Department	Pharmacy

Course Name	Medicinal Chemistry-2	Course No.	201414
Prerequisite	Medicinal Chemistry-1	Credit Hours	3
Number & date of course plan approval		Brief Description	See form QF02/0409

Intended Learning Outcomes	1. Students should be familiar with particular drug classes and their structure-activity relationship (SAR). 2. Students should be able to acquire/achieve methods in grade to design biologically active molecules. 3. Have a good knowledge in drug chemistry and synthesis.
Course Topics	1. Drug Receptors Affecting Neurotransmission 2. CNS Drugs 3. Cardiovascular Drugs 4. Immune System
Text Books	1. Foye's Principles of Medicinal Chemistry, 6th edition, Thomas L. Lemke and David A. Williams, Lippincott Williams & Wilkins, 2008. 2. Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry, 12th edition, J. N. Delgado and W. A. Remers, Lippincott-Raven, 2011. 3. An introduction to Medicinal chemistry, 4th edition, Graham Patrick, Oxford University Press, 2008.
References	1. The Organic Chemistry of Drug Design and Drug Action, 2nd edition, Richard B. Silverman, Elsevier, 2004. 2. Burger's Medicinal Chemistry and Drug Discovery, 6th edition, M. E. Wolff, 2003. 3. The Organic Chemistry of Drug Synthesis, Vol. 1-6, D. Lednicer and L. A. Mitscher, John Wiley and Sons.
Grade Determination	1st Exam = 25% 2nd Exam = 25% Final Exam = 50%

Course Outline

Week	Hours	Subjects	Chapters in Textbook	Notes
1st	1 1 1	**Drug Receptors Affecting Neurotransmission** Cholinergic Drugs.	Textbook 1/ Chapter 12	

		Cholinergic Drugs.		
2nd	1 1 1	Cholinergic Drugs. Anticholinergic Drugs. Anticholinergic Drugs.	Textbook 1/ Chapter 12	
3rd	1 1 1	Adrenergic Drugs. Adrenergic Drugs. Antiadrenergic Drugs.	Textbook 1/ Chapter 13	
4th	1 1 1	Serotonergic Drugs. Serotonergic Drugs. Serotonergic Drugs.	Textbook 1/ Chapter 14	
5th	1 1 1	Local Anesthetics. **CNS Drugs** General anesthetics.	Textbook 1/ Chapters 16, 18	
6th	1 1 1	Sedative hypnotics. Sedative hypnotics. Antiseizure drugs.	Textbook 1/ Chapters 19, 20	
7th	1 1 1	Antidepressants. Antipsychotic and anxiolytic agents. Hallucinogens, stimulants & related drugs of abuse.	Textbook 1/ Chapters 21, 22, 23	
8th	1 1 1	Opioid analgesics. Antiparkinsonian Spasmolytic agents.	Textbook 1/ Chapters 24, 25	
9th	1 1 1	**Cardiovascular Drugs** Cardiac glycosides. Antianginal. Antiarrhythmic drugs.	Textbook 1/ Chapter 26	
10th	1 1 1	Central sympatholytics and vasodilators. Peripheral sympatholytics and vasodilators. Diuretics.	Textbook 1/ Chapters 29, 27	
11th	1 1 1	Diuretics. Angiotensin converting enzyme inhibitors. Angiotensin antagonists.	Textbook 1/ Chapters 27, 28	
12th	1 1 1	Calcium blockers. Antihyperlipoproteinemics Inhibitors of cholesterol biosynthesis.	Textbook 1/ Chapters 28, 30	
13th	1 1 1	Antithrombotics. Thrombolytics, coagulants. Plasma extenders.	Textbook 1/ Chapter 31	
14th	1 1 1	**Immune System** Nonsteroidal anti-inflammatory drugs (NSAID) Nonsteroidal anti-inflammatory drugs (NSAID)	Textbook 1/ Chapter 36	
15th	1 1 1	Antihistamines. Antihistamines. Antihistamines.	Textbook 1/ Chapter 37	

Approved by Dept. Chair		Date of Approval	

Extra Information: (Updated every semester and filled by course instructor)

Course Instructor	
Office No.	
Extension **Email**	
Office hours	