

Mathematics 105
Su, Au, Wi

5 cr.

Fundamental Mathematics
Concepts for Teachers I

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

Prerequisite:

Mathematics 075 or 104, or Course Code L, M, N or R on Math Placement Test. Math 105N is open only to Rank 4 and GRD EDU students, and to students who have applied to the M. Ed program.

Catalog Description:

Development of basic ideas of arithmetic, algebra, and geometry as appropriate for teachers.

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 105 deals with the whole number system, integers, rational numbers, and combinatorial counting techniques.

Follow-up Course:

Math 106

Text:

Mathematics for Elementary Teachers, Second Edition, (2008) by Sybilla Beckmann, Pearson/Addison-Wesley.

and

Mathematics for Elementary Teachers: Activities Manual, Second Edition, (2008) by Sybilla Beckmann, Pearson/Addison-Wesley.

Topics List

- I. Problem solving
- II. Numbers and the decimal system
- III. Fractions
- IV. Addition and subtraction
- V. Multiplication
- VI. Multiplication of fractions, decimals, and negative numbers
- VII. Division