UCLouvain

Imat2935

2024

Advanced topics in mathematics 7

5.00 credits	30.0 h	Q2

This biannual learning is being organized in 2024-2025

Language :	English			
Place of the course	Louvain-la-Neuve			
Prerequisites	Depending on the subject, mathematics skills at the level of the end of the Bachelor in Mathematics or first year Master in Mathematics.			
Main themes	The topic considered varies from year to year depending on the research interests of the course instructor.			
Learning outcomes	At the end of this learning unit, the student is able to: Contribution of the course to learning outcomes in the Master in Mathematics programme. By the end of this activity, students will have made progress in: • Show evidence of independent learning. • Analyse a mathematical problem and suggest appropriate tools for studying it in depth. • Begin a research project thanks to a deeper knowledge of one or more fields and their problematic issues in current mathematics. He will have made progress in: • Develop in an independent way his mathematical intuition by anticipating the expected results (formulating conjectures) and by verifying their consistency with already existing results. • Ask relevant and lucid questions on an advanced mathematical topic in an independent manner. Learning outcomes specific to the course. The course aims to initiate research in the field under consideration. Specific learning outcomes vary depending on the field.			
Evaluation methods	Oral exam.			
Teaching methods	Oral lectures.			
Content	Introduction to symplectic geometry and to methods of quantization: geometric quantization, deformation quantization, pseudo-differential analysis and microlocal analysis.			
Inline resources	Written notes, in english, on Moodle.			
Faculty or entity in charge	MATH			

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Master [120] in Mathematics	MATH2M	5		Q.		