

5.00 credits

30.0 h + 50.0 h

Q2

Teacher(s)	Devillers Michel ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	<p>The theoretical presentation covers the general properties of the elements and main compounds of the s and p blocks of the periodic table.</p> <p>It also includes an introduction to the transition elements (d block) and to metallurgy, as well as to the lanthanides and actinides.</p> <p>The first chapter deals in a general way with the periodicity of chemical and physico-chemical properties.</p> <p>The second chapter is devoted to an introduction to radioactivity.</p> <p>The third chapter deals with hydrogen and its binary compounds.</p> <p>The following chapters are devoted to the different families of the periodic table.</p> <p>In each of these, the characteristic properties of the group, the obtaining, the properties and the most important uses of the elements and their principal compounds are described in succession. Attention is drawn to the economic and geostrategic aspects of the supply of raw materials, as well as to the dangers that the various simple bodies and compounds can present for the individual and the environment.</p> <p>During the practical exercises, the students approach the qualitative analysis of the most common cations and anions in aqueous solution. The set of analyses covers about fifty ionic species.</p> <p>The analytical approach is based on the exploitation of the chemical properties of the elements according to their position in the periodic table.</p> <p>The student must have a perfect command of the simultaneous use of acid-base, precipitation, complexation and oxidation-reduction properties.</p>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>During the practical exercises, the students approach the qualitative analysis of the most common cations and anions in aqueous solution.</p> <p>1 The set of analyses covers about fifty ionic species. The analytical approach is based on the exploitation of the chemical properties of the elements according to their position in the periodic table.</p> <p>The student must have a perfect command of the simultaneous use of acid-base, precipitation, complexation and oxidation-reduction properties.</p>
Evaluation methods	Written exam supplemented by an oral exam
Teaching methods	Lecture supplemented by practical work on inorganic qualitative analysis in the laboratory.
Bibliography	Liste exhaustive d'ouvrages de référence fournie dans le volume 1 des notes de cours obligatoires.
Other infos	<p>Participation in the <b>practical work</b> is <b>MANDATORY</b>.</p> <p>Any <b>unexcused absence</b> will in principle be penalized by a <b>negative mark of 5 points</b> on the final mark of LCHM1231 taken into account in the deliberation, and may, depending on the degree of recurrence and the assessment of the situation by those in charge of the teaching, result in a non-negotiable final mark of zero out of 20.</p> <p>Should the number of unjustified and/or justified absences become significant, the holder reserves the right to activate the articles of the RGEE allowing the jury to prohibit the student from registering for the corresponding exam.</p>
Faculty or entity in charge	CHIM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Chemistry	<a href="#">CHIM1BA</a>	5	<a href="#">LCHM1111</a>	