Teaching units (TU) of the first part of the cursus aim to acquire basic scientific knowledge with a pharmaceutical specificity in mind. The TU « General Biology » deals with aspects relative to cytology, histology, parasitology. The TU « Plant Biology » is concerned with the evolution of plant kingdom, and the classification of plants with medicinal properties. The TU « Fundamentals of Anatomy » gives the future pharmacists basic knowledge on the structure and topology of human body and includes elements of embryology. The TU « General Chemistry » deals with substances at a molecular level which is a requirement to better explain the progress of a chemical reaction. The TU « Organic Chemistry » explains the mechanisms of the reactions involved in the synthesis of active ingredients of drugs. To improve the rate of success of first-year student, learning seminars are organized (test guidance, language skills, literature search, computer science). The TU « Pharmacy and Society » deals with themes such as the history of pharmacy, the journey of drugs, the access of patients to care and medications, economical problems of health care and a few major ethical and social problems in relation to medical drugs.

The aim of the TU of the second and third parts of the program is to provide the students the fundamentals of biochemistry, biology and physiology. These elements are required to the comprehension of pathological processes in man (infection, metabolic disorders, tumors, ...) studied in the last part of the program. Other TU introduce the students to the methods and techniques routinely used to analyze drugs. Some TU are devoted to the study and the quality control of drugs and of their components. These TU give the students the theoretical and practical basis required for their future study of the mode of action and of the analysis of therapeutic agents. At the end of the program, transdisciplinary practicals are organized in order to help the students to integrate their recent biological and chemical assets through problem-based learning.

### Bloc 1 | BA-PHAR

#### Cours obligatoires

**BIOI-J101**  
**Biologie animale** | Hassan JIJAKLI (Coordinator)  
- 5 credits [lecture: 50h, tutorial classes: 3h, practical work: 11h]  
- second term  
- French

**BIOI-J102**  
**Biologie végétale** | Nausicaa NORET (Coordinator)  
- 5 credits [lecture: 36h, practical work: 12h, field trips: 12h]  
- first term  
- French

**CHIM-J101**  
**Chimie générale** | Véronique CABIAUX (Coordinator)  
- 10 credits [lecture: 60h, tutorial classes: 48h]  
- first and second terms  
- French

**CHIM-J102**  
**Chimie organique** | Franck MEYER (Coordinator)  
- 5 credits [lecture: 36h, tutorial classes: 24h]  
- second term  
- French

**CHIM-J103**  
**Chimie expérimentale** | Franck MEYER (Coordinator) and Véronique CABIAUX  
- 5 credits [practical work: 48h]  
- first and second terms  
- French

**MATH-F113**  
**Mathématiques** | Joel FINE (Coordinator) and Clément Cerovecki  
- 5 credits [lecture: 24h, tutorial classes: 24h]  
- first term

**MEDI-J100**  
**Eléments d'anatomie et d'embryologie humaine** | Véronique FEIPEL (Coordinator), Hassan JIJAKLI and Olivier Snoeck  
- 5 credits [lecture: 32h, tutorial classes: 6h, practical work: 4h, field trips: 4h]  
- first term  
- French

**PHYS-F104**  
**Physique 1** | Barbara CLERBAUX (Coordinator), Stéphane DETOURNAY and Michele SFERRAZZA  
- 10 credits [lecture: 72h, tutorial classes: 36h, field trips: 4h]  
- academic year  
- French

**TRAN-J103**  
**Pharmacie et société et anglais scientifique** | Franck MEYER (Coordinator), Kelsey HULL and Pierre VAN ANTWERPEN  
- 5 credits [lecture: 20h, language practice: 24h, personal assignments: 24h]  
- second term  
- French

**TRAN-J111**  
**Accueil et initiation à la méthodologie universitaire** | Nathalie WAUTHOZ (Coordinator)  
- 5 credits [tutorial classes: 38h, workshop: 8h]  
- first term  
- French
Bachelor in Pharmacy

Bloc 2 | BA-PHAR

Cours obligatoires

BIOL-F208  Biochimie et physiologie de la cellule  | Vincent RAUSSENS (Coordinator), Véronique KRUYS and Maud MARTIN
Ô 5 credits [lecture: 60h]  ☐ first term  ☐ French

BIOL-J201  Introduction à l’étude des plantes médicinales  | Caroline STEVIGNY (Coordinator)
Ô 5 credits [lecture: 18h, practical work: 30h, field trips: 12h]  ☐ second term  ☐ French

BMOL-J201  Biologie moléculaire  | David VERMIJLEN (Coordinator)
Ô 5 credits [lecture: 42h]  ☐ first term  ☐ French

CHIM-J201  Chimie organique pharmaceutique  | François DUFRASNE (Coordinator)
Ô 5 credits [lecture: 36h, tutorial classes: 12h]  ☐ second term  ☐ French

CHIM-J202  Spectroscopies moléculaires et spectrométrie de masse  | Pierre VAN ANTWERPEN (Coordinator), Cédric Delporte and Michel LUHMER
Ô 5 credits [lecture: 12h, tutorial classes: 18h, workshop: 6h, personal assignments: 24h]  ☐ second term  ☐ French

MEDI-J201  Physiologie humaine  | Stéphanie POCHET (Coordinator)
Ô 5 credits [lecture: 60h]  ☐ second term  ☐ French

PHAR-J210  Analyse Pharmaceutique, méthodes volumétriques  | Cédric Delporte (Coordinator), Jacques DUBOIS and Kris De Braekeleer
Ô 5 credits [lecture: 30h, tutorial classes: 10h, practical work: 40h]  ☐ first term  ☐ French

PHAR-J230  Analyse Pharmaceutique, méthodes Physicochimiques  | Nathalie WAUTHOZ (Coordinator) and Jacques DUBOIS
Ô 5 credits [lecture: 30h, tutorial classes: 6h, practical work: 32h]  ☐ second term  ☐ French

STAT-J201  Statistiques appliquées aux sciences pharmaceutiques  | Kris De Braekeleer (Coordinator)
Ô 5 credits [lecture: 24h, tutorial classes: 28h]  ☐ first term  ☐ French

TRAN-J201  Scientific English and transdisciplinary projects  | Franck MEYER (Coordinator), François DUFRASNE, Kris De Braekeleer, Cédric Delporte, Véronique FONTAINE, Kelsey HULL, Hassan JIJAKLI, Stéphanie POCHET, Caroline STEVIGNY and David VERMIJLEN
Ô 5 credits [lecture: 12h, tutorial classes: 24h, personal assignments: 24h]  ☐ first and second terms  ☐ English/French

TRAN-J211  Approche pratique des sciences du vivant  | David VERMIJLEN (Coordinator), Cédric Delporte and Stéphanie POCHET
Ô 10 credits [practical work: 100h, personal assignments: 15h]  ☐ academic year  ☐ French
Bachelor in Pharmacy

Bloc 3 | BA-PHAR

Cours obligatoires

BIOL-J301  Microbiologie générale, Hygiène, Immunologie | Véronique FONTAINE (Coordinator) and David VERMIJLEN  
5 credits [lecture: 50h]  first term  French

BIOL-J302  Microbiologie médicale | Véronique FONTAINE (Coordinator)  
5 credits [lecture: 22h, practical work: 42h]  first term  French

MEDI-J301  Physiopathologie, éléments de pathologie humaine et épidémiologie | Véronique MATHIEU (Coordinator) and Kris De Braekeleer  
5 credits [lecture: 44h, tutorial classes: 4h]  first term  French

PHAR-J301  Pharmacologie générale et éléments de pharmacocinétique | Stéphanie POCHET (Coordinator)  
5 credits [lecture: 24h, tutorial classes: 24h, personal assignments: 12h]  first term  French

PHAR-J302  Analyse pharmaceutique : méthodes instrumentales et contrôle de qualité | Cédric Delporte (Coordinator) and Kris De Braekeleer  
5 credits [lecture: 36h, practical work: 24h]  second term  French

PHAR-J303  Étude des médicaments : Pharmacognosie et médicaments d'origine naturelle | Caroline STEVIGNY (Coordinator)  
5 credits [lecture: 42h, practical work: 18h]  first term  French

PHAR-J304  Étude des médicaments : médicaments inorganiques et radiopharmacie | Pierre VAN ANTWERPEN (Coordinator), Jacques DUBOIS, Kris De Braekeleer and Zéna WIMANA  
5 credits [lecture: 36h, practical work: 24h]  second term  French

PHAR-J305  Étude des médicaments : médicaments organiques 1 et biologiques | François DUFRASNE (Coordinator) and Cédric Delporte  
5 credits [lecture: 60h]  second term  French

TRAN-J311  Projet transdisciplinaire en analyse des médicaments | François DUFRASNE (Coordinator), Kris De Braekeleer, Cédric Delporte and Caroline STEVIGNY  
10 credits [tutorial classes: 28h, practical work: 62h, personal assignments: 18h]  academic year  French

TRAN-J312  Pratique officinale | Florence SOUARD (Coordinator), François DUFRASNE, Cédric Delporte, Caroline STEVIGNY and Pierre VAN ANTWERPEN  
10 credits [tutorial classes: 24h, practical work: 80h, personal assignments: 12h]  first and second terms  French