



**I. COURSE DESCRIPTION:**

Students will learn to apply basic mathematical concepts to solve problems involving fractions, decimals, percentages, ratio and proportion formulae, algebra and geometry

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

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

1. Define simple mathematical terms such as “circumference”, “volume”, “area” and “Pythagorean Theorem”.

Convert a variety of weights and measures from metric to imperial.

2. Apply area and volume formulae to solve practical problems.

Demonstrate the ability to add, subtract and convert between decimals, fractions and percentages.

3. Demonstrate the ability to apply the Pythagorean theorem and basic trigonometry to solve practical problems that may be encountered in the field.

4. Demonstrate the ability to solve rate conversion problems.

5. Solve problems involving ratios and proportions.

**III. TOPICS:**

1. Terminology and definitions related to trades math.
2. Problem solving involving units of length.
3. Converting units of area and length to equivalent units.
4. Converting units of volume.
5. Determining volume of common shapes (ex. cubes, cylinders).
6. Determining the area of a variety of common shapes (ex. circles, squares, rectangles and triangles).
7. Adding and subtracting fractions and decimals.
8. Conversion of fractions and decimals to percentages.
9. Learning the Pythagorean theorem.
10. Learning the three basic trigonometric functions.
11. Conversion of rates from one unit to another.
12. Problem solving involving rate conversions.
13. Express ratios in the simplest terms.

14. Solve problems involving ratios.
15. Solve problems involving proportions.

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

- Scientific calculator

**V. EVALUATION PROCESS/GRADING SYSTEM:**

Students must submit assignments by specified due date. Five-percent per day will be deducted from the final grade for every day the assignment is late up to a maximum of three days. Students will receive a final grade of zero after three days.

Students will receive a final grade of zero on all missed quizzes and exams unless written notification is received at least 24-hours in advance

Theory Testing	20%
Application Exercises	40%
Attendance	10%
Final Exam	30%

The following semester grades will be assigned to students:

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