



Course Detailed Description – Procedures of the Course Plan Committee /Faculty of Pharmacy	QF02/0408–2.1E
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Department	Pharmacy
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Course Name	Medicinal Chemistry-2	Course No.	0201414
Prerequisite	Medicinal Chemistry-1	Credit Hours	3
Number & date of course plan approval		Brief Description	See form QF02/0409

Course Objective	To develop students ability to relate chemical structures of drugs to biological activity and metabolism and drug discovery and development.
Intended Learning Outcomes	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Drug Receptors Affecting Neurotransmission 2. Drugs Affecting the Central Nervous System 3. Drugs Affecting the Cardiovascular System 4. Nonsteroidal Anti-Inflammatory, Drugs Antihistamines and Related Antiallergic and Antiulcer Agents
Text Books	<ol style="list-style-type: none"> 1. Foye's Principles of Medicinal Chemistry, 7th edition, Thomas L. Lemke and David A. Williams, Lippincott Williams & Wilkins, 2013. 2. Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry, 12th edition, J. N. Delgado and W. A. Remers, Lippincott-Raven, 2011.
References	<ol style="list-style-type: none"> 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. 4. Drug Design Cutting Edge Approaches Edited by Darren R. Flower

Grade Determination	1 st Exam = 25% 2 nd Exam = 25% Final Exam = 50%	Practical Course Grade Determination	Course Work = 50% (Reports, Term Papers, Quizes) Final Exam = 50%	
Course Outline				
Week	Hours	Subjects	Chapters in Textbook	Notes
1	1 1 1	Drug Receptors Affecting Neurotransmission Cholinergic Drugs. Cholinergic Drugs.	Textbook 1/ Chapter 9	
2	1 1 1	Cholinergic Drugs. Anticholinergic Drugs. Anticholinergic Drugs.	Textbook 1/ Chapter 9	
3	1 1 1	Adrenergic Drugs. Adrenergic Drugs. Adrenergic Drugs.	Textbook 1/ Chapter 10	
4	1 1 1	Antiadrenergic Drugs. Antiadrenergic Drugs. Serotonergic Drugs	Textbook 1/ Chapters 10,11	
5	1 1 1	Drugs Affecting the Central Nervous System Drugs Used to Treat Neuromuscular Disorders: Antiparkinsonian and Spasmolytic Agents Sedative hypnotics.	Textbook 1/ Chapters 13, 15	
6	1 1 1	Sedative hypnotics. Local Anesthetics. General anesthetics.	Textbook 1/ Chapters 16, 18	
7	1 1 1	Antiseizure drugs. Antidepressants. Antidepressants.	Textbook 1/ Chapters 17, 18	
8	1 1 1	Antipsychotic and anxiolytic agents. Hallucinogens. Central Analgesics	Textbook 1/ Chapters 14, 19, 20	
9	1 1 1	Drugs Affecting the Cardiovascular System Cardiac glycosides. Antianginal. Antiarrhythmic drugs.	Textbook 1/ Chapter 21	
10	1 1 1	Central sympatholytics and vasodilators. Central sympatholytics and vasodilators. Peripheral sympatholytics and vasodilators.	Textbook 1/ Chapter 24	
11	1 1 1	Diuretics. Diuretics. Calcium channel blockers.	Textbook 1/ Chapter 21, 22	



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12	1 1 1	Angiotensin converting enzyme inhibitors. Angiotensin antagonists.	Textbook 1/ Chapter 23	
13	1 1 1	Antihyperlipoproteinemics Inhibitors of cholesterol biosynthesis.	Textbook 1/ Chapter 25	
14	1 1 1	Antithrombotics. Thrombolytics Coagulants.	Textbook 1/ Chapter 26	
15	1 1 1	Nonsteroidal Anti-Inflammatory Drugs Antihistamines and Related Antiallergic and Antiulcer Agents	Textbook 1/ Chapter 31, 32	

Approved by Dept. Chair		Date of Approval	
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Extra Information: (Updated every semester and filled by course instructor)

Course Instructor	Dr. Jamila Isabella ALI
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Office hours	8:30-9:30 Mon. 12:00-13:00 Sun., Tue., Wed., Thu.