

2nd Semester Subject: Health & Physical Education
(According to NEP2020 implemented from Session 2023 - 24)
Core Course – 2 & Major Core Course - 3

Part A - Introduction			
Subject:	Health & Physical Education		
Semester	2 nd Semester		
Name of the Course	Basic Anatomy and Physiology		
Course Code	B23- PED -201		
Course Type:	Core Course - 2 Major Core Course - 3		
Level of the Course	100 - 199		
Pre-requisite (if any)	Student who has opted Core Course – 1 in 1 st Semester		
Course Learning Outcomes (CLO):	After completing this course, the learner will be able to: 1. Describe the Anatomy, Physiology and structure of Cells. 2. Explain the structure of Joints and Muscular System 3. Illustrate the basic knowledge about Anatomy, Physiology of Circulatory and Digestive Systems of human body 4. Explain the Anatomy, Physiology of Respiratory and Excretory Systems of human body		
	5. Identify name and locations of bones, muscles and organs of various systems of human body.		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3 hours per week	2 hours per week (Size of practical group = 20 students)	5
Max. Marks: 100 Part I - Theory = 70 (Internal Assessment - 20 Marks + End Term Exam – 50 Marks) Part II - Practical = 30 (Internal Assessment - 10 Marks + End Term Exam – 20 Marks)			Time: 3 Hours For End Term Exam
Part B- Content of the Course			
<u>Instructions for Paper- Setter:</u> The question paper will consist of five Units I, II, III, IV and V. Units I, II, III & IV will have two questions from their respective Units of the Syllabus and will carry 10 marks each. Unit V th will consist of 5 short answer type questions, which will cover the entire syllabus and will carry 2 marks for each question.			
Unit	Topics		Contact Hours
I	Introduction of Anatomy and Physiology • Meaning and Definition of Anatomy and Physiology. • Importance of Anatomy and Physiology in Physical Education and sports • Cell: Structure, Properties and functions • Meaning of Cell, Tissues, Organs and System. • Bone: Meaning and types • Skeletal System: Structure and functions of Skeletal System. • Axial and Appendicular Skelton		12

II	Joints and Muscular System • Meaning of Joints, Types of Joints • Types of Synovial Joints present in human body • Meaning of Muscle, Types of muscles present in human body • Gross Structure of Skeletal Muscle, • Structural Classification of Skeletal muscles.	10	
III	Circulatory System and Digestive System • Constituents of blood and Function of blood • Structure of the heart • Types of Blood Circulation: Systemic, Pulmonary and Coronary, • Organs of Digestive System • Structure and functions of the digestive system, • Process of Food absorption, Name and functions of various digestive juices and enzymes	12	
IV	Respiratory System and Excretory System • Organs of Respiratory system and their functions. • Structure of Respiratory system • Exchange of gases in the lungs and tissues, • Organs of Excretory System kidneys and skin • Parts and Functions of the urinary system • Structure and functions of Skin.	11	
Suggested Evaluation Methods: Maximum Marks: 70 (Internal Assessment - 20 Marks + End Term Exam – 50 Marks)			
Internal Assessment: 20 Marks Continuous Comprehensive Evaluation (CCE): 20 Marks Class presentation = 5 Seminar/ Assignment/Quiz/class test, etc. = 5 Mid Term Test = 10		End Term Exam: 50 Marks Time = 3 hrs One question of 10 marks from each Units I to IV = 40 Marks. Five Questions short answer from entire syllabus = 5 × 2 Marks = 10 Marks.	
Part II – Practical (Internal Assessment - 10 Marks + External – 20 Marks)			
Unit	Topics	Marks distribution	Contact Hours
I	Identification of Name and location of Human Bones on Skelton and Chart	10 Marks	10
II	Identification of Name and location of Major Muscles of Human Body on Model and Chart	10 Marks	10
III	Identification of Name and Location of organs of various systems: Circulatory, Digestive, Respiratory and Excretory on Models and Charts	10 Marks	10
	Internal Assessment: 10 Marks Evaluation through Assignments/ Quiz/ Viva Voce/ Practical Record File	University Exam (UE): 20 Marks Evaluation through Viva Voce/ Practical Record File:	

Part C-Learning Resources

- Singh Ajmer et.al. "Modern Text Book of Physical Education, Health and Sports", Kalyani Publishers, Ludhiana, (2010).
- Gupta, A. P. (2010). Anatomy and physiology. Agra: Sumit Prakashan.
- Gupta, M. and Gupta, M. C. (1980). Body and anatomical science. Delhi: Swaran Printing Press.
- Guyton, A.C. (1996). Textbook of Medical Physiology, 9th edition. Philadelphia: W.B. Saunders.
- Karpovich, P. V. (n.d.). Philosophy of muscular activity. London: W.B. Saunders Co.
- Lamb, G. S. (1982). Essentials of exercise physiology. Delhi: Surjeet Publication.
- Moorthy, A. M. (2014). Anatomy physiology and health education. Karaikudi: Madalayam Publications.
- Morehouse, L. E. & Miller, J. (1967). Physiology of exercise. St. Louis: The C.V. Mosby Co.
- Pearce, E. C. (1962). Anatomy and physiology for nurses. London: Faber & Faber Ltd.
- Sharma, R. D. (1979). Health and physical education, Gupta Prakashan.
- Singh, S. (1979). Anatomy of physiology and health education. Ropar: Jeet Publications