

Program: Pharmacology

Course Name: Principles of Pharmacology

Course Number: 506

Credits: 3

Course Director: Michael Sirover, Ph.D. Room 327C OMS Tel. 2-4351

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Students may communicate by email or phone at any time.

Prerequisites: Biology and Biochemistry

Disability Statement: Any student who has a need for accommodation based on a disability should contact the Course Director as soon as possible.

Times: Fall semester, every year. Twice a week for 2 hours

Location: Room 311 MRB.

Description: The goal of the course is to describe the basic principles of pharmacology.

Syllabus:

Basic Principles of Pharmacology

Introduction

General Principles

Drug Absorption, Distribution and Excretion

Dose Response Relationships

Drug Metabolism

Pharmacokinetics

Biochemical Kinetics

Exam 1

Molecular Pharmacology and DNA

Introduction to Molecular Biology

Molecular Signaling

Nucleic Acid Structure

DNA Replication

DNA Damage and Repair

Apoptosis

Exam 2

Neuroscience and Drug Abuse

Autonomic Nervous System

Cholinergics

Adrenergics

Endogeneous Opioids

Dopamine-Serotonin

Drugs of Abuse

Nitric Oxide

Techniques in Pharmacology

Basic Laboratory Techniques

Cell Culture

Gels-Blotting

Exam 3