UCL Université catholique de Louvain

LBIR1318A

2015-2016

Analyse organique I : techniques de séparation

3.0 credits	30.0 h	2q

Teacher(s) :	Collin Sonia ;
Language :	Français
Place of the course	Louvain-la-Neuve
Inline resources:	Icampus
Prerequisites :	Organic chemistry CHIM1170
Main themes :	- Properties of chemical compounds - Strategy of an organic analysis - Methods for extraction and concentration - Gas chromatography - High-pressure liquid chromatography - Modification of the properties by derivatisation - Methods of quantification - Semi-preparative HPLC - UPLC - Enantiomeric separations
Aims :	a. Contribution de l'activité au référentiel AA (AA du programme) The course contributes to the following learning outcomes : 1.3, 1.4, 3.3, 6.2 and 6.8 (BIR program) b. Formulation spécifique pour cette activité des AA du programme (maximum 10) At the end of this course, the student will be able -- to select the best technique to get rid of all major co-constituents, -- to optimize the resolution of the GC/HPLC chromatograms, -- to choose the best detector in terms of sensibility and selectivity, -- to accurately quantify the analytes (use of internal standards, external standards, standard addition, isotopic dilution ..) -- and to extrapolate the concepts to isolate them by (semi)preparative HPLC or GC. *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 :	Written examination for the theoretical part. 3 Oral communications (in English) are presented during the seminars (discussion of experimental protocols). The experimental know-how and the attitude are evaluated throughout practical classes (laboratory report).
Teaching methods :	Half of the courses consist in magistral lectures, the other part being a reflection (groups of students) around published experimental protocols. The students have also the opportunity to apply a few number of experimental protocols at the laboratory.
Content :	- Properties of chemical compounds - Strategy of an organic analysis - Methods for extraction and concentration - Gas chromatography - High-pressure liquid chromatography - Modification of the properties by derivatisation - Methods of quantification - Semi-preparative HPLC - UPLC - Enantiomeric separations
Bibliography :	No particular support which would be paying are required.

Faculty or entity in charge:	AGRO

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Agricultural Bioengineering	BIRA2M	3	-	