

4.00 credits

45.0 h + 15.0 h

Q1

Teacher(s)	Frédéric Raphaël (coordinator) ;
Language :	French
Place of the course	Bruxelles Woluwe
Main themes	The general theme is the structure - activity relationship of the drugs. Since this theme is broad, it has to be exemplified by selected topics: (i) chemical and physico-chemical properties of drugs in relationship with their pharmacokinetic and pharmacodynamic behavior (phototoxicity, in vitro and in vivo hydrolysis, charge (pKa), logP (Lipinski's rule), chirality) (ii) ligand - receptor interaction, with regard to physico-chemical properties : ature of the intermolecular interactions, types of targets (receptors, ion channels, enzymes, transporters, pumps), consequence of the binding of a xenobiotic on these targets (iii) drug discovery and optimization process, scope and limitation of the drug design techniques. The practical exercises allow students to establish themselves their own experimental plans in order to assign the structure of simple molecules (spot tests, derivatization, spectroscopy).
Learning outcomes	
Bibliography	Drug-like Properties: Concepts, Structure Design and Methods, 1st Edition from ADME to Toxicity Optimization Authors: Li Di Edward Kerns The Practice of Medicinal Chemistry, Editors: Camille Wermuth David Aldous Pierre Raboisson Didier Rognan
Faculty or entity in charge	FARM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Medication Sciences	MINFARM	4		