

## First Year

### Compulsory course

MATH0483-2	<i>History of mathematics</i> - Georges HANSOUL - [20h Mon. WS]	20	-	[+]	4
------------	-----------------------------------------------------------------	----	---	-----	---

### Optional courses

With the approval of the Board of Studies in mathematics, choose courses totaling 56 credits from the two lists below, and possibly in the courses programme of other masters :

#### First list

[...] At least 32 credits from from "Première liste"

MATH0463-1	<i>Functional Analysis I</i> - Jean-Pierre SCHNEIDERS - [20h Mon. WS]	30	10	[+]	8
MATH0209-3	<i>Measure Theory</i> - Samuel NICOLAY - [20h Mon. WS]	30	10	[+]	8
INFO0213-2	<i>Automata and formal languages theory</i> - Michel RIGO - [20h Mon. WS]	30	10	[+]	8
MATH0220-2	<i>Functions of complex variables</i> - Jean-Pierre SCHNEIDERS - [20h Mon. WS]	30	10	[+]	8
MATH0464-1	<i>Differential geometry II</i> - Pierre LECOMTE - [20h Mon. WS]	30	10	[+]	8
MATH0017-3	<i>Mathematical Logic and Set Theory</i> - Georges HANSOUL - [20h Mon. WS]	30	10	[+]	8
MATH0465-1	<i>Algebraic Topology</i> - Jean-Pierre SCHNEIDERS - [20h Mon. WS]	30	10	[+]	8

#### The second list

[...] At most 24 credits of courses from "Deuxième liste"

STAT0723-2	<i>Statistical linear models</i> - Paul GÉRARD - [20h Mon. WS]	30	10	[+]	8
MATH0221-3	<i>Analysis of time series</i> - Paul GÉRARD - [20h Mon. WS]	30	10	[+]	8
STAT0201-3	<i>Multivariate statistics</i> - Adelin ALBERT - Suppl : Gentiane HAESBROECK - [20h Mon. WS]	30	10	[+]	8
INFO0902-1	<i>Data structures and algorithms</i> - N... - Suppl : Sébastien COLLETTE	30	30	-	8
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT	30	30	-	8
ASTR0201-3	<i>Astronomy</i> - Marc-Antoine DUPRET - [20h Mon. WS]	30	10	[+]	8
PHYS0243-2	<i>Quantum Physics I</i> - Thierry BASTIN - [20h Mon. WS]	30	10	[+]	8
PHYS0203-2	<i>Statistical physics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	30	10	[+]	8
SPAT0012-1	<i>General relativity I</i> - - Suppl : Yves DE ROP	60	-	-	8
SPAT0044-1	<i>Stellar Structure and evolution I</i> - Marc-Antoine DUPRET	20	20	-	4
SPAT0045-1	<i>Stellar structure and evolution II</i> - Marc-Antoine DUPRET	20	20	-	4
MECA0203-3	<i>Continuum Mechanics</i> - Pierre DAUBY - [20h Mon. WS]	30	10	[+]	8
PHYS0204-3	<i>Quantum Physics II</i> - Thierry BASTIN - [20h Mon. WS]	30	10	[+]	8
PHYS0205-2	<i>Further Physical Statistics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	30	10	[+]	8

#### Programme of courses for other masters degrees

[...] At the most 8 credits of courses of the University of Liege

### Optional free course

AESS0252-1	<i>Introduction to mathematics didactics</i> - Marguerite GILOT	10	10	-	2
------------	-----------------------------------------------------------------	----	----	---	---

## Second Year

### Compulsory course

SMEM0012-1	<i>Final thesis</i> - COLLÉGIALITÉ	-	-	-	22
------------	------------------------------------	---	---	---	----

### Optional courses

With the approval of the Board of Studies in mathematics, choose course(s) totaling 8 credits from :

[...] the remaining courses not selected in the first list

MATH0463-1	<i>Functional Analysis I</i> - Jean-Pierre SCHNEIDERS - [20h Mon. WS]	30	10	[+]	8
MATH0209-3	<i>Measure Theory</i> - Samuel NICOLAY - [20h Mon. WS]	30	10	[+]	8
INFO0213-2	<i>Automata and formal languages theory</i> - Michel RIGO - [20h Mon. WS]	30	10	[+]	8
MATH0220-2	<i>Functions of complex variables</i> - Jean-Pierre SCHNEIDERS - [20h Mon. WS]	30	10	[+]	8
MATH0464-1	<i>Differential geometry II</i> - Pierre LECOMTE - [20h Mon. WS]	30	10	[+]	8
MATH0017-3	<i>Mathematical Logic and Set Theory</i> - Georges HANSOUL - [20h Mon. WS]	30	10	[+]	8
MATH0465-1	<i>Algebraic Topology</i> - Jean-Pierre SCHNEIDERS - [20h Mon. WS]	30	10	[+]	8

[...] the remaining courses not taken on the second list

STAT0723-2	<i>Statistical linear models</i> - Paul GÉRARD - [20h Mon. WS]	30	10	[+]	<b>8</b>
MATH0221-3	<i>Analysis of time series</i> - Paul GÉRARD - [20h Mon. WS]	30	10	[+]	<b>8</b>
STAT0201-3	<i>Multivariate statistics</i> - Adelin ALBERT - Suppl : Gentiane HAESBROECK - [20h Mon. WS]	30	10	[+]	<b>8</b>
INFO0902-1	<i>Data structures and algorithms</i> - N... - Suppl : Sébastien COLLETTE	30	30	-	<b>8</b>
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT	30	30	-	<b>8</b>
ASTR0201-3	<i>Astronomy</i> - Marc-Antoine DUPRET - [20h Mon. WS]	30	10	[+]	<b>8</b>
PHYS0243-2	<i>Quantum Physics I</i> - Thierry BASTIN - [20h Mon. WS]	30	10	[+]	<b>8</b>
PHYS0203-2	<i>Statistical physics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	30	10	[+]	<b>8</b>
SPAT0012-1	<i>General relativity I</i> - - Suppl : Yves DE ROP	60	-	-	<b>8</b>
SPAT0044-1	<i>Stellar Structure and evolution I</i> - Marc-Antoine DUPRET	20	20	-	<b>4</b>
SPAT0045-1	<i>Stellar structure and evolution II</i> - Marc-Antoine DUPRET	20	20	-	<b>4</b>
MECA0203-3	<i>Continuum Mechanics</i> - Pierre DAUBY - [20h Mon. WS]	30	10	[+]	<b>8</b>
PHYS0204-3	<i>Quantum Physics II</i> - Thierry BASTIN - [20h Mon. WS]	30	10	[+]	<b>8</b>
PHYS0205-2	<i>Further Physical Statistics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	30	10	[+]	<b>8</b>
[...]	The programme of courses for other Masters.				

#### Compulsory courses

INFO0062-1	<i>Object-Oriented Programming</i> - Bernard BOIGELOT	30	30	-	<b>6</b>
INFO0009-1	<i>Introduction to Data Bases</i> - Pierre WOLPER	30	30	-	<b>6</b>
INFO0045-2	<i>Cryptography and Computer Security</i> - Xavier BOYEN	30	30	-	<b>6</b>

#### Optional courses

Choose two courses out of the following :

The courses INFO0902-1 and INFO0054-1 must be taken first.

INFO0902-1	<i>Data structures and algorithms</i> - N... - Suppl : Sébastien COLLETTE	30	30	-	<b>6</b>
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT	30	30	-	<b>6</b>

If the INFO0902-1 and/or INFO0054-1 courses have already been followed, choose, with the approval of the Board of Studies, 1 or 2 courses from the following :

INFO0012-1	<i>Computation Structures</i> - Pierre WOLPER	30	30	-	<b>6</b>
ELEN0040-1	<i>Digital Electronics</i> - Jacques DESTINÉ	30	30	-	<b>6</b>
INFO0085-1	<i>Compilers</i> - Xavier BOYEN	30	30	-	<b>6</b>
INFO0027-1	<i>Programming techniques</i> - Xavier BOYEN	30	50	-	<b>6</b>
MATH0461-1	<i>Introduction to numerical optimization</i> (english language) - Quentin LOUVEAUX	30	30	-	<b>6</b>
SYST0002-1	<i>Linear systems</i> - Rodolphe SEPULCHRE	30	30	-	<b>6</b>
INFO0049-1	<i>Knowledge Representation</i> - Pascal GRIBOMONT	30	30	-	<b>6</b>