Université catholique de Louvain

WMD1003 2010-2011

Mineral and general chemistry

8.0 credits

60.0 h + 28.0 h

1q

Teacher(s) :	Ayadim Mohamed ; Habib Jiwan Jean-Louis ; Ronneau Claude (compensates Habib Jiwan Jean-Louis) ; Ronneau Claude (coordinator) ;
Language :	Français
Place of the course	Bruxelles Woluwe
Main themes :	 The main themes of this course are : (i) Chemical equations, quantitative mass relationships, volumes and concentrations of solutions. (ii) Atomic structure and chemical bonding. (iii) Elements of chemical thermodynamics (enthalpy, entropy, Gibbs free energy) and the chemical equilibrium. (iv) Solution chemistry : acids and bases, pH, precipitation and solubility products, equilibria involving complex ions, redox reactions, electrode potentials and electromotive force. (v) Elements of chemical kinetics.
Aims :	 Acquisition of basic knowledge and main concepts of General Chemistry. Practical exercices on some basic techniques in General Chemistry. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".
Content :	The course is based on three parts. The first one is the theoretical course where the fundamental concepts of chemistry are presented and explained. This theoretical part is largely illustrated with examples from life sciences and current life. The second part is devoted to the solving of exercises in small groups of students. Some practical works in small groups of students are also done to give to the students the opportunity to realize real practical experiments.
Other infos :	Prerequisite : sufficient knowledge of French ; familiarity with classical mathematical tools (e.g. basic algebra, logarithms). Evaluation : written examination measuring problem solving capabilities (ca. 6 questions).
Cycle and year of study :	<u>> Bachelor in Medecine</u> <u>> Master [60] in Environmental Science and Management</u>
Faculty or entity in charge:	MED