

Bachelor in Chemistry

During the BA, students do basic training courses in mathematics, physics and chemistry, and tackle more specific aspects of chemistry, complemented by elements of closely related disciplines. To acquire both general and specific competences, the student learns to develop a coherent scientific approach and an operational knowledge of basic tools in sciences, notably in chemistry. The ex cathedra courses are complemented by exercises carried out in supervised small groups, personal work and laboratories. The student is introduced to the proper execution of personal work, which will allow him to optimize his/her creativity and sense of initiative.

The sub-disciplines of chemistry are tackled along the following main themes:

- > organic chemistry
- > analytical chemistry
- > biochemistry
- > theoretical chemistry
- > inorganic chemistry
- > quantum mechanics
- > thermodynamics
- > chemical physics

Bloc 1 | BA-CHIM

Cours obligatoires

- BIOL-F102 **Biologie générale** | Patrick MARDULYN (Coordinator) and Etienne MEYLAN
 ⌚ 5 credits [lecture: 48h] 📅 second term 🗨️ French
- CHIM-F101 **Chimie générale** | François RENIERS (Coordinator), Laurence RONGY and Thierry VISART DE BOCARME
 ⌚ 20 credits [lecture: 96h, tutorial classes: 60h, practical work: 84h, project: 75h] 📅 first and second terms 🗨️ French
- CHIM-F102 **Chimie organique 1** | Cécile MOUCHERON (Coordinator)
 ⌚ 5 credits [lecture: 30h, tutorial classes: 18h, project: 20h] 📅 second term 🗨️ French
- MATH-F115 **Mathématiques 2** | Ignace LORIS (Coordinator)
 ⌚ 5 credits [lecture: 30h, tutorial classes: 24h] 📅 second term 🗨️ French
- MATH-F118 **Mathématiques** | Samuel FIORINI (Coordinator) and Andriy Haydys
 ⌚ 10 credits [lecture: 60h, tutorial classes: 60h] 📅 first and second terms 🗨️ French
- PHYS-F110 **Physique générale I et II** | Pascal VANLAER (Coordinator), Michele SFERRAZZA and Sophie VAN ECK
 ⌚ 15 credits [lecture: 72h, tutorial classes: 72h, practical work: 36h] 📅 first and second terms 🗨️ French

Bachelor in Chemistry

Bloc 2 | BA-CHIM

Cours obligatoires

- CHIM-F201 **Chimie analytique 1** | Thomas DONEUX (Coordinator)
 10 credits [lecture: 30h, practical work: 90h, project: 30h] first and second terms French
- CHIM-F204 **Chimie organique 2** | Ivan JABIN (Coordinator)
 10 credits [lecture: 30h, practical work: 90h, project: 80h] first term French
- CHIM-F205 **Thermodynamique chimique** | Geneviève DUPONT (Coordinator) and Yannick DE DECKER
 5 credits [lecture: 24h, tutorial classes: 24h, practical work: 12h] second term French
- CHIM-F206 **Mécaniques classique et quantique** | Nathalie VAECK (Coordinator) and Lieven CLARISSE
 10 credits [lecture: 72h, tutorial classes: 48h] first and second terms French
- CHIM-F207 **Cristallochimie et chimie inorganique** | Jon USTARROZ TROYANO (Coordinator), Karen FONTIJN and François RENIERS
 5 credits [lecture: 44h, practical work: 16h] second term French
- CHIM-F208 **Biochimie 1** | Cyril GUEYDAN (Coordinator) and Véronique KRUYSS
 5 credits [lecture: 60h] first and second terms French
- LANG-F201 **Anglais scientifique I** | Alexander CORNFORD (Coordinator)
 5 credits [tutorial classes: 48h] second term English
- MATH-F214 **Compléments de mathématiques** | Ignace LORIS (Coordinator)
 5 credits [lecture: 30h, tutorial classes: 30h] first term French

Cours optionnels

A total of five credits chosen from the following

- ENVI-F1001 (optional) **Sciences de la Terre, Environnement et Société** | Pierre REGNIER (Coordinator), Jean-Michel DECROLY and Frank PATTYN
 5 credits [lecture: 48h] first and second terms French
- ETHI-F201 (optional) **Sciences, éthique, histoire et société** | Grégoire Wallenborn (Coordinator) and Eric MURAILLE
 5 credits [lecture: 48h] second term French
- ETHI-F301 (optional) **Science et Société : analyse de controverses scientifiques** | Patrick MARDULYN (Coordinator) and Grégoire Wallenborn
 5 credits [lecture: 24h, project: 70h] first term French
- INFO-F206 (optional) **Informatique** | Olivier MARKOWITZ (Coordinator)
 5 credits [lecture: 24h, tutorial classes: 24h, project: 12h] first term French
- PHYS-F105 (optional) **La structure de l'univers** | Alain JORISSEN (Coordinator) and Rodrigo ALVAREZ
 5 credits [lecture: 48h] first term French
- PHYS-F317 (optional) **How To Make (almost) Any Experiment Using Digital Fabrication** | Denis TERWAGNE (Coordinator)
 5 credits [lecture: 24h, practical work: 36h] first term French
- TRAN-F201 (optional) **Introduction aux enjeux de la durabilité** | Wouter ACHTEN (Coordinator), Chiara ARMENI and Emilie JEMPA KANKO MUTOMBO
 5 credits [lecture: 24h, project: 24h] second term French

Bachelor in Chemistry

Bloc 3 | BA-CHIM

Cours obligatoires

- CHIM-F301 **Chimie organique 3** | Cécile MOUCHERON (Coordinator) and Cédric Theunissen
 ⌚ 10 credits [lecture: 24h, practical work: 96h, project: 40h] 📅 first term 🗨️ French
- CHIM-F302 **Chimie analytique 2** | Jon USTARROZ TROYANO (Coordinator) and Thomas DONEUX
 ⌚ 10 credits [lecture: 24h, practical work: 96h, project: 60h] 📅 first term 🗨️ French
- CHIM-F304 **Structures et symétries moléculaires** | Emilie CAUET (Coordinator), Antoine Aerts and Sophie Bauduin
 ⌚ 5 credits [lecture: 36h, tutorial classes: 24h] 📅 first term 🗨️ French
- CHIM-F318 **Analyse structurale spectrométrique** | Michel LUHMER (Coordinator) and Pierre VAN ANTWERPEN
 ⌚ 5 credits [lecture: 24h, tutorial classes: 24h] 📅 second term 🗨️ French
- CHIM-F320 **Cinétique chimique** | Thierry VISART DE BOCARME (Coordinator)
 ⌚ 5 credits [lecture: 36h, tutorial classes: 12h, practical work: 12h, project: 12h] 📅 second term 🗨️ French
- CHIM-F321 **Thermodynamique statistique** | Yannick DE DECKER (Coordinator)
 ⌚ 5 credits [lecture: 36h, tutorial classes: 24h] 📅 second term 🗨️ French
- CHIM-F325 **Spectroscopies moléculaires** | Jean VANDER AUWERA (Coordinator), Sophie Bauduin and Pierre-François COHEUR
 ⌚ 5 credits [lecture: 36h, tutorial classes: 12h, practical work: 12h, project: 15h] 📅 second term 🗨️ French
- CHIM-F327 **Scientific Literature and Communication** | Yannick DE DECKER (Coordinator), Jean-Christophe LELOUP and Hugh MURPHY
 ⌚ 5 credits [tutorial classes: 12h, project: 80h] 📅 first and second terms 🗨️ English/French
- CHIM-F328 **Travail de fin de cycle : Printemps des Sciences** | Jean-Christophe LELOUP (Coordinator) and Yannick DE DECKER
 ⌚ 5 credits [project: 150h] 📅 second term 🗨️ French
- CHIM-F329 **Biochimie 2** | Vincent RAUSSENS (Coordinator), Cédric GOVAERTS, Véronique KRUYSS and Chloé MARTENS
 ⌚ 5 credits [lecture: 36h, practical work: 24h] 📅 first term 🗨️ French