




8.00 credits

45.0 h + 45.0 h

Q1

Teacher(s)	Elias Benjamin ;Vlad Alexandru ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	<p>The course will familiarize with scientific reasoning, the chemical and physico-chemical phenomena and the rules that they depend on.</p> <p>It will deal with :</p> <ol style="list-style-type: none"> <li>1. The classical atomic theory, leading to understanding the constitution, organisation and properties of atoms</li> <li>2. Mass relationship in chemical reactions and the concept of limiting reagents</li> <li>3. The description of chemical bonding and the geometry of molecules,</li> <li>4. The study of the main classes of chemical reactions,</li> <li>5. An introduction to physical chemistry and its thermodynamic and kinetic aspects, with particular emphasis on chemical equilibrium.</li> </ol> <p>The course will cover in detail the acid-base reactions (including pH calculations, acid base titrations and buffer solutions), the reactions of precipitation and complexation, as well as oxido-reduction reactions (including the applications in batteries and electrolysis).</p> <p>Selected illustrations of these concepts will also provide a general overview of mineral chemistry in relation with its main industrial uses and daily life.</p>
Learning outcomes	
Teaching methods	
Inline resources	Moodleucl
Bibliography	<ul style="list-style-type: none"> <li>• Livre de P. Atkins, Laverman et Jones : "Principe de chimie", Trad. Française de A. Pousse (De Boeck SUPERIEUR), ou édition anglaise originale correspondante. Manuel de travaux pratiques. Fascicule d'exercices.</li> </ul>
Faculty or entity in charge	CHIM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Veterinary Medicine	VETE1BA	8		
Minor in Scientific Culture	MINCULTS	8		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	8		
Bachelor in Biology	BIOL1BA	8		