

Human Physiology II

Course Title	HUMAN PHYSIOLOGY II
Course Code	PT202
Course Credit	Lecture: 6
	Practical: 4
	Clinical Training: 0
	Total: 10

Course Objectives

- To provide the students with the knowledge of the physiology of the various systems of the body at a microscopic and macroscopic level.
- To involve a detailed study of the physiology of the various systems of the body with a particular emphasis on the nervous system, special senses, excretory system, digestive system, reproductive system and endocrine system.

#	Detailed Syllabus	Hours	
		T	P
Section I			
	Nervous System:		
1.	1. Organization and Classification of Nervous system	3	0
	2. The Synapse	2	0
	3. Reflexes	3	12
	4. The sensory system & Its testing	3	12
	5. The motor areas & Descending tracts	4	0
	6. The Autonomic Nervous System	3	0
	7. Vestibular Apparatus	3	0
	8. The Reticular formation, Cerebellum, Basal Ganglia	4	0
	9. The Thalamus & Hypothalamus	3	0
	10. The Cerebral Hemisphere	2	0
	11. Higher functions of Nervous system	3	12
	12. Cerebrospinal fluid and blood brain barrier	3	0
	Digestive System:		
2.	1. Physiological Anatomy of Gastrointestinal tract	3	0
	2. Gastric & Salivary secretion, its mechanism and functions	3	0
	3. Digestion and absorption in GI Tract	3	0
	4. Digestion, Absorption and Metabolism of Carbohydrates	3	0
	5. Digestion, Absorption and Metabolism of Proteins	3	0
	6. Digestion, Absorption and Metabolism of Lipids	3	0
Section II			
	Endocrine System		
3.	General Principles of Endocrinology	2	0
	Anterior Pituitary & Posterior Pituitary	3	0
	Thyroid and parathyroid	2	0
	Adrenal Medulla & Adrenal Cortex	3	0
	Thymus & Pineal gland	2	0

	Pancreas and Blood sugar regulation	3	8
	Excretory System:		
	1. Physiological anatomy of Excretory System, Renal circulation	2	0
	2. Mechanism of formation of urine, G.F.R. and Tubular function	3	0
4.	3. Renal function tests	2	8
	4. Physiology of Micturition	3	0
	5. Ph regulation & Body temperature	2	0
	6. Structure & Functions of Skin	3	0
	Special Senses		
	1. The Smell	3	5
5.	2.The Taste	3	5
	3.The Ear	2	4
	4.The Eye	2	6
	Reproductive System:		
	1. Physiology of Reproductive System	2	0
	2. Menstruation cycle	3	0
6.	3. Sex hormones and their functions	3	0
	4. Fertilization	3	0
	5. Pregnancy and tests of Pregnancy, Fertility control	3	0

Instruction Method

- Teaching and training sessions will be carried out through active learning. Active participation and contribution in group discussion and seminars are mandatory for students
- Lectures to be conducted with the help of black board and/or audio-visual aids that includes multi-media projector, OHP, etc.
- Assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval
- The course includes a laboratory where the students have an opportunity to build and appreciation for the concepts being taught in lectures.

Text Books

- Course in Medical Physiology—Vol-I and II-by DrChaudhari
- Essential of Medical Physiology: 4th edition. Sembulingam. Jaypee Publication
- Human Physiology, Vol I and II by Prof. A K Jain

Reference Books

- Guyton and Hall Textbook of Medical Physiology: 12th Edition. Hall JE. Saunders publication 2010