Department	Pharmacy

Course Name	Practical General Chemistry for Engineering Students	Course No.	0201144
Prerequisite	General Chemistry	Credit Hours	1
Number & date of course plan approval		Brief Description	See form QF02/0409

Course Objective	To introduce to the student the various standard experimental techniques used in a chemistry lab. To show the student how to collect data and note observations and interpret the results. To interrelate the theoretical knowledge acquired in the general chemistry course with certain experiments.
Intended Learning Outcomes	Identification of the various glassware & labware used in a chemistry lab. Recognition of the various experimental techniques used in a chemistry lab. Acquiring the knowledge to relate a theoretical principle to a laboratory technique and experiment.
Course Topics	▪ Safety rules ▪ Gravimetric analysis ▪ Limiting reactant ▪ Volumetric analysis ▪ Enthalpy of reaction ▪ Solubility determination ▪ Equilibrium
Text Book	Practical General Chemistry

References	▪ Chemistry, the Central Science; by Brown, LeMay, Bursten, and Murphy ▪ General Chemistry; by Ebbing and Gammon ▪ Chemistry; by Zumdahl & Zumdahl ▪ Chemistry, the Molecular Nature of Matter and Change; by Silberberg		
Grade Determination	1st Exam = 25% 2nd Exam = 25% Final Exam = 50%	Practical Course Grade Determination	Course Work = 50% (Reports, Term Papers, Quizzes) Final Exam = 50%

Course Outline

Week	Hours	Subjects	Chapters in Textbook	Notes
1	3	Check in		
2	3	Instructions and safety rules		
3	3	Density and chemical observations		
4	3	Formula of a hydrate		
5	3	Empirical formula of magnesium oxide		
6	3	Limiting reactant		
7	3	Volumetric analysis I: acid-base titrations		
8	3	Volumetric analysis II: redox titration		
9	3	Colligative properties		
10	3	Heat of a neutralization reaction		
11	3	Le Chatelier's Principle		
12	3	Determination of an unknown		
13	3	Check out		
14	3	Final Exam		

Approved by Dept. Chair		Date of Approval	

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

Course Instructor	Dr. Manar Arafeh
Office No.	415
Extension **Email**	manar.arafeh@zuj.edu.jo
Office hours	