


3 credits

30.0 h

Q1

Teacher(s)	Dupont Christine coordinator ; Garcia Yann ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	At first, the course brings the student to a good knowledge in solution thermodynamics and to the quantitative prediction of their behaviour. Activity and standard state concepts must be used in a reasonable way at this stage. The different classes of reactions are then developed in order to rigorously exploit basic operations in quantitative chemical analysis. The study of gravimetry and titration allows illustrating fundamental bases of operating modes. Theoretical aspects of chromatographic separation methods as well as an introduction to spectrochemical analysis are given. Finally, theoretical bases and applications of potentiometry to an analytical problem are described. The student is here sensitised to important concepts such as electrode potentials, reference electrode, indicator electrode, and to the correspondence of an electrochemical circuit to the needs of analysis as well as analytical performances. The care specific to potentiometric methods is also outlined.
Aims	<i>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".</i>
Evaluation methods	Written exam
Teaching methods	lectures - exercises
Content	Introduction - Chemical analysis and information - Chemical potential - Introduction to spectroscopy - gravimetry - volumetry - redox reactions - potentiometry - chromatography
Inline resources	Moodle website
Faculty or entity in charge	CHIM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	3		
Master [60] in Biology	BIOL2M1	3		