

## Higher Institute of Philosophy



## FILO1250 Logic 2 : Logic

[45h+15h exercises] 5 credits

**Teacher(s):** Marcel Crabbé  
**Language:** French  
**Level:** First cycle

**Aims**

The student will have to master some of the basic notions of logic: extension and "intension" of a concept, truth of a judgement, logical law and contradiction, correctness of a reasoning. He will also have to acquire a practice of some techniques which allow to apply these concepts, like those which establish the validity of a reasoning.

**Main themes**

To define firstly the intuitive concepts of logical law and valid reasoning with the help of the concepts of sentence, model and truth.

Then to approach them by proof theory.

Finally, to show that these two approaches are equivalent as for the result.

**Content and teaching methods**

Content:

The aim of logic is to determine correct reasoning. As such, it has an important place in forming philosophical thinking, which constantly "uses" reasoning but also desires to examine it in a critical manner.

The course is divided into parts that correspond to different levels of analysis: propositional connectives, quantifiers, and identity. Each of these parts is composed of a semantic and of an axiomatic approach, as well as of a discussion of the relationship between them.

One of the aims of the course is to introduce, in a systematic fashion, the fundamental notions of contemporary logic. Another aim is to introduce the student to formal techniques that he or she can subsequently be called upon to use; the tutorials are specifically designed to develop this aspect of the course.

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

Assessment: The exam is based on the lectures.

Supporting Material: Course notes.

**Other credits in programs**