

Introduction to Biopharmaceutics & Pharmacokinetics (30:721:430)

Course Description:

This course will introduce students to the basic concepts and principles in biopharmaceutics and pharmacokinetics. Biopharmaceutics describes the role of dosage form in the absorption and disposition of drugs in the body. Pharmacokinetics describes the processes involved in the Absorption of a drug (in part determined by biopharmaceutics) from its site of administration into the blood circulation, Distribution of the drug to its sites of action, Metabolism of the drug, and its subsequent Excretion of the drug from the body (ADME). Processes that influence the pharmacokinetics of drugs, including formulation, physico-chemical, physiological, pharmacological and pathological factors will be discussed. The use of mathematical equations to describe the pharmacokinetic concepts and principles of drug action are introduced and applied to dosage regimen determinations.