THE OHIO STATE UNIVERSITY

Catalog Description:
Introduction to logic, proof techniques, set theory, number theory, real numbers.

Prerequisite:
Major or minor in Math, CSE, or CIS.

> **Math**: C- or better in 2153, 2162.xx, 2173, or 2182H; or credit for 254.xx, 263.xx or 263.01H.

> **CIS or CSE:**
> C- or better in both CSE 2321 and: C- or better in 1152, 1161.xx, 1172, 1181H, 1534, or 1544; or credit for 153.xx, 154, 162.xx, or 162.01H.

Exclusions:
Not open to students with credit for 345.

Text:
Lecture Notes, by N. Falkner.

Topics List:
1. Propositional calculus; quantifiers.
2. Simple examples of mathematical proofs.
3. Mathematical induction.
4. Sets and functions: surjections, injections, bijections.
5. Infinite sets: countable and uncountable.