

5.00 credits

30.0 h

Q1



This learning unit is not open to incoming exchange students!

Teacher(s)	. SOMEBODY ;Elens Laure (coordinator) ;Hermans Emmanuel ;
Language :	English
Place of the course	Bruxelles Woluwe
Main themes	This course provides a comprehensive overview of pharmacokinetics and pharmacodynamics, covering routes of drug administration, physicochemical properties, drug behavior at the molecular level, and ADME mechanisms. It also explores PK parameters, dose-response models, variability in PK/PD, and changes in special patient populations. Additionally, it includes an introduction to compartmental versus non-compartmental methods of analysis.
Learning outcomes	
Evaluation methods	Written exam during exam period
Teaching methods	Lectures 20 Lectures (1h30 or 3h) Courses are given in 7 days in the beginning of Block 1 spread over 3 weeks (W1-3) <u>Practical aspects</u> are covered in IW1 (WPMTX2005) hands-on On Woluwe campus
Content	<u>Module I : Pharmacodynamics</u> 1. Generalities (MOA, receptors...) 2. Pharmacological response 3. Different classes of drugs 4. Notion of biomarkers 5. Dose-Response relationships (Hill, scale of action and response, hysteresis...) 6. Synergy, potentialization, antagonism, additivity 7. Influencing factors (extrinsic and intrinsic) <u>Module II : Pharmacokinetics</u> 1. Generalities 2. PK parameters and interpretation 3. PK and PD experimental models 4. NCA and CA + ODE 5. Drug Absorption, Distribution, Metabolism & Excretion 6. Influencing factors 7. Steady state and TDM <u>Module III : Special populations</u> 1. Obese patients 2. Neonates and pediatrics 3. Pregnant woman 4. Eldery 5. Critically ill
Other infos	Slides available on Moodle .
Faculty or entity in charge	FARM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Advanced master in pharmacometrics	PMTX2MC	5		