

SYLLABUS
MATH 14001 – Basic Mathematical Concepts I
(4 Credit Hours)

Catalog Information:

Development of the real number system and its sub-systems, open sentences, numeration systems, modular arithmetic, and some number theory concepts. This course may be used to satisfy the LERs.

Prerequisite: A grade of C (2.0) or better in either of MATH 10005 or MATH 10034, or appropriate placement test score.

Text: *Mathematics for Elementary Teachers: A Contemporary Approach*, by Musser, Burger, & Peterson

Topics:

- Set Theory (4 days)
- Relations and Functions (2 days)
- Logic & argument (5 days)
- Problem solving (5 days)
- Place Value in Base Ten and Other Bases (3 days)
- Operations with Whole Numbers (9 days)
 - properties of operations
 - algorithms
 - models for operations
 - order of operations
 - operations in other bases
- Number Theory (5 days)
- Clock and Modular Arithmetic (3 days)
- Integers (5 days)
 - properties of operations
 - models for operations
 - algorithms for operations
- Ratio, Proportion, and Percent (3 days)
- Irrational Numbers and Operations (2 days)

Tests: (4 days)

Review for Tests (4 days)

Review for Final Exam (3 days)