UCL Université catholique de Louvain

WFARM1243

2015-2016

Introduction à la chimie analytique (Théorie)

3.0 credits	30.0 h	2q

Teacher(s) :	Muccioli Giulio (coordinator) ; Herent Marie-France ;
Language :	Français
Place of the course	Bruxelles Woluwe
Prerequisites :	general chemistry and organic chemistry *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.*
Main themes :	The teacher(s) will discuss the different kinds of particle exchange that take place in solutions (acid-base reactions, precipitometry reactions, complexometry reactions, redox reactions'). The aim will be to provide the basis needed to understand how these reactions are used in the different dosage methods. These dosage methods, in aqueous and non aqueous solutions) will be described.
Aims :	At the end of the activity the student will be able to -- Determine the theoretical pH or redox potential of a given aqueous solution -- Draw titration curves (pHmetry, precipitometry, complexometry, and rédox) based on a titration problem -- Explain how general as well as ion-selective electrodes work -- Discuss the pro and cons of the different techniques able to determine a given ion concentration (based on what was presented to him) *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 :	a written exam spanning from theoretical aspects to exercise resolution
Teaching methods :	WFARM1244 (practical training in analytical chemistry) allows to approach the theoretical notions in a more practical way.
Content :	-- General aspects of the solvents and ions solutions -- General aspects of particle transfer -- Solubility and gravimetry -- From pH calculations to acid-base titrimetry -- From redox reactions to redox titrations -- Potentiometry and ion-selective electrodes -- Conductometric titrations -- Electrogravimetry and coulometry -- Polarography and amperometry
Faculty or entity in charge:	FARM

Programmes / formations proposant cette unité d'enseignement (UE)

Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Bachelor in Pharmacy	FARM1BA	3	WMD1105 **and** WMD1106 **and** WFARM1003	🔍
Minor in Medication Sciences	WFARM100I	3	-	🔍