

School of Pharmacy

Department of Pharmaceutics and Pharmaceutical Nanotechnology

Course title: Biopharmacy and pharmacokinetics

Credit (Theory or Practical): 85 Theory

Course Lecturers: Dr.Fghihi; Dr.Rastegari

Responsible Lecturer: Dr.Faghihi

Sundays 8 to 10

	subject	Lecturer	Date
1	Passing medicines from biological membranes and drug delivery mechanism	Dr.Faghihi	13/7/1404
2	Investigating the physicochemical Factors in Drug Absorption from the Digestive System Investigating the role of formulation in Drug Absorption from the Digestive System	Dr.Faghihi	20/7/1404
3	Distribution and protein binding of drugs Clearance of drugs and extraction ratio	Dr.Faghihi	27/7/1404
4	Biliary and renal excretion of medications Metabolism and hepatic clearance of drugs	Dr.Faghihi	4/8/1404
5	One- compartment model of an intravenous infusion of drugs (urine and plasma data)	Dr.Faghihi	11/8/1404
6	One-compartment model of an extravascular administration of drugs (urine and plasma data)	Dr.Faghihi	18/8/1404
7	Two-compartments model of rapid intravenous injection of drugs	Dr.Faghihi	25/8/1404
8	Infusion and exercise	Dr.Faghihi	2/9/1404
9	Kinetic of multiple doses in one-compartment model of rapid intravenous injection of drugs	Dr.Faghihi	9/9/1404
10	Non-model pharmacokinetic analysis Non-linear pharmacokinetic of drugs Relation between drug doses and efficacy	Dr.Rastegari	16/9/1404
11	Bioavailability and bioequivalency of drugs BCS (biopharmaceutical classification systems)	Dr.Rastegari	23/9/1404
12	IVIVC (in vitro-in vivo correlation) TDM (therapeutic drug monitoring)	Dr.Rastegari	30/9/1404

13	Influential factors in creation of pharmacokinetic differences	Dr.Rastegari	7/10/1404
14	Drug clearance in renal and hepatic failure	Dr.Rastegari	14/10/1404

References:

- 1: Biopharmacy and pharmacokinetics; Shargel; the latest edition.
- 2: Biopharmaceutics and clinical pharmacokinetics; Gibaldi; the latest edition.
- 3: Clinical pharmacokinetics; Rowland; the latest edition.

Student assessment:

1-Attendance: 20% of total score.

2-Exams within the term and class activities (multiple-choice questions, descriptive questions):30% of total score.

3-Final exam (multiple-choice questions, descriptive questions): 50% of total score.

The absence hours of a student should not exceed 4/17 in theoretical, 2/17 in practical and laboratorial. Otherwise, the score for that course or section will be considered as zero.

Note 1: allowed absences are accepted if students bring in documents for that and the related professor approves it. Acting against absences (either excused or not) will be the decision of the professor and agreement of the college.