UCL Université catholique de Louvain

WFARM1313

2014-2015

Travaux pratiques d'analyse instrumentale

3.0 credits	0 h + 105.0 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 analytical chemistry ; instrumental analysis
Main themes :	The teacher(s), helped by graduate students and technicians, will discuss the different types of instrumental analysis techniques. The goal is first to give the practical basis to understand the theoretical notions studied during WFARM1312 ; second to explain how to use an analytical instrument in order to obtain relevant results.
Aims :	At the end of the activity the student will be able to -- Understand the functioning and use measuring electrodes, including pHmeters -- Use, based on written procedures, the different analytical instruments used in the lab -- Build and use a calibration curve for different analytical techniques -- Interpret the data obtained by instrumental analysis *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 :	continuous evaluation based on the post-experiment report and, on the evaluation of the student preparation to the day's experiment.
Teaching methods :	the activity takes place in didactic labs.
Content :	-- General aspects of the instrumental analysis -- Conductometry -- Ion-selective potentiometry -- Acid-base titrations ' redox titrations -- Spectrophotometry -- pKa measuring ' spectrophotometric quantification of iron -- Atomic spectroscopy -- Sodium and potassium quantification -- Zone electrophoresis -- Gaz chromatography -- Methyl salicylate quantification ' fatty acid quantification -- High performance liquid chromatography -- Caffeine quantification ' dye quantification
Cycle and year of study :	> Bachelor in Pharmacy

Faculty or entity in charge:	FARM