

**SYLLABUS
MD ANATOMY
DEPARTMENT OF ANATOMY**

As per the Medical Council of India draft regulations on postgraduate medical education enclosed with letter from the Director (Medical Education) vide number V-11025/42/92-ME dated 9th March, 1999, item number 5 “Component of the postgraduate curriculum”. The syllabus for MD Anatomy shall include.

A. Theoretical Knowledge

The theory examination shall consist of four papers as given below and shall cover in each case, the following major aspects related to relevant title of paper.

1. Paper –I : Gross and Clinical Anatomy

- i) A comprehensive knowledge of the topography and systemic Anatomy of the Human body and its application in medical, surgical and other clinical discipline.
- ii) Cross –sectional Anatomy
- iii) Imaging techniques

2. Paper –II : Developmental Anatomy and Genetics

- i) A detailed knowledge of the general embryology & early human development.
- ii) Congenital malformations and Teratology.
- iii) Principles of human genetics.
- iv) Karyotyping & Chromosomal abnormalities.

3. Paper –III : Microanatomy and recent advances

- i) Detailed knowledge of light microscopic and electron microscopic features of cells, tissues and organs.
- ii) Recent advances in histological and histochemical techniques.
- iii) Fluorescent microscopy, Immunocytochemistry and in situ Hybridization techniques.

4. Paper –IV : Neuro-Anatomy

- i) Cytology of the nervous system.
- ii) Regional organization of the central nervous system.
- iii) Peripheral nervous system including the autonomic nervous system and
- iv) Special sense organs

B. Practical Skills:

Students are required to be able to dissect and clearly display the anatomical structures, they should acquire the skill of routine histology and the common histochemical techniques. They should acquire the skill of making paraffin and plastic resin blocks of tissues, handling of microtome and routine histological as well as common specialized staining methods.

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C. Training and thesis and methodology:

Every student shall be allotted a topic of research under a supervisor and if necessary also a Co-supervisor from the department or from another department preferably within the medical faculty. The supervisor and Co-supervisor shall be recognized postgraduate teachers. The student shall carry out the experiment and analyse the observations and derive scientific conclusions. The research work should be written and submitted in the form of a thesis, which shall also include a critical analysis of relevant published research literature.

D. Each P.G. student (Junior Resident) shall be allotted a P.G. teacher in a consultative meeting of the eligible teachers within three months of his/her joining the department. The proposed “Topic and Synopsis” of the thesis of the candidate drafted in consultation with the teacher concerned shall be submitted to the chairman within one month of the allocation for consideration and approval in the meeting of the Board of Studies of the department.

E. The junior residents shall participate in the teaching and training programmes of undergraduate students, should attend lectures and participate in laboratory and experimental work. They should actively participate in the P.G. Seminar. The various topics of seminar shall include:

1. Gametogenesis, Fertilization and Implantation
2. Placenta and Amniocentesis, Multiple pregnancy
3. Nucleoproteins, Karyotyping and chromosomes
4. Numerical and structural aberrations of chromosomes
5. Principles of microscopy; Histological and histochemical techniques
6. Development and congenital anomalies of male and female genitalia
7. Ultrasonography and Imaging techniques
8. Development and blood supply of central nervous system
9. Thalamus, Hypothalamus and Autonomic nervous system
10. Reticular activating system, Limbic system
11. Functional Anatomy of Cortical areas of Cerebral hemispheres
12. Cranial nerves & its applied
13. Embalming teaching
14. Recent advances in Anatomy
15. Comparative Anatomy
16. Joints – classification; synovial joint
17. Special sense organs
18. Lymphoid organs
19. Glands – Exocrine & Endocrines
20. Urinary System – Nephron
21. Bone – Structures & ossification
22. Heart – Blood supply & conducting system
23. Lung – Structure & Development

They should develop skills in using educational methods and techniques as applicable to teaching, medical students and paramedical health workers.

F. They should actively participate in Journal Club through their training period. Selected published research papers for following journals.

1. Journal of Anatomy
2. Cells tissue organ (99)
3. American Journal of Anatomy
4. Brain research bulletin
5. Journal of the Anatomical Society of India
6. Journal of Anatomical Sciences

G. Internal Assessment: They should be involved in (1) Stage viva on the dissection

work done by the MBBS students and (2) Evaluation of Gross Anatomy and Histology practical drawing book of MBBS/BDS students, and (3) There should be regular internal assessment of P.G. themselves on all aspects of Gross, development & Microanatomy as well as various laboratory teaching.

H. A committee of the P.G. teachers, headed by the Chairman shall monitor the postgraduate teaching and research programme. This committee shall meet at least once in every three months to consider the performance of the P.G. Students. The cases of non-performing students (if any) shall be reported to the Dean, Faculty of Medicine by the Chairman on the recommendation of the committee.