

## FACULTY

S.No.	Designation	Name
1	Professor	1. Dr Rajesh Arora
2	Assistant Professor	1. Dr Mohd Sharique 2. Dr Monika Gupta
3	Senior Demonstrator / Tutor	1. Dr Deepak Sharma 2. Dr Chandrajeet Singh Chandel 3. Mrs. Prakarti

## OBJECTIVES :

To acquire knowledge and develop skills as under.

### Knowledge :

- **a.** Comprehend the normal disposition, clinically relevant interrelationship, Functional and cross sectional anatomy of the various structures in the body.
- **b.** Identify the microscopic structure and correlate elementary infrastructures of Various organs and tissues and correlate the structures with the functions as a prerequisite for understanding the altered state in various disease process.
- **c.** Comprehend the basic structure and connection of the central nervous system To analyse the integrative functions of the organ and system. He/She shall be able to locate the site of gross lesions according to the deficits encountered.
- **d.** Demonstrate the knowledge of the basic principles and sequential development of the organs and systems, recognize the critical stages of development and effects of common teratogens, genetic mutations and environmental hazards. He/She shall be able to examine the developmental basis of the major variations and abnormalities.

### Skills :

- **a.** Identify and locate all the structures of the body and mark the topography of the living anatomy.
- **b.** Identify the organs and tissues under the microscope.
- **c.** Understand the principles of karyotyping and identify the gross congenital abnormalities.
- **d.** Understand the principles of newer imaging techniques and interpretation of Computerised tomography (CT) scan, sonogram etc.
- **e.** Understand clinical basis of some common clinical procedures. i.e. intramuscular and intravenous injection, lumbar puncture, kidney biopsy etc.

### INTEGRATION:

- **a.** horizontal and vertical integration with different subjects

### CURRICULUM:

- **THEORY**
- **General Anatomy**

Tissues of the body, organs and organ system.

Bone-types, blood supply, nerve supply and lymphatics, ossification.

Cartilage-types and distribution.

Muscle-types, function, blood and nerve supply.

Joint-classification, structure, distribution and function of each type.

Blood vessels-type of vessel, anastomosis, collateral circulation, arterio-venous anastomosis.

Lymphatic system-lymph nodes, lymphatics, circulation of lymph and functions of lymphatic system.

Functions of lymphatic system.

- **HISTOLOGY:**

- **Generic Histology :**

Cell structure

Tissues of the body: epithelium, connective tissue, bone, muscle, cartilage, glands and nervous tissue.

Blood vessels and lymphatic tissue.

- **Systemic Histology:**

Gastrointestinal, respiratory, cardiovascular, urinary, reproductive Systems-male and female .  
Special senses .

Endocrine and exocrine glands .

- **GROSS ANATOMY**

- **General Introduction :**

Anatomical positions, Anatomical terms.

Regional anatomy, superior extremity, inferior extremity, thorax, abdomen, pelvis, neck and brain.

Radiological anatomy.

Surface anatomy .

Applied and clinical anatomy.

- **EMBRYOLOGY:**

- **General Introduction :**

Male and female genital tracts, spermatogenesis, oogenesis, fertilization, Cleavage, implantation, placenta, embryonic stage, formation of systems of body, Twins, common foetal malformations.

- **Organisation:**

Development of organs and systems of the body: alimentary, circulatory, Respiration, urogenital, nervous system, endocrine, special senses, Integumentary system etc., congenital malformations.

- **Genetics:**

Fundamentals of human genetics.

Cell division-mitosis and meiosis.

Human chromosomes, karyotype, structure and abnormality, Klinefelter's Syndrome, Turner's syndrome, Down's syndrome etc.

Sex chromosomes, sex linked genes, sex chromatin.

Chromosomal abnormalities.

Reproductive organs – male and female

Ovulation, corpus luteum, ovarian cycle

Transport of sperm, fertilization

Viability of ovum and sperm, safe period

Cleavage and transport of ovum

Uterine cycle, Menstrual cycle

Embedding of blastocyst

Formation of embryo

Form of embryo at various stages

Membrane and placenta

- **Practical**
- **Gross Anatomy**

Dissection of entire cadaver: of dissected soft parts and organs. Supplemented by study of museum specimens, models and charts.

Study of human bones and joints.

Determinations of age and sex from the bones .

- **HISTOLOGY:**
- Study of light microscope

Common objects seen under the microscope.

Appearance of objects in section.

Demonstration of tissue processing, section cutting and staining section

Study of prepared histological slides of normal mammalian tissues and organs of the body.

- **EMBRYOLOGY:**
- Demonstrations of embryology models.

Sections of developing chick embryo.

Specimens of congenital anomalies

- **RADIOLOGICAL ANATOMY:**

- Demonstration of normal skiagrams of various parts and organs of the Body.

Skiagrams of special investigations of various systems of the body.

Skiagrams showing ossification of bones and determination of age.

Skiagrams of pregnant uterus showing foetus of various ages.

- **SURFACE ANATOMY:**

- **Surface marking of various organs and structure:**

On the living body.

On the cadaver.