

**Syllabus of postgraduate ( Msc ) students  
Department of anatomy / medical college**

**Syllabus:**

**Theory:**

**1 . Gross anatomy**

- entire human anatomy through learning dissection , specimen, prosections, bones, surgical anatomy and sectional anatomy,

**A. General anatomy**

**\*\* Introduction:**

- a. importance of human anatomy
- b. the characteristics of the human body compared with other species.
- c. An outline of preservation of human cadavers, embalming and plastination.

1. **Skin** and appendages. Function and applied.
2. **Fascia** ,superficial and deep.
3. General classification of **bones** and cartilages ,including examples .
4. General classification of **joints** examples, movement.
5. General classification of **muscles** ,features ,function ,examples .
6. General anatomy of **cardiovascular** system ,arteries,veins capillaries ,end arteries ,function and applied anatomy.
7. **Lymphatic** system , function and applied.
8. **Nervous** system with relevant neurology.
9. **Skeletal** system= osteology

**General anatomy**

**Trunk:**

V- C , curvature, normal and abnormal ,

**Vertebrae** ,

typical ,atypical ,parts of vertebrae

special features of all vertebrae, articulations,

blood supply and clinical importance,.

- **Sternum** , development and applied.

-Attachments of all bones.

**Thoracic cage:**

-inlet, outlet

Joints of the thoracic cage.

Attachments

## **Pelvis**

Anatomical position

Parts

difference between male and female pelvis.

Types.

Articulations

Attachments

Vascular and nervous supply.

Pelvimetry

## **Limbs**

Anatomical position

Parts , articulation

Attachments

Bones in an articulated hand and foot,

Individual bones including ossification

Vascular and nervous supply

clinical correlation

## **Head and neck**

### **Skull**

- Identification of parts in all the views of the skull.

- Identification ,classification and distribution of sutures.

- Identification of foramina and structure passing through them.

- Age changes in skull.

Individual skull bones.

Clinical correlation.

### **Mandible:**

-parts.

Age changes.

Articulations.

Attachments ,important relations.

Vascular and nervous supply.

Clinical correlation

Hyoid bone.

Bony mandible and internal ear , ossicles.

### **Arthrology:**

Defintion and classification of bones.

All joints of the body . large and small.

Bones taking part.

Articular cartilage.

Capsule and its thickening.  
Ligaments.  
Synovial membrane  
Intracapsular structures if any.  
Structure , nutrition of articular cartilage and its significance,  
Innervation  
Blood supply  
Movement with muscle responsible for such movements.  
Relations.  
Applied anatomy.

**Regional anatomy:**

**Upper limb**

Introduction  
Pectoral region  
Breast.  
Axilla  
Scapular region  
Arms and cubital fossa  
Forearm and hand  
Joints of upper limb.  
Nerves ,dermatomes and nerve injuries.  
Applied anatomy of each region  
Sectional anatomy  
recent advances.

**Lower limb**

Introduction  
Thigh  
Gluteal region  
Popliteal fossa  
Leg and dorsum of foot.  
Sole.  
Venous drainage and lymphatic drainage of lower limb.  
Joints of lower limb.  
Arches of foot.  
Nerves .dermatomes and nerve injuries.  
Applied anatomy  
Sectional anatomy  
Recent advances.

**Thorax:**

Introduction

Walls of thorax and respiratory movement

Thoracic cavity

Lung with pleura

Heart with pericardium

Mediastinum with subdivisions

Contents and applied.

Joints of thorax.

Applied aspects of all regions including bypass surgeries and stents.

Sectional anatomy

Recent advances.

**Abdomen and pelvis:**

Introduction

Abdominal walls including fascia.

Vessels of abdomen and pelvis.

Peritoneal cavity

Including details of fossa subphrenic spaces and peritoneal bands.

Viscera of abdominal cavity.

Diaphragm including details of diaphragmatic hernia.

Nerves of abdomen and pelvis.

Female reproductive system.

Male reproductive system.

Urinary system

**Perineum.**

Pelvic diaphragm.

Joints of abdomen and pelvis.

Sectional anatomy

Recent advances.

**Head and Neck:**

Scalp and fascia.

Cervical fascia.

Triangles of neck.

With contents.

Cranial cavity

Vertebral canal

Orbit

Parotid region

Submandibular region

Temporal and infratemporal fossa

Lymph nodes and lymphatic drainage of head and neck.

Deep structures in the neck.

Nose and paranasal sinuses.

Tongue.

Mouth and pharynx,

Larynx.

Ear

Eyeball

Sympathetic chain and cranial nerves.

Vessels of head and neck.

Joints of head and neck.

Applied anatomy of all regions of head and neck.

Sectional anatomy

Recent advances.

### **Neuroanatomy:**

Knowledge of nervous system along with skill for electing of various parts and solve

neurological problems.

### **Introduction**

### **Development ,**

### **Subdivisions**

Cells of nervous system

Neurons nerve fibers neuroglia, functions synapses

### **Peripheral nervous system**

Spinal nerves. Plexuses formation , nerve endings , receptors

### **Autonomic nervous system**

Introduction

Subdivisions

Distribution, ganglia

Root of supply to all end organs functions and clinical applications.

### **Central nervous system**

### **Spinal cord.**

morphology external and internal sections sacral lumbar thoracic cervical grey matter and cells white matter and tracts central canal coverings blood supply applied anatomy lumbar puncture lesions

### **Brain stem:**

Medulla oblongata features. External and internal ,sections motor decussation sensory decussation , central canal , blood supply and lesions.

## **M.O**

features, sections nuclei of cranial nerves inferior cerebellar peduncles blood supply and lesions

### **pons**

features floor of I.V.F nuclei blood supply and lesions .

### **Midbrain**

External and internal features aqueduct ,nuclei, blood supply and lesions.

### **Cerebellum:**

Subdivisions

Structure blood supply and lesions

### **Thalamic complex**

Subdivisions and functions

Hypothalamus

Blood supply and lesions.

### **Cerebral hemisphere**

Subdivisions functional area nuclei masses

### **Basal ganglia,**

structural organization

Blood supply and lesions

### **Limbic system**

Parts

Functions clinical applications

### **Reticular system**

Parts. Function and applications

### **Ventricular system**

And clinical applications

Parts,function and importance.

### **Meninges**

Blood supply

### **C.S.F**

### **Cranial nerves**

#### **Nuclei, course distribution and lesions**

Ascending and descending pathways of CNS

Sectional anatomy

Applied anatomy of all regions.

Recent advances.

