



AMMAN - JORDAN



المستوى الذهبي

جامعة كل العرب

**Course Syllabus**  
**Faculty of Arts & Science**

**Academic Department Basic Science and Humanities**

**Academic Year 2021 / 2022 Semester: Second**

<b>Course Title :</b>	Biology Lab. For Pharmacy
<b>Course No. :</b>	1501142
<b>Prerequisite :</b>	Biology
<b>Concurrent :</b>	-
<b>Department :</b>	Basic Science and Humanities
<b>Coordinator :</b>	Mrs. Wafa` Ahmad
<b>Mode of Instruction</b>	<b><u>On-campus</u></b> - 3 hours in-class (Synonym) learning

**\* Instructor:**

Lecturer	Office Phone	Room No.	Office Hours	E-mail
Mrs. Wafa` Ahmad	2223	1282	12-1 Sun. ,Thu 11-12 Mon., Wed.	

**Course Description**

This course deals with use and care of the microscope, animal and plant cell division. It also includes the basics of genetics, method of DNA extraction, study of animal tissues and human body systems using different slides and models

**Intended Learning Outcomes**

Upon the completion of the course, this module should lead to the following learning outcomes:

**A. Knowledge and Understanding (Student should):**

- A1 Understand biological facts, terms, principles, concepts, relationships and experimental techniques, including practical laboratory skills
- A2 Have an ability to carry out laboratory experiments and activities safely and effectively
- A3 Have an ability to record and interpret biological data.

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**B. Cognitive and Intellectual Skills (Student should):**

**At the end of this module, students will be able to:**

- B1 Develop their intellectual skills through understanding the concepts of biology and formulating questions and thinking of the appropriate answers to their questions.

**C. Subject Specific Skills (Student should):**

- C1 Use a light microscope and prepare microscopic slides  
 C2 Visually differentiate, and explain the differences between prokaryotic cells, eukaryotic cells, plant cells and animal cells  
 C3 Determine net direction of diffusion and calculate %change in weight of the dialysis bag  
 C4 Perform biochemical tests to identify types of molecules (including reducing and non-reducing sugars, starch, lipids and proteins) present in a variety of biological materials  
 C5 Describe, explain and investigate factors affecting enzyme kinetics including the effect of temperature and pH on the enzymatic reactions activity.  
 C6 Identify the necessary reactants and products of photosynthesis and cellular respiration  
 C7 Identify different types of cell divisions and sequence images of eukaryotic cells undergoing mitosis  
 C8 Perform extraction procedure of DNA molecules  
 C9 Identify and distinguish between tissues in the human body  
 C10 Explain the structure and function of organ systems in the human body.

**D. Transferable Skills (Student should):** At the end of this module, students will be able to:

- D1 Improve their ability to analyze data based on their understanding to the basic biological concepts  
 D2 Working in groups (self-management, teamwork)

**Program Learning Outcomes (PLOs):**

1. -----

Course Learning Outcomes Alignment Matrix				
	CLO. 1	CLO. 2	CLO. 3	CLO. 4
PLO.1:				



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**Course Contents and Schedule**

Week	Day and Date	Topics to be covered	Method of instruction	CLOs	PLOs
1	Sun. 6/3/2022	Introduction safety rules	In-class lecture	A1,A2,A3,B1	
2	Sun. 13/3/2022	The Microscope	In-class lecture	A1,B1,C1	
3	Sun. 20/3/2022	The Cell	In-class lecture	A1,B1, C2	
4	Sun. 27/3/2022	Physical properties of the cells	In-class lecture	A1,B1,C3,D1	
5	Sun. 3/4/2022	Chemical Aspects of Living Organisms 1	In-class lecture	A1,B1,C4,D2	
6	Sun. 10/4/2022	Chemical Aspects of Living Organisms 2	In-class lecture	A1,B1,C5,D2	
7	Sun. 17/4/2022	Metabolism	In-class lecture	A1,A2,B1,C6	
8.	<b>MID Term Exam 24/4/2022</b>				
9	<b>Eid al-Fiter Vacation 1-5/5/2022</b>				
10	Sun.8/5/2022	Cell Division	In-class lecture	A1,B1,C7,D1	
11	Sun.15/5/2022	Genetics	In-class lecture	A1,B1,C8,D2	
12	Sun.22/5/2022	DNA extraction	In-class lecture	A2,B1,C8,D2	
13	Sun. 29/5/2022	Animal Tissues	In-class lecture	A1,B1,C9	
14	Sun. 5/6/2022	Body Systems	In-class lecture	A1,B1,C10	
15	Sun. 12/6/2022	Final Exam			
16.	<b>Final Exam 19/6/2022</b>				

**Grading Plan and Assessment Tools**

Assessment Tools	Weights	Due date
Mid-term	30	
Assignments	-	
Quizzes	10	
Inter active lectures	-	
Group Work	-	
Presentation	-	
Reports	10	
Project	-	
Case-Study	-	
Final Exam	50	

**Supplementary Reading**

**Textbook:**

- 1- Laboratory Manual of Biology lab. 2019/2020

**References:**

1. Enger,E.D and Ross,F.C. 2008.Laboratory Manual Concepts in Biology 13th edn.McGrawHill Companies.



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## جامعة كل العرب

**Subject Coordinator**

Mrs. Wafa` Ahmad

**Signature:** -----

**Head of Curriculum Committee**

Dr. Hussam Miqdad

**Signature:** -----

**Department Head**

Dr. Hussam Miqdad

**Signature:** -----

**Faculty Dean**

Dr. Hadeel Saed

**Signature:** -----

**Copy to:**

- Department Head.
- Head of Curriculum Committee.
- Course File.

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رمز النموذج: UF 28 / 2

رقم القرار 24 / 233

تاريخ الاعتماد 2021/10/18