

**EECS 203-1: Discrete Mathematics**  
**Winter 2005**  
**Introductory Material**

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## General topics outline

- Logic and basic set theory
- Elementary methods of proof
- Induction
- MT 1
- Counting
- Relations
- MT 2
- Graphs, algorithms, and complexity
- See website for specific syllabus.

## Part I: Logic (Text section 1.1)

- We'll begin by studying **propositional logic**.
- This is a simple system useful in translating informal statements into precise mathematical form.
- In a slightly different notation, propositional logic is used to design **logic circuits**, also called **Boolean circuits**.
- George Boole (1815-1864) is sometimes called the father of modern logic.