

Block view of the study programme

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Block 1

Compulsory courses

MATH0483-2	<i>History of mathematics</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q2	20	-	[+]	4
MATH0112-1	<i>Preparation for the final thesis</i> - COLLÉGIALITÉ	Q2	-	-	-	4

Optional courses

En accord avec le Jury, choisir des cours non déjà suivis pour un total de 52 crédits dans les deux listes ci-dessous et, éventuellement, dans le programme des cours de l'Université de Liège ou d'une autre institution :

Mathematics

[...] Maximum 36 credits from the courses of Mathematics (B1)

Other disciplines

[...] Maximum 16 credits from courses of other disciplines (B1)

Other courses

[...] a maximum of 8 credits in the curriculum of the University of Liège or another institution (B1)

Block 2

Compulsory course

SMEM0012-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	18
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Optional courses

En accord avec le Jury, choisir des cours non déjà suivis pour un total de 12 crédits dans les deux listes ci-dessous et, éventuellement, dans le programme des cours de l'Université de Liège ou d'une autre institution :

Mathematics

[...] A maximum of 12 credits from among the courses not chosen from the 'Mathematics' list (B2)

Other disciplines

[...] A maximum of 12 credits from among the courses not chosen from the 'Other subjects' list (B2)

Other courses

[...] A maximum of 12 credits in the curriculum of the University of Liège or another institution (B2)

Choose one focus from the following :

Research Focus

MATH0466-1	<i>Seminars</i> - COLLÉGIALITÉ - [75h SEM]	TA	-	-	[+]	12
SMEM0037-1	<i>Final thesis complement</i> - COLLÉGIALITÉ	TA	-	-	-	8

Choose, in accordance with the Jury, 1 course among :

MATH0467-1	<i>Functional Analysis II</i> - Françoise BASTIN - [20h Mon. WS] Prerequisite : MATH0463-1 - Analyse fonctionnelle I	Q2	30	10	[+]	10
MATH0468-1	<i>Algebraic Analysis</i> - JeanPierre SCHNEIDERS - [20h Mon. WS] Corequisite : MATH0465-1 - Topologie algébrique MATH0463-1 - Analyse fonctionnelle I MATH0220-2 - Fonctions de variables complexes	Q2	30	10	[+]	10
MATH0061-1	<i>Complement of studies in the theory of measurement</i> - Samuel NICOLAY - [20h Mon. WS]	Q2	30	10	[+]	10

Prerequisite :

MATH0209-3 - Théorie de la mesure

MATH0078-1 *Research problems in discrete mathematics* - Emilie CHARLIER, Julien LEROY, Michel RIGO - [20h Mon. WS] TA 30 10 [+] **10**

Teaching focus

AESS0246-1	<i>Analysis of scholastic institutions and key-players, educational policies</i> - Dominique LAFONTAINE - Suppl : MarieThérèse DELHOUNE	Q1	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> - Jérémy HAMERS	Q1	15	-	-	1
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	Q1	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	Q2	10	15	-	3
AESS1214-1	<i>Special didactics in mathematics : course and exercises (1st part)</i> - Pierre MATHONET, Michel RIGO	TA	40	-	-	3
AESS1215-1	<i>Special didactics in mathematics : placements (1st part)</i> - <i>Observation placements</i> - Pierre MATHONET, Michel RIGO - [10h Internship] - <i>Teaching placements</i> - Pierre MATHONET, Michel RIGO - [20h Internship] - <i>Reflexive practical work</i> - Pierre MATHONET, Michel RIGO	TA	-	-	[+]	3
AESS2214-1	<i>Special didactics in mathematics : course and exercises (2nd part)</i> - Pierre MATHONET, Michel RIGO	TA	35	-	-	4
AESS2215-1	<i>Special didactics in mathematics : placements (2nd part)</i> - <i>Teaching placements</i> - Pierre MATHONET, Michel RIGO - [20h Internship] - <i>Reflexive practical work</i> - Pierre MATHONET, Michel RIGO - <i>Extra-scholar teaching activities</i> - Pierre MATHONET, Michel RIGO	TA	-	-	[+]	5

Professional focus in finance and management

In agreement with the Jury, choose six courses not already followed, among :

GEST0832-4	<i>Financial Markets</i> - Danielle SOUGNÉ	Q2	40	15	-	5
FINA0053-1	<i>Investments and Portfolio Management (english language)</i> - Georges HÜBNER Prerequisite : GEST0832-4 - Marchés financiers	Q2	30	-	-	5
MQGE0001-6	<i>Operations Research (english language)</i> - Yves CRAMA	Q1	45	-	-	5
LOGI0010-1	<i>Supply Chain Management (english language)</i> - Yasemin ARDA Corequisite : MQGE0001-6 - Operations Research	Q2	45	-	-	5
MQGE0002-3	<i>Computational Optimization (english language)</i> - Yves CRAMA Corequisite : MQGE0001-6 - Operations Research	Q2	30	-	-	5
MQGE0007-1	<i>Financial Mathematics and Stochastic Calculus (english language)</i> - Louis ESCH Prerequisite : 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 Prerequisite : LOGI0010-1 - Supply Chain Management	Q2	30	-	-	5
FINA0052-1	<i>Financial Derivatives</i> (english language) - Julien HAMBUECKERS Prerequisite : GEST0832-4 - Marchés financiers	Q2	30	-	-	5
FINA0064-1	<i>Financial Risk Modeling</i> (english language) - Fabien BONIVER, Marie LAMBERT Corequisite : FINA0053-1 - Investments and Portfolio Management MQGE0007-1 - Financial Mathematics and Stochastic Calculus	Q1	30	-	-	5
FINA0051-1	<i>Banking and Insurance</i> (english language) - Fabien BONIVER, Georges HÜBNER Prerequisite : GEST0832-4 - Marchés financiers	Q2	30	-	-	5

Professional focus in computer

INFO0009-2	<i>Database (general organisation)</i> - Pierre WOLPER - Suppl : Samuel HIARD - [25h Proj.]	Q2	26	26	[+]	6
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In agreement with the jury, chose four courses that haven't already been chosen from among:

Notice : The three courses below must be followed first.

INFO0902-1	<i>Data structures and algorithms</i> - Pierre GEURTS - [40h Proj.]	Q2	26	20	[+]	6
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT - [15h Proj.]	Q2	28	24	[+]	6
INFO0062-1	<i>Object-oriented programming</i> (english language) - Bernard BOIGELOT - [20h Proj.]	Q2	25	20	[+]	6

In agreement with the jury, if courses INFO0902-1, INFO0054-1 and/or INFO0062-1 have already been taken, choose one to four courses from the list below:

ELEN0040-1	<i>Digital Electronics</i> - JeanMichel REDOUTÉ	Q2	26	26	-	6
INFO0085-1	<i>Compilers</i> (english language) - - Suppl : Julien BRUSTEN - [75h Proj.]	Q2	25	-	[+]	6
INFO0027-2	<i>Programming techniques</i> (english language) - Laurent MATHY - [70h Proj.]	Q2	24	24	[+]	6
MATH0462-1	<i>Discrete optimization</i> (english language) - Quentin LOUVEAUX - [25h Proj.]	Q1	30	20	[+]	6
SYST0002-2	<i>Introduction to signals and systems</i> - Guillaume DRION - [15h Proj.]	Q1	26	26	[+]	6
INFO0049-1	<i>Knowledge representation</i> (english language) - Pascal GRIBOMONT - [50h Proj.]	Q2	28	24	[+]	6

[...] or, for a maximum of six credits, in the course programme of the University of Liège:

Professional focus in Statistics

STAT0727-2	<i>Non-parametric statistics</i> - Gentiane HAESBROECK - [20h Mon. WS] (Even years)	Q1	30	10	[+]	8
MATH0079-1	<i>Stochastic process</i> - Céline ESSER, Yvik SWAN - [20h Proj.] (Even years)	Q1	20	10	[+]	6
ELEN0062-1	<i>Introduction to machine learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	Q1	30	5	[+]	8

In agreement with the Jury, choose two courses not already followed, among :

STAT0080-1	<i>Statistics and probability seminars</i> - Gentiane HAESBROECK,	TA	-	-	-	4
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Study programmes 2018-2019

Faculty of Sciences

Master in mathematics (120 ECTS)

WAN						
STAT0081-1	<i>Final thesis complement in statistics</i> - COLLÉGIALITÉ	TA	-	-	-	4
STAT0078-1	<i>Practice of statistical consultancy</i> - Catherine TIMMERMANS - [20h Mon. WS] (Odd years) Corequisite : STAT0201-3 - Statistique multivariée	Q1	20	-	[+]	4
STAT0079-1	<i>SAS certification</i> (english language) - Michael SCHYNS - [25h Mon. WS]	Q2	15	-	[+]	4

Bloc d'aménagement du programme de l'année

Additional ECTS (max 60) Master in mathematics (120 ECTS)

Optional courses

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

[...] At most 60 credits of courses from "Bachelier en sciences mathématiques"

Mathematics

Courses taught during even years

STAT0725-2	<i>Bayesian statistics</i> - Philippe LAMBERT - [20h Mon. WS] (Even years)	Q2	30	10	[+]	8
STAT0723-2	<i>Linear models</i> - Catherine TIMMERMANS - [20h Mon. WS] (Even years)	Q2	30	10	[+]	8
INFO0213-2	<i>Automata and formal languages</i> - Julien LEROY (Even years)	Q1	30	20	-	8
MATH0075-1	<i>Discrete mathematics</i> - Emilie CHARLIER, Michel RIGO (Even years)	Q2	30	20	-	8
MATH0076-1	<i>Discrete mathematics project</i> - Emilie CHARLIER, Julien LEROY, Michel RIGO (Even years) Corequisite : INFO0213-2 - Automates et langages formels MATH0075-1 - Mathématiques discrètes	TA	-	-	-	4
MATH0465-1	<i>Algebraic Topology</i> - JeanPierre SCHNEIDERS - [20h Mon. WS] (Even years)	Q1	30	10	[+]	8
MATH0463-1	<i>Functional Analysis I</i> - JeanPierre SCHNEIDERS - [20h Mon. WS] (Even years)	Q2	30	10	[+]	8
MATH0250-1	<i>Galois theory</i> - Emilie CHARLIER (Even years)	Q2	20	20	-	4

Courses taught during odd years

STAT0201-3	<i>Multivariate statistics</i> - Gentiane HAESBROECK - [20h Mon. WS] (Odd years)	Q1	30	10	[+]	8
MATH2022-2	<i>Large sample analysis : theory and practice, General course</i> (english language) - N..., Yvik SWAN - [10h Proj.] (Odd years)	Q2	24	12	[+]	8
STAT0078-1	<i>Practice of statistical consultancy</i> - Catherine TIMMERMANS - [20h Mon. WS] (Odd years) Corequisite : STAT0201-3 - Statistique multivariée	Q1	20	-	[+]	4
INFO0212-2	<i>Algorithmics and computability</i> - Emilie CHARLIER (Odd years)	Q1	30	20	-	8
MATH0470-1	<i>Combinatorics on words</i> (english language) (Odd years)	Q2	30	20	-	8
MATH0077-1	<i>Project on combinations</i> (Odd years) Corequisite : INFO0212-2 - Algorithmique et calculabilité MATH0470-1 - Combinatorics on words	TA	-	-	-	4
MATH0489-1	<i>Lie algebra</i> - Pierre MATHONET - [20h Mon. WS] (Odd years)	Q2	30	10	[+]	8

MATH0209-3 *Measure Theory* - Samuel NICOLAY - [20h Mon. WS] (Odd years) Q1 30 10 [+] 8

Courses organized each year

MATH0464-1 *Differential geometry II* - Pierre LECOMTE - [20h Mon. WS] Q1 30 10 [+] 8

MATH0074-1 *Theory of distributions* - Françoise BASTIN Q2 25 15 - 4

MATH0017-3 *Mathematical Logic and Set Theory* - Georges HANSOUL, Julien LEROY - [20h Mon. WS] Q1 30 10 [+] 8

STAT0079-1 *SAS certification* (english language) - Michael SCHYNS - [25h Mon. WS] Q2 15 - [+] 4

MATH0220-2 *Functions of complex variables* - JeanPierre SCHNEIDERS - [20h Mon. WS] Q1 30 10 [+] 8

Corequisite :

MATH0074-1 - Théorie des distributions

Other disciplines

INFO0902-1 *Data structures and algorithms* - Pierre GEURTS - [40h Proj.] Q2 26 20 [+] 6

INFO0054-1 *Functional programming* - Pascal GRIBOMONT - [15h Proj.] Q2 28 24 [+] 6

ASTR0204-2 *Astrophysics and geophysics* - MarcAntoine DUPRET Q1 30 30 - 8

PHYS3033-1 *Quantum physics I* - Thierry BASTIN Q1 35 25 - 8

PHYS0212-2 *Statistical physics* - Nicolas VANDEWALLE Q2 30 30 - 8

SPAT0012-1 *General relativity, Part 1: Introduction* - Yves DE ROP Q1 20 - - 2

SPAT0012-2 *General relativity, Part 2: Mathematics methods* - Yves DE ROP Q1 20 - - 3

Corequisite :

SPAT0012-1 - Relativité générale

SPAT0012-3 *General relativity, Part 3: supplement* - Yves DE ROP Q2 20 - - 3

Corequisite :

SPAT0012-2 - Relativité générale

SPAT0044-1 *Stellar structure and evolution I* (english language) - MarcAntoine DUPRET Q1 20 20 - 4

SPAT0045-1 *Stellar structure and evolution II* (english language) - MarcAntoine DUPRET Q2 20 20 - 4

MECA0203-3 *Continuum Mechanics* - Pierre DAUBY - [20h Mon. WS] Q1 30 10 [+] 8

PHYS3034-1 *Quantum physics II* - Thierry BASTIN Q2 20 10 - 4

PHYS0205-2 *Complement of physical statistics* - Nicolas VANDEWALLE - [20h Mon. WS] Q2 30 10 [+] 8

LANG0082-1 *English 3* (english language) - Clara BRERETON, Véronique DOPPAGNE, Ellen HARRY, ISLV Q1 45 - - 4