

Republic of Yemen
Ministry of Higher Education & Scientific Research
21 September University for Medicals and Applied Sciences



Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of Human Physiology- II

Course No. (01.01.20٦)

2022

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Prof. Salim Al-Riyashi	Dr. Aref Abdulmughni	Dr. -----	Dr. Abdulelah Thabet	Dr. Ali Alyahawi

I. Course Identification and General Information:					
١	Course Title:	Human Physiology-II			
٢	Course Code & Number:	01.01.206			
٣	Credit hours:	C.H			
		Th.	Seminar	Pr	Tr.
		2			
٤	Study level/ semester at which this course is offered:	Second Year- 1 ST Semester			
5	Pre –requisite (if any):	Human Physiology-I			
6	Co –requisite (if any):				
7	Program (s) in which the course is offered:	Clinical Pharmacy & Pharm. D.			
8	Language of teaching the course:	English			
9	Study System	Semester Based System			
10	Mode of delivery:	Full Time			
11	Location of teaching the course:	Faculty of Clinical Pharmacy			
12	Prepared By:	Prof. Salim Al-Riyashi			
13	Date of Approval				

II. Course Description:
The course concerns with the study of functions and regulation of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body. This course familiarizes the students with principles and biological role of certain endogenous substances that affect regulation and normal functions related to cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.

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III. Course Intended learning outcomes (CILOs)		Referenced PILOs
a.1	Describe the normal functions and regulation of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.	A1
a.2	Discuss the biological role of certain endogenous substances that affect regulation and normal functions of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body	A1
b.1	Distinguish between normal and abnormal laboratory tests of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body	B1
b.2	Integrate physiology of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body with other basic and clinical science.	B1

(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1. Describe the normal functions and regulation of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.	- Interactive Lectures - Self-learning - Assignment	- Written examination - Report evaluation - Quizzes - MCQs
a2. Discuss the biological role of certain endogenous substances that affect regulation and normal functions of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.		

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1. Distinguish between normal and abnormal laboratory tests of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.	- Interactive Lectures - Self-learning - Problem solving - Brain storming	- Written examination - Assignment
b2. Integrate physiology of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body with other basic and clinical science		

IV. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub Topics List	Week Due	contact hours
1	- Cardiovascular system	a 1, a2, b1,b2,	- The Heart - Vascular System	3	6
2	- The Blood		- Blood composition, functions and regulation of plasma, RBCs, WBCs and platelets. - Circulation: regulations and factors affecting venous return and blood flow.	2	4
3	- Alimentary system	a 1, a2, b1,b2,	- Functions and regulations of gastrointestinal tract (GIT) organs - Digestive System Associated Organs	2	4
4	- Mid exam	al,a2, bl,b2	-	1	2
5	- Respiratory system	a1, a2, b1,b2,	- Blood-gas interface, airways, the pleura, mechanism of breathing, Ventilation, Diffusion , Partial pressures of oxygen and carbon dioxide, Ventilation-perfusion matching, Gas transport in blood , Regulation of ventilation, Ventilator response to exercise.	2	4
6	- Renal system	a1, a2, b1,b2,	- Formation of urine (Filtration & Reabsorption) - Measurement of renal function - Other functions: • Hormone secretion - Maintaining homeostasis	2	4
7	- Immune system	a1, a2, b1,b2,	- Compositions, Types, Functions , & Regulations	2	4
8	- Seminars	a1, a2, b1,b2,	- Selected Topics on Physiology	1	2
9	- Final exam.	al, a2, bl,b2,	-	1	2
Number of Weeks /and Units Per Semester				16	32

V. Teaching strategies of the course:

- Interactive Lectures
- Self-learning
- Assignment
- Problem solving
- Brain storming

VI. Assignments:

No	Assignments	Aligned CLOs(symbols)	Week Due	Mark
1	Assignment 1: Describe the normal functions of heart	a 1, a2,b1,b2,	6	5
2	Assignment 2: Explain the role of the enzymatic and hormonal secretions from the pancreas and bile from the liver; with the locations of these organs and the importance of these in digestion.	a 1, a2,b1,b2	12	5
Total				10

VI. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	6, 12	10	10%	a1,a2, b1,b2
2	Quiz 1	٦	5	5%	a1,a2, b1,b2
3	Midterm Exam	٨	10	10%	a1,a2, b1,b2
4	Quiz 2	١٢	5	5%	a1,a2, b1,b2
5	Final Exam	16	70	70%	a1,a2, b1,b2
Total			100	100%	

VII. Learning Resources:

- Written in the following order: (Author - Year of publication - Title - Edition - Place of publication - Publisher).

1- Required Textbook(s) (maximum two).	
	1- Guyton and Hall(2016), Text book of medical physiology , 15th edition, Saunders Elsevier: Philadelphia. 2- Laurie Kelly (2019),Essentials of Human Physiology for Pharmacy, 6nd t edition, CRC Press/Taylor & Francis :Boca Raton.
2- Essential References.	
	1- Stuart Ira Fox(2019): Human Physiology, 13th edition, McGraw-Hill Education: New York. 2- Kevin T Patton; Gary A Thibodeau(2019), Anatomy & physiology, 18th edition, Elsevier: Missouri. 3- Barbara J Bain; Rajiv Gupta(2018), A- Z of Haematology, 4th edition, Wiley: Chichester. 4- David Shier (2017),Human Anatomy & Physiology 13th edition, McGraw-Hill Education: new york. 5- William E Arnould-Taylor(2018), A Textbook of Anatomy and Physiology,10th edition, Nelson Thrones: Cheltenham.
3- Electronic Materials and Web Sites etc.	
	- www.csun.edu/science/biology/anatomyv/anatomyv.html - www.cliffsnotes.com - www.innerbody.com - www.anatomvandphvsiology.com/ - www.mhhe.com/biosci2/anatomyrevealed - www.le.ac.uk/pa/teach/va/anatomy

VIII. Course Policies:

Based on University Regulations

١	(Class Attendance) : - A student should attend not less than 75 % of total hours of the subject; otherwise he/she will not be able to take the exam and will be considered as exam failure. - If the student is absent due to illness, he/she should bring a proof statement from Clinic or hospital. - Once a student reaches approximately ten to fifteen percent of absentees in a class, he/she shall receive a warning from Dean/College may be required by the instructor. - If the absent is more than 25% of a course total contact hours, student will be required to retake the entire course again.
٢	(Tardy) : For late in attending the class, the student will be initially notified. If he repeated lateness in attending class three times, he/she will be considered as absent. Each instructor is responsible to define the rules for which a student is considered late to class.
٣	(Exam Attendance/Punctuality) : - All students have to attend exam as specified. - A student who fails to attend the exam has to hand on his/her excuse within one week - All students must come to exam on time and no excuses are accepted for late coming.. He/she is permitted to attend an exam half one hour from exam beginning, after that he/she will not be permitted to take the exam and he/she will be considered as absent in exam.
٤	(Assignments & Projects) : All assignment and projects have to be submitted, as scheduled, on time. Late submission might result in deduction of marks
٥	(Cheating) : For cheating in exam, a student will be considered as fail. In case the cheating is repeated three times during his/her study the student will be disengaged from the Faculty.
6	(Plagiarism) : Plagiarism is the attending of a student the exam of a course instead of another student. If the examination committee proofed a plagiarism of a student, he/she will be disengaged from the Faculty. The final disengagement of the student from the Faculty should be confirmed from the Student Council Affair of the university or according to the university roles.
7	(Other policies) : - Mobile phones are not allowed to use during a class lecture. It must be closed; otherwise the student will be asked to leave the lecture room. - Mobile phones are not allowed in class during the examination. - Lecture notes and assignments might be given directly to students using soft or hard copy.

Faculty of Clinical Pharmacy

Bachelor of Clinical Pharmacy & Pharm. D.

Course Specification of **Human Physiology- II** Course No. (01.01.206)

2022

I. - Information about Faculty Member Responsible for the Course:							
Name of Faculty Member	Dr.	Office Hours					
Location& Telephone No.		SAT	SUN	MON	TUE	WED	THU
E-mail							

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5-	Pre –requisite (if any):	Human Physiology- I			
6-	Co –requisite (if any):				
7-	Program (s) in which the course is offered	Bachelor degree of Pharm D			
8-	Language of teaching the course:	English			
9-	System of Study:	Semester Based System			
10-	Mode of delivery:	Full Time			
11-	Location of teaching the course:	21 September University			

III. Course Description:
The course concerns with the study of functions and regulation of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body. This course familiarizes the students with principles and biological role of certain endogenous substances that affect regulation and normal functions related to cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.

IV. Intended learning outcomes (ILOs) of the course:
a.1- Describe the normal functions and regulation of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.
a.2- Discuss the biological role of certain endogenous substances that affect regulation and normal functions of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.
b.1- Distinguish between normal and abnormal laboratory tests of cardiovascular, blood, alimentary, renal, respiratory and immune systems in human body.
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Order	Units/Topics List	Sub Topics List	Week Due	contact hours
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3	Alimentary system	- Functions and regulations of gastrointestinal tract (GIT) organs - Digestive System Associated Organs	2	4
4	Mid exam	-	1	2
5	Respiratory system	- Blood-gas interface, airways, the pleura, mechanism of breathing, Ventilation, Diffusion , Partial pressures of oxygen and carbon dioxide, Ventilation–perfusion matching, Gas transport in blood , Regulation of ventilation, Ventilator response to exercise.	2	4
6	Renal system	- Formation of urine (Filtration & Reabsorption) - Measurement of renal function - Other functions: • Hormone secretion - Maintaining homeostasis	2	4
7	Immune system	- Compositions, Types, Functions , & Regulations	2	4
8	Seminars	- Selected Topics on Physiology	1	2
9	Final exam.	-	1	2
Number of Weeks /and Units Per Semester			16	32

VI. Teaching strategies of the course:

- Lectures
- Self-learning
- Assignment
- Problem solving
- Brain storming
- Group work and Seminars
- Field visits

VI. Assignments:

No	Assignments	Week Due	Mark
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Total			10

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5. 5- Kim E. Barrett, Susan M. Barman, Scott Boitano& Heddwen L. Brooks(2018) Ganong's Review of Medical Physiology,25 ed. McGraw-Hill Companies.USA

3- Electronic Materials and Web Sites etc.

- www.csun.edu/science/biology/anatomyv/anatomyv.html
- www.cliffsnotes.com
- www.innerbody.com
- www.anatomyvandphysiology.com/
- www.mhhe.com/biosci2/anatomyrevealed
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