Hoelzle, Baratto
2. Calculator: SHARP Scientific Calculator EL-531.

The use of some kinds of calculators, cell phones, and other electronic devices may be restricted during tests.

V. EVALUATION PROCESS/GRADING SYSTEM:

There will be five tests each worth 20% of the final grade.

- Test 1 will cover Topics 1, 2 & 3.
- Test 2 will cover Topics 4 & 5.
- Test 3 will cover Topics 6 & 7.
- Test 4 will cover Topic 8.
- Test 5 will cover Topics 9 & 10.

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
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 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.

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.