PHAR 100 Introductory Pharmacology Units: 3.00
Topics covered include central nervous system stimulants and depressants, narcotics, alcohol, cardiovascular agents, contraceptives, environmental toxicants, mechanism of drug action and disposition, antibiotics, drugs used in sports, over-the-counter drugs, food additives, and vitamins.
NOTE Also offered online. Consult the Bachelor of Health Sciences program office.
Requirements: One-Way Exclusion PHAR 230/3.0; PHAR 270/3.0; PHAR 340/3.0; PHAR 370/3.0; PHAR 450/3.0
Offering Faculty: Faculty of Health Sciences

PHAR 230 Pharmacology for the Health Sciences Units: 3.00
Lecture series on the following topics: principles of drug action, autonomic pharmacology, cardiovascular-renal pharmacology, neuropsychopharmacology, chemotherapy, drugs acting on the endocrine system, over-the-counter drugs, and therapeutic applications.
Learning Hours: 122 (36 Lecture, 8 Group Learning, 78 Private Study)
Requirements: Corequisite (PHGY 215 and PHGY 216) or KNPE 225 or PHGY 210/6.0 or PHGY 214/6.0. Exclusion PHAR 270/3.0; PHAR 340; PHAR 370.
Offering Faculty: Faculty of Health Sciences

PHAR 340 Principles of General Pharmacology I Units: 3.00
Topics include: fundamental principles of drug action, autonomic nervous system pharmacology, and toxicology.
Learning Hours: 120 (27 Lecture, 24 Tutorial, 69 Private Study)
Requirements: PREREQUISITE (PHGY 215 and PHGY 216) or BIOL 339 or PHGY 210 or PHGY 214 EXCLUSION No more than 3.0 units from PHAR 230; PHAR 270; PHAR 340; PHAR 370.
Offering Faculty: Faculty of Health Sciences

PHAR 370 Fundamentals of Pharmacology and Therapeutics Units: 3.00
An interdisciplinary course that introduces the basic principles and clinical applications of pharmacology. This 12-week course covers six topics. Students will work through the topics online, using a combination of online modules, readings, and short video clips. Students will participate in a variety of assessments throughout the course.
LEARNING HOURS may vary: 120(48O;72P)
Also offered online.
Requirements: Corequisite One of (PHGY 215/3.0 and PHGY 216/3.0) or KNPE 225/3.0. Exclusion PHAR 230/3.0; PHAR 270/3.0; PHAR 340/3.0 One-Way Exclusion PHAR 450/3.0
Offering Faculty: Faculty of Health Sciences

PHAR 380 Drug and Environmental Toxicology Units: 3.00
This course will explore the human toxicology associated with both pharmaceutical and environmental exposures. Topics include metabolism and mechanisms of toxicity of various pharmaceuticals and environmental pollutants. Toxicological effects of specific classes of environmental toxicants and different groups of pharmaceuticals are also discussed.
NOTE Also offered online. Consult Bachelor of Health Sciences program office.
Learning Hours: 120 (60 Online Activity, 60 Private Study)
Requirements: Minimum 3rd year (Level 3) standing and one of (BCHM 102/3.0; BCHM 270/3.0; BCHM 316/3.0; BCHM 218/3.0; BIOL 334/3.0)
Offering Faculty: Faculty of Health Sciences

PHAR 416 Xenobiotic Disposition and Toxicity Units: 3.00
An advanced study of chemical disposition and toxicity. Topics include toxicokinetics, biotransformation, metabolite-mediated toxicity, free radicals, the mechanism of action of toxicants, effects of toxicants on organ systems and a detailed examination of selected toxic agents.
NOTE BCHM, BIOL, BMCO, ELSC, and ETOX students should contact the Department for permission to enrol in this course.
Learning Hours: 120 (36 Lecture, 84 Private Study)
Requirements: Prerequisite Level 4 or above and registration in a LISC/BCHM Major or Specialization, ELSC Specialization, or BHSc program, and a CGPA of 2.5 or higher and (PHAR 370/3.0 or BCHM 310/9.0 or BCHM 316/3.0).
Offering Faculty: Faculty of Health Sciences
PHAR 450 Principles of General Pharmacology II  Units: 3.00  
Topics include: neuropsychopharmacology, cardiovascular pharmacology, agents acting on the endocrine system, and chemotherapy.  
NOTE This course involves team based learning sessions and a drug literature evaluation assignment.  
Requirements: Prerequisite (PHAR 230 or PHAR 270 or PHAR 370 with a min grade of B) or PHAR 340.  
Offering Faculty: Faculty of Health Sciences  

PHAR 480 Drug Discovery and Development  Units: 3.00  
This survey course covers the life-cycle of pharmaceutical products including discovery, development, and the transition to a generic or over-the-counter medication. Specific themes include target identification, design and synthesis, efficacy determination, optimization, preclinical safety assessment, clinical trials, and the differences between biologics and small chemical entities. Social and economic pressures exerted upon the pharmaceutical industry are also explored.  
Requirements: Minimum 4th year (Level 4) standing and one of (PHAR 230/3.0; PHAR 370/3.0; PHAR 340/3.0). LISC MAJ SSP students require a GPA of 2.5. Note this course cannot be used as credit towards the LISC DDHT SSP Plan Exclusion DDHT 459/3.0; DDHT 460/3.0  
Offering Faculty: Faculty of Health Sciences  

PHAR 499 Research Project in Pharmacology and Toxicology  Units: 12.00  
An examination of the development and present state of knowledge in selected research areas of pharmacology and toxicology. Research project involves experimental design, data collection and analysis, written report and oral presentation. Students will be required to attend seminars and tutorials on topics related to research.  
NOTE Acceptance by a supervisor required prior to registration.  
NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.  
Learning Hours: 480 (288 Laboratory, 24 Group Learning, 24 Individual Instruction, 144 Private Study)  
Requirements: Prerequisite Level 4 and registration in a LISC or ELSC Specialization Plan and a cumulative GPA of 2.50 or higher. Exclusion ANAT 499; CANC 499; EPID 499; LISC 499; MICR 455; MICR 499; NSCI 499; PATH 499; PHGY 499; REPD 499.  
Offering Faculty: Faculty of Health Sciences