



**I. COURSE DESCRIPTION:**

When the student has successfully completed this course, he/she will have demonstrated an acceptable ability to pass tests based upon the course contents as listed elsewhere. If, after completing the course, the student takes further courses (or employment) in which he/she is required to apply this material, he/she should then, through practice, be able to develop a good command of this subject matter.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

The basic objectives are that the student develop an understanding of the methods studied, a knowledge of the facts presented and an ability to use these in the solution of problems. To accomplish these objectives, exercises are assigned. Tests questions will reflect the sort of work contained in the assignments. The level of competency demanded is the level required to obtain an overall passing average on the tests.

**III. TOPICS:**

	Approximate Time Frame (Hours)
1 Fractional equations and formulae	9 hours
2 Algebraic and graphical solution of systems of equations	8 hours
3 Logarithms	4 hours
4 Trigonometry	9 hours

<b>TOPIC NUMBER</b>	<b>TOPIC DESCRIPTION</b>	<b>REFERENCE CHAPTER ASSIGNMENTS</b>
<b>1.0</b>	<b>ALGEBRAIC FRACTIONS</b>	
1.1	Review - Equivalent fractions	Ex. 17-1, pp. 366-367
1.2	Multiplication and division of fractions	Ex. 17-2, pp. 370-372
1.3	Addition and subtraction of fractions	Ex. 17-3, pp. 378-379
1.4	Solving fractional equations	Ex. 18-1, p. 389
1.5	Literal equations and formulae	Ex. 18-2, p. 392
1.6	Applications	Ex. 18-3, pp. 397-398
1.7	Review exercises	pp. 398-399
<b>2.0</b>	<b>ALGEBRAIC AND GRAPHICAL SOLUTION OF SYSTEMS OF EQUATIONS</b>	
2.1	Solving systems of equations by graphing	Ex. 19-1, pp. 407-409
2.2	Solving systems of equations by addition	Ex. 19-2, pp. 412-413
2.3	Solving systems of equations by substitution	Ex. 19-3, p. 415-416
2.4	Solving word problems by using systems of equations in two unknowns	Ex. 19-4, pp. 420-422
2.5	Review exercises	pp. 436-437
<b>3.0</b>	<b>Logarithms</b>	
3.1	Common and natural logarithms	Ex. 28-2, pp. 654-655
3.2	Applications of logarithmic equations	Ex. 28-5, p. 666
<b>4.0</b>	<b>TRIGONOMETRY</b>	
4.1	Sine, cosine and tangent functions	Ex. 15-1, p. 308
4.2	Inverse trigonometric functions	Ex. 15-2, p. 311
4.3	Solve right triangles	Ex. 15-3, pp. 317-318
4.4	Solve word problems by using trigonometry	Ex. 15-4, pp. 321-325
4.5	Find the functions of angles of any size	Ex. 22-1, pp. 510-511
4.6	Find an angle from a given function value	Ex. 22-2, p. 517
4.7	The Sine Law	Ex. 22-3, pp. 522-523
4.8	The Cosine Law	Ex. 22-5, pp. 530-531
4.9	Review exercises	pp. 329-330, 532-533

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

1. Foundations of Technical Mathematics, Canadian Edition, Calter
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 three tests.

- Test 1 will cover Topic 1
- Test 2 will cover Topic 2 & 3
- Test 3 will cover Topic 4

The following semester grades will be assigned to students:

<b>Grade</b>	<b>Definition</b>	<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.

### 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.

### Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. 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.

Applied Resource Calculations 2  
Course Name

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MTH127-2  
Code No.