

University of Jordan
Faculty of Pharmacy
Department of Biopharmaceutics and Clinical Pharmacy
Clinical Pharmacokinetics (MSc) – Course Outline
2011/2012

Course Title:	Clinical Pharmacokinetics	
Course No.:	1203722	
Credit Hours:	2	
Instructor:	Dr. Maysa Suyagh (MSc, PhD) Department of Biopharmaceutics and Clinical Pharmacy Office No.: 106 Phone No.: 5355000 ext. 23337 Email: pharmacy_ju@hotmail.com Office hours: to be arranged	
Time:	Sunday 2:30-4:30	
Course Description:	This course includes introduction to mathematical techniques required for the treatment of pharmacokinetic modeling. Additionally, application of pharmacokinetic principles to clinical practice and its relevance to the rational design of individualized drug dosage regimens in the total clinical context, taking into account such special problems as hepatic and renal functional impairment, other effects of disease, immaturity of drug metabolizing enzymes, and drug interactions.	
Course Contents:	1- Introduction to Clinical Pharmacokinetic Concepts, Equations and Calculations 2- Drug Dosing in Special Populations: a. Renal and Hepatic Disease, b. Dialysis, c. Heart Failure, d. Obesity, e. Pregnancy/Lactation, f. Neonates, Pediatrics and Geriatrics, g. Critically Ill 3- Therapeutic Drug Monitoring of Individual Drugs a. Antimicrobials b. Anticonvulsants c. Cardioactive Drugs d. Antiasthmatic Drugs e. Immunosuppressant Drugs f. Antineoplastic Drugs g. Antiretroviral Drugs 4- Bioavailability and bioequivalence	3 hrs 10 hrs 12 hrs 2 hrs
Teaching Methods	Lectures + Case discussions + Seminars	

Course References:	<ol style="list-style-type: none"> 1. Basic clinical pharmacokinetics, By Michael E. Winter. Edition: 5 – 2009 2. Applied clinical pharmacokinetics, By Larry Bauer. Edition: 2 – 2008 3. Applied pharmacokinetics & pharmacodynamics: principles of therapeutic drug monitoring, By Michael E. Burton. Edition: 4 – 2006
Other Useful References:	<ol style="list-style-type: none"> 1. Clinical pharmacokinetics: concepts and applications, By Malcolm Rowland, Thomas N. Tozer. Edition: 4 – 2010 2. Handbook of drug monitoring methods: Therapeutics and Drugs of Abuse, By Amitava Dasgupta. Edition: 1 – 2008 3. Concepts in Clinical Pharmacokinetics, By Joseph T. DiPiro, William J. Spruill, Robert A. Blouin, Jane M. Pruemer, and William E. Wade. Edition: 4 – 2005 4. Applied Biopharmaceutics & Pharmacokinetics, By Leon Shargel <i>et al.</i> Edition: 5 – 2005 5. Introduction to pharmacokinetics and pharmacodynamics: the quantitative basis of drug therapy, By Thomas N. Tozer, Malcolm Rowland. Edition 1: 2006 6. Some original and review articles from scientific journals