

COURSE DESCRIPTION:**I.**

This first level mathematics course for the pre-health program begins with a review of arithmetic operations with whole numbers, fractions, and decimals. Concepts of ratio and proportion and percents are studied. A measurement section includes metric and imperial units, uncertainty and significant digits. This is followed by calculations involving order of operations, scientific notation, significant figures, and units of measure. Problems involving linear relationships are then solved using formula rearrangement. Quadratic relationships are explored.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Perform calculations involving whole numbers, fractions, and decimals with and without a calculator.
2. Solve problems involving ratio, proportion, and percent.
3. Use different units of measure.
4. Apply order of operations rules and work with approximate numbers and units of measure and in scientific notation as required.
5. Use basic algebraic concepts to solve problems involving linear equations.
6. Manipulate formulas and literal equations.
7. Graph linear functions.

III. TOPICS:

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| 1. Review of Arithmetic | A-1 – A-7; 1.1 – 1.3 |
| 2. Scientific Notation and Significant Digits | 1.6; 2.4 |
| 3. Formula Rearrangement | 3.1;4.2 |
| 4. Ratio & Proportion | 4.5 |
| 5. Units of Measurement; Reductions,
Conversions | 2.1 – 2.3 |
| 6. Percentages | A-8 |
| 7. Introduction to Algebra | 3.2 – 3.5 |
| 8. Solving Simple Equations | 4.1 |
| 9. Graphing | Chapter 5 |
| 10. Linear Functions | Chapter 7 |

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

1. Washington, A. J., Triola, M.F., Reda, E. E. (2008). Introduction to technical mathematics (5th ed.). Toronto: Pearson Addison Wesley
2. Calculator: (Recommended) 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 unit tests each worth 20% of the final grade.

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%	
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 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 advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.