UCLouvain

lfilo1250

2017

Logic

4 credits	45.0 h + 15.0 h	Q2

Teacher(s)	Verdée Peter ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Intuitive concepts of logical law and valid reasoning (defining them with the help of concepts of statement, model and truth). The theory of demonstration. Equivalence of the two approaches where results are concerned.
Aims	1 Students will master fundamental concepts in logic: extension and "intension" of a concept, truth of a judgment, logical law and contradiction, correctness of a line of reasoning. They will gain practice in certain techniques to apply these concepts, such as those which confirm the validity of lines of reasoning - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Evaluation methods	The final evaluation in June encompasses For 10%: the result obtained by three announced tests during the quadrimester For 30%: the result obtained by the written exam of the supervised exercises part of the course during the quadrimester (in May). For 60% the result obtained by the written exam in the June examination period. This exam is an open book exam and mainly evaluates the understanding of the contents of the course. In the September examination period, the written open book exam counts for 100%.
Teaching methods	(1) Interactive classes with theoretical exercises to be solved in small groups and corrected together by all students and the professor in order to test the students' understanding of the theory. (2) Supervised exercise classes (les TD).
Content	This course deals with contemporary logic. Logic is the discipline whose primary focus is the correctness of reasoning. Two different approaches are usually distinguished within the logical investigation. The model-theoretic approach (which uses the basic concepts of model and truth) addresses the issue of valid reasoning. The proof-theoretic approach (which ultimately rests on the concepts of axiom and inference rule) addresses the issue of provable reasoning. This course aims to investigate the concepts specific to these approaches and to examine the concept of reasoning both from the viewpoint of validity and from the viewpoint of provability. Finally, the study of the soundness and completeness theorems will allow us to highlight the correspondence between these two approaches as well as the unity of logic.
Inline resources	/
Bibliography	/
Other infos	/
Faculty or entity in charge	EFIL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Chemistry	CHIM1BA	4		
Bachelor in Mathematics	MATH1BA	4		
Bachelor in Philosophy	FILO1BA	4		