

**CENTRAL UNIVERSITY OF KERALA**  
DEPARTMENT OF YOGA STUDIES  
M.Sc. YOGA THERAPY

**MYG5103 Human Biology I**

Course Code	MYG5103	Semester	I
Course Title	<i>Human Biology I</i>		
Credits	4	Type	Core

**Course Description**

**This course oriented to develop in the knowledge in human body system that enhances the employability as a Yoga Therapist of the student undergoing this course.** The course provides a deep understanding about the anatomy and physiology of human body. The knowledge about the body system is essential for doing yoga therapy effectively. The course discusses each system in detail and how it is significant in the yoga therapy.

**Course Outcome**

- Students get knowledge about the anatomical and physiological functions of the human body.
- Synchronising the modern concept of human body along with the practice of yogic techniques.
- Basic knowledge about yoga therapy.
- **Ability to understand health condition of person**
- **The course will improve the skill in the application of Yoga Therapy.**

**Course Structure**

The following is a detailed syllabus MYG5103 Human Biology I

**Module :**

This module intended to teach Human musculoskeletal system, Cardiovascular system, Digestive system, Respiratory system and Blood and lymphatic system.

**Unit I. Musculo-skeletal system**

**(12 hours)**

- Skeletal System: Skeleton, Functions of skeleton, Classification of bones, Types of Joints; Structure and function of Synovial joint.
- Muscular System: Types of Muscles in the body, Characteristics, structure and functions of the Skeletal Muscles.
- Smooth Muscles and Cardiac Muscles and its Function.
- Tendons and Cartilages.

**Unit II. Cardiovascular system**

**(12 hours)**

- Functional anatomy of the Heart, arteries, veins and Capillaries.
- Organization of Systemic and Pulmonary Circulation, Cardiac Cycle.
- Cardiac Output and Venous Return.
- Blood Pressure, Regulation of Blood Pressure, Electrocardiogram.

**Unit III. Digestive system**

**(12 hours)**

- Anatomy of Digestive system.
- Functions of Saliva, Gastric juice, Pancreatic juice, Bile, Intestinal secretion.
- Digestion and absorption of food.
- Peristalsis movement and Formation of stools.

### **Unit III. Respiratory system**

**(12 hours)**

- Anatomy of Respiratory System
- Mechanics of Breathing
- Exchange of gases, Control of respiration.
- Pulmonary function tests and lung volumes

### **Unit V. Blood and lymphatic system**

**(10 hours)**

- Types of Blood cells, RBC, WBC, Platelets.
- Composition of Blood, Blood Grouping.
- Lymphatic system and Lymph Nodes.
- Immune system.

### **Testing & Evaluation**

#### **Internal assessment - 40 marks.**

Internal examination - 20 marks, Assignments - 10, Overall performance 10

#### **End semester examination - 60 marks**

Objective type questions -10 marks, short notes – 30 marks, essay - 20

### **References**

1. Evelyn C Peace Anatomy and Physiology for Nurses, Jaypee Brothers, New Delhi, India1997.
2. Gore M.M, Anatomy and Physiology of Yogic practices, Kanchan Prakshan, Lonavala-2003.
3. Ross and Wilson Anatomy and Physiology,11'th edition, Churchill Livingstone, London,2019.
4. Dr.Shambu Lingam, Prema Sembu Lingam, Essentials of Medical Physiology, Jaypee Brothers, and Medical Publishers Pvt. Ltd., New Delhi -2012.