UCLouvain

lchm2143

2025

Physical organic chemistry

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

3.00 credits	22.5 h + 7.5 h	Q1

Teacher(s)	Robiette Raphaël ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Main themes	This course is aimed to a synthesis of various notions related to physical organic chemistry and already introduced in the various courses from the preceding years. It also gives an introduction to some selected physico-chemical tools used in the elucidation of reaction mechanisms in organic chemistry. The main themes are : - Structure -activity relationships in organic chemistry - Electronic and sterics effects - Influence of the reaction media in organic chemistry - Stereoelectronic effects in organic chemistry
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 The aim of this course is to introduce important notions and concepts selected in the field of physical organic chemistry. One of the goals of this course is to use those notions for a better understanding of reaction mechanisms in organic chemistry, the structure of reaction intermediates and transition states, and a deeper understanding of the molecular interactions which can influence chemical reactivity.
Evaluation methods	Written exam which can be completed by an oral exam
Content	The course is build around the following chapter : 1. Reminders 2. Stereoelectronic effects 3. Linear Free Energy Relationships (LFER) 4. Mechanistic studies
Inline resources	Review articles as well as the slides of the course are available on moodle. https://moodleucl.uclouvain.be/course/view.php?id=7943
Bibliography	Le cours ne fait appel à aucun support particulier qui serait payant et jugé obligatoire. _____ The course does not use any particular material that would be paid for and considered mandatory.
Other infos	Background required: knowledge of organic chemistry from the previous years (Bachelor of Chemistry) and LCHM2140
Faculty or entity in charge	CHIM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Chemistry	CHIM2M	3		🔍
Master [60] in Chemistry	CHIM2M1	3		🔍
Master [120] of Education, Section 4 : chemistry	CHIM2M4	3		🔍