

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Organic Chemistry Lab.
Course number	PHCH2107
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	0
Credit hours (practical)	1
Course Prerequisites	

Course Objectives

1 - The course introduces the student to techniques and procedures in synthesis, isolation, purification, and characterization of organic compounds

Intended Learning Outcomes

Knowledge and Understanding	* Upon completion of the course, students should be able to: • Apply knowledge obtained in "Organic chemistry" lecture to propose mechanisms of reactions conducted in the laboratory.
Intellectual Skills	* Perform common calculations, including mass balance, limiting reagent, and percent yield.
Professional Skills	* Handle safely and appropriately laboratory glassware, equipment, and chemical reagents, using general guidelines and basic knowledge about the common hazards in an organic chemistry laboratory. * Assemble glassware and perform syntheses requiring special conditions
General Skill	* Assemble glassware and perform the following techniques as a part of synthetic procedures: distillation, reflux, separation, isolation, and crystallization. * Write a proper laboratory report containing information on relevant chemical reagents, experimental procedure followed, data collected, and observations made during the experimental process.

Course Contents

- 1 - Introduction, Safety precautions and Laboratory Instructions
- 2 - techniques of purification and reflux concepts
- 3 - Synthesis of Aspirin
- 4 - Synthesis of Acetanilide
- 5 - Synthesis of Acetanilide
- 6 - Hydrolysis of amide and nitriles
- 7 - "Synthesis of Azo dye "Methyl Orange
- 8 - Isolation of Caffeine from tea leaves
- 9 - solubility tests
- 10 - systematic identification of organic compounds using all functional group tests
- 11 - application of unknown drugs identification

Teaching and Learning Methods

- 1 - the location will be the college labs with all available facilities

Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
Reports	at the beginning of each lab	30%
Quizzes	at the beginning of each lab	30%
Oral exam	at week no 13	10%
Final practical lab	at week no 13	20%
Activity and punctuality	distributed among the whole semester	10%

Books and References

Course note	(course note as collective topics cover all qualitative analysis of functional groups in organic chemistry (prepared by college of pharmacy alazhar university-gaza
Essential books	Vogel's Textbook of Practical Organic Chemistry, 5th Ed. Vogel, et al., ed., Prentice Hall, 1996, 1552 pp., hard cover
Recommended books	Systematic Identification of Organic Compounds-wiley-shriner,Hermann,Morrill,Curtin,Fuson