Philadelphia University	PHILADELPHIA UNIVERSITY THE WAY TO THE FUTURE	**Approved Date: 10/10/2021**
Faculty: pharmacy		**Issue: 1**
Department:-		**Credit Hours:3**
Academic Year:2021/2022	**Course Syllabus**	**Bachler:**

Course Information

Course No.	Course Title	Prerequisite	
0520223	Physiology (2)	Physiology (1) 0520200	
Course Type		Class Time	Room No.
☐ University Requirement ■Faculty Requirement ■Major Requirement ☐ Elective Compulsory		11:15-12:45 Sun,Tus 11:15-12:45 Mon,Wed 12:45- 14:15 Mon,Wed	5614 6609 5611

Instructure Information

Name	Office No.	Phone No.	Office Hours	E-mail
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Course Delivery Method

☐ Blended	☐ Online	■ Physical
Learning Model		
Percentage	Synchronous	Asynchronous	Physical
			100%

Course Description

The course is designed to provide the students with knowledge about the normal functions and mechanism of various physiological systems basis on the anatomical and histological correlation, including: physiology of central nervous system (CNS), physiology of different endocrinal glands includes their relation to other body systems, Physiology of cardiovascular (CVS) system, and physiology of the respiratory system and blood gases . And finally physiology of special senses.

Course Learning Outcomes

Number	Outcome	Corresponding Program Outcomes	Corresponding Competencies
Knowledge			
K1	Develop Information about the functional principles of physiology ; and apply knowledge for mechanisms of action of the body systems	K_P1	C1
K2	Building further functional anatomical and histological relationship which have been studied previously by students	K_P1	C1
K3	Make better understanding for physiology II.	K_P1	C1
Skills			
S1	Compare the normal physiological mechanisms with abnormal ones	S_P3	C9
S2	The ability to analyze the normal physiological mechanisms to educate all audiences by determining the most effective and enduring ways to impart information	S_P6	C12
S3	Engage with groups work verbally and non verbally for doing certain scientific activity in physiology and research Activity	S_P6	C12

Learning Resources

Course Textbook	**Introduction to Human physiology**: Laura Lee Sherwood; 9th edition; 2016; ISBN-13: 978-0134399416
Supporting References	**Text Book of Medical physiology**: John E. Hall Guyton; 13th edition; 2014; ISBN-13: 978-1455770052.
Supporting Websites	www.scinecedirect.com, www.youtube.com
Teaching Environment	■ **Classroom** ☐ **laboratory** ☐ **Learning Platform** ☐ **Other**

Meetings and Subjects Time Table

Week	Topic	Learning Method*	Task	Learning Material
1	**The vision and mission of Pharmacy Faculty** **Course syllabus** • Introduction to physiology 2 course	Lecture		Vision and Mission of faculty of pharmacy Course syllabus Text Book, unit 1
2	**Physiology of cardiovascular system :** Physiology of CVS: Heart ,Blood vessels pulmonary circuit, Main functions of thecvs,Cardiac conducting system ,Physiology of CVS: Electrocardiogra Electrical activity of the heart pacemaker potential Anode.	Lecture		Text Book, unit 3, chapters9-12,14,15,18
3	**Physiology of cardiovascular system :** cardia output, stroke volume, control of cardiac output of action potential of cardiac cell Blood flow and velocity Heart sounds, control of heart rate, Blood pressure its control.	Lecture	Quiz	Text Book, unit 3, chapters9-12,14,15,18
4	**Physiology of respiratory system**: External respiration , internal respiration, Mechanism of breathing , conducting airways , Respiratory zone, Alveoli, Surfactant.	Lecture		Text Book, unit 7, chapters 37-42
5	**Physiology of respiratory system**: Boyles low, Pulmonary function tests, Gas exchange in the lungs , Regulation of respiration.	Lecture Collaborative learning	Video assisssgment	Text Book, unit 7, chapters 37-42
6	**Physiology of respiratory system:** Physiology of blood gases : chemical control of breathing , hypercapnia , Respiratory acidosis, Hypocapnia, Haemoglobin and O2 transport, types of haemaglobin,oxygen binding ability of haemoglobin,Co2 transport in blood.	Lecture		Text Book, unit 7, chapters 37-42
7	**Physiology of CNS:** Organization of the CNS and its role in homeostasis, cranial nerves, Meninges ,Ventricular system of brain and csf.	Lecture	Quiz	Text Book, unit 9-11
8	**Physiology of CNS:** Forebrain, cerebrum, cerebral, cortex, Basal nuclei	Lecture		Text Book, unit 9-11
9	**Physiology of CNS:** Diencephalon, Thalamus, Hypothalamus, Epithalamus, Brainstem, Medulla oblongata, pons, Midbroin.	Lecture Collaborative learning		Text Book, unit 9-11
10	**Physiology of CNS:** Cerebral cortex, Motor area, Sensory area , Motor and sensory association areas			Text Book, unit 9-11

	Gross structure of the Urinary system	Lecture	Quiz	
11	**Physiology of CNS:** Basal ganglia cerebellum, language (speech areas), Reticular Formation, Spinal cord and its tracts.	Lecture project based learning		Text Book, unit 9-11
12	**Physiology of special senses:** the eye and vision Refraction ,Accommodation visual acuity, Myopia hypermetropia, Astigmatism Retina: Effect of light on rods, Electrical activity of the retinal, cells conscolour vision.	Lecture	Home work	Text Book, unit 9,10
13	**Physiology of special senses:** The ear and hearing Outer ear, muddle ear, cochlea, spiral organ "organ of corti" neural pathways of hearing Hearing impairment vestibular apparatus equilibrium. Sensory hair cells of the vestibular apparatus. Utricle and saccule, semi circular canals utricle (neural pathway) nystagmus vvertigo physiology of taste and smell.	Lecture		Text Book, unit 9,10
14	**Physiology Of endocrine system** classification of hormones, Polarity of the hormones, Hormones, Mechanisms of hormone actions.	Lecture		Text Book, unit 14, chapters 74-75
15	**Physiology Of endocrine system** posterior pituitary, Hypothalamic control of posterior pituitary oxytocin and ADH, Anterior pituitary hormones, Hypothalamic- pituitary Gonad axis. Adrenal cortex hormones , Adrenal medulla hormones , stress, and adrenal glands , Thyroid gland hormones , Parathyroid hormones , islet of langerhan , insulin , Glucagon, Pineal gland , sex hormones.	Lecture		Text Book, unit 14, chapters 74-75
16	**Final Exam**			

*Includes: lecture, flipped Class, project based learning, problem solving based learning, collaboration learning.

Course Contributing to Learner Skill Development

Using Technology
Using Microsoft programs (word, power point), YouTube videos, Google and scientific websites
Communication Skills
Videos and home works discussion
Application of Concept Learnt
Transfer learnt Physiological information about body systems to others

Assessment Methods and Grade Distribution

Assessment Methods	Grade	Assessment Time (Week No.)	Course Outcomes to be Assessed
Mid Term Exam	**% 30**	6 th	K1,K2,S1
Term Works*	**% 30**	Continuous	S1-S3
Final Exam	**% 40**	16 th	K1-K3 S1-S3
Total	**%100**		

* Include: quizzes, in-class and out of class assignment, presentations, reports, Videotaped assignment, group or individual project.

Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Corresponding Compatienes	Learning Method*	Assessment Method**
Knowledge				
K1	Develop Information about the functional principles of physiology ; and apply knowledge for mechanisms of action of the body systems	C1	Lecture Project Based Learning	Quizzes Exam Home work
K2	Building further functional anatomical and histological relationship which have been studied previously by students	C1	Lecture Collaborative learning	Exam Video assignments
K3	Make better understanding for physiology II.	C1	Lecture Collaborative learning	Exam Home work
Skills				
S1	Compare the normal physiological mechanisms with abnormal ones	C9	Lecture	Quizzes Exam
S2	The ability to analyze the normal physiological mechanisms to educate all audiences by determining the most effective and enduring ways to impart information	C12	Lecture	Video assignment
S3	Engage with groups work verbally and non verbally for doing certain scientific activity in physiology and research Activity	C12	Lecture	Video assignment Home work

*Include: lecture, flipped class, project based learning, problem solving based learning, collaboration learning.
** Include: quizzes, in-class and out of class assignments, presentations, reports, videotaped assignments, group or individual projects.

Course Polices

Policy	Policy Requirements
Passing Grade	The minimum pass for the course is (50%) and the minimum final mark is (35%).
Missing Exams	• Anyone absent from a declared semester exam without a sick or compulsive excuse accepted by the dean of the college that proposes the course, a zero mark shall be placed on that exam and calculated in his final mark. • Anyone absent from a declared semester exam with a sick or compulsive excuse accepted by the dean of the college that proposes the course must submit proof of his excuse within a week from the date of the excuse's disappearance, and in this case, the subject teacher must hold a compensation exam for the student. • Anyone absent from a final exam with a sick excuse or a compulsive excuse accepted by the dean of the college that proposes the material must submit proof of his excuse within three days from the date of holding that exam.
Attendance	The student is not allowed to be absent more than (15%) of the total hours prescribed for the course, which equates to six lecture days (n t) and seven lectures (days). If the student misses more than (15%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it.
Academic Integrity	Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights.

Program Learning Outcomes to be assessed in this Course

Number	Learning Outcome	Course Title	Assessment Method	Targeted Performance level

Description of Program learning Outcomes Assessment Method

Number	Detailed Description of Assessment

Assessment Rubric of the Program Learning Outcomes
