UCLouvain

**Imat2310** 

2024

## Stages d'enseignement en mathématique (en ce compris le séminaire d'intégration des stages)

7.00 credits	15.0 h + 40.0 h	Q1 and Q2
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Teacher(s)	Ninove Laure ;				
Language :	French				
Place of the course	Louvain-la-Neuve				
Prerequisites	Basic training in mathematics (bachelor's level in mathematics).  Mastery of the discipline to be taught, i.e., 2nd and 3rd grade mathematics.  Course in didactics and epistemology of mathematics: LMAT2320 (prior or concurrent).  Mastery of the French language, written and oral, at the level of the last year of secondary education.				
Main themes	The internship integration seminar is based on achievements, problems, difficulties and questions that students encounter during their internship.				
Learning outcomes	At the end of this learning unit, the student is able to: Contribution of the activity to the learning outcomes of the master's program in mathematics.  At the end of this activity, the student will have progressed in his/her ability to: Communicate in a scientific manner. Structure an oral presentation by adapting it to the level of expertise of the interlocutors. Mobilize the skills necessary to effectively enter the profession of upper secondary mathematics teacher and to evolve positively. To intervene in a school context, in partnership with different actors. Teach in authentic and varied situations. Relate the mathematical contents of the secondary school program to those of the university program. 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 appropriate, original, and relevant from both a rigorous and intuitive perspective. Formulate interdisciplinary examples in the form of problems to introduce, illustrate and implement mathematical concepts in the program. To exercise a reflexive look and to project oneself in a logic of continuous development. Learning outcomes specific to the activity.  At the end of the internship and the integration seminar, the student will be able to: organize and deliver teaching sequences in an upper secondary school class, analyze his/her teaching practice integrate the contributions of the different aggregation activities				

## In the framework of this course, students are evaluated in several ways: Evaluation methods • the continuous evaluation carried out during the year (5% of the final grade): active participation in seminars, preparations, readings; this part of the grade will be used for each session and may not be represented; the evaluation of the teaching internships (70% of the final grade), established in a global way for all the teaching internships, in consultation with the internship supervisors, the internship visitors and UCL trainers; this part of the grade will be used for each session and cannot be represented: • the evaluation of the compulsory portfolio (25% of the final grade), to be submitted at the end of the second In order to pass this course, both the internship and the portfolio must be passed. • In the event of failure in at least one of these two parts, the overall grade for the unit will be calculated as the minimum between the weighted average of the three parts according to the coefficients indicated above and a 9/20. • In the event of a serious deficiency (score less than or equal to 6/20) in at least one of these two parts, the overall score will be equal to the minimum of the scores of the different parts. Attendance at the seminars is required. From the 2rd unjustified absence over the year or in the event of preparations not being made on time, the mark for the continuous evaluation part will be set to 0. Moreover, in accordance with article 72 of the General Regulations for Studies and Examinations, the course directors may propose to the jury that it refuse to register a student who has not attended at least 80% of the courses or who has not carried out a compulsory activity during the June and/or September session. Internships cannot be represented in the second session, since they are held in secondary schools. However, the portfolio can be represented in the second session. The use of generative AI as part of the work to be produced in this teaching unit is not authorized. The teaching internship consists of the student teaching 35 hours of mathematics courses under the supervision of Teaching methods practicum teachers in upper secondary school classes, both general and vocational and/or technical. In practice, these internships are carried out in two (sometimes three) different schools, in order to discover various internship supervisors, institutions and types of teaching. In order to make contact with future students, their internship supervisors and the schools, and to open up to different school realities, the student will carry out, prior to his or her teaching internship, an observation internship of at least 10 hours of mathematics classes in upper secondary school, both general and vocational and/or technical. In the context of the tutorial internship of at least 5 hours, the student will be required to provide individual support to a student in upper secondary school who is experiencing difficulties in mathematics. This internship contributes to the development of the student's pedagogical and didactical skills, particularly in the analysis of academic difficulties and individualized support. The integration seminar for the internship alternates with the internship periods and is based on sharing teaching experiences as well as working on different tools to build a didactic preparation. Attendance at the seminar is mandatory. Access to the teaching internships is conditional upon passing a test of mastery of the mathematical concepts to be taught in upper secondary school (4th, 5th, 6th secondary, including "mathematics for scientists"). Out of respect for the students and the teachers who welcome an intern into their classrooms, it is essential that the intern has a perfect mastery of the mathematical concepts of the upper secondary level. In order to develop his or her reflection on his or her own teaching practice, the student will be asked to create an internship portfolio. This teaching unit consists primarily of student teaching internships in upper secondary mathematics classes. This Content teaching internship experience is supplemented by hours of observation in classes, hours of individual support for a high school student in difficulty, and a seminar on integrating internships, the purpose of which is both to equip the student for the internship and to help him or her take a step back from his or her practice. The subject matter that the student will be required to teach during the practicum depends on the classes and the requests of the practicum supervisors. The documents necessary for the organization of the internships are posted on the online pedagogical platform, Inline resources as well as documents proposed to accompany, deepen or analyze the internship experience. Depending on the subjects taught in their internships and the student audience they are addressing, and also depending on their requests, students receive documents in electronic form. Les programmes et référentiels de l'enseignement secondaire. Des références seront également transmises via la Bibliography plateforme pédagogique en ligne. Secondary school curricula and reference materials. References will also be provided via the online educational platform.

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Other infos	The mastery of the concepts to be taught in the upper secondary level (4th, 5th, 6th secondary, including "mathematics for scientists") is a prerequisite and will be checked in October via a test. Successful completion of this test is a prerequisite for access to teaching internships. In case of failure, a second test will be organized in November.  If the student fails both the October and November tests, he/she will not be able to take the teaching internships during the current academic year, which implies a failure for the unit for all sessions of the current academic year. If the student passes the test, which assesses prerequisites, it does not contribute to the overall grade of the unit.
Faculty or entity in charge	CAFC

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Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Teacher Training Certificate (upper secondary education) - Mathematics	MATH2A	7		0		
Master [120] in Mathematics	MATH2M	7		<b>Q</b>		