

## **MASTER SYLLABUS**

### **DVMA 0090 DEVELOPMENTAL MATHEMATICS**

#### **COURSE DESCRIPTION:**

This applied mathematics course provides a review for the student who needs to master the fundamental numerical operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. This course also assists the student in acquiring a better understanding of percent, ratio and proportion, measurements and geometry.

**PREREQUISITES:** ACT, COMPASS, or ASSET Placement Test.

#### **COURSE OBJECTIVES:**

The purpose of this applied mathematics course is to provide instruction that will enable students to acquire a better understanding of basic mathematical concepts, thus providing a foundation for the next higher-level mathematics course or proficiency in career preparation courses

#### **SPECIFIC COMPETENCIES:**

Upon successful completion of this course, the student will be able to:

1. Add, subtract, multiply, and divide whole numbers.
2. Simplify expressions using the Order of Operation.
3. Determine the least common denominator (LCD).
4. Add, subtract, multiply, and divide mixed numbers and fractions.
5. Write an improper fraction as a mixed or a whole number.
6. Write a mixed number as an improper fraction.
7. Determine equivalent fractions and reduce fractions to lowest terms.
8. Add, subtract, multiply, and divide decimals
9. Compare fractions to decimals; convert fractions to decimals

#### **MID POINT**

10. Write the ratio of two quantities in simplest form
11. Solve proportions and determine whether they are true
12. Use ratios and proportions to set up and solve problems.
13. Write a percent as a decimal.
14. Write a fraction or a decimal as a percent.
15. Find the amount when the percent and the base are given.
16. Find the percent when the base and the amount are given.
17. Find the base when the percent and the amount are given.
18. Compare the value of integers using  $>$ ,  $<$ , or  $=$ .
19. Demonstrate real-life applications of US standard linear measurement: perimeter, area, and volume of basic shapes.
20. Demonstrate an understanding of lines, angles, and similar triangles.