Faculty of Allied Health Sciences
Bachelor of Science (Semester-II)
In Effect from Academic Year 2024-25

Branch Name:	B.Sc (MLT/RIT/ AT/CCT)
Program Code:	AS101/AS102/ AS103/ AS104
Course Title:	Human Physiology-II
Course Code:	1AS1000202
Pre-requisite Course:	

Course Objectives:

A physiology course aims to equip students with a foundational understanding of how the human body functions, both in health and disease, encompassing organ systems, homeostasis, and the interplay between different physiological processes.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
				Theory (Marks)		Practical (Marks)		
Lecture (L)	Tutorial (T)	Practical (P)	Credit	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Total (Marks)
3	-	2	4	50	50	25	25	150

Course Contents:

Unit No	Topic	Total Hours
I	**CARDIOVASCULAR PHYSIOLOGY:** 1. Describe the gross structure of heart and the normal circulation of blood 2. Describe the cardiac cycle 3. Describe the normal arterial pulse wave and the normal heart rate, and factors increasing and decreasing it. 4. Describe normal Blood pressure and its regulation 5. Describe the normal Heart sounds 6. Describe the normal ECG and its importance	12
II	**ENDOCRINE PHYSIOLOGY:** 1. Describe the physiological anatomy of Thyroid gland, functions and its applied physiology 2. Describe the physiological anatomy of Adrenal gland, functions and its applied physiology 3. Describe the physiological anatomy of Parathyroid gland, functions and its applied physiology 4. Describe the physiological anatomy of Pancreas, its functions and its applied physiology 5. Describe the physiological anatomy of hypothalamus and the Pituitary gland, their functions and its applied physiology	10
III	**EXCRETORY PHYSIOLOGY:** 1. Describethephysiologicalstructureofkidneyandthenephronanditsfunctions 2. Describe the GFR and factors affecting GFR 3. Describe the Substances absorbed and secreted from renal tubules 4. Describe the various Renal function tests	10

	5. DescribebrieflytheUrinarybladderanditsfunctionsandthephysiologyofmicturition 6. Functions of skin 7. Acid base balance	
IV	**REPRODUCTIVE PHYSIOLOGY:** 1. Describe the physiology of puberty 2. Describe the process of menstruation, normal menstrual cycle, Menarche and menopause. 3. Describebrieflytheprocessofovulationandmethodsofdeterminationofovulation 4. Describebrieflythenormalphysiologyofpregnancyandmentionthediagnostictestsforpregnancyand their physiological basis 5. Describe briefly the functions of placenta and pregnancy diagnostic tests 6. List out the Contraceptive methods in male and female 7. Describe the Spermatogenesis	**06**
V	**NEURO PHYSIOLOGY:** 1. Describe the physiological anatomy of the brain and functions of different lobes 2. Describe briefly the structure and functions of spinal cord 3. Describe briefly the subdivisions of brain stem and their functions 4. Describe briefly the special senses and their pathways–vision, audition (olfaction & taste) 5. Describe the normal EEG 6. Describe briefly the CSF formation, circulation, properties, composition and functions	**07**

Practical's

Unit No	Topic	Total Hours
I	General Examination: Brief history, General appearance, Vital data	**02**
II	Pulse & Blood Pressure Measurement	**02**
III	Cardiovascular System Examination	**04**
IV	Respiratory System Examination	**04**
V	Examination of Cranial Nerves	**06**
VI	Examination of Sensory & Motor System including Reflexes	**10**
VII	Clinical Charts	**02**

Text Books/Reference Books:

1. Human Physiology for BDS, by A K Jain (7^{th} edition)
2. Essentials of Physiology for Dental Students by K. Sembulingam (3^{rd}edition)
3. Human Physiology in Nutshell by A K Jain (4^{th}edition)
4. Manual for Practical Physiology for BDS by A K Jain(5^{th}edition)

Course Learning Outcomes (CLO):

Upon completion of a course, students should be able to explain the normal functions of organ systems, understand the physiological basis of health and disease, and conduct experiments to study physiological phenomena.