

Pharmaceutics (PMST)

PMST 6250. Advanced Physical Pharmacy. 2 Hours.

Covers the physical and chemical principles in drug formulation design, with emphasis on such topics as solutions of nonelectrolytes and electrolytes, ionic equilibria, drug complexation, reaction kinetics, mass transport, and interfacial phenomena.

PMST 6252. Pharmacokinetics and Drug Metabolism. 3 Hours.

Focuses on concepts of one- and two-compartment linear and nonlinear pharmacokinetics and compartmental modeling with plasma and/or urinary data. Discusses principles and methods of metabolic biotransformation and disposition of xenobiotics in biological system.

PMST 6254. Advanced Drug Delivery System. 3 Hours.

Examines in-depth the role of sustained, controlled, and site-specific delivery systems for drugs and genetic materials using polymeric systems, colloidal drug delivery systems, and vectors for gene therapy.

PMST 6258. Advanced Pharmacokinetics and Toxicology. 3 Hours.

Focuses on expanding prior basic pharmacokinetics to more advanced topics required for specialized work in research, clinical, and industrial settings. Using presentation and class participation, offers students an opportunity to become familiar with various analyses and modeling techniques, including compartmental/physiologic models, pharmacokinetic-pharmacodynamic analysis and modeling, and toxicokinetics/toxicodynamics. Requires prior completion of PMST 6252 or equivalent graduate pharmacokinetics course with calculus.

PMST 6962. Elective. 1-4 Hours.

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.