

B.D.S FIRST YEAR
SUBJECT: HUMAN PHYSIOLOGY

Teaching Scheme (Hours)				Credits	Examination Scheme				
Lec(L)	Prac(P)	Clinical(C)	Total		External		Sessional		Total
					Theory	Pract	Theory	Pract	
169	120	-	289	1	1	3	3	8	

A. COURSE OVERVIEW

The broad goal of the teaching undergraduate students in Human Physiology aims at providing the Student comprehensive knowledge of the normal functions of the organ systems of the body to facilitate an understanding of the physiological basis of health and disease.

B. COURSE CONTENT

NO	TOPIC	L+P (hrs)	CLs
1	GENERAL PHYSIOLOGY 1. Homeostasis: Basic concept, Feed back mechanisms 2. Structure of cell membrane, transport across cell membrane 3. Membrane potentials	15+10	CL1,2,3,4,5,6
2	BLOOD	16+11	CL1,2,3,4,5,6
3	DIGESTIVE SYSTEM	16+10	CL1,2,3,4,5,6
4	EXCRETORY SYSTEM	16+12	CL1,2,3,4,5,6
5	BODY TEMPERATURE & FUNCTIONS OF SKIN	16+11	CL1,2,3,4,5,6
6	ENDOCRINOLOGY	16+11	CL1,2,3,4,5,6
7	REPRODUCTION	15+12	CL1,2,3,4,5,6
8	CARDIO VASCULAR SYSTEM	15+10	CL1,2,3,4,5,6
9	RESPIRATORY SYSTEM	15+11	CL1,2,3,4,5,6
10	CENTRAL NERVOUS SYSTEM	15+11	CL1,2,3,4,5,6
11	SPECIAL SENSES	15+11	CL1,2,3,4,5,6

C. TEXT BOOKS

1. Guyton and Hall; Text book of Medical Physiology, 14th edition, Saunders publication, 2015.
2. Ganong; Review of Medical Physiology, 26th edition, Mc grow Hill, 2019.
3. Vander; Human physiology, 5th edition, Mc grow Hill, 2020.
4. Choudhari; Concise Medical Physiology, 2nd edition, NCBA publications, 2002.
5. Chaterjee; Human Physiology, 11th edition, CBS Publisher & Distributer, 2017.
6. A.K. Jain; Human Physiology for BDS students, 7th edition, Avichal publishing company, 2017.
7. Berne & Levey; Physiology, 1st South Asia edition, Elsevier publications, 2017.
8. West-Best & Taylor's; Physiological basis of Medical Practice, 13th edition, Walters Kluwer Pvt Ltd, 2011.

D. REFERENCE BOOKS

1. Rannade; Practical Physiology, 4th edition, 2021.
2. Ghai; A text book of practical physiology, 8th edition, Jaypee Brothers Medical Publisher, 2013.
3. Hutchison's; Clinical Methods, 24th edition, Elsevier, 2021.

E. COMPETENCY LEVEL

CL Number	Skill	Statement
CL1	Knowledge	<ul style="list-style-type: none">• Know the normal disposition of the structures in the body while clinically examining a patient and while conducting clinical procedures.• Know the anatomical basis of disease and injury
CL2	Investigations	<ul style="list-style-type: none">• Know the sectional anatomy of head neck and brain to read the features in radiographs and pictures taken by modern imaging techniques
CL3	Patient Care: Diagnosis	<ul style="list-style-type: none">• Know the microscopic structure of the various tissues, a prerequisite for understanding of the disease processes.
CL4	Patient Care: Treatment planning	<ul style="list-style-type: none">• Ethically Integrate multiple disciplines into an individual comprehensive sequence treatment plan using diagnostic and prognostic information
CL5	Patient Care: Treatment	<ul style="list-style-type: none">• To locate various structures of the body and to mark the topography of the living anatomy.• To identify various tissues under microscope and to detect various congenital abnormalities. .
CL6	Research and Innovation	<ul style="list-style-type: none">• Upgradation of knowledge and skill from time to time, familiarize with new concept and equipment in this field.
CL7	Evidence Based Learning	<ul style="list-style-type: none">• Consolidate all the above mentioned major competencies acquired during the course and integrate newer evidence based knowledge in displaying expertise in the science of HUMAN PHYSIOLOGY

PROGRAM SPECIFIC OUTCOME (PSO)

PSO1	DIAGNOSIS	By emphasising on the relevant information the anatomy taught integrally with other basic sciences & clinical subjects not only keeps the curiosity alive in the learner but also lays down the scientific foundation for making a better doctor, a benefit to the society.
PSO2	INVESTIGATIONS	Know the sectional anatomy of head neck and brain to read the features in radiographs and pictures taken by modern imaging techniques
PSO3	TREATMENT	Ethically locate various structures of the body and to mark the topography of the living anatomy

F. COURSE MATRIX

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PO 13	PO 14	PO 15	PS O1	PS O2	PS O3
CL1	3	3	3	1	3	1	1	1	1	1	1	1	1	1	1	3	2	2
CL2	2	2	2	2	2	2	1	3	2	1	2	2	1	1	1	3	3	2
CL3	3	3	3	3	3	3	3	3	2	1	2	2	1	1	1	3	2	2
CL4	2	2	2	3	2	3	2	2	2	1	2	2	1	1	1	3	3	3
CL5	2	2	2	3	2	3	3	2	2	2	2	2	3	2	1	3	3	3
CL6	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	3	2	2
CL7	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Avg	2.4	2.4	2.4	2.4	2.4	2.3	2.0	2.1	1.9	1.4	1.9	1.9	1.6	1.4	1.3	3.0	2.6	2.4