

Block view of the study programme

Or Th Pr Au Cr

Block 1

Cours obligatoire du tronc commun

MATH0112-1 *Preparation for the final thesis* - COLLÉGIALITÉ, JeanPierre SCHNEIDERS TA - - - 4

Notice : this course can be taken either in block 1 or block 2.

Cours au choix du tronc commun

En accord avec le Jury, choisir des cours non déjà suivis pour un total de 56 crédits dans les listes ci-dessous, un minimum de 44 crédits de la liste Mathématique devant être acquis sur l'ensemble du cycle :

Mathematics

[...] at least 44 credits from the courses of Mathematics

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.

Other courses

[...] a maximum of 10 credits in the curriculum of the University of Liège or another institution (B1)

Block 2

Cours obligatoires de la finalité

AESS0246-1	<i>Analysis of scholastic institutions and educational policies</i> - Annelise VOISIN	Q2	15	-	-	-	1
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	Q2	10	-	-	-	1
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	Q2	25	-	-	-	2
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	TA	30	10	[+]	-	4
AESS0004-1	<i>Media education</i> - Jeremy HAMERS	Q1	15	-	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	Q2	15	-	-	-	1
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	Q1	15	-	-	-	2
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	TA	10	15	-	-	3
AESS1214-1	<i>Special didactics in mathematics : course and exercises (1st part)</i> - Kevin BALHAN	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	TA	-	-	[+]	-	3
AESS2214-1	<i>Special didactics in mathematics : course and exercises (2nd part)</i> - Kevin BALHAN	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	TA	-	-	[+]	-	5

Cours obligatoire du tronc commun

SMEM0012-1 *Final thesis* - COLLÉGIALITÉ, JeanPierre SCHNEIDERS TA - - - 18

Cours au choix du tronc commun

En accord avec le Jury, choisir des cours non déjà suivis pour un total de 12 crédits dans les listes ci-dessous, un minimum de 44 crédits de la liste Mathématique devant être acquis sur l'ensemble du cycle :

Study programmes 2024-2025

Faculty of Sciences

Master in mathematics, teaching focus

Mathematics

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

Other disciplines

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

- [...] The course programme at the University of Liège or another institution

Bloc d'aménagement du programme de l'année

Additional ECTS Master in mathematics (120 ECTS)

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

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 *Research problems in discrete mathematics* - 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 *Bayesian statistics* - Philippe LAMBERT - [20h Mon. WS] (Even years) Q2 30 10 [+] **8**

STAT0727-2 *Non-parametric statistics* - Gentiane HAESBROECK - [20h Mon. WS] (Even years) Q1 30 10 [+] **8**

MATH2022-1 *Monte Carlo methods in statistics* (english language) - Arnout VAN MESSEM - [40h Proj.] (Even years) Q2 24 12 [+] **8**

MATH0514-1 *Stochastic analysis* - Laurent LOOSVELDT - [20h Proj.] (Even years) Q2 30 10 [+] **8**

MATH0079-1 *Stochastic process* - Laurent LOOSVELDT - [20h Proj.] (Odd years) Q2 30 10 [+] **8**

STAT0078-1 *Practice of statistical consultancy* - Marie ERNST - [20h Mon. WS] (Odd years) Q2 20 - [+] **4**

Corequisite :

STAT0082-1 - Statistique multivariée

MATH2022-1 - Monte Carlo methods in statistics

STAT0082-1 *Statistique multivariée* - Gentiane HAESBROECK - [20h Mon. WS] (Odd years) Q1 30 10 [+] **8**

Corequisite :

MATH2021-1 - High-dimensional statistics

INFO2048-1 *Business Analytics* (english language) - Michael SCHYNS Q2 30 - - **5**

ELEN0062-1 *Introduction to machine learning* (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.] Q1 30 5 [+] **8**

MATH0084-1 *Research problems in probability and statistics* (english language) - Céline ESSER, Gentiane HAESBROECK, Laurent LOOSVELDT, Arnout VAN MESSEM - [20h Mon. WS] TA 30 10 [+] **10**

Other fields

MATH0017-3 *Mathematical Logic and Set Theory* - Julien LEROY - [20h Mon. WS] Q2 30 10 [+] **8**

MATH0212-2 *General topology* - Céline ESSER - [10h Mon. WS] Q2 30 20 [+] **6**

MATH0465-1 *Algebraic Topology* - JeanPierre SCHNEIDERS - [20h Mon. WS] (Even years) Q2 30 10 [+] **8**

MATH0464-1 *Differential geometry II* - Pierre MATHONET - [20h Mon. WS] (Even years) Q1 30 10 [+] **8**

MATH0489-1 *Lie algebra* - Pierre MATHONET - [20h Mon. WS] Q2 30 10 [+] **8**

MATH2483-1 *History of mathematics* - Kevin BALHAN, Pierre MATHONET, Naïm ZENAÏDI Q2 25 20 - **4**

PHYS0999-1 *Digital creation in sciences* - Roland BILLEN, Valentin FISCHER, Pierre MATHONET, JeanChristophe MONBALIU, Eric PARMENTIER, Nicolas VANDEWALLE - [30h Proj.] TA 10 - [+] **4**

Other disciplines

SSTG2037-1 *Internship in a company* - COLLÉGIALITÉ, Michel RIGO - [120h Proj.] TA - - [+] **10**

Computer science

INFO2009-2 *Introduction to computer science* - Bernard BOIGELOT Q1 24 14 - **4**

INFO0061-4 *Computers organization* - Bernard BOIGELOT Q2 15 15 - **3**

INFO0009-2 *Database (general organisation)* - 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) - <i>Algorithmics</i> - Laurent MATHY - [40h Proj.] - <i>Software patterns</i> - Laurent MATHY - [30h Proj.]	Q2				6
			14	14	[+]	
			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

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 HAMBUECKERS Corequisite : GEST0832-4 - Marchés financiers	Q2	30	-	-	5
FINA0064-1	<i>Financial Risk Modeling</i> (english language) - Julien HAMBUECKERS 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