Course Detailed Description – Procedures of the Course Plan Committee /Faculty of Pharmacy	QF02/0408-2.1E

Department	Pharmacy

Course Name	Practical Pharmaceutical Organic Chemistry	Course No.	0201212
Prerequisite	0120142+0201112	Credit Hours	1
Number & date of course plan approval		Brief Description	See form QF02/0409

Course Objective	**This course is complementary part to the theoretical lectures. It provides the students important knowledge to acquire good practical skills.**	
Intended Learning Outcomes	**1- Studying different chemical and physical properties of organic compounds using different apparatus. 2-Synthesis of different organic compounds using one step synthesis and more advanced multi steps synthesis. 3-Having a good overview on advanced separation techniques such as chromatography. 4- Characterization and identification of organic compounds.**	
Course Topics	1- **Includes investigation and characterization of the physical and chemical properties for many organic chemical classes. **2- **It involves preparation, purification and identification of selected simple organic compounds, such as organic halides, aromatic compounds, alcohols, ethers, aldehydes, ketones, phenols, carboxylic acids, nitro compounds and amines..etc.**	
Text Books	Vogel's Text book of Practical organic chemistry by A.Vogel, et al, prentice Hall, 1996 , 5 th edition .	
References	Unitized Experiments in Organic Chemistry by Ray .Brewster and McEwen, wadsworth publishing company 1997,10th edition.	
Grade Determination	Practical Course Grade Determination	Course Work = 50% (Reports, Term Papers, Quizzes) Final Exam = 50%

Course Outline				
Week	**Hours**	**Subjects**	**Chapters in Textbook**	**Notes**
1		**Melting point (Identification and purity examination of organic solids**).		
2		**Boiling point and distillation: Identification, separation and purification of organic liquids.**		
3		**Recrystallization (Purification of organic compounds)**		
4		**Extraction: Separation and isolation technique.**		
5		**Chromatography: Identification, separation and purity examination of compounds.**		
6		**Alcohols and phenols: Properties and reactions**		
7		**Reactions of aldehydes and ketones.**		
8		**Fischer esterification:**		
9		**Electrophilic aromatic substitution: Nitration of methyl benzoate**		
10		**Preparation of Dibenzalacetone**		
11		**Nucleophilic aliphatic substituation:Preparation of t-butyl chloride, reactivity of alkyl halides**		
12		**Elemental identification of organic compounds**		
13		**Amines: Properties and reactions.**		
14		**Chemical tests for the following functional groups: Alkenes and alkynes (Unsaturated compounds), organo halogen compounds,**		

		aldehydes, ketones, alcohols, phenols, carboxylic acids, aliphatic and aromatic amines.		
15		Final Exam		

Approved by Dept. Chair		Date of Approval	

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

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