COurse Syllabus - MBBCh

1. Course Title: **Physiology** – Y1-S1 & 2-		**Course Code: PHYS1111***
2. Credit/contact hours:	**93**	
3. Number of weeks	**30 (*continuous in S1 & S2)**	
4. Level/year at which this course is offered:	**Year 1- Semester 1 & 2**	
5. Pre-requisites for this course (if any)**:** Anatomy, Histology and Biochemistry		
6. Co-requisites for this course (if any)**:** Histology, Biochemistry, and Immunology		

Course Description

The course describes the structure of the cell and correlates it to the function. It describes the different processes of transport mechnisms across the cell membrane. It describes the basic electrophysiology of the nerve and muscle. It emphasizes the principles of metabolism and mechanisms of homeostasis of body temperature and body weight. The course describes the structure of the hemopoietic system and correlates it to the function of each component. It provides the foundation of immunology and describes the mechanism of immune response. The course describes the structure and function of the autonomic nervous system with emphasis on the related neurotransmitters and the basis of autonomic pharmacology.

Course Learning Learning Outcomes

CLOs		Aligned-PLOs
K1	Correlate the structure of the cell to the function.	A2
K2	Describe the different processes of transport across the cell membrane.	A2
K3	Describe the basic electrophysiology of the nerve and muscle.	A1
K4	Describe the principles of metabolism and mechanism of homeostasis of body temperature and body weight.	A1
K5	Correlate the hemopoietic and the immune systems to the function of each component and the principle of the pathophysiology of the common hematological disorders.	A2
K6	Describe the structure and function of the autonomic nervous system with emphasis on the related neurotransmitters and the basis of autonomic pharmacology.	A2
A1	Appreciate working in a group	C1

Course Delivery Plan

No	List of Topics	Contact Hours
1	Introduction, cell Physiology and transport	8
2	The Physiology of the Nerve & Muscle	25
3	Metabolism	10
4	Blood	36
5	Autonomic Nervous system	14
Total		93

Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.1	Correlate the structure of the cell to the function.	Lectures SGD, SDL SP, CBL Laboratory SGD SBIL CBL	Written exam (MCQs & Short account) Scientific activity
K2	Describe the different processes of transport across the cell membrane.		Written exam (MCQs & Short account) Scientific activity
K3	Describe the basic electrophysiology of the nerve and muscle.		Written exam (MCQs & Short account) Scientific activity
K4	Describe the principles of metabolism and mechanism of homeostasis of body temperature and body weight.		Written exam (MCQs & Short account) Scientific activity
K5	Correlate the hemopoietic and the immune systems to the function of each component and the principle		Written exam (MCQs & Short account) Scientific activity

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	of the pathophysiology of the common hematological disorders.		Practical exam
K6	Describe the structure and function of the autonomic nervous system with emphasis on the related neurotransmitters and the basis of autonomic pharmacology.		Written exam (MCQs & Short account) Scientific activity
A1	Appreciate working in a group		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Marks of Total Assessment Score
1	Year Assessment (in-course)	Throughout the year	30%
2	MCQ, Account, Practical, Oral	July	70%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

Learning Resources and Facilities

1.Learning Resources

Required Textbooks	1. Hall JE, Hall ME (2020) Guyton & Hall, Textbook of Medical Physiology,14th Ed, Published by Saunders 2. Barrett K.E., & Barman S.M., & Brooks H.L., & Yuan J.J.(Eds.), (2019). *Ganong's Review of Medical Physiology, 26e*. McGraw Hill 3. Costanzo, Linda S. (2021) Physiology. Philadelphia, PA: Saunders/Elsevier, 7th Ed. 4. Barrett K.E., & Barman S.M., & Boitano S, & Reckelhoff J.F.(Eds.), (2017). *Ganong's Medical Physiology Examination & Board Review*. McGraw Hill.
Essential References Materials	

Electronic Materials	• AMBOSS • Access Medicine • UptoDate
Other Learning Materials	Library

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Laboratory, Classrooms, Demonstration rooms
Technology Resources (AV, data show, Smart Board, software, etc.)	Data show, Smart board, Wi-Fi
Other Resources (Specify, e.g. if specific laboratory is required, list requirements or attach a list)	Biometric measurements, scale for height & weight, thermometers, models for blood sample collection, equipment for blood grouping, ESR, Hemoglobin & PCV.

Instructor:

Prof. Abeer: abeer@dmcg.edu