VPC-101 General Human Anatomy & Physiology-I

Objective - To develop the basic concept of gross, functional and applied anatomy and student should have a strong focus on organ position, orientation and relationship between them.

UNIT - 1 **Introduction to Human Body:**

A) Introduction to human anatomy & Physiology: Terminology and General Plan of the Body, Body Parts and Areas, Terms of Location and Position.

B) Levels of structural organization & body systems: Body Cavities and Their Membranes, Dorsal cavity, Ventral cavity, Planes and Sections, Basic life processes, homeostasis.

UNIT - 2 **Cellular Level of Organization:** Introduction to cytology: Cells: Structure, function and location, Prokaryotic and eukaryotic cells, Cell organelles & Cell division.

Cell physiology: General principles of cell communication, transport across cell membrane, Active & Passive transport, mechanism of transport: Osmosis, Diffusion & Tonicity.

UNIT - 3 **Tissue Level of Organization:**

Introduction to Histology**:** General introduction, Types, Structure, Location and Function, Classification of Tissues (Epithelial Tissue, Connective Tissue, Muscle Tissue, Nerve Tissue & Glandular tissue.).

The Integumentary System: Introduction, Structure and functions of the Skin, Subcutaneous Tissue, Glands and physiology of the skin.

UNIT - 4 **Introduction to Body Fluids:** Body Fluid, blood, Composition of Blood - functions of blood, Hematological disorders and Blood Grouping.

Lymphatic System: Introduction to Lymphatic organs & tissues, Lymphatic vessels, lymph, circulation & functions of lymphatic system.

Recommended Books:

- Anatomy and Physiology for Radiographers- C.A. Werrick
- Imaging Atlas of Human Anatomy - Jamie Weir et all (Mosby-Elsevier)
- Ross and Wilson ANATOMY and PHYSIOLOGY in Health and Illness