

ة الزيتونــة الأردنيـة Al-Zaytoonah University of Jordan كلية الصيدلة Faculty of Pharmacy



Detailed Course Description - Course Plan Development and Updating Procedures/	QF02/0408-3.0E
Pharmacy Department	QF 02/0408-3.0E

Faculty	Pharamcy	Department	Pharmacy
			Practical
Course number	0201212	Course title	Pharmaceutical Organic Chemistry
Number of credit hours	1	Pre-requisite/co-requisite	0120142+0201112

This course is complementary part to the theoretical lectures.

It provides the students important knowledge to acquire good practical skills in the study of the structure, properties, and reactions of organic compounds and to determine the chemical composition and the chemical constitution of organic compounds and materials.

	Course goals and learning outcomes
Goal 1	Studying different chemical and physical properties of organic compounds using different apparatus
Learning outcomes	Students are able to: 1.1 Design, carry out, record and analyze the results of chemical experiments. 1.2 Communicate the results of their work to chemists and non-chemists 1.3 Identify the absence or presence of a impurities depending on physical and chemical properties of compounds
Goal 2	Synthesis of different organic compounds using one step synthesis and more advanced multi steps synthesis.
Learning outcomes	Students are able to: 2.1 Characterize and identify of organic compounds using different identification test. 2.2 Prepare, purify and identify of selected simple organic compounds, such as organic halides, aromatic compounds, alcohols, ethers, aldehydes, ketones, phenols, carboxylic acids, nitro compounds and aminesetc. 2.3 Knows the proper procedures and regulations for safe handling and use of chemicals and can follow the proper procedures and regulations for safe handling when using chemicals.
Goal 3	Having a good overview on advanced separation techniques such as chromatography.
Learning outcomes	Students are able to 3.1 Identify and solve separation chemical problems and explore new techniques of isolation and separation. 3.2 Use modern instrumentation and classical techniques, to design experiments, and to properly record the results of their experiment. 3.3 Calculate the percentage purity of compounds after separation of compounds from another using different separation technique.



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Textbook	Vogel's Text book of Practical organic chemistry by A.Vogel, et al, prentice Hall, 1996, 5 th edition.
Supplementary references	Unitized Experiments in Organic Chemistry by Ray .Brewster and McEwen, wadsworth publishing company 1997,10 th edition.

	Course timeline			
Week	Number of hours	Course topics	Pages (textbook)	Notes
01	1 1 1	Melting point (Identification and purity examination of organic solids).		
02	1 1 1	Boiling point and distillation: Identification, separation and purification of organic liquids.		
03	1 1 1	Recrystallization (Purification of organic compounds)		
04	1 1 1	Extraction: Separation and isolation technique.		
05	1 1 1	Chromatography: Identification, separation and purity examination of compounds.		
06	1 1 1	Alcohols and phenols: Properties and reactions		
07	1 1 1	Reactions of aldehydes and ketones.		
08	1 1 1	Fischer esterification:		
09	1 1 1	Electrophilic aromatic substitution: Nitration of methyl benzoate		
10	1 1 1	Preparation of Dibenzalacetone		



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Theoretical course	First exam 25%	Practical (clinical)	Semester students'

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evaluation methods	Second exam 25%	course evaluation	work = 50%
and weight	Final exam 50%	methods	(Reports, research,
			quizzes, etc.)
			Final exam = 50%

Approved by head of department	Date of approval	

Extra information (to be updated every semester by corresponding faculty member)

Name of teacher	Ameerah Hasan Ibrahim	Office Number	409
Phone number (extension)	273	Email	ameerah.ibrahim @zug.edu.jo
Office hours	Sun.(12:00-1:30) Mon.(10-11) Tue (11-2) Wed.(11-1)		