Print Date: 7/29/14

Course Objectives/Course Outline
Spokane Community College

Course Title:	**Electrical Math**
Prefix and Course Number:	**ELMT 111**

Course Learning Outcomes:
By the end of this course, a student should be able to:

- apply the four fundamental operations of mathematics to solve electrical calculations
- demonstrate knowledge of the principles of Ohm's Law
- use algebraic formulas to solve complex electric circuits

Course Outline:

I. Arithmetic of Whole Numbers
   A. Addition of Whole Numbers
   B. Subtraction of Whole Numbers
   C. Multiplication of Whole Numbers
   D. Division of Whole numbers
   E. Order of Operations
   F. Using a Calculator
   G. Whole-Number Calculations
II. Fractions
   A. Working with Fractions
   B. Multiplication of Fractions
   C. Division of Fractions
   D. Addition and Subtraction of Fractions
III. Decimal Fractions
   A. Addition and Subtraction of Decimals
   B. Multiplication and Division of Decimal Numbers
   C. Decimal Fractions
IV. Percents
   A. Introduction to Percent
   B. Percent Problems
   C. Application of Percent Calculations
V. Measurement
   A. Working with Measurement Numbers
   B. Units and Unit Conversion
   C. Metric Units
   D. Direct Measurements
VI. Pre-Algebra
   A. Addition of Signed Numbers
   B. Subtraction of Signed Numbers
   C. Multiplication and Division of Signed Numbers
   D. Exponents and Square Roots
   E. Using a Calculator to Find Powers and Roots
VII. Basic Algebra
   A. Algebraic Language and Formulas
   B. Adding and Subtracting Algebraic Expressions
   C. Solving Equations and Formulas
   D. Solving Word Problems
   E. Ratio and Proportion
   F. Multiplying and Dividing Algebraic Expressions
   G. Scientific Notation