

**Catalog Description:**

Math 1125 involves numbers, operations, geometry, measurement, and mathematical reasoning for prospective elementary school teachers.

**Prerequisite:**

A grade of C- or above in 1075; or credit for 1074, 75, or 104; or Math Placement Level R or above; or ACT math score  $\geq 22$  or SAT math score  $\geq 520$  (scores must be less than 2 years old) and enrollment in Early Childhood or Special Education major, or in Middle Childhood major or pre-major with area of concentration different than Math.

**Exclusions:**

Not open to students with credit for 106.

**Purpose of Course:**

To develop an appreciation of, and basic competency in, the use of analytical thought in the development of a cohesive body of useful mathematical knowledge, with special emphasis on topics encountered in elementary and middle school mathematics programs. Math 1125 addresses the meaning of whole numbers, integers, rational numbers, and operations with these, number theory, and algebraic thinking. *Appropriate only for those preparing to become early childhood educators and for those preparing to teach subjects other than math in middle school.*

**Follow-up Courses:**

Math 1126.

**Text:**

*Mathematics for Elementary Teachers, with Activity Manual*, 4<sup>rd</sup> Edition, by Sybilla Beckmann, Pearson, ISBN for the package is 9780321836715 (loose-leaf) and Student Packet.

**Topics List:**

1. Counting and the decimal system.
2. Fractions and integers and their meaning.
3. Addition and subtraction of fractions, decimals, and integers.
4. Multiplication of fractions, decimals, and integers.
5. Division of fractions, decimals, and integers.
6. Ratios and proportional reasoning.
7. Number theory: factors and multiples, LCM, GCF, divisibility tests, prime numbers, unique factorization, notations for fractions and decimals.
8. Algebraic thinking: writing expressions, solving equations, sequences.
9. Problem solving and justification are themes of the course.

\*Currently taught in either lecture/recitation or workshop format.