UCL Université catholique de Louvain

WFARM1312 2015-2016

Analyse instrumentale (Théorie)

3.0 credits

30.0 h

1q

Teacher(s) :	Muccioli Giulio (coordinator) ; Herent Marie-France ;			
Language :	Français			
Place of the course	Bruxelles Woluwe			
Prerequisites :	general chemistry ; organic chemistry ; introduction to the analytical 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 spectroscopic techniques (UV, molecular fluorescence, atomic spectroscopy'); and will then focus on the separation techniques such as HPLC and GC. They will also discuss the detectors that are used to detect the analytes following their separation (UV, FID, MS').			
Aims :	At the end of the activity the student will be able to			
	Differentiate the different spectroscopic techniques (type of interaction with the light, nature of the measured signal, ')			
	Describe the different separation techniques that have been discussed			
	Explain the consequences of a change in the experimental conditions of a separation on the result of the separation.			
	Propose, based on the elements discussed during the course, the optimal method allowing the quantification of a given analyte. 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 :	WFARM1313 (practical training in instrumental analysis) allows to approach the theoretical notions in a more practical way.			
Content :	 Spectroscopic techniques			
	 UV-Visible			
	 Molecular fluorescence			
	 Atomic spectroscopy			
	Introduction to the analytical separations			
	 Electrophoretic methods			
	 Liquid chromatograpy			
	 Gaz chromatography			
	Introduction to the mass spectrometry			
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	WFARM1243 and WFARM1244 and WFARM1231 and WFARM1219	٩	