



Department of

**Pharmacology
& Toxicology**www.phmtox.msu.edu

PHM 340

Principles of Drug Action

Course Overview

PHM 340 – Pharmacology as a discipline “stands on the shoulders” of the disciplines of physiology and biochemistry. This course is designed to introduce the student to the principles of drug action--it is not intended to cover the effects of different classes of drugs.

This course is suitable for undergraduate students enrolled in majors within biological science including physiology, biochemistry, and human biology and also in chemistry and related disciplines; it is also suitable for students who already have an undergraduate degree with a major in a biomedical discipline or in chemistry.

Course objectives are to familiarize the student with critical principles in pharmacology. The focus is on the mechanism of action of interaction of drugs with cells and tissues and the processes governing the time course of drug action.

Course Coordinator



Dr. Peter Cobbett

received his BS and PhD degrees from the University of St. Andrews/Scotland. His research interests encompass the examination of properties of, and effects of drugs on isolated muscle from *Schistosoma mansoni*, and effects of nanoparticles on mammalian neurons.

Course Topics

- Pharmacokinetics -- Drug administration, distribution, metabolism and excretion
- Pharmacodynamics -- Drug binding to receptors, drug effects through receptors
- Dose-response relationships
- Safety issues
- Unexpected effects -- Drug tolerance and drug interactions

Prerequisites (for MSU undergraduates)

CEM 251 or CEM 252, or
PSL 250 or PSL 310

Recommended Background

Chemistry and/or Physiology background recommended.

Restrictions

Not open to students with credit in PHM 350.

Course Information

Course Number:	PHM 340 (online)
Sections Available:	730 MSU Students 731 Lifelong In-state 732 Lifelong Out-State
Semesters:	Summer (Session A)
Credits:	1 credit