Alexandria Technical and Community College

MATH 1455: Applied Technical Mathematics

A. COURSE DESCRIPTION

Credits: 2
Lecture Hours/Week: 2
Lab Hours/Week: *.*
OJT Hours/Week: *.*

Prerequisites:
This course requires any of these eight prerequisites
   ATCC Arithmetic
   MATH 0000 - Preparatory Math for Health Sciences (Number of Years Valid: 5)
   MATH 0429 - Beginning Algebra (Minimum grade: 2.0 GPA Equivalent and Number of Years Valid: 5)
   Algebra College Level
   ATCC Calculus-Level Placement
   ATCC Mathematical Reasoning
   ATCC Fund of Physics
   A score of 2 on test Arithmetic

Corequisites: None
MnTC Goals: None

This course teaches math concepts used by engine technicians in trade and industry formulas. Emphasis is on practical applications of ratios and percentages, measurement conversions, geometric relationships, and use of many industry formulas. Prerequisite(s): College level math score on a placement test or a minimum grade of "C" in MATH 0322 College Prep Tech Math.

B. COURSE EFFECTIVE DATES: 05/19/2014 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Converting measurements between systems
2. Applying geometric formulas such as perimeter, area, and volume
3. Problem solving using ratios, proportions, and percentages
4. Determining engine measurements
5. Problem solving using transmission and gear ratios
6. Applying formulas to hydraulic systems

D. LEARNING OUTCOMES (General)

1. The learner will select and utilize the appropriate industry formula to solve applied technical problems.
2. The learner will convert measurements within and between the US customary system and the metric system.
3. The learner will use problem solving techniques to solve applied technical problems, providing the answer in simplest form.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None
F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted