TUTORIAL IN LOGICAL REASONING FOR SCIENCES

Spring 2022

Instructors

Dino Gerardi and Daniele Pennesi

Contacts: dino.gerardi@carloalberto.org, daniele.pennesi@unito.it

Course description

This course presents an introduction to logic and formal reasoning, so as to acquaint the students with some of the more common techniques of formal proofs and arguments.

Topics

• Introduction to logic - syllogisms, set theory, propositional logic, first-order logic, linear reasoning, logical fallacies

• Proof techniques - constructive, by contradiction, by contrapositive, by induction.

Textbooks (optional)

Introduction to Logic, by Irving M. Copi, Carl Cohen, Kenneth McMahon (Pearson, 2014)
How to read and do proofs, by Daniel Solow (Wiley)