

# Logic and Proof

Course Instructor: Niels van Winden

December 15, 2024

## Course Overview

Welcome to **Logic and Proof**! This course provides a foundation in the principles of mathematical logic and formal proofs. You will learn about propositional logic, predicate logic, proof techniques, and applications in mathematics and computer science.

## Course Details

- **Course Code:** LOGIC101
- **Schedule:** Tuesdays, 10:00 PM - 12:00 PM
- **Location:** Room 203, Science Building
- **Credits:** 5
- **Prerequisites:** Precalculus

## Instructor Information

- **Name:** Niels van Winden
- **Email:** jane.doe@example.com
- **Office:** Room 305, Science Building
- **Office Hours:** Tuesdays, 10:00 PM - 12:00 PM

## Course Topics

This course covers the following key topics:

1. Propositional Logic
2. Boolean Algebra,
3. Logic Circuits
4. Predicate Logic
5. Proof Techniques (Direct, Contrapositive, Contradiction, Induction)
6. Recursion
7. Set Theory Basics
8. Functions, Relations and Infinity

## Required Textbook

- **Title:** Delftse Foundations of Computation - 2nd Edition
- **Author:** Stefan Hugtenburg and Neil Yorke-Smith
- **Edition:** 2nd Edition
- **Publisher:** TUDelft

## Important Links

- Syllabus and Schedule
- Additional Resources
- Discussion Forum

## Contact and Support

For any questions or assistance, please email [support@example.com](mailto:support@example.com).

**Let's explore the beauty of logic and reasoning together!**