MAT 128     Math for Elementary Teachers I

CREDIT HOURS: 3.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:
The course provides the future elementary school teacher with a perspective for understanding mathematics taught in the elementary school. Topics include the study of problem solving techniques, fundamental concepts and structure of number systems, sets, numeration systems, integers, number theory and rational numbers.

PREREQUISITES: MAT 112

EXPECTED COMPETENCIES:
Upon successful completion of this course students will exhibit growth in the following areas:
1. Mathematical Problem Solving
   1.1 Reasoning with different problem solving approach
2. Communication in Mathematics
   2.1 Whole numbers and basic operation on whole numbers using set concepts
   2.2 Sequences as functions
3. Reasoning in Mathematics
   3.1 Various types of numerical systems and other bases
   3.2 Algorithms for addition, subtraction, multiplication and division
   3.3 Mental math and estimation
4. Integers and Number Theory
   4.1 The system of integers
   4.2 Understanding of basic number theory
   4.3 Prime numbers from a historical perspective
5. Rational Numbers as Fractions
   5.1 Sets of rational numbers
   5.2 How to teach students how to add, subtract, and multiply fractions
6. Decimals, Percent, and Real Numbers
   6.1 An overview on decimals, percent, and real numbers
   6.2 Compute interest in real world applications

ASSESSMENT METHODS:
Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:
90%-100% = A
80%-89.9% = B
70%-79.9% = C
60%-69.9% = D
<60% = E