UCLouvain

lmat2335

2026

Mathematical didactics workshop

5.00 credits	0 h + 45.0 h	Q1 and Q2

Teacher(s)	Ninove Laure ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Learn to work collaboratively to reflect on learning and to produce mathematical teaching strategies, in teams that bring together different actors in mathematics education.
Learning outcomes	**At the end of this learning unit, the student is able to :** **At the end of this activity, the student will have progressed in his/her ability to :** - Take action in a school context, in partnership with different actors. - Relate the mathematical contents of the secondary school curriculum to those of the university curriculum. - Compare and integrate different possible approaches to the main topics of the secondary school mathematics program, identify the key steps and the delicate points of the program. - Implement learning devices that are adapted, original and relevant from the point of view of both rigor and intuition. - Formulate interdisciplinary examples in the form of problems to introduce, illustrate and implement mathematical concepts of the program. - To exercise a reflexive look and to project oneself in a logic of continuous development.
Evaluation methods	Evaluation will be based on the following four points : - mandatory active participation in all sessions (5 points), - the writing of one or two meeting reports (3 points), - participation in an external activity in collaboration with GEM members (experimentation of a sequence in a class, animation of a workshop for students, ...) (5 points) - supervised writing of an article (for teachers, etc.). (7 points) The use of generative AI as part of the work to be produced in this teaching unit is not authorized.
Teaching methods	The mathematical didactics workshop is not a classical course. It requires the active involvement of students. The work sessions are done in a mixed team, with experienced or novice teachers, teacher trainers and students who intend to teach mathematics, in a co-training perspective, to : - reflect in depth on learning, - to build teaching-learning sequences aiming at students' meaning and reflection - prepare and lead lessons or activities with high school students - communicate, write, prepare a presentation, - reflect on their teaching practices. Between sessions, which take place every two or three weeks (on Wednesday afternoons, so that they can be done with secondary school teachers), students will be asked, alone or in groups, to carry out small preparations, such as a meeting report, a reading report, the preparation of a presentation, the writing of a preparation for a student activity, an a priori analysis, an account of an experiment in classes. Students will be actively involved in an outside activity: either experimenting with a sequence or lesson in a high school classroom or facilitating a student workshop. Depending on calendar opportunities, they may be invited to attend a (half) day conference on a theme related to the year's work.
Content	This teaching consists of active participation in one of the regular workshops of the GEM (Groupe d'Enseignement Mathématique) in which participants (teachers of compulsory education, beginners and experienced, students and teacher trainers) exchange on their practices, work together to develop mathematical learning sequences, test the sequences constructed in classes and communicate the results of their work. The themes of the different work groups change from year to year and are communicated to the students at the beginning of the school year. The objectives are determined at the beginning of the year within each work group.
Inline resources	Documents are available on Moodle.

Faculty or entity in charge	MATH

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] of Education, Section 4 : Mathematics	MATH2M4	5		
Master [60] of Education, Section 5 : Mathematics	MATH2M5	5		