WFARM1004
2015-2016

The molecular aspect of drugs

2.0 credits	15.0 h + 15.0 h	2q

Teacher(s) :	Frédérick Raphaël (coordinator) ; Ayadim Mohamed ; Poupaert Jacques ;
Language :	Français
Place of the course	Bruxelles Woluwe
Main themes :	The main themes of this course are : (i) Molecular formulas, molecular mass, doses, dilutions. (ii) Structural formulas of drugs : organic functions, isomerism, stereoisomerism, acid-base properties, water solubility, partition coefficient. (iii) Biopharmaceuticals : peptides and carbohydrates. (iv) Basic chemical reactivity of drugs and prodrugs.
Aims :	Application of the logic of general and organic chemistry to commercial drugs and pharmaceutical preparations. *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".*
Content :	The activity is a tutoring aimed to familiarize the students with the molecular structures and the structure-properties relationships of the medicinal specialities of the belgian market. The developed themes are : the structure, chemical functions, isomery and stereoisomery of the specialities in question, their acid-base properties in relation with their solubilities and hydrophobicity (link between molecular structure and log P), a first contact with active peptides, peptidomimetics and glycoconjugates, worked examples of the reaction of key functions with water as a function of pH.
Other infos :	Prerequisites : Sufficient knowledge of French. (i) when starting : having followed the MD1003 course "Chimie générale et minerale". (ii) during the 2nd semester : following in parallel the MD1004 course "Chimie organique". Evaluation : written examination measuring problem solving capabilities.
Faculty or entity in charge:	FARM

Programmes / formations proposant cette unité d'enseignement (UE)

Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Bachelor in Pharmacy	FARM1BA	2	-	🔍