PHARMACOLOGY (PHMCOL-M)

PHMCOL-M/PHM SCI 521 — PHARMACOLOGY I
3 credits.
Pharmacological actions of important drugs, including drugs that affect the peripheral nervous system, the central nervous system, and the gastrointestinal tract.
**Requisites:** DPH-2 or Tox-4 standing; MICROBIO 303, PHYSIOL 335, PHM SCI 432, PATH 404
**Repeatable for Credit:** No
**Last Taught:** Fall 2016

PHMCOL-M/PHM SCI 522 — PHARMACOLOGY II
3-4 credits.
Pharmacological actions of important drugs, including hematopoietic, thrombolytic, antihyperlipidemic, immunopharmacologic, anticancer, anti-inflammatory, diuretic, antihypertensive, antianginal, and anti-arrhythmic agents, and agents used to treat congestive heart failure.
**Requisites:** PHM SCI/PHMCOL-M 521
**Repeatable for Credit:** No
**Last Taught:** Spring 2017

PHMCOL-M/NTP/PHYSIOL 610 — CELLULAR AND MOLECULAR NEUROSCIENCE
4 credits.
Study of original papers leading to an understanding of the molecular basis of electrical activity in neurons. Topics include voltage-sensitive currents, molecular biology of neuronal receptors, synaptic transmission and sensory transduction. Lectures supplemented with experimental demonstrations and discussion sessions.
**Requisites:** Zoo 523 or equiv
**Course Designation:** Breadth - Biological Sci. Counts toward the Natural Sci req
**Level - Intermediate**
**L&S Credit:** Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
**Repeatable for Credit:** No
**Last Taught:** Fall 2016

PHMCOL-M/ANATOMY/NTP/PHYSIOL/PSYCH 611 — SYSTEMS NEUROSCIENCE
4 credits.
Introduction to the anatomy and physiology of the mammalian nervous system. Lectures will cover the neuroanatomy of the major subdivisions of the human brain, the major sensory and motor systems, and higher order functions. Lab/discussion sections will emphasize readings from the primary literature and hands-on dissections.
**Requisites:** PHYSIOL/NTP/PHMCOL-M 610
**Course Designation:** Level - Advanced
**L&S Credit:** Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
**Repeatable for Credit:** No
**Last Taught:** Spring 2017

PHMCOL-M/ANATOMY/B M E/CHEM/MED PHYS/PHYSICS/RADIOL 619 — MICROSCOPY OF LIFE
3 credits.
Survey of the state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. g. 104, 202, 208) or cons inst
**Requisites:** 2nd semester intro physics including light optics (e.
**Course Designation:** Level - Intermediate
**L&S Credit:** Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
**Repeatable for Credit:** No
**Last Taught:** Fall 2016

PHMCOL-M/M&ENVTOX/MEDICINE/ONCOLOGY/PATH/PHM SCI/POP HLTH 625 — TOXICOLOGY I
3 credits.
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body.
Ph 501 Phmcol 501 or equiv recommended
**Requisites:** BIOCHEM 501 PHYSIOL 335 or consent of instructor.
**Course Designation:** Breadth - Biological Sci. Counts toward the Natural Sci req
**Level - Advanced**
**L&S Credit:** Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
**Repeatable for Credit:** No
**Last Taught:** Fall 2016

PHMCOL-M/M&ENVTOX/MEDICINE/PATH/PHM SCI/POP HLTH 626 — TOXICOLOGY II
3 credits.
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented.
**Requisites:** Env Tox 625 or consent of instructor
**Course Designation:** Breadth - Biological Sci. Counts toward the Natural Sci req
**Level - Advanced**
**L&S Credit:** Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
**Repeatable for Credit:** No
**Last Taught:** Spring 2017
PHMCOL-M/BIOCHEM/ZOOLOGY 630 — CELLULAR SIGNAL TRANSDUCTION MECHANISMS
3 credits.

Lecture-discussion. Comprehensive coverage of human hormones, growth factors and other mediators; emphasis on hormone action and biosynthesis, cell biology of hormone-producing cells.

Requisites: Intro biochem (BIOCHEM 501 or 507 508) cell biology (Biocore 303 or Zool 570 or Path750) or cons inst

Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2016

PHMCOL-M 699 — INDEPENDENT STUDY
1-3 credits.

Requisites: Cons inst

Course Designation: Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Summer 2017

PHMCOL-M 710 — CYTOSOLIC AND NUCLEAR SIGNALING MECHANISMS
2 credits.

Biochemical basis of drug action.

Requisites: PHMCOL-M/BIOCHEM/ZOOLOGY 630 (formerly Zool 630/PHMCOL-M 875), BIOCHEM 601 or equiv, cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2012

PHMCOL-M 711 — BIOCHEMICAL PHARMACOLOGY: NEUROTRANSMITTER RECEPTORS/Ion CHANNELS
2 credits.

A consideration of neurotransmitter receptors and ion channels from a molecular perspective. Emphasis will be on current concepts in the field. Course is directed to graduate students and outstanding senior undergraduates.

Requisites: BIOCHEM 501 or cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2013

PHMCOL-M 717 — PHARMACOLOGY I
4 credits.

Lectures and discussions. For students in medicine.

Requisites: Cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2010

PHMCOL-M 875 — SPECIAL TOPICS IN PHARMACOLOGY
1-3 credits.

Special topics in pharmacology. Topics may vary.

Requisites: Intro crse in biochem, mol biol, and genetics and cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2017

PHMCOL-M 901 — SEMINAR AND JOURNAL CLUB
1-2 credits.

Students and staff present research reports of current interest.

Requisites: Cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2017

PHMCOL-M/MEDICINE 914 — THERAPEUTICS I - EMPHASIS ON CHRONIC DISEASES
2 credits.

Students will have a greater knowledge of the use of drugs to treat common illnesses. They will better understand the appropriate selection of drugs and the management of side effects in treating chronic illnesses.

Requisites: 4th yr Med st or cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2013

PHMCOL-M 920 — TREATMENT OF CANCER PAIN-CSC
2-12 credits.

Clinical elective for fourth year medical students.

Requisites: 4th yr Med st

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2015

PHMCOL-M 990 — RESEARCH
1-12 credits.

Research facilities of the department available to qualified students.

Requisites: Cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Summer 2017