

MATH 570—MATHEMATICAL LOGIC

Instructor: Philipp Hieronymi

Time: MWF 1–1:50pm

Place: AH 445

This course gives a basic introduction to First Order Logic (also known as Predicate Logic) and provides a starting point for rigorous study of the foundations of mathematics. No previous knowledge of logic is assumed. The main topics of this course are:

- the compactness and completeness theorems for first order logic;
- elements of definability theory;
- elements of computability theory and the Gödel incompleteness theorem.

The textbook for the course is Professor van den Dries's notes *Mathematical Logic*. The notes will be handed out in class and are also available under

<http://www.math.uiuc.edu/~vddries/410notes/main.dvi>.