



Jordan University of Science and Technology
Faculty of Science & Arts
Chemistry Department

CHEM218 Organic Chemistry Practical

Summer Semester 2019-2020

Course Catalog

1 Credit Hours. CHEM 213 introduces the student to basic techniques and procedures in purification, and characterization of organic compounds. Use melting point of a substance as a means of identification and to determine a substance's purity. Purify a substance in a mixture using the process of recrystallization. Distinguish solubility and miscibility properties of organic compounds based on functional group and carbon chain length. Safely assemble and use the appropriate distillation apparatus to carry out simple and fractional distillation, and explain the differences between the two types of distillation. Use extraction and recrystallization to purify caffeine from tea. Conduct simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report.

Text Book

Title	Manual report
Author(s)	N/A
Edition	1st Edition
Short Name	1
Other Information	

Instructor

Name	Mr. Amer Alshiekh Ali
Office Location	-
Office Hours	
Email	amer47@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Thu : 08:30 - 14:30
Room: LAB5 (D3 L-2)

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Check in and Safety Rules	Exp.1 From 1
Week 2	Melting Point and Mixed Melting Point	Exp.2 From 1
Week 3	Crystallization	Exp.3 From 1
Week 4	Extraction	Exp.4 From 1
Week 5	Distillation	Exp.5 From 1
Week 6	Chromatography	Exp.6 From 1
Week 7	Preparation of p-Nitroacetanilide	Exp.7 From 1
Week 8	Hydrolysis of p-NitroSacetanilide	Exp.8 From 1
Week 9	Oxidation of Alcohol	Exp.9 From 1
Week 10	Substitution Reactions of Alcohol	Exp.10 From 1
Week 11	Preparation of isoamylacetate	Exp.11 From 1
Week 12	Diels Alder Reaction	Exp.12 From 1
Week 13	Aldol Condensation	Exp.13 From 1

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
perform common organic laboratory procedures in accordance with proper safety procedures. [1d, 1e]	10%	
Maintain an appropriate scientific notebook using notational and descriptive content containing MSDS information on relevant chemical reagents, experimental procedure followed, data collected, and observations made during the experimental process. [1a, 1e]	20%	
Assemble glassware and perform the following techniques as a part of synthetic procedures: aqueous workup, distillation, reflux, separation, isolation, and crystallization. [1b, 1d, 1g, 1k]	20%	
Characterize prepared substances by physical and spectroscopic means [1b, 1d, 1e, 1k]	20%	
Utilize mathematical knowledge gained from general chemistry to perform common calculations, including mass balance, limiting reagent, and percent yield. [1a, 1b, 1i]	30%	

Relationship to Program Student Outcomes (Out of 100%)										
a	b	c	d	e	f	g	h	i	j	k
20	20		15	20		5		10		10

Evaluation	
Assessment Tool	Weight
Midexam	40%
Reports	20%
Final Exam	40%

Policy	
Make-Up Exams	Make-up exams will be offered for valid reasons only with consent of the Dean. Make-up exams may be different from regular exams in content and format.
Attendance	Lecture attendance is mandatory. Student is allowed maximally 20% absentia of the total module hours. More than this percentage, student with an excuse will be drawn from the module. Otherwise, student will be deprived from the module with zero mark assigned.

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