Course Detailed Description – Procedures of the Course Plan Committee /Faculty of Pharmacy	QF02/0408-2.10E

Department	Pharmacy

Course Name	General Chemistry Lab	**Course No.**	0120142
Prerequisite	----------	Credit Hours	1
Number & date of course plan approval	2016-2017	Brief Description	See form QF02/0409

Course Objectives	This course covers the practical applications of the most important theoretical concepts included in the General Chemistry course like qualitative and quantitative studies, stoichiometry, volumetric analysis and thermochemical changes.
Intended Learning Outcomes	1- To give an opportunity for the students to support their theoretical knowledge when they use their own observation. 2- To teach the students how to collect data and interpret their results. 3- To teach the students the various standard techniques used in chemistry and in most other fields of science.
Course Topics	1- Safety rules. 2- Empirical formula. 3- Limiting reactant. 4- Volumetric analysis. 5- Solubility determination. 6- Equilibrium. 7- Thermochemistry
Text Books	Practical General Chemistry, 2nd edition.
References	1- Chemistry Chemistry , The Central Science , Brown , Le May , Bursten, Prentice Hall, 12th Edition (2012). 2- General chemistry, Ebbing and Gammon, Houghton Mifflin , 9th edition, 2009. 3- Chemistry, change, McGraw Hill, 9th edition, 2007. 4- Chemistry, Zumdahl and Zumdahl, Houghton Mifflin, 7th edition, 2007. 5- Chemistry, The Molecular Nature of Matter and Change, Silberberg, McGraw Hill,3rd edition,2003.
Grade Determination	Course Work = 50% (Reports, Term Papers, Quizes) Final Exam = 50%

Course Outline

Week	Hours	Subjects	Chapters in Textbook	Notes
1	1	Check in.		
2	1	Instructions and Safety Rules.		
3	1	Density and Chemical observations.		
4	1	Empirical formula of magnesium oxide.		
5	1	Formula of Hydrate		
6	1	Determination of aspirin		
7	1	Limiting Reactant.		
8	1	Volumetric Analysis –I: acid –base titrations		
9	1	Volumetric Analysis –II: redox titration		
10	1	Determination of Heat of Formation of MgO.		
11	1	Le Chatelier's Principle		
12	1	Spectrophotometric determination of the solubility of $NiSO_4.6H_2O$		
13	1	Determination of an unknown		
14	1	Check out		
15	1	Final Exam		

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	