

## KIN 352 : Pharmacokinetics

The interrelationship of the physical-chemical properties of the drug, and the LADME properties of a drug (liberation, absorption, distribution, metabolism and excretion) will be explained in this course. Drug modelling such as one and two compartment open models will be covered. Effect of route of administration on the drug disposition after IV bolus, IV continuous infusion and oral administrations will be also addressed. In this course, the students will understand the difference between linear and non-linear pharmacokinetics, drug interactions, bioavailability, bioequivalence, and the factors affecting drug elimination (metabolism and excretion). The relationship between drug concentration, effect, and side effects will be explored in this course. Tutorial sessions for problem based learning using case scenarios will be an integral part of this course. The aim of these tutorial sessions is to help students grasp the basic theories and basic skills of pharmacokinetics, and to develop the students' ability to analyze and solve problems. At the end of this course, the student will be able to design and adjust a patient's drug dosage regimen to obtain a plasma/serum concentration within a desired therapeutic range.

**Credits** 3

**Prerequisite Courses**

MAT 235

**Corequisites**

None