

Chapter 1

Library intro

Chapter 2

Introduction

2.1 What is this course about?

- The precise art of **formal reasoning**
- **Propositional logic** as the scaffolding of reasoning
- Foundational issues: **classical** vs **intuitionistic** logic
- Express yourself precisely using the language of **predicate logic**
- Proof techniques: reasoning by cases, proof by **induction**
- **Algebra**: reasoning with equality
- Use a proof assistant (**COQ**) to formalize proofs
- Reasoning about **programs and data structures**