LBIR1317
2012-2013

Chimie organique (3è partie)

3.0 credits	30.0 h + 15.0 h	1q

Teacher(s) :	Elias Benjamin ;
Language :	Français
Place of the course	Louvain-la-Neuve
Prerequisites :	- Pre-requisite CHIM 1151 "General chemistry, first part"; CHIM 1251 "General chemistry, second part"; CHIM 1170 "organic chemistry, first part".
Main themes :	Acquiring of fundamental reasonings in chemical reactivity of organicmolecules. The mechanisms are discussed in terms of : - acid-base interactions, nucleophiles and electrophiles, hard and soft reagents. - substituents effect, solvents effect, effect of catalysts on reactivity and selectivity. - notions of selectivity concern the chemoselectivity (functional groups compatibility), the regioselectivity (ambient reagents), and the stereoselectivity (stereoelectronic control).
Aims :	Acquiring of knowledge and know-how in organic chemistry by the systematic study of reaction mechanisms and of the factors which have an influence on the course of these mechanisms. *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 :	Evaluation : final examination.
Content :	Content and methods : mastering of the scientific meaning in organic chemistry by the systematic study of reaction mechanisms. Recall of fundamental notions : structure and reactivity, acids and bases, carbanions and carbocations, kinetic and energetic aspects of reactions. Mechanisms of heterolytic reactions : substitution, elimination, addition, reactions of carbonyls and aromatic nuclei. Free radicals and homolytic reactions. Oxidations and reductions. Pericyclic reactions (Woodward - Hoffmann's rules). Photochemical reactions.
Cycle and year of study :	> Bachelor in Bioengineering > Master [120] in Biochemistry and Molecular and Cell Biology > Bachelor in Biology > Master [60] in Biology
Faculty or entity in charge:	AGRO