

APPMATH - Introduction

Introduction

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The aim of the in-depth minor in mathematics is to offer learning that is supplementary to the discipline of the Bachelor's major. The very wide range of courses has been devised for students of the Bachelor in Mathematics

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APPMATH - Teaching profile

Learning outcomes

The in-depth minor in mathematics contributes to the acquisition of the knowledge and skills appropriate to the Bachelor of Mathematics:

- disciplinary basics needed to pursue studies in mathematics or in closely related fields.
- capacity for abstract thought and critical spirit
- skills in scientific communication
- independent learning

These skills are detailed in the presentation of the programme for the Bachelor in Mathematics. Depending on the courses chosen, the student will have acquired supplementary training in closely related disciplines (physics, statistics and probability, economics, computing, applied mathematics). These courses help to develop the capacity for the analysis, in depth and from a variety of points of view, of a mathematical problem or a complex system belonging to scientific disciplines other than mathematics, in order to extract the essential features and to relate them to the most suitable theoretical tools.

Programme

DETAILED PROGRAMME BY SUBJECT

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊙ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- ⊗ Open to incoming exchange students
- ⊗ Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

30 crédits

Year

2 3

○ Content:

○ Cours au choix (30 credits)

From the following courses, students choose 10 credits in the second year and 20 credits in the third year, in agreement with their study adviser.

⊗ Mathématiques

⊗ LMAT1236	Introduction to logic: set theory		
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Year

2 3

LMAT2440	Number theory	Pierre-Emmanuel Caprace Olivier Pereira	FR [q2] [30h+15h] [5 Credits] > English-friendly		X
LMAT2170	History and epistemology of mathematics	Pierre Bieliavsky Pierre-Emmanuel Caprace Marino Gran Jean Van Schaftingen	FR [q2] [30h+15h] [5 Credits]	X	X

⌘ **Mathématiques appliquées et informatique**

LMAT2450	Cryptography	Olivier Pereira	FR [q1] [30h+15h] [5 Credits] > French-friendly		X
LMAT2460	Finite mathematics and combinatorial structures	Jean-Charles Delvenne Raphaël Jungers	FR [q1] [30h] [5 Credits]		X
LEPL1110	Finished elements	Vincent Legat Jean-François Remacle	FR [q2] [30h+30h] [5 Credits]	X	X
Optimization models and methods I		François Glineur	FR [q2] [30h+22.5h] [5 Credits] [5 credits]	X	X
LINMA1691	Discrete mathematics - Graph theory and algorithms	Jean-Charles Delvenne Jean-Charles Delvenne (compensates Vincent Blondel)	FR [q1] [30h+22.5h] [5 Credits]	X	X
LINMA1702	Optimization models and methods I	François Glineur	FR [q2] [30h+22.5h] [5 Credits]	X	X

⌘ LBIR2050	Challenges of sustainable development and transition <i>Les unités d'enseignement LEPL1804 et LBIR2050 ne sont pas cumulables: si l'étudiant a déjà suivi ou suit l'une de ces 2 UEs, il ne peut pas s'inscrire à l'autre.</i>	Valentin Couvreur
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APPMATH - Information

Access Requirements

This minor is accessible from the second year, only to students enrolled in the Bachelor of Mathematics programme.

Evaluation

The evaluation methods comply with the [regulations concerning studies and exams](#). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

Possible trainings at the end of the programme

The in-depth minor in mathematics supplements the training of Bachelor of Mathematics students.

The Bachelor in Mathematics has access to the following programmes:

- master 120 in mathematics, research or teaching focus;
- master 60 in mathematics;
- master in statistics, general or biostatistics;
- master in actuarial science.

Contacts
