

## Two-Year Master Program (120 ECTS)

### First Year

First semester

#### Compulsory courses

##### Analysis and Technology Module

PHAR0343-3	<i>Pharmaceutical technology and biopharmacy</i> - Brigitte EVRARD - [5h SEM]	30	-	[+]	4
PHAR0344-2	<i>Analysis of drugs (Partim I)</i> - Jacques CROMMEN	25	30	-	5

##### Module Pharmaco-toxicology

PHAC0341-2	<i>Special pharmacology (Partim I)</i> - Vincent SEUTIN	25	-	-	3
TOXI0341-1	<i>Clinical Toxicology and adverse drug events monitoring (Partim I)</i> - Corinne CHARLIER - [12,5h SEM]	25	-	[+]	5

##### Module Biomedics

BIOC0340-1	<i>Pathological biochemistry, including clinical chemistry (Partim I)</i> - Jean-Paul CHAPELLE - [12,5h SEM]	22,5	-	[+]	4
PATH0340-1	<i>Additional issues in physiopathology</i> - Vincenzo D'ORIO	15	-	-	2
NUTR0341-1	<i>Nutrition</i> - Jacques RIGO	15	-	-	2

##### Module Health and Society

ECON0340-1	<i>Pharmacoeconomy</i> - Jean-Pierre DELPORTE	10	-	-	1
COMU0340-1	<i>Communication Strategy</i> - Véronique SERVAIS - [10h SEM]	-	-	[+]	1

Second semester

#### Compulsory courses

##### Module Analysis and Technology

PHAR0345-2	<i>Analysis of drugs (Partim II)</i> - Jacques CROMMEN - [30h SEM]	20	-	[+]	5
PHAR0347-2	<i>Pharmaceutical Technology and Biopharmacy: experimental training</i> - Brigitte EVRARD	-	90	-	4

##### Module Pharmaco-toxicology

PHAC0342-2	<i>Special pharmacology (Partim II)</i> - Vincent SEUTIN	20	-	-	3
TOXI0342-1	<i>Clinical Toxicology and adverse drug events monitoring (Partim II)</i> - Corinne CHARLIER - [12,5h SEM]	25	-	[+]	4

##### Module Biomedics

BIOC0341-1	<i>Pathological biochemistry, including clinical chemistry (Partim II)</i> - Jean-Paul CHAPELLE - [12,5h SEM]	22,5	-	[+]	4
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##### Module Health and Society

LEGI0340-2	<i>Pharmaceutical legislation and deontology</i> - Patrick HERNÉ - [5h SEM]	25	-	[+]	4
PSYC0340-1	<i>Psychology of the patient</i> - Georges HOUGARDY - [5h SEM]	10	-	[+]	2
SANT0340-1	<i>Principles in the followup of pharmaceutical care</i> - N... - Suppl : Christian ELSÉN	10	-	-	1

##### Module Humans with Diseases / Illnesses

###### Courses by module

(Elements of semiology and pathology, pathological biochemistry, pathological anatomy, supplements to physiopathology, medical genetics, special pharmacology, biopharmaceutical and pharmaceutical technology, toxicological chemistry)

CAVS0340-1	<i>Multidisciplinary approach to cardiovascular, digestive and respiratory disorders</i> - Luc ANGENOT, Jacques BONIVER, Vincent BOURS, Jean-Paul CHAPELLE, Corinne CHARLIER, Vincenzo D'ORIO, Jean-Olivier DEFRAIGNE, Brigitte EVRARD, Michel MOUTSCHEN, Bernard PIROTTE, Vincent SEUTIN, Monique TITS, Thierry VAN HEES - [60h APP]	-	-	[+]	6
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##### Two laboratory visits

An educational trip is organised during Carnival week

### Second year

Second semester

#### Compulsory courses

MTFE0350-1	<i>Medicinal placement</i> - COLLÉGIALITÉ	-	-	-	28
APPR0160-2	<i>Workshop of complex problem solving</i> - COLLÉGIALITÉ - [30h LBOPS]	-	-	[+]	2

*Notice* : Students must carry out or complete an official training programme of a legal length of six months. This programme involves the writing up of a programme workbook (TFE).

It could begin at the end of a successful BAC 3 and be carried out during the holidays which take place between the 1st and 2nd years of the Pharmaceutical Sciences Masters.

#### Choose one focus from the following :

##### Research Focus

First semester

##### Compulsory courses

PHAR0369-1	<i>Research Seminars in Pharmaceutical Sciences</i> - COLLÉGIALITÉ	15	-	-	<b>3</b>
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##### Optional courses

Choose a placement from among :

MSTG0352-1	<i>Erasmus placement and complementary placement report</i> - COLLÉGIALITÉ	-	-	-	<b>18</b>
MSTG0353-1	<i>Cecodel placement and complementary placement report</i> - COLLÉGIALITÉ	-	-	-	<b>18</b>
MSTG0354-1	<i>Research placement in the French community of Belgium and complementary placement report</i> - COLLÉGIALITÉ	-	-	-	<b>18</b>

*Notice* : The training programme includes the writing of a report in English, which will then be publically defended.

Choose one of the following courses :

LANG0130-1	<i>Scientific English Practice (note-taking)</i> - Christine FILOT, Vincent SEUTIN	5	25	-	<b>3</b>
PHAR0715-1	<i>Evaluation of language skills at the placement</i> - COLLÉGIALITÉ	-	-	-	<b>3</b>

Choose one of the following courses :

STAT0420-1	<i>Biostatistics II, 2nd year</i> - Adelin ALBERT	15	15	-	<b>6</b>
PHAR0716-1	<i>Evaluation of language skills at the placement</i> - COLLÉGIALITÉ	-	-	-	<b>6</b>

*Notice* : The choice of the optional course depends on the location of the internship for instance a course in English and in statistics will be offered to students with an internship within ULG. But this courses can be replaced by equivalence courses or by an assessment of their linguistic and scientific competence (as defined by the council of study) for students with an internship abroad (Erasmus or Cecodel).

#### Professional focus in Pharmacy Practices, Advice and Follow-up

First semester

##### Compulsory courses

MICR0350-1	<i>Management of anti-infective drugs (microbiology)</i> - Patrick DE MOL	10	-	-	<b>2</b>
PHAR0353-1	<i>Complements of biopharmacy and pharmacokinetics</i> - Corinne CHARLIER, Géraldine PIEL, Vincent SEUTIN	10	-	-	<b>2</b>
INFO0351-1	<i>Computerised management of the pharmacy</i> - Adelin ALBERT - Suppl : Léon PÉTRÉ	10	-	-	<b>2</b>
PHAR0352-1	<i>Phytotherapy and food supplements containing herbs</i> , - Luc ANGENOT, Michel FREDERICH, Monique TITS	10	-	-	<b>2</b>
SANT0350-1	<i>Heavy home care (including palliative care)</i> - Jean-Pierre DELPORTE, Yvan HUON	10	-	-	<b>2</b>

##### Optional courses

Choose one of the following courses :

MEDE0350-1	<i>Critical approach to homeopathy</i> - Monique TITS	10	-	-	<b>2</b>
VETE0350-1	<i>Veterinary Drug Delivery</i> - Brigitte EVRARD, Pascal GUSTIN, Bernard PIROTTE	10	-	-	<b>2</b>

GYNE0350-1	<i>Medicines, pregnancy and breast feeding</i> - Corinne CHARLIER	10	-	-	2
DERM0350-1	<i>Dermopharmacy</i> - Arjen NIKKELS, Géraldine PIEL, Gérald PIERARD	10	-	-	2
PHAR0717-1	<i>Special questions relating to infectiology (vaccines and anti-parasitics)</i> - Patrick DE MOL	10	-	-	2

**Students must choose a training programme and a complementary course specific to the chosen scientific discipline. This programme includes the writing of a report which will be publically defended.**

#### Pharmacognosy

MSTG0358-1	<i>Period of instruction in the laboratory of pharmacognosy</i> - Luc ANGENOT - [225h Internship]	-	-	[+]	15
PHAR0359-1	<i>Complements of pharmacognosy</i> - Luc ANGENOT	15	-	-	3

#### Mycology

MSTG0350-1	<i>Internship: Mycology</i> - Vincent DEMOULIN - [225h Internship]	-	-	[+]	15
BOTA0351-1	<i>Complement of mycology</i> - Vincent DEMOULIN	15	-	-	3

#### Clinical Toxicology

MSTG1351-1	<i>Training course: Clinical toxicology</i> - Corinne CHARLIER - [225h Internship]	-	-	[+]	15
TOXI0352-1	<i>Complements of clinical toxicology</i> - Corinne CHARLIER	15	-	-	3

#### Pharmaceutical chemistry

MSTG0453-1	<i>Training : medicinal chemistry</i> - Bernard PIROTTE - [225h Internship]	-	-	[+]	15
CHIM0352-1	<i>Complements of medicinal chemistry</i> - Bernard PIROTTE	15	-	-	3

#### Clinical Pharmacy

MSTG0461-1	<i>Clinical pharmacy placements in hospitals</i> - Jean-Pierre DELPORTE, Yvan HUON, Thierry VAN HEES - [225h Internship]	-	-	[+]	15
PHAR0360-1	<i>Introduction to clinical pharmacy placements in hospitals</i> - Jean-Pierre DELPORTE, Yvan HUON, Thierry VAN HEES	15	-	-	3

#### Medical Chemistry

MSTG0355-1	<i>Training course: Medical chemistry</i> - Jean-Paul CHAPELLE - [225h Internship]	-	-	[+]	15
CHIM0356-1	<i>Complements of clinical chemistry</i> - Jean-Paul CHAPELLE	15	-	-	3

#### Pharmaceutical Technology

MSTG2350-1	<i>Training course: Pharmaceutical technology</i> - Brigitte EVRARD - [225h Internship]	-	-	[+]	15
PHAR1351-1	<i>Complement of pharmaceutical technology</i> - Brigitte EVRARD	15	-	-	3

#### Microbiology

MSTG1352-1	<i>Internship : Microbiology</i> - Patrick DE MOL - [225h Internship]	-	-	[+]	15
MICR0352-1	<i>More of microbiology</i> - Patrick DE MOL	15	-	-	3

#### Legislation and pharmaceutical deontology

MSTG2044-1	<i>Placement : Legislation and Pharmaceutical Ethics</i> - Patrick HERNÉ - [225h Internship]	-	-	[+]	15
DEON0711-1	<i>Completion of pharmaceutical law and ethics</i> - Patrick HERNÉ	15	-	-	3

#### Hospital Pharmacy

MSTG2045-1	<i>Placement : Hospital pharmacy</i> - Jean-Pierre DELPORTE, Yvan HUON - [225h Internship]	-	-	[+]	15
PHAR2002-1	<i>Complements to hospital practice</i> - Jean-Pierre DELPORTE, Yvan HUON	15	-	-	3

#### Société Scientifique des Pharmaciens Francophones (SSPF)

MSTG2046-1	<i>Placement : SSPF - Patrick HERNÉ - [225h Internship]</i>	-	-	[+]	15
PHAR2003-1	<i>Complements to medicinal practice - Patrick HERNÉ</i>	15	-	-	3

**Belgian Pharmaceutical Association**

MSTG2047-1	<i>Placement : APB - Patrick HERNÉ - [225h Internship]</i>	-	-	[+]	15
PHAR2003-1	<i>Complements to medicinal practice - Patrick HERNÉ</i>	15	-	-	3

**Professional Focus in Creation and Development of Medicines - Bio-analysis**

First semester

**Compulsory courses**

PHAR0356-1	<i>Industrial Pharmacotechnics including BPF - Brigitte EVRARD, Philippe HUBERT</i>	10	-	-	2
PHAR0354-1	<i>Structural determination of organic compounds from spectra - Pascal DE TULLIO, Michel FREDERICH</i>	10	-	-	2
BIOL0350-1	<i>Pharmaceutical applications of molecular biology - Jean-Paul CHAPELLE, Alain CHARIOT</i>	10	-	-	2
PHAR0355-1	<i>Complements of drug analysis in complex media - Patrice CHIAP, Jacques CROMMEN, Marianne FILLET</i>	10	-	-	2
CHIM0350-1	<i>Strategies and tools used in the design and the development of new drugs - Brigitte EVRARD, Michel FREDERICH, Bernard PIROTTE</i>	10	-	-	2

**Optional courses**

Choose one of the following courses :

PHAR0357-1	<i>Complements of instrumental analysis - Jacques CROMMEN, Philippe HUBERT</i>	10	-	-	2
PHAR2004-1	<i>In-depth ideas on pharmacokinetics and biopharmacy - Corinne CHARLIER, Géraldine PIEL, Vincent SEUTIN</i>	10	-	-	2
TOXI0350-1	<i>Experimental toxicology (in vitro tests) - Corinne CHARLIER</i>	10	-	-	2
SBIM0437-1	<i>Biosafety - Willy ZORZI</i>	5	5	-	2

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**Pharmacognosy**

MSTG0358-1	<i>Period of instruction in the laboratory of pharmacognosy - Luc ANGENOT - [225h Internship]</i>	-	-	[+]	15
PHAR0359-1	<i>Complements of pharmacognosy - Luc ANGENOT</i>	15	-	-	3

**Pharmacology**

MSTG3350-1	<i>Training course: Pharmacology - Vincent SEUTIN - [225h Internship]</i>	-	-	[+]	15
PHAC0351-1	<i>Complement of pharmacology - Vincent SEUTIN</i>	15	-	-	3

**Clinical Toxicology**

MSTG1351-1	<i>Training course: Clinical toxicology - Corinne CHARLIER - [225h Internship]</i>	-	-	[+]	15
TOXI0352-1	<i>Complements of clinical toxicology - Corinne CHARLIER</i>	15	-	-	3

**Pharmaceutical chemistry**

MSTG0453-1	<i>Training : medicinal chemistry - Bernard PIROTTE - [225h Internship]</i>	-	-	[+]	15
CHIM0352-1	<i>Complements of medicinal chemistry - Bernard PIROTTE</i>	15	-	-	3

**Analytical Chemistry**

MSTG1353-1	<i>Training course: Analytical chemistry - Philippe HUBERT - [225h Internship]</i>	-	-	[+]	15
CHIM0354-1	<i>Complements of analytical chemistry - Philippe HUBERT</i>	15	-	-	3

**Medical Chemistry**

MSTG0355-1	<i>Training course: Medical chemistry - Jean-Paul CHAPELLE - [225h Internship]</i>	-	-	[+]	15
CHIM0356-1	<i>Complements of clinical chemistry - Jean-Paul CHAPELLE</i>	15	-	-	3

**Pharmaceutical Technology**

MSTG2350-1	<i>Training course: Pharmaceutical technology</i> - Brigitte EVRARD - [225h Internship]	-	-	[+]	<b>15</b>
PHAR1351-1	<i>Complement of pharmaceutical technology</i> - Brigitte EVRARD	15	-	-	<b>3</b>

**Analysis of Medicines**

MSTG2352-1	<i>Training course: Analysis of drugs</i> - Jacques CROMMEN - [225h Internship]	-	-	[+]	<b>15</b>
PHAR1353-1	<i>Complements of drug analysis</i> - Jacques CROMMEN	15	-	-	<b>3</b>

**Microbiology**

MSTG1352-1	<i>Internship : Microbiology</i> - Patrick DE MOL - [225h Internship]	-	-	[+]	<b>15</b>
MICR0352-1	<i>More of microbiology</i> - Patrick DE MOL	15	-	-	<b>3</b>

**Industry training**

MSTG2048-1	<i>Placement : Industry</i> - Luc ANGENOT, Jacques CROMMEN, Brigitte EVRARD, Philippe HUBERT, Bernard PIROTTE - [225h Internship]	-	-	[+]	<b>15</b>
PHAR2005-1	<i>Complements of pharmaceutical industry practices</i> - Luc ANGENOT, Jacques CROMMEN, Brigitte EVRARD, Philippe HUBERT, Bernard PIROTTE	15	-	-	<b>3</b>