



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

CHEM266 Biochemistry (Lab)

Summer Semester 2019-2020

Course Catalog

1 Credit Hours. This course aims to teach students the principles of safety and hazards in biochemistry laboratories. The first five experiments of the course will cover the fundamental techniques and the advanced instruments used in the analysis and constructing important curves of amino acids and some other dyes. In the second five experiments the students will learn how to identify quantize and differentiate between different biochemical compounds.

Instructor

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Instructor

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Class Schedule & Room

Section 1:

Lecture Time: Thu : 08:30 - 12:30

Room: LAB

Section 2:

Lecture Time: Thu : 12:30 - 16:30

Room: LAB11 (D1 L-1)

Section 3:

Lecture Time: Thu : 08:30 - 12:30

Room: LAB

Prerequisites		
Line Number	Course Name	Prerequisite Type
911072	CHEM107 General Chemistry Lab	Prerequisite / Pass
912620	CHEM262 Biochemistry	Pre./Con.

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Titration curves of Amino Acids.	
Week 2	General properties of amino acids	
Week 3	Separation of Amino acids by Paper chromatography and electrophoresis.	
Week 4	General properties of Proteins.	
Week 5	Preparation of an enzyme extract Polyphenoloxidase (PPO).	
Week 6	Absorbance curves of two colored compounds.	
Week 7	Quantitation of proteins.	
Week 8	Enzymatic colorimetric method (End Point).	
Week 9	General properties of Carbohydrates.	
Week 10	General properties of Lipids.	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand experiments and enhance their ability in thinking and research. [1a, 1b, 1d]	20%	Midterm exam
Manipulate all experimental data and curves construction. [1a, 1b, 1d, 1e, 1k]	30%	Midterm exam, Final
Centrifuge and analyze the serum for Glucose, Albumin, and Cholesterol. [1b, 1e, 1k]	20%	Final
Learn how to test for Carbohydrate and their classification [1a, 1k]	30%	Reports, Final

Relationship to Program Student Outcomes (Out of 100%)										
a	b	c	d	e	f	g	h	i	j	k
27.67	19.33		12.67	12.67						27.67

Evaluation	
Assessment Tool	Weight
Midterm exam	40%

Reports	10%
Final	50%

Date Printed: 2020-09-24