

## 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 (Part I)</i> - Marianne FILLET	25	30	-	5

##### Module Pharmaco-toxology

PHAC0341-2	<i>Special pharmacology (Partim I)</i> - Vincent SEUTIN	25	-	-	3
TOXI0341-1	<i>Clinical Toxicology and adverse drug events monitoring (Part I)</i> - Corinne CHARLIER - [12,5h SEM]	25	-	[+]	4

##### Module Biomedics

BIOC0340-1	<i>Pathological biochemistry, including clinical chemistry (Part I)</i> - Jean-Paul CHAPELLE - [12,5h SEM]	22,5	-	[+]	4
NUTR0341-1	<i>Nutrition</i> - Jacques RIGO	15	-	-	2
BIOC9234-2	<i>Biochemistry and normal and pathological human physiology - digestive system</i> - Didier CATALDO	15	-	-	2
BIOC9235-2	<i>Biochemistry and normal and pathological human physiology - urinary system</i> - Didier CATALDO	10	-	-	2

##### Module Health and Society

ECON0340-1	<i>Pharmacoeconomy</i> - Thierry VAN HEES	10	-	-	1
COMU0340-1	<i>Communication Strategy</i> - Pierre FIRKET - Suppl : Alain CHASPIERRE, Muriel ROCOUR- - [10h SEM]	-	-	[+]	1

Second semester

#### Compulsory courses

##### Module Analysis and Technology

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

##### Module Pharmaco-toxology

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

##### Module Biomedics

BIOC0341-1	<i>Pathological biochemistry, including clinical chemistry (Part 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> - 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> - - - [ + ] 6 Vincent BOURS, Didier CATALDO, Jean-Paul CHAPELLE, Corinne CHARLIER, Vincenzo D'ORIO, Jean-Olivier DEFRAIGNE, Raphaël DENOZ, Brigitte EVRARD, Michel FREDERICH, Philippe KOLH, Michel MOUTSCHEN, N..., Geneviève PHILIPPE, Géraldine PIEL, 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	-	-	-	<b>28</b>
APPR0160-2	<i>Workshop of complex problem solving</i> - COLLÉGIALITÉ - [30h LBOPS]	-	-	[+]	<b>2</b>

*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 learning field (Final work).

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

**Optional courses**

Choose a placement from among :

MSTG0353-1	<i>Cecodel placement and complementary placement report</i> - COLLÉGIALITÉ	-	-	-	<b>18</b>
MSTG0352-1	<i>Erasmus 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>6</b>
LANG1988-1	<i>Assessment of language skills during the training</i> - COLLÉGIALITÉ	-	-	-	<b>6</b>

Choose one of the following courses :

STAT0420-1	<i>Biostatistics II, 2nd year</i> - Adelin ALBERT	15	15	-	<b>6</b>
STAT1225-1	<i>Assessment of scientific knowledge during the internship</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> , - Monique TITS	10	-	-	<b>2</b>
SANT0350-1	<i>Heavy home care (including palliative care)</i> - Yvan HUON, Thierry VAN HEES	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> - Michel FREDERICH - [225h Internship]	-	-	[+]	15
PHAR0359-1	<i>Complements of pharmacognosy</i> - Michel FREDERICH	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> - Thierry VAN HEES - [225h Internship]	-	-	[+]	15
PHAR0360-1	<i>Introduction to clinical pharmacy placements in hospitals</i> - 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>Complements of pharmaceutical law and ethics</i> - Patrick HERNÉ	15	-	-	3

#### Hospital Pharmacy

MSTG2045-1	<i>Placement : Hospital pharmacy</i> - Thierry VAN HEES - [225h Internship]	-	-	[+]	15
PHAR2002-1	<i>Complements to hospital practice</i> - Thierry VAN HEES	15	-	-	3

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

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

**Belgian Pharmaceutical Association**

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

**Analysis of Medicines**

MSTG2352-1 *Training course : Analysis of drugs* - Marianne FILLET - [225h Internship] - - [+] 15  
 PHAR1353-1 *Complements of drug analysis* - Marianne FILLET 15 - - 3

**Analytical Chemistry**

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

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

First semester

**Compulsory courses**

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

**Optional courses**

Choose one of the following courses :

PHAR0357-1 *Biomarkers and proteomics : analytical aspects* - Marianne FILLET, 10 - - 2  
 Philippe HUBERT  
 PHAR2004-1 *In-depth ideas on pharmacokinetics and biopharmacy* - Corinne CHARLIER, 10 - - 2  
 Géraldine PIEL, Vincent SEUTIN  
 TOXI0350-1 *Experimental toxicology (in vitro tests)* - Corinne CHARLIER 10 - - 2  
 SBIM0437-1 *Biosafety* - Willy ZORZI 5 5 - 2  
 PHAR2016-1 *Virology and antiviral theory* - Jacques PIETTE 10 - - 2  
 PHAR2017-1 *Complements of bacteriology* - Bernard JORIS 10 - - 2

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**Pharmacognosy**

MSTG0358-1 *Period of instruction in the laboratory of pharmacognosy* - Michel FREDERICH - - [+] 15  
 - [225h Internship]  
 PHAR0359-1 *Complements of pharmacognosy* - Michel FREDERICH 15 - - 3

**Pharmacology**

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

**Clinical Toxicology**

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

**Pharmaceutical chemistry**

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

**Analytical Chemistry**

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

**Medical Chemistry**

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

**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> - Marianne FILLET - [225h Internship]	-	-	[+]	<b>15</b>
PHAR1353-1	<i>Complements of drug analysis</i> - Marianne FILLET	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> - Brigitte EVRARD, Marianne FILLET, Michel FREDERICH, Philippe HUBERT, Bernard PIROTTE - [225h Internship]	-	-	[+]	<b>15</b>
PHAR2005-1	<i>Complements of pharmaceutical industry practices</i> - Brigitte EVRARD, Marianne FILLET, Michel FREDERICH, Philippe HUBERT, Bernard PIROTTE	15	-	-	<b>3</b>