

WEBSTER UNIVERSITY

COURSE SYLLABUS

MTHC 5150.01 **Andrea Rothbart**
COURSE NUMBER AND SECTION **INSTRUCTOR**

NUMBER SYSTEMS **TERM: Summer 2003**
COURSE TITLE

50
SITE

Course Description: (Student focus, rationale, scope, prerequisites)

This course provides middle-school teachers with a deeper understanding of the real number system. Topics covered include arithmetic algorithms in negative, and whole number bases; rational and irrational numbers; number properties; mental arithmetic; and number puzzles and games.

- Class 1:** The Integers; Number Properties and Mental Arithmetic
- Class 2:** Whole Number Bases
- Class 3:** Calculations in whole number bases; binary trick; Balance Scale application
- Class 4:** Base Negative Ten
- Class 5:** Calculations in Base Negative 10
- Class 6:** Quiz
- Class 7:** The Rationals
- Class 8:** Repeating Decimals
- Class 9:** Expressing repeating decimals as fractions
- Class 10:** Irrational Numbers;
- Class 11:** The Real Number System
- Class 12:** Quiz

RESOURCES: instructor will provide necessary written materials

EVALUATION: Based upon class participation and quizzes.

This syllabus is subject to change at the discretion of the instructor. Therefore, regular attendance is required.