



ASU
APPLIED SCIENCE PRIVATE UNIVERSITY



Amman- Jordan

عمان - الأردن



كلية الصيدلة
Faculty Of Pharmacy



The Bachelor Degree in Pharmacy
of Applied Science Private
University is Certified by the
Accreditation Council for Pharmacy
Education



المستوى الذهبي

فليعمل من أردن العربيه جامعة للعربيه

Faculty : Pharmacy

Department: Clinical pharmacy and therapeutics

Academic Year: 2018/2019

Semester : Second semester

Subject Name	Credit Hours	Course No.	Prerequisite	Concurrent course
Practical Physiology	1	906221	906210	906220

Coordinator Name	Lecturer/s	Room No.	E-mail	Course website	Office Hours
Dr. Mahmoud Al Shawabkeh	Dr. Mahmoud Al Shawabkeh Dr. Mahmoud abu Samak M. Rajaa Daghash	4117	mjmorad@yahoo.com	http://bio.asu.edu.jo/bio/index.jsp	As schedule

Course Description:

This course practically covers theoretical topics thought in Physiology I and II. The following topics will be covered : CBC,WBCs differentiation , blood clotting tests ,ECG, spirometry tests, Human reflexes, Blood pressure measurement , blood glucose test ,acuity of vision and hearing acuity and plotting of audiogram.

Course objectives:

Upon successful completion of this course the students should be able to:

1. Know cell membrane function as osmotic barrier
2. Counting RBCs and WBCs and relative blood measure indices
3. Be able to measure blood pressure
4. Be able to read ECG graph and distinguishing several abnormalities
5. Be able to calculate the vital lung capacity
6. Determine Blood glucose
7. Recognize spinal reflexes



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Intended Learning Outcomes:

Following the successful completion of this course, the student should be able to:

A. Knowledge and understanding:

- A1. Safety and general regulations of lab session
- A2. Well technique performance evaluation
- A3. Principles and ideas of practical experiments

B. Subject specific skills:

- B1. Cell membrane osmoticity principle
- B2. Blood physiology measurement: count, pressure, indices
- B3. Pulmonary function
- B4. Nervous response

C. Cognitive and Intellectual skills:

- C1. Calculating numbers of RBCs and WBCs
- C2. Counting blood indices
- C3. Measuring values of blood pressure, pulse rate and abnormal changes in heart and lung physiology
- C4. Calculating some chemical constituent of blood such as Glucose
- C4. Differentiate spinal reflexes

Teaching and Learning Methods:

Development of ILOs is promoted through the following teaching and learning methods:

ILOs	Learning Methods	Evaluation Methods
Eg. A, B, C	Simple introduction of experimental principle	Exams and Quizzes
Eg. D	Following and controlling manual hand skill during the lab session	Evaluation remarks.

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Course Contents :

Week	Date	Lecture number / hours	Topic's Details	Exams/ /quizzes	Main Reference (chapter)	ILOs achieved
1	3/3/2019		Off lab			
2	10/3/2019	3	physiology: Diffusion and osmosis, effect of different solutes on the cell, effect of saline concentration on cells and hemolysis			A,B,C
3	17/3/2019	3	Blood physiology: Erythrocytes count (RBC	1		A,B,C
4	24/3/2019	3	Blood physiology Leukocyte total count and differential count			A,B,C
5	31/3/2019	3	Blood physiology: Hematocrit, estimation of blood hemoglobin concentration and RBC indices	2		
6	7/4/2019	3	Blood typing and estimation of blood clotting mechanism (Bleeding time, clotting time, PT & PT)			A,B,C
7	14/4/2019		Cardiovascular physiology Electrocardiography	3		A,B,C
8	21/4/2019	3	Cardiovascular physiology Measurement of Blood Pressure	4		
9	28/4/2019	3	Pulmonary physiology: Pulmonary function tests			A,B,C
10	5/5/2019	3	Endocrine physiology Oral glucose tolerance test	5		A,B,C
11	12/5/2019	3	OFF LAB WEEK			
12	19/5/2019		OFF LAB WEEK			
13	26/5/2019	3	Nervous System Physiology: Spinal Reflexes.			A,B,C
14	2/6/2019	1	Final Exams Week			A,B,C

Grade Distribution:

Your course grade will be determined by the following:

Assessment Method	% of Final Grade	Due Date
Quizzes (written)	25	As schedule
Lab report and evaluation	25	
Final exam	50	2/6/2019

* Provisional dates are scheduled in the course schedule. Each instructor will announce the exact date for the quizzes of each section at the beginning of the semester.

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Distribution of examination material (may vary depending on material included):

Example:

- ✓ 25% quizzes during lab sessions each 5%
- ✓ 15% lab reports submitted at the end of each lab session
- ✓ 10% - evaluation of practical techniques in lab sessions
- ✓ 50% final theoretical practical exam

23. Course Policies:

A- Attendance policies:

Attendance: Mandatory.

- First warning – with 1 absences
- Last warning – with 2 absences
- Failing in the subject – with 3 absences

B- Absences from exams and handing in assignments on time:

Will result in zero achievement unless health report or other significant excuse is documented.

C- Health and safety procedures: NA

D- Honesty policy regarding cheating, plagiarism, misbehavior:

The participation, the commitment of cheating will lead to applying all following penalties together

1. Failing the subject he/she cheated at
2. Failing the other subjects taken in the same course
3. Not allowed to register for the next semester. The summer semester is not considered as a semester

E- Grading policy:

Exams and Quizzes.

Quizzes:	25 points
Lab report and evaluation:	25 points
Final Exam:	50 points
Total:	<u>100 points</u>

F- Available university services that support achievement in the course:

Classrooms, internet classes, ASU online web site (messages, assignment, and notes)

24. Required equipment:

Data show and internet connection and apparatuses, lab devices

Make-up Exam Policy:

Make-up exams will be offered for valid reasons. They may be different from regular exams, both in content and format.



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References:

A- Required book (s), assigned reading and audio-visuals:

Manual of Practical Physiology prepared by Dr. Mahmoud Abu Samak and Msc. Samar khatter

B- Recommended books, materials, and media:

Additional information:

No side talks during lecture

No mobile phones during lecture

Entering the lab room after the instructor is not permitted.

Homework should be done by students independently and will be asked at the exams

Course Material and Announcements

Students need to use the e-learning page at the ASU website in order to get all lecture handouts and guidelines which will be uploaded there.

In addition, course related announcements and exam results will be posted on the ASU online AND/OR course website and is the responsibility of each student to check the sites regularly.

Name of Course Coordinator: **Dr. Mahmoud Al Shawabkeh**

Signature: _____

Date: 25/2/2019

Head of curriculum committee: _____

Signature: _____

Head of Department: _____

Signature: _____

Dean: _____

Signature: _____

د. ريم أبو تايه
رئيس قسم الكيمياء، الصيدلانية والبيولوجيا

Copy to:

Head of Department

Head of curriculum committee

Head of committee for Quality Assurance

Course File

Date of last update: 25/2/2019