**DIES 1455: Applied Technical Mathematics**

**A. COURSE DESCRIPTION**

Credits: 2  
Lecture Hours/Week: 2  
Lab Hours/Week: 0  
OJT Hours/Week: *.*

Prerequisites:  
This course requires both of these prerequisites  
DIES 1635 - Hydraulic Fundamentals (Number of Years Valid: 5)  
DIES 1632 - DC Electricity (Number of Years Valid: 5)

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.

**B. COURSE EFFECTIVE DATES:**  10/27/2022 - 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