PHARMACOLOGY AND TOXICOLOGY

PHM

Department of Pharmacology and Toxicology
College of Veterinary Medicine

350 Introductory Human Pharmacology
Spring. 3(3-0) P:M: PSL 250 or (PSL 431 and PSL 432) R: Not open to freshmen.

431 Pharmacology of Drug Addiction
Fall. 3(3-0) RB: Zoology or Human Biology or Psychology or Biochemistry or Physiology.
Introduction to pharmacology and neuropharmacology. Understanding of the biological basis for drug abuse and addiction.

450 Introduction to Chemical Toxicology
Spring. 3(3-0) P:M: (BS 110 or LBS 144) and (BS 111 or LBS 145 or BS 111) and CEM 251 R: Not open to freshmen or sophomores.
Mammalian toxicology. Disposition of chemicals in the body, detoxification, elimination, and mechanisms of toxicity in major organ systems. Selected toxic agents.

480 Special Problems
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Approval of department.
Individual work on selected research problems.

556 Veterinary Pharmacology
Fall. 5(5-0) RB: Completion of semester 2 of the graduate professional program in the College of Veterinary Medicine.
Drug absorption, disposition, biotransformation, excretion, pharmacokinetics. Pharmacologic agents of the autonomic nervous, cardiovascular, renal, central nervous, endocrine, and gastrointestinal systems.

557 Veterinary Toxicology
Spring. 2(2-0) RB: Completion of semester 3 of the graduate professional program in the College of Veterinary Medicine. Determinants of toxic responses, analytical toxicology, genetic toxicology, and toxin management. Diagnosis, prevention, and treatment of common toxicoses.

563 Medical Pharmacology
Summer. 3(3-0); R: Open only to graduate-professional students in the College of Human and Osteopathic Medicine.
General principles of pharmacology and selected drugs. Rational drug therapy.

590 Case Studies in Clinical Pharmacology
Spring. 2(2-0) P:M: PHM 563 RB: Completion of year 2 in the College of Osteopathic Medicine or College of Human Medicine. R: Open to graduate-professional students in the College of Osteopathic Medicine or in the College of Human Medicine or approval of department. Selected case studies emphasizing clinical applications of pharmacological principles. Evaluation of new drugs, drug advertising, and adverse drug reactions.

658 Research Problems in Pharmacology or Toxicology
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Completion of semester 4 of the graduate-professional program in the College of Veterinary Medicine. R: Approval of department. Selected research problems in pharmacology or toxicology.

804 Molecular and Developmental Neurobiology
Fall. 3(3-0) R: Interdepartmental with Neuroscience and Pathobiology and Diagnostic Investigation and Psychology and Zoology. Administered by Neuroscience. RB: Bachelor's degree in a Biological Science or Psychology. R: Open to graduate students in Neuroscience major. Nervous system specific gene transcription and translation. Maturation, degeneration, plasticity, and repair in the nervous system.

806 Advanced Neuroscience Techniques Laboratory
Spring. 3(0-9) R: Not open to freshmen or sophomores. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department. Students research reports.

820 Cellular, Molecular and Integrated Systems Pharmacology and Toxicology
Fall. 4(4-0) P:M: BMB 810 and BMB 802 R: Approval of department. Comprehensive overview of the cellular and molecular mechanisms of drug and chemical actions on the major organ systems of humans and other mammals.

827 Physiology and Pharmacology of Excitable Cells
Fall. 4(4-0) Interdepartmental with Neuroscience and Physiology and Zoology. Administered by Neuroscience. R: Open only to graduate students in the Colleges of Human Medicine, Osteopathic Medicine, Agriculture and Natural Resources, Natural Science, Social Science, and Veterinary Medicine. SA: ANT 839. Anatomy, pharmacology, and physiology of multicellular neural systems. Sensory, motor, autonomic, and chemo-regulatory systems in vertebrate brains.

870 Research Rotation
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to first year graduate students in Pharmacology and Toxicology. R: Approval of department. Individual work on selected research problems.

899 Master's Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in the Department of Pharmacology and Toxicology. R: Approval of department. Master's thesis research.

910 Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to graduate students. Approval of department. Discussion of recent topics in pharmacology and toxicology by faculty or invited outside speakers. Students research reports.

980 Problems
Fall, Spring, Summer. 2 to 5 credits. A student may earn a maximum of 20 credits in all enrollments for this course. R: Open only to graduate students. Approval of department. Limited work in selected research projects.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 50 credits in all enrollments for this course. R: Open only to graduate students in the Department of Pharmacology and Toxicology. Approval of department. Doctoral dissertation research.