

## 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

|            |   |    |    |     |          |
|------------|---|----|----|-----|----------|
| AESS0246-1 | <i>Analysis of scholastic institutions and key-players, educational policies</i> - Jacqueline BECKERS                             | 15 | -  | -   | <b>1</b> |
| AESS0247-1 | <i>Views on cultural diversity</i> - Jérôme JAMIN   | 10 | -  | -   | <b>1</b> |
| AESS0248-1 | <i>Elements of sociology of education</i> - Jean-François GUILLAUME   | 10 | -  | -   | <b>1</b> |
| AESS0140-1 | <i>Professional ethics and training to neutrality and citizenship</i> - Véronique DORTU   | 25 | -  | -   | <b>2</b> |
| AESS0202-1 | <i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship] | 30 | 10 | [+] | <b>4</b> |
| AESS0004-1 | <i>Media education</i> - Geneviève VAN CAUWENBERGE  | 15 | -  | -   | <b>1</b> |
| AESS0249-1 | <i>Interdisciplinary seminar</i> - Annick FAGNANT   | 15 | -  | -   | <b>1</b> |
| AESS0143-1 | <i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT  | 15 | -  | -   | <b>2</b> |
| AESS0142-1 | <i>Seminar on prevention and management of difficult school situations</i> - Jocelyne ROBERT                                      | 15 | -  | -   | <b>2</b> |
| AESS0214-1 | <i>Special didactics in mathematics (part I)</i>  |    |    |     | <b>6</b> |
|            | - Course and exercises - Marguerite GILOT   | 40 | -  | -   |          |
|            | - Observation placements - Marguerite GILOT - [10h Internship]  | -  | -  | [+] |          |
|            | - Teaching placements - Marguerite GILOT - [20h Internship]   | -  | -  | [+] |          |
|            | - Reflexive practical work - Marguerite GILOT   | -  | 5  | -   |          |
| AESS0232-1 | <i>Special didactics in mathematics (part II)</i>   |    |    |     | <b>9</b> |
|            | - Course and exercises - Marguerite GILOT   | 35 | -  | -   |          |
|            | - Teaching placements - Marguerite GILOT - [20h Internship]   | -  | -  | [+] |          |
|            | - Reflexive practical work - Marguerite GILOT   | -  | 5  | -   |          |
|            | - School practical outside lectures - Marguerite GILOT  | -  | 10 | -   |          |