

Cycle view of the study programme

		B1	Or	Th	Pr	Au	Cr
Cours obligatoires de la finalité (B2 : 30Cr)							
AESS0246-1	<i>Analysis of scholastic institutions and educational policies</i> - Annelise VOISIN	B2	Q2	15	-	-	1
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	B2	Q2	10	-	-	1
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	B2	Q2	25	-	-	2
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	B2	TA	30	10	[+]	4
AESS0004-1	<i>Media education</i> - Jeremy HAMERS	B2	Q1	15	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	B2	Q2	15	-	-	1
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	B2	Q1	15	-	-	2
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	B2	TA	10	15	-	3
AESS1214-1	<i>Special didactics in mathematics : course and exercises (1st part)</i> - Kevin BALHAN	B2	TA	40	-	-	3
AESS1215-1	<i>Special didactics in mathematics : placements (1st part)</i> - <i>Observation placements</i> - Kevin BALHAN - [10h Internship] - <i>Teaching placements</i> - Kevin BALHAN - [20h Internship] - <i>Reflexive practical work</i> - Kevin BALHAN	B2	TA				3
						[+]	
						[+]	
				5			
AESS2214-1	<i>Special didactics in mathematics : course and exercises (2nd part)</i> - Kevin BALHAN	B2	TA	35	-	-	4
AESS2215-1	<i>Special didactics in mathematics : placements (2nd part)</i> - <i>Teaching placements</i> - Kevin BALHAN - [20h Internship] - <i>Reflexive practical work</i> - Kevin BALHAN - <i>Extra-scholar teaching activities</i> - Kevin BALHAN	B2	TA				5
						[+]	
				5			
				10			

Cours obligatoires du tronc commun (B1 : 4Cr, B2 : 18Cr)

MATH0112-1	<i>Preparation for the final thesis</i> - COLLÉGIALITÉ, JeanPierre SCHNEIDERS <i>Notice</i> : this course can be taken either in block 1 or block 2.	B1	TA	-	-	-	4
SMEM0012-1	<i>Final thesis</i> - COLLÉGIALITÉ, JeanPierre SCHNEIDERS	B2	TA	-	-	-	18

Cours au choix du tronc commun (B1 : 56Cr, B2 : 12Cr)

In agreement with the Jury, choose courses not already taken for a total of 68 credits from the lists below, a minimum of 44 credits from the Mathematical list to be acquired throughout the cycle: (B1 : 56Cr, B2 : 12Cr)

Mathematics

- [...] at least 44 credits from the courses of Mathematics
- [...] the remainder of the courses not chosen from the 'Mathematics' list

Other disciplines

- [...] maximum 12 credits from the courses of other disciplines (B1)
Notice : compatibility of the timetable with the courses in the Mathematics list cannot be guaranteed.
- [...] the remainder of the courses not chosen from the 'Other subjects' list

Other courses

- [...] a maximum of 10 credits in the curriculum of the University of Liège or another institution (B1)
- [...] The course programme at the University of Liège or another institution

Study programmes 2024-2025

Faculty of Sciences

Master in mathematics, teaching focus

Mathematics

Mathematical analysis

MATH0074-1	<i>Theory of distributions</i> - Françoise BASTIN (Odd years)	-	Q2	25	15	-	4
MATH0257-2	<i>Complex analysis</i> - JeanPierre SCHNEIDERS	-	Q1	30	30	-	6
MATH0220-2	<i>Complements to complex analysis</i> - JeanPierre SCHNEIDERS - [20h Mon. WS] (Odd years)	-	Q2	30	10	[+]	8
	Prerequisite : MATH0257-2 - Analyse complexe						
	Corequisite : MATH0074-1 - Théorie des distributions						
MATH0463-1	<i>Functional analysis</i> - Céline ESSER - [20h Mon. WS] (Even years)	-	Q1	30	10	[+]	8
MATH0512-1	<i>Functional spaces and representational families</i> - Françoise BASTIN, Samuel NICOLAY - [20h Mon. WS] (Even years)	-	Q1	30	10	[+]	8
MATH0513-1	<i>Functional spaces relating to measurement theory</i> - Samuel NICOLAY - [20h Mon. WS] (Even years)	-	Q2	30	10	[+]	8
MATH0209-3	<i>Measure Theory</i> - Samuel NICOLAY - [20h Mon. WS] (Odd years)	-	Q1	30	10	[+]	8
MATH0082-1	<i>Research problems in analysis</i> (english language) - Françoise BASTIN, Céline ESSER, Samuel NICOLAY, JeanPierre SCHNEIDERS - [20h Mon. WS]	-	TA	30	10	[+]	10

Discrete mathematics

MATH0075-1	<i>Discrete mathematics</i> - Manon STIPULANTI (Even years)	-	Q1	30	20	-	8
MATH0076-1	<i>Discrete mathematics project</i> - Emilie CHARLIER, Julien LEROY, Michel RIGO, Manon STIPULANTI (Even years)	-	TA	-	-	-	4
	Corequisite : MATH0083-1 - Théorie ergodique MATH0075-1 - Mathématiques discrètes						
MATH0083-1	<i>Ergodic theory</i> - Julien LEROY (Even years)	-	Q1	30	20	-	8
INFO0212-2	<i>Algorithmics and computability</i> - Emilie CHARLIER (Odd years)	-	Q1	30	20	-	8
MATH0470-1	<i>Combinatorics on words</i> (english language) - Manon STIPULANTI (Odd years)	-	Q1	30	20	-	8
MATH0077-1	<i>Project on combinations</i> - Emilie CHARLIER, Julien LEROY, Michel RIGO, Manon STIPULANTI (Odd years)	-	TA	-	-	-	4
	Corequisite : MATH0470-1 - Combinatorics on words INFO0212-2 - Algorithmique et calculabilité						
MATH0078-1	<i>Research problems in discrete mathematics</i> - Emilie CHARLIER, Julien LEROY, Michel RIGO, Manon STIPULANTI - [20h Mon. WS]	-	TA	30	10	[+]	10
	Corequisite : MATH0076-1 - Projet de mathématiques discrètes MATH0077-1 - Projet de combinatoire						

Probability and statistics

STAT0725-2	<i>Bayesian statistics</i> - Philippe LAMBERT - [20h Mon. WS] (Even years)	-	Q2	30	10	[+]	8
STAT0727-2	<i>Non-parametric statistics</i> - Gentiane HAESBROECK - [20h Mon. WS] (Even years)	-	Q1	30	10	[+]	8
MATH2022-1	<i>Monte Carlo methods in statistics</i> (english language) - Arnout VAN MESSEM - [40h Proj.] (Even years)	-	Q2	24	12	[+]	8
MATH0514-1	<i>Stochastic analysis</i> - Laurent LOOSVELDT - [20h Proj.] (Even years)	-	Q2	30	10	[+]	8
MATH0079-1	<i>Stochastic process</i> - Laurent LOOSVELDT - [20h Proj.] (Odd years)	-	Q2	30	10	[+]	8
STAT0078-1	<i>Practice of statistical consultancy</i> - Marie ERNST - [20h Mon. WS]	-	Q2	20	-	[+]	4

(Odd years)

Corequisite :

STAT0082-1 - Statistique multivariée

MATH2022-1 - Monte Carlo methods in statistics

STAT0082-1	<i>Statistique multivariée</i> - Gentiane HAESBROECK - [20h Mon. WS] (Odd years)	-	Q1	30	10	[+]	8
	Corequisite :						
	MATH2021-1 - High-dimensional statistics						
INFO2048-1	<i>Business Analytics</i> (english language) - Michael SCHYNS	-	Q2	30	-	-	5
ELEN0062-1	<i>Introduction to machine learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	-	Q1	30	5	[+]	8
MATH0084-1	<i>Research problems in probability and statistics</i> (english language) - Céline ESSER, Gentiane HAESBROECK, Laurent LOOSVELDT, Arnout VAN MESSEM - [20h Mon. WS]	-	TA	30	10	[+]	10

Other fields

MATH0017-3	<i>Mathematical Logic and Set Theory</i> - Julien LEROY - [20h Mon. WS]	-	Q2	30	10	[+]	8
MATH0212-2	<i>General topology</i> - Céline ESSER - [10h Mon. WS]	-	Q2	30	20	[+]	6
MATH0465-1	<i>Algebraic Topology</i> - JeanPierre SCHNEIDERS - [20h Mon. WS] (Even years)	-	Q2	30	10	[+]	8
MATH0464-1	<i>Differential geometry II</i> - Pierre MATHONET - [20h Mon. WS] (Even years)	-	Q1	30	10	[+]	8
MATH0489-1	<i>Lie algebra</i> - Pierre MATHONET - [20h Mon. WS]	-	Q2	30	10	[+]	8
MATH2483-1	<i>History of mathematics</i> - Kevin BALHAN, Pierre MATHONET, Naïm ZENAÏDI	-	Q2	25	20	-	4
PHYS0999-1	<i>Digital creation in sciences</i> - Roland BILLEN, Valentin FISCHER, Pierre MATHONET, JeanChristophe MONBALIU, Eric PARMENTIER, Nicolas VANDEWALLE - [30h Proj.]	-	TA	10	-	[+]	4

Other disciplines

SSTG2037-1	<i>Internship in a company</i> - COLLÉGIALITÉ, Michel RIGO - [120h Proj.]	-	TA	-	-	[+]	10
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Computer science

INFO2009-2	<i>Introduction to computer science</i> - Bernard BOIGELOT	-	Q1	24	14	-	4
INFO0061-4	<i>Computers organization</i> - Bernard BOIGELOT	-	Q2	15	15	-	3
INFO0009-2	<i>Database (general organisation)</i> - Christophe DEBRUYNE - [25h Proj.]	-	Q2	26	26	[+]	6
INFO0902-1	<i>Data structures and algorithms</i> - Pierre GEURTS - [40h Proj.]	-	Q2	26	20	[+]	6
INFO0027-2	<i>Programming techniques</i> (english language)	-	Q2				6
	- <i>Algorithmics</i> - Laurent MATHY - [40h Proj.]			14	14	[+]	
	- <i>Software patterns</i> - Laurent MATHY - [30h Proj.]			10	10	[+]	
INFO0054-1	<i>Functional programming</i> - Christophe DEBRUYNE - [20h Proj.]	-	Q1	24	24	[+]	6
INFO0062-1	<i>Object-oriented programming</i> (english language) - Bernard BOIGELOT - [20h Proj.]	-	Q2	25	20	[+]	5
INFO0085-1	<i>Compilers</i> (english language) - Pascal FONTAINE - [75h Proj.]	-	Q2	25	-	[+]	6
MATH0462-1	<i>Discrete optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	-	Q2	30	20	[+]	6
INFO8006-1	<i>Introduction to artificial intelligence</i> (english language) - Gilles LOUPPE - [45h Proj.]	-	Q1	25	20	[+]	6
MATH0461-2	<i>Introduction to numerical optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	-	Q1	30	20	[+]	6

Study programmes 2024-2025

Faculty of Sciences

Master in mathematics, teaching focus

Astrophysics and astronomy

ASTR0204-2	<i>Astrophysics and geophysics</i> - MarcAntoine DUPRET, Valérie VAN GROOTEL	-	Q1	30	30	-	8
SPAT0012-1	<i>General relativity</i> (english language) - Guillaume MAHLER	-	Q1	30	10	-	4
SPAT0044-1	<i>Stellar structure and evolution I</i> (english language) - MarcAntoine DUPRET	-	Q1	35	-	-	4
SPAT0045-1	<i>Stellar structure and evolution II</i> (english language) - MarcAntoine DUPRET	-	Q2	20	20	-	4

Finance and management

GEST0832-4	<i>Financial Markets</i> - Georges HÜBNER	-	Q2	40	15	-	5
FINA0053-1	<i>Investments and Portfolio Management</i> (english language) - Georges HÜBNER Corequisite : GEST0832-4 - Marchés financiers	-	Q2	30	-	-	5
MQGE0001-6	<i>Operations Research</i> (english language) - Jérôme DE BOECK	-	Q1	45	-	-	5
LOGI0010-1	<i>Supply Chain Management</i> (english language) - Yasemin ARDA Corequisite : MQGE0001-6 - Operations Research	-	Q2	45	-	-	5
MQGE0007-1	<i>Financial Mathematics and Stochastic Calculus</i> (english language) - Elise VANDOMME Corequisite : GEST0832-4 - Marchés financiers	-	Q2	30	-	-	5
LOGI0012-1	<i>Logistics and Transportation</i> (english language) - Sabine LIMBOURG	-	Q2	30	-	-	5
LOGI0013-1	<i>Operation Planning</i> (english language) - Yasemin ARDA Corequisite : LOGI0010-1 - Supply Chain Management	-	Q2	30	-	-	5
FINA0052-1	<i>Financial Derivatives</i> (english language) - Julien HAMBUCKERS Corequisite : GEST0832-4 - Marchés financiers	-	Q2	30	-	-	5
FINA0064-1	<i>Financial Risk Modeling</i> (english language) - Julien HAMBUCKERS Corequisite : MQGE0007-1 - Financial Mathematics and Stochastic Calculus FINA0053-1 - Investments and Portfolio Management	-	Q1	30	-	-	5
FINA0051-1	<i>Banking and Insurance</i> (english language) - Fabien BONIVER, Georges HÜBNER Corequisite : GEST0832-4 - Marchés financiers	-	Q2	30	-	-	5

Physics

PHYS0212-2	<i>Statistical physics</i> - Nicolas VANDEWALLE	-	Q2	30	30	-	8
PHYS0205-2	<i>Complement of physical statistics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	-	Q2	30	10	[+]	8
PHYS3033-1	<i>Quantum physics I</i> - Thierry BASTIN	-	Q1	35	25	-	8
PHYS3034-1	<i>Quantum physics II</i> - Thierry BASTIN	-	Q2	20	10	-	4

Additional ECTS Master in mathematics (120 ECTS)

[...] The update course, worth a maximum of 60 credits, will be determined based on students' prior training.