## **PHARMACOLOGY**

#### PHM

# College of Human Medicine College of Osteopathic Medicine College of Veterinary Medicine

# 350. Introductory Human Pharmacology

Spring. 3(3-0) PSL 332 or concurrently; or approval of department.

Survey of pharmacology including general principles, central nervous system drugs, autonomic nervous system drugs, cardiovascular and renal drugs, endocrine drugs, anti-infectives, poisoning therapy, and other basic related topics.

#### 430. Drug Abuse

Fall. 4(4-0) Juniors or approval of department. Biology and chemistry recommended

Actions, mechanism of action, toxicity and uses of drugs of abuse. Sociological and psychological aspects of drug abuse and the legal aspects of the sale and distribution of drugs are considered.

#### 480. Special Problems

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 5 credits. Approval of department.

#### 520A. Principles of Pharmacology

(520.) Fall. 4(4-0) PSL 500B, 500C. Primarily for students of Veterinary Medicine.

Drug absorption, distribution, biotransformation, antagonism; receptor-theory and pharmacogenetics; adverse drug reactions, chemical toxicity. Chemotherapy (antimicrobial, anthelmintic, anti-neoplastic agents). Pharmacology of the autonomic nervous system.

# 520B. Principles of Pharmacology

Winter. 4(4-0) PSL 500A, or 801, 802, 803. Primarily for students of Human and Osteopathic Medicine.

Pharmacology principles, including absorption, distribution, biotransformation, drug antagonism, receptor theory and pharmacogenetics; literature data analysis; adverse drug reactions. Chemotherapy including anti-neoplastic, anti-viral and anti-microbial agents; endocrine and emergency therapies.

#### 521A. Pharmacodynamics

(521.) Winter. 5(4-2) 520A. Primarily for students of Veterinary Medicine.

Pharmacology of drugs that affect the heart, kidney, central nervous system and non-vascular smooth muscle. Endocrine and autocoid pharmacology.

## 521B. Pharmacodynamics

Spring. 4(4-0) 520B. Primarily for students of Human and Osteopathic Medicine. Pharmacology of the nervous systems (central, peripheral and autonomic); cardiovascular, renal, gastrointestinal drugs.

#### 810. Synaptic Transmission

Winter of odd-numbered years. 4(4-0)
Approval of department.

Chemical and electrical aspects of the transmission of nervous impulses at synaptic and neuroeffector junctions and the influences of drugs upon these processes.

## 811. Organ System Pharmacology

Fall of odd-numbered years. 4(3-3) 521A or 521B and approval of department.

Current concepts and recent advances in the areas of cardiovascular, renal and syncytial smooth muscle pharmacology.

## 812. Advanced Principles of Pharmacology and Toxicology

Spring of odd-numbered years. 5(5-0) 521A or 521B.

Kinetics of drug absorption, elimination and metabolism; drug receptor interactions, toxicology of metals, pesticides, industrial and inhalation toxicology; developmental toxicology, teratogenesis, mutagenesis, and carcinogenesis.

## 813. Cardiac Pharmacology

Winter of even-numbered years. 4(4-0) 520A, 521A or 520B, 521B; PSL 801, 802, 803; or approval of instructor.

Effects of drugs on normal physiological and biochemical processes in cardiac cells are studied. Emphasis is placed on mechanisms of drug action.

#### 870. Problems

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 5 credits. Approval of the department.

Limited amounts of individual work on selected research problems.

#### 899. Research

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

#### 910. Seminar

Fall, Winter, Spring. 1(1-0) May reenroll for a maximum of 3 credits.

#### 980. Problems

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 5 credits. Approval of department.

Limited amounts of individual work on selected research problems.

# 999. Research

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

# PHILOSOPHY

## PHL

# College of Arts and Letters

Each of the courses 101, 102, 103 is an independent gateway to an area of philosophy. Together they provide a comprehensive introduction to philosophical inquiry through contact with philosophical issues.

# 101. Introduction to Philosophy: Ethics and Value

Fall, Winter, Spring, Summer. 3(3-0) Students may not receive credit for both 101 and 330.

Moral responsibility, praise and blame, good and evil, justice, law and morality, individual liberty and collective authority and contemporary moral issues are typical problems.

#### 102. Introduction to Philosophy: Epistemology and Metaphysics

Fall, Winter, Spring, Summer. 3(3-0)

Skepticism and certainty, existence, matter and mind, God, space and time, knowledge and belief, perception, personal identity, causality, and free-will are typical problems.

#### 103. Introduction to Philosophy: Logic

Fall, Winter, Spring, Summer. 3(3-0) Deductive and inductive reasoning and such topics as rational argumentation, fallacies, definition, meaning, truth and evidence.

# 200H. Honors Work

Fall, Winter, Spring. 1 to 16 credits. Approval of department.

# 211. Introduction to the History of Philosophy, Part I

Fall, Winter, Spring. 3(3-0)

The Greek and Roman period with emphasis on Plato and Aristotle.

# 212. Introduction to the History of Philosophy, Part II

Winter, Spring. 3(3-0)

The Middle Ages and early modern periods, with emphasis on Aquinas, Descartes, Spinoza and Leibniz.

# 213. Introduction to the History of Philosophy, Part III

Fall, Spring. 3(3-0)

The eighteenth and nineteenth centuries with emphasis on British empiricism, Kant, and post-Kantian philosophy.

#### 294. Special Topics

Fall, Winter, Spring, Summer. 2(2-0) to 6(6-0) Approval of department.

Intensive study of some particular problem or author in philosophy.

# 311. Indian Philosophy

Fall, Winter. 3(3-0)

Metaphysical, ethical and social theories developed within major Indian philosophical systems; e.g., philosophical Buddhism, Vedantist transcendentalism, Samkya dualism, and the Realist schools.

# 312. Chinese Philosophy

Spring. 3(3-0)

Major cosmological and ethical doctrines of such Chinese authors and movements as Confucius, Mo Tzu, Lao Tzu, Taoism, Yin-Yang dualism, Buddhism, responses to Western influences, the new China.

## 315. American Philosophy

Spring, Summer. 3(3-0) Three credits in philosophy or approval of department. Examination of such thinkers as Royce, Pierce, James, Dewey, Whitehead and Santayana, illustrating classic American contributions to philoso-

#### 323. Existentialism

Fall, Winter, Spring. 3(3-0) Three credits in philosophy or approval of department. An examination of a major existentialist author (or authors), so designed as to place existentialist views in significant relation to the tradition of European thought.

#### 330. Elements of Ethics

Fall, Winter, Spring, Summer. 3(3-0) Juniors. Students may not receive credit for both 101 and 330.

An inquiry into the nature of the right and the good, addressed to such fundamental problems as the objectivity of moral judgments, the criterion of right and wrong, and the grounds of moral responsibility.

# 337. Logic I

Fall, Winter, Spring. 4(4-0)

Modern symbolic methods in deductive reasoning. The logic of connectives and quantifiers.