



MATH2450 Mathematical logic

[45h] 4.5 credits

This course is taught in the 1st and 2nd semester

Teacher(s): Jean-Roger Roisin
Language: French
Level: Second cycle

Aims

To allow the mastering student to acquire the basic tools in one of the fundamental fields of mathematical logic.

Main themes

This course is for students in their first or second masters' year in mathematical science. It supposes a reasonable knowledge in elementary logic such as the one given in the "Notions of mathematical logic" course (SC1110, 2nd year). The content of the course follows a three-year cycle corresponding to three main orientations of mathematical logic: 1) The group theory (Zermelo-Frankel axioms, ordinals, relative constistance proff, etc..). Planned for 2002-2003. 2) The notions of calculability and incompleteness theorems (Turing machines or the like, recursive functions, Gödel and Tarski results, etc..). Planned for 2003-2004. 3) Model theory (completion, axiomability, type omission, countable models, etc.), planned for 2001-2002).

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisites: basics in elementary logic (course SC 1110, Basics in mathematical logic).

Evaluation: oral examination with written preparation.

Support: references texts in accordance with the chosen theme

Other credits in programs

MATH22/G Deuxième licence en sciences mathématiques (4.5 credits)