

## First Year

### Compulsory courses

CHIM0209-1	<i>Inorganic chemistry</i> - André RULMONT - [10h QA Sess., 1half-d Vis. Ind. Pl. ]	30	76	[+]	<b>8</b>
CHIM0210-1	<i>Chimie organique avancée I</i> - André LUXEN - [30h QA Sess.]	30	-	[+]	<b>6</b>
CHIM0211-1	<i>Physical chemistry I, macroscopic properties</i> - [30h QA Sess.]	60	135	[+]	<b>15</b>
CHIM0212-1	<i>Physical chemistry II, molecular aspects</i> - [15h QA Sess.]	30	15	[+]	<b>8</b>
CHIM0015-1	<i>Analytical chemistry II, physical methods</i> - Bernard GILBERT - [30h QA Sess.]	30	150	[+]	<b>12</b>
BIOC0201-1	<i>General biochemistry</i>	30	-	-	<b>5</b>
CHIM0213-1	<i>Structural analysis</i> - Edwin DE PAUW - [20h QA Sess.]	30	20	[+]	<b>6</b>

## Second Year

### Compulsory courses

CHIM0214-1	<i>Advanced organic chemistry II</i> - André LUXEN	30	200	-	<b>10</b>
CHIM0215-1	<i>Physical Chemistry III, including statistical thermodynamics</i> - Bernard LEYH - [15h QA Sess.]	30	-	[+]	<b>5</b>
CHIM0019-4	<i>Macromolecular chemistry, y compris une journée de visite d'usine</i> - Christine JÉRÔME - [1d Vis. Ind. Pl. ]	30	-	[+]	<b>5</b>
CHIM0216-1	<i>Nuclear chemistry and chemistry of coordination</i> - Jean-François DESREUX	20	10	-	<b>4</b>

### Option cours

The overall volume of hours for option courses must be a minimum of 60h, broken up into four 15h courses, of which two at least must deal with the dissertation subject. One 15h course can be chosen from any Faculty of Science programme, or that of another Faculty. The programme chosen must be approved by the 2nd license jury.

CHIM0020-1	<i>Processes of industrial chemistry: part a: organic chemistry</i> - Albert GERMAIN	15	-	-	<b>2</b>
CHIM0021-1	<i>Processes of industrial chemistry: part b: inorganic chemistry</i> - Albert GERMAIN	15	-	-	<b>2</b>
CHIM0217-1	<i>Elements of medical chemistry</i> - Jean-Paul CHAPELLE	15	-	-	<b>2</b>
CHIM0218-1	<i>Elements of medicinal chemistry</i> - Bernard PIROTTE	15	-	-	<b>2</b>
CHIM0219-1	<i>Industrial polymers</i> - Christine JÉRÔME	15	-	-	<b>2</b>
CHIM0220-1	<i>Recent nuclear magnetic resonance (NMR) methods in chemistry</i> - Jean GRANDJEAN	15	-	-	<b>2</b>
CHIM0221-1	<i>Experimental 2D NMR Aspect</i> - N...	15	-	-	<b>2</b>
CRIS0204-1	<i>Crystallography - additional issues</i> - Frédéric HATERT	15	-	-	<b>2</b>
CHIM0059-1	<i>Industrial Microbiology</i> - Philippe THONART	15	-	-	<b>2</b>
CHIM0260-1	<i>Atomic and Molecular Spectroscopy</i> - Marie-Jeanne HUBIN#FRANSKIN	15	-	-	<b>2</b>
PHYS0211-3	<i>Quantum Mechanics</i> - Joseph CUGNON	30	30	-	<b>2</b>
SPOL2209-4	<i>Policy of durable development</i> - Quentin MICHEL	15	-	-	<b>2</b>
CHIM0222-1	<i>General inorganic chemistry: section: additional issues in general inorganic chemistry</i> - Jean-François DESREUX	15	-	-	<b>2</b>
CHIM0223-1	<i>General inorganic chemistry : glasses, characterisation of non-crystalline solids.</i> - André RULMONT	15	-	-	<b>2</b>
CHIM0224-1	<i>General organic chemistry: chemistry of advanced organic materials</i> - N...	15	-	-	<b>2</b>
BIOC0202-1	<i>Biological general chemistry : section : molecular biology</i> - Joseph MARTIAL	15	-	-	<b>2</b>
BIOC0203-1	<i>Biological general chemistry : section : enzymology</i> - Jean-Marie FRÈRE	15	-	-	<b>2</b>
CHIM0228-1	<i>Physical chemistry: section: recent developments in mass spectrometry</i> - Edwin DE PAUW	15	-	-	<b>2</b>
CHIM0229-1	<i>Physical chemistry: section: physical chemistry of surfaces</i> - José MARIEN	15	-	-	<b>2</b>
CHIM0230-1	<i>Physical Chemistry: partim: Physical chemistry of the ionised states of molecules in the gas phase. From the isolated molecule to the cluster.</i> - N...	15	-	-	<b>2</b>
CHIM0231-1	<i>Physical chemistry: partim: chemical reaction dynamics: experimental approaches</i> - Bernard LEYH	15	-	-	<b>2</b>
CHIM0232-1	<i>Analytic chemistry: section: spectral and electrochemical methods</i> - Bernard GILBERT	15	-	-	<b>2</b>
CHIM0233-1	<i>chemical physics: the electronic collisions and their applications in chemical physics</i> - Marie-Jeanne HUBIN#FRANSKIN	15	-	-	<b>2</b>
CHIM0234-1	<i>Structure and conformational dynamics of proteins and nucleic acids</i> - Pierre COLSON	15	-	-	<b>2</b>
CHIM0236-1	<i>Liquid chromatography and capillary electrophoresis</i> - Jacques CROMMEN	15	-	-	<b>2</b>
CHIM0237-1	<i>Analytical chemistry in nonaqueous solvents</i> - Bernard GILBERT	15	-	-	<b>2</b>
CHIM0238-1	<i>Quantum theory of chemical reactivity</i> - Michèle DESOUTER	15	-	-	<b>2</b>

CHIM0239-1	<i>Atmospheric chemistry</i> - Marie-Jeanne HUBIN#FRANSKIN	15	-	-	2
CHIM0240-1	<i>Physical properties and processing of polymers</i> - N...	15	-	-	2
CHIM0241-1	<i>Physico-chemical properties of surface-active agents</i> - Guy BROZE	15	5	-	2
CHIM0242-1	<i>Oscillating phenomena in chemical kinetics</i> - Michèle DESOUTER	15	-	-	2
CHIM0243-1	<i>Spectral analysis and molecular dynamics</i> - Françoise REMACLE	15	-	-	2
PHAR0201-1	<i>Technology of Controlled-release Dosage Forms</i> - Brigitte EVRARD	15	-	-	2
PHYS0245-1	<i>EXAFS : theory and applications</i> - Jean-Pierre GASPARD	15	-	-	2
CHIM0244-1	<i>New inorganic materials with controlled porosity</i> - Zélimir GABELICA	15	-	-	2
CHIM0245-1	<i>Aide à l'utilisation de la chimie quantique</i>	15	-	-	2
CHIM0246-1	<i>New reactions in organic synthesis</i> - Albert DEMONCEAU	15	-	-	2
INFO0082-1	<i>Library searches</i> - Caroline COLLETTE	15	-	-	2
CHIM0247-1	<i>Nuclear magnetic resonance in the solid phase : from spectroscopy to imaging</i> - Jean GRANDJEAN	15	-	-	2
CHIM0248-1	<i>Advanced ceramic materials : synthesis, characterization and use</i> - Rudi CLOOTS	15	-	-	2
CHIM0249-1	<i>New developments in polymer synthesis</i> - Christine JÉRÔME	15	-	-	2
CHIM0086-1	<i>Molecular recognition and interactions between biological molecules</i> - Valérie GABELICA	15	-	-	2
CHIM0087-1	<i>Experimental techniques in proteomics</i> - Valérie GABELICA	15	-	-	2
CHIM0088-1	<i>Nanomaterials, principles of synthesis and application</i> - Christophe DETREMBLEUR	15	-	-	2
CHIM0089-1	<i>Molecular logic</i> - Françoise REMACLE	15	-	-	2
CHIM0090-1	<i>Theory and modeling of hybrid molecular complexes</i> - Françoise REMACLE	15	-	-	2
CHIM0091-1	<i>New developments in the use of Synchrotron radiation</i> - Alexandre GIULIANI	15	-	-	2
SMEM0006-1	<i>Mémoire</i>	-	-	-	28

L'étudiant doit présenter un mémoire de licence, correspondant à quatre mois d'un travail original, dans un des laboratoires de recherche où il est amené à s'initier à la recherche scientifique. Ce mémoire débute à la sixième semaine de l'année académique.