



كلية الصيدلة جامعة الزيتونة الأردنية
Faculty of Pharmacy
Al-Zaytoonah University of Jordan

" نحو تعليم صيدلاني متميز "
Toward Excellence in Pharmaceutical
Education

جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية الصيدلة
Faculty of Pharmacy



"Tradition and Quality"

Detailed Course Description - Course Plan Development and Updating Procedures/ Pharmacy Department	QF02/0408-3.0E
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Faculty	Pharmacy	Department	Pharmacy
Course number	0201558	Course title	Special Topics in Medicinal Chemistry
Number of credit hours	3	Pre-requisite/co-requisite	Medicinal Chemistry-3

Brief course description

This course comprises advanced topics that represent specific areas of academic significance in medicinal chemistry and drug discovery. A series of case studies on clinical drugs will be discussed with major emphasis on their design, synthesis, reaction mechanisms and structure-activity relationship studies. This course is designed to develop graduate attributes with an emphasis on development of problem solving, information literacy and class presentation.

Course goals and learning outcomes	
Goal 1	To build on an understanding of the fundamental principles of medicinal chemistry and provide a deeper insight into the mode of action of medicines with the development of analytical, problem solving, and literature searching skills.
Learning outcomes	<p>1.1 Interpret new terminology and describe the applications and goals of particular areas of contemporary medicinal chemistry and drug discovery.</p> <p>1.2 Integrate, apply and develop fundamental principles to describe and explain phenomena and solve problems in the context of selected advanced topics within medicinal chemistry.</p>
Textbook	<p>1. Foye's Principles of Medicinal Chemistry, 7th edition, Thomas L. Lemke and David A. Williams, Lippincott Williams & Wilkins, 2013.</p> <p>2. Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry, 12th edition, J. N. Delgado and W. A. Remers, Lippincott-Raven, 2011.</p>
Supplementary references	<p>1. The Organic Chemistry of Drug Design and Drug Action, 2nd edition, Richard B. Silverman, Elsevier, 2004.</p> <p>2. Burger's Medicinal Chemistry and Drug Discovery, 6th edition, M. E. Wolff, 2003.</p> <p>3. The Organic Chemistry of Drug Synthesis, Vol. 1-6, D. Lednicer and L. A. Mitscher, John Wiley and Sons.</p> <p>4. Drug Design Cutting Edge Approaches Edited by Darren R. Flower</p>



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Course timeline				
Week	Number of hours	Course topics	Pages (textbook)	Notes
01	1 1 1	Peptide and Protein Drugs	Textbook 1/ Chapter 7	
02	1 1 1	Antisense Therapeutic Agents	Textbook 1/ Chapter 8	
03	1 1 1	Opioid Analgesics	Textbook 1/ Chapter 24	
04	1 1 1	Adrenocorticoids	Textbook 1/ Chapter 33	
05	1 1 1	NSAID	Textbook 1/ Chapter 36	
06	1 1 1	Men's Health	Textbook 1/ Chapter 45	
07	1 1 1	Women's Health	Textbook 1/ Chapter 46	
08	1 1 1	Antiseptics and Disinfectants	Suppl. 2/ Vol.5/ Chapter 13	
09	1 1 1	Vitamins	Suppl. 2/ Vol.4/ Chapter 8	
10	1 1 1	Case Study	Current Literature	
11	1 1 1	Case Study	Current Literature	
12	1 1 1	Case Study	Current Literature	
13	1 1 1	Case Study	Current Literature	
14	1 1 1	Case Study	Current Literature	



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15	1 1 1	Case Study	Current Literature	
16	1 1 1	Case Study	Current Literature	

Theoretical course evaluation methods and weight	First exam 25% Second exam 25% Final exam 50%
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Approved by head of department		Date of approval	
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Extra information (to be updated every semester by corresponding faculty member)

Name of teacher		Office Number	
Phone number (extension)		Email	
Office hours			