

**WEBSTER UNIVERSITY**

**COURSE SYLLABUS**

**MTHC 5350.01**  
**COURSE NUMBER and SECTION**

**Andrea Rothbart**  
**INSTRUCTOR**

**LOGIC**

**TERM: Fall, 2004**

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

This course is an introduction to mathematical logic and proofs.

**Learning Outcomes: (Goals, objectives, course outcomes, etc.)**

Students will become more sensitive to the use of language and logic and will become better able to express mathematical ideas, including mathematical arguments. The student will also be introduced to some materials on reasoning that can be used in his or her own classroom.

First half of the semester we will focus on:

- Lewis Carroll Puzzles,
- Attribute Block Puzzles
- Propositional Logic
- Logic Puzzles; Techniques for solving puzzles
- Logic Games

Second half of the semester we will focus on:

- Predicate Logic
- Developing skill in expressing mathematical arguments
- Paradoxes in Logic

There will be 2 or 3 quizzes spaced throughout the course.

**Resources:** Materials will be distributed by the instructor.

Evaluation: Evaluation is based upon class participation and quizzes.

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