

Syllabus of General Pharmacology (370-426) Term 4

Class objectives: The objective of this course is to provide the general principle of Pharmacology to Graduate Students. Topics including Pharmacokinetics, Pharmacodynamics and major classes of therapeutic agent will be discussed. The course content emphasizes drug mechanism and developments.

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Schedules and Exam: Tuesday and Thursday (N310), 2 to 4 p.m., Two lectures with a break. Final exam, May 11. 3 credits. (exam)

Text Books:

1. Rang and Dale's Pharmacology, (6th edition) Churchill Livingstone.
2. Lippincott's Illustrative Reviews Pharmacology (3rd edition),

Schedules (Year 2010):

Date	Lecturer	Topic	Rang & Dale Chapter	Lippincott's Chapter
March 16 Tuesday	Chan	Introduction to Pharmacology General principles of Pharmacology.	1	
March 18 Thursday	Reddy	Pharmacokinetics and Drug Metabolism Absorption, distribution and fate of drugs. General pathways of metabolism of drugs, Drug interactions, properties of metabolizing reactions with specific examples.	7, 8	1
March 23 Tuesday	Kim	Pharmacodynamics How drugs work, characterization of receptors including dose-response relationships, agonists and antagonists, classification systems for receptors.	3, 4	2
March 25 Thursday	Kim	Review of Receptor Theory Signal transduction theory, provide drug examples,	3, 4	2
March 30 Tuesday	Reddy	Review of autonomic nervous system (I)		3
April 1 Thursday	Reddy	Autonomics (II) Receptor systems, second messengers and location/specificity of action of alpha and beta receptor systems in the autonomic nervous system		
April 6 Tuesday	Taylor	Drugs Affecting the Vascular System Mechanism of action of the major classes of CV drugs, including glycosides, antiarrhythmic, and antihypertensive drugs	19	Unit IV

April 8 Thursday	Fann	CNS Drugs Mechanism of action of the major classes of CNS drugs with overview of the major neurotransmitter systems. Drugs include: antidepressants, antipsychotic, drug addiction, dependence and abuse.		
April 13 Tuesday	Pool	Drugs affecting Endocrine system Diabetes	26	Unit V
April 15 Thursday-	Farhad	Drugs affecting Lipid metabolism HMG-CoA reductase inhibitors.	20	21
April 20 Tuesday	Chan	Drugs Affecting the Blood Haemostasis and thrombosis.	21, 22	20
April 22 Thursday	Palzkill	Chemotherapy I Antibiotics - anti-bacterial drugs. General mechanisms of action of different classes of antibiotic. Drug resistance	46	30,31,32,33
April 27 Tuesday	Song	Chemotherapy II Antiviral and other anti-infective drugs and their mechanisms	47	38
April 29 Thursday	Chan	Chemotherapy III Anticancer drugs Principles and classes of anticancer drugs and mechanism. Alkylating agents, DNA synthesis inhibitors, microtubules inhibitors, kinases inhibitors.	51	39
May 4 Tuesday	Yeoman	Toxicology Detoxification and Poisoning		
May 6 Thursday	Yeoman	Drug Discovery and Approval.	56	
May 11 Tuesday	Chan	Final exam		