UCLouvain

wmd1105

2019

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

9 credits	60.0 h + 30.0 h	Q1

Teacher(s)	Rider Mark (coordinator) ;Vlad Alexandru ;
Language :	French
Place of the course	Bruxelles Woluwe
Main themes	The formation is oriented towards problems solving. Formal lessons are given and activities in small groups are organized where numerical chemistry problems are worked out. The topics covered are atomic, ionic and molecular properties, conservation of matter, gas properties, reactivity, thermodynamics, equilibria in aqueous solution and kinetics.
Aims	1 The aim of the course is to give a basic knowledge of general chemistry to students oriented towards life sciences. With these lessons, the students should acquire a sound idea of what atoms and molecules are and how they behave. They should be able to use in a proper fashion the basic notions of molecular structure, reactivity, thermodynamics and kinetics. At the end of half an academic year, typical numerical problems of a first year college chemistry course have to be mastered. - - - - *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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Written exam involving solving problems but also including explanations of theoretical aspects of the course (± 12 questions, exam duration 3 h). There are no negative points or weighting according to the questions and chapters of the subject. However, when a student has a final mark between 9/20 and 10/20 after correction, the organizers review together the exam copy to decide whether the mark should be rounded down or up. If the conclusion is that the answers are insufficient, the score will be rounded down.
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** There are a series of practicals (TP) and demonstrations (TD)that accompany the teaching of this course.
Content	This course of general and inorganic chemistry forms part of the curriculum for first year pharmacy (FARM) and biomedical science (SBIM) students. Content: 1. Introduction 2. Atoms : description and properties 3. Chemical bonding : ionic, covalent and metallic (nature, stability) 4. Chemical thermodynamics 5. States of matter 6. Chemical equilibria 7. Acids and bases 8. Solubility 9. Electrochemistry 10. Chemical kinetics
Inline resources	There is no formal syllabus ! PDF versions of slides presented in the course, which cover the subject in a comprehensive way, will be made available on MoodleUCL (https://moodleucl.uclouvain.be/). In addition, a tablet will be used to explain certain aspects of the course. The "Tablet" PDF versions of the PowerPoint files will also be made available to students via MoodleUCL.
Bibliography	Livres de référence : • Atkins, Jones, Principes de Chimie (de boek, 2ème/3ème édition) • Chimie des Solutions, Kotz, Treichel Jr, de boek/Beauchemin • Ayadim, Habib-Jiwan, Chimie Générale Edition : UCL press Universitaires de Louvain-DUC- 2013. • Voir aussi www.deboek.com et www.lachimie.org (site très utile pour travailler son cours).

Other infos	The participation in the series of demonstrations (TD) and exercises is indispensable and strongly recommended. Participation in the practicals (TP) is obligatory and unjustified absences could lead to a penalty (0/20 for the exam). "En cas d'absences répétées même justifiées, l'enseignant peut proposer au jury de s'opposer à l'inscription à l'examen relatif à l'UE en respect de l'article 72 du RGEE*"
Faculty or entity in charge	FASB

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Biomedicine	SBIM1BA	9		🔍
Bachelor in Pharmacy	FARM1BA	9		🔍