Elementary Technical Mathematics
Outline of Instruction

Course Information
Organization: Monroe County Community College
Development Date: 1/25/2011
Course Number: MATH 119
Division: Science/Mathematics
Total Credits: 2

Description
This course provides basic mathematics preparation for students in technology programs. It emphasizes fundamental operations of algebra and the solution of linear equations relating to technical applications. The course also includes estimation, scientific and engineering notation, proportion and variation, measurement systems and conversion methods, precision, accuracy and error. The purpose of this course is to acquaint students with the type of mathematics that is used in the technical area.

Major Units
1. Real Numbers
2. Estimation
3. Engineering Notation
4. Solving Equations
5. Solving Applied Problems
6. Fractional Equations
7. Percent, Proportion and Variation
8. Calculator Operations
9. Measurements
10. Formula Rearrangement

Types of Instruction

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Contact Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Presentation</td>
<td>30</td>
<td>2</td>
</tr>
</tbody>
</table>

Prerequisites
RDG 090 and ENGL 090 and MATH 090 or qualifying scores on ACT or COMPASS tests

Course Outcomes
1. Identify scientific notation.
2. Identify engineering notation.
3. Demonstrate written solutions to applied problems using appropriate notation and units.
4. Demonstrate solutions to applied problems using given formulas.
5. Demonstrate solutions to applied word problems involving percents, ratios, proportions and variations.
6. Rearrange formulas to solve for any specified variable.
7. Demonstrate estimation of answers to arithmetic operations without performing extensive pencil and paper calculations or using a calculator.
8. Demonstrate conversion of a given measurement to another specified equivalent using conversion factors.