

Or Th Pr Au Cr

## First Year

### Compulsory course

MATH0483-2 *History of mathematics* - Georges HANSOUL - [20h Mon. WS] Q2 20 - [+] 4

### Optional courses

Choose courses totalling 56 credits, with the agreement of the Jury, from the following and, possibly, from the courses programme of other masters :

#### First list

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

MATH0463-1	<i>Functional Analysis I</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0209-3	<i>Measure Theory</i> - Samuel NICOLAY - [20h Mon. WS]	Q1	30	10	[+]	8
INFO0213-2	<i>Automata and formal languages theory</i> - Michel RIGO - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0220-2	<i>Functions of complex variables</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q2	30	10	[+]	8
MATH0464-1	<i>Differential geometry II</i> - Pierre LECOMTE - [20h Mon. WS]	Q2	30	10	[+]	8
MATH0017-3	<i>Mathematical Logic and Set Theory</i> - Georges HANSOUL - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0465-1	<i>Algebraic Topology</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0489-1	<i>Lie algebra</i> - Pierre MATHONET - [20h Mon. WS]	Q2	30	10	[+]	8

#### The second list

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

STAT0723-2	<i>Linear models</i> - Yvik SWAN - [20h Mon. WS]	Q2	30	10	[+]	8
STAT0201-3	<i>Multivariate statistics</i> - Gentiane HAESBROECK - [20h Mon. WS]	Q1	30	10	[+]	8
STAT0725-2	<i>Bayesian statistics</i> - Philippe LAMBERT - [20h Mon. WS]	Q2	30	10	[+]	8
INFO0902-1	<i>Data structures and algorithms</i> - Pierre GEURTS - [40h Proj.]	Q2	30	20	[+]	8
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT - [15h Proj.]	Q2	30	25	[+]	8
ASTR0201-3	<i>Astronomy</i> - MarcAntoine DUPRET - [20h Mon. WS]	Q1	30	10	[+]	8
PHYS0243-2	<i>Quantum Physics I</i> - Thierry BASTIN - [20h Mon. WS]	Q1	30	10	[+]	8
PHYS0203-2	<i>Statistical physics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	Q2	30	10	[+]	8
SPAT0012-1	<i>General relativity</i> - Yves DE ROP	TA	60	-	-	8
SPAT0044-1	<i>Stellar Structure and evolution I</i> - MarcAntoine DUPRET	Q1	20	20	-	4
SPAT0045-1	<i>Stellar structure and evolution II</i> - MarcAntoine DUPRET	Q2	20	20	-	4
MECA0203-3	<i>Continuum Mechanics</i> - Pierre DAUBY - [20h Mon. WS]	TA	30	10	[+]	8
PHYS0204-3	<i>Complement of quantum Physics 2</i> - Thierry BASTIN - [20h Mon. WS]	Q2	30	10	[+]	8
PHYS0205-2	<i>Complement of physical statistics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	Q2	30	10	[+]	8

#### Programme of courses for other masters degrees

[...] At most 8 credits

### Optional free course

AESS0252-1 *Introduction to mathematics didactics* - Marguerite GILOT Q1 10 10 - 2

## Second Year

### Compulsory course

SMEM0012-1 *Final thesis* - COLLÉGIALITÉ TA - - - 22

### Optional courses

Choose one (several) course(s), with the approval of the Jury, totalling 8 credits among :

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

MATH0463-1	<i>Functional Analysis I</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0209-3	<i>Measure Theory</i> - Samuel NICOLAY - [20h Mon. WS]	Q1	30	10	[+]	8
INFO0213-2	<i>Automata and formal languages theory</i> - Michel RIGO - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0220-2	<i>Functions of complex variables</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q2	30	10	[+]	8
MATH0464-1	<i>Differential geometry II</i> - Pierre LECOMTE - [20h Mon. WS]	Q2	30	10	[+]	8
MATH0017-3	<i>Mathematical Logic and Set Theory</i> - Georges HANSOUL - [20h Mon. WS]	Q1	30	10	[+]	8
MATH0465-1	<i>Algebraic Topology</i> - JeanPierre SCHNEIDERS - [20h Mon. WS]	Q1	30	10	[+]	8

MATH0489-1	<i>Lie algebra</i> - Pierre MATHONET - [20h Mon. WS]	Q2	30	10	[+]	8
[...]	the remaining courses not taken on the second list					
STAT0723-2	<i>Linear models</i> - Yvik SWAN - [20h Mon. WS]	Q2	30	10	[+]	8
STAT0201-3	<i>Multivariate statistics</i> - Gentiane HAESBROECK - [20h Mon. WS]	Q1	30	10	[+]	8
STAT0725-2	<i>Bayesian statistics</i> - Philippe LAMBERT - [20h Mon. WS]	Q2	30	10	[+]	8
INFO0902-1	<i>Data structures and algorithms</i> - Pierre GEURTS - [40h Proj.]	Q2	30	20	[+]	8
INFO0054-1	<i>Functional programming</i> - Pascal GRIBOMONT - [15h Proj.]	Q2	30	25	[+]	8
ASTR0201-3	<i>Astronomy</i> - MarcAntoine DUPRET - [20h Mon. WS]	Q1	30	10	[+]	8
PHYS0243-2	<i>Quantum Physics I</i> - Thierry BASTIN - [20h Mon. WS]	Q1	30	10	[+]	8
PHYS0203-2	<i>Statistical physics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	Q2	30	10	[+]	8
SPAT0012-1	<i>General relativity</i> - Yves DE ROP	TA	60	-	-	8
SPAT0044-1	<i>Stellar Structure and evolution I</i> - MarcAntoine DUPRET	Q1	20	20	-	4
SPAT0045-1	<i>Stellar structure and evolution II</i> - MarcAntoine DUPRET	Q2	20	20	-	4
MECA0203-3	<i>Continuum Mechanics</i> - Pierre DAUBY - [20h Mon. WS]	TA	30	10	[+]	8
PHYS0204-3	<i>Complement of quantum Physics 2</i> - Thierry BASTIN - [20h Mon. WS]	Q2	30	10	[+]	8
PHYS0205-2	<i>Complement of physical statistics</i> - Nicolas VANDEWALLE - [20h Mon. WS]	Q2	30	10	[+]	8
[...]	The programme of courses for other Masters.					

**Compulsory course**

STAT0727-2	<i>Non-parametric statistics</i> - Cédric HEUCHENNE - [20h Mon. WS]	Q2	30	10	[+]	6
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**Optional courses**

With the agreement of the Jury, choose 3 courses among :

The courses STAT0723-2, STAT0201-3 and STAT0725-2 must be taken first.

STAT0723-2	<i>Linear models</i> - Yvik SWAN - [20h Mon. WS]	Q2	30	10	[+]	8
STAT0201-3	<i>Multivariate statistics</i> - Gentiane HAESBROECK - [20h Mon. WS]	Q1	30	10	[+]	8
STAT0725-2	<i>Bayesian statistics</i> - Philippe LAMBERT - [20h Mon. WS]	Q2	30	10	[+]	8

If the STAT0723-2, STAT0201-3 and/or STAT0725-2 courses have already been attended, choose, with the agreement of the Jury, 1, 2 or 3 courses from the following :

MATH0065-1	<i>Probability and statistic IV</i> - Christophe CROUX - [20h Mon. WS]		30	10	[+]	8
MATH1222-1	<i>Introduction to stochastic processes</i>	Q2				8
	- <i>Markov chains</i> - Pierre GEURTS, Yvik SWAN	20	10	-		
	- <i>Markov process</i> - Yvik SWAN - [20h Mon. WS]	10	-	[+]		
ELEN0062-1	<i>Applied Inductive Learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	Q1	30	5	[+]	8