BRANCH-V M.D.(ANATOMY)

GUIDELINES FOR COMPETENCY BASED POST GRADUATE TRAINING PROGRAMME

FOR M.D. ANATOMY.

The purpose of this programme is to standardize Anatomy teaching at Post Graduate level through out the country so that it will benefit in achieving uniformity in undergraduate teaching as well. Accordingly the training in M.D. Anatomy should be distinctive from that in M.Sc., Ph.D., (Anatomy), where the approach to the subject is primarily experimental.

Programme Objectives:-

A candidate upon successfully qualifying in the M.D.(Anatomy) examinations should be able to :

1) Be a competent Anatomist.
2) Teach the undergraduate student gross anatomy, radiological anatomy, embryology, histology, Neuroanatomy and elementary genetics.
3) Assess the students understanding of the anatomical sciences.
4) Assess the undergraduate programmes.
5) Plan and modify the undergraduate curriculum.
6) Prepare the tissues for light microscopic study.
7) Enumerate the types of microscopes, their uses and their principles including electron microscope. Take care of maintenance of microscopes.
8) Embalm a cadaver.
9) Design Gross Anatomy and histology laboratories for teaching undergraduate and postgraduate students of Anatomy.
10) Plan and implement research programme.
11) Undertake histomorphometric studies.

Course Content:-

I) General Anatomy-

Tissues of the body, General osteology, Anthology, Muscle & fascia, Nervous system, Principles governing arterial, Venous and lymphatic pathways, Innervation of blood vessels.

II) Gross Anatomy-

Detailed Gross Anatomy of the human body, including cross sectional anatomy. Anatomical basic of clinical conditions.

III) Embalming and Museum Techniques.

IV) Radiological Anatomy-

Principles involved in plain radiography, special investigative procedures and Newer imaging techniques such as ultrasound, CT –scans, MRI, PET, etc.

V) Embryology
General embryology-

Special embryology of all the systems of the body including variations and Congenital anomalies.

VI) Genetics-

Structure of chromosomes, Structure of gene, Karyotype, Chromosomal Aberrations, Inheritance, Basic Molecular genetics, Common Genetic disorders.

VII) Comparative Anatomy

VIII) Histology-

Histological and Museum Techniques, Microscopes –All Types, Care and Maintenance of light microscope, General histology, Special histology of the Systems of the body including their electron microscopic appearance.

IX) Neuro Anatomy-

Structural organization of various parts of the nervous system with particular reference to their connections and functions.
Localization & effects of lesions in different parts of the central nervous system and nerve injuries.

Neuroanatomical techniques for demonstration of Nissl substance, processes, myelin sheath.

X) Applied Anatomy including Radio Anatomy and Recent Advances-

a) Applied aspects of Human Anatomy including Surgical Approaches to various structures and organs.
b) Principles of Newer Imaging Techniques.
c) Determination of age, sex, stature and race from skeletal remains.
d) Determination of age of a living individual.
e) Theoretical aspects of examination of Hair and Nail including differences between human and animal hairs.
f) Application of Anatomical knowledge to fertility control.
g) Sectional Anatomy.
h) Principles and Interpretation of CT Scan, Sono Graphy and MRI.
i) Surface Anatomy.
j) Embalming Techniques including medico-legal aspects.

RECOMMENDED LIST OF BOOKS

GROSS ANATOMY

1) Grays Anatomy
2) Essentials of Human Anatomy 3 Volume by A.K. Dutta.

EMBRYOLOGY

1) Human Embryology by W.J.Hamilton & H.W.Mossman.
2) Medical Embryology by Jan Langman.
3) Human Embryology by A.K. Dutta.
4) Human Embryology by Inderbir Singh.

GENETICS

1) Genetics in Medicine – J.S.Thompson & M.W. Thompson.

2) Elements of Medical Genetics by Emery.

EMBALMING & MUSEUM TECHNIQUES

1) Anatomical Techniques by Tompsect.
2) Embalming Techniques by Dr. Jayavelu.

NEURO ANATOMY

1) Human Nervous System – Ellis.
2) Clinical Neuro Anatomy by Snell.
3) Text Book of Clinical Neuro Anatomy by Vishram Singh.
4) Neuro Anatomy by Inderbir Singh.

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****33rd SAB held on 20-06-2007 - March 2008 Examination onwards.**

Osteology

Frazers Osteology.

SURGICAL & APPLIED

1) Regional & Applied Anatomy by R.J. Last
2) Anatomy for Surgeons W.H.Hollinshead Vol I, II & III.
3) Synopsis of Surgical Anatomy D.J. Du Plesis.

HISTOLOGY

1) Carltons Histological Techniques Drury R.A.B. Wallington E.A.
2) Ham’s Histology.
3) Text Book of Histology Bloom & Faweet T.
4) Tissues of the body Lee Gross Clark.

COMPARATIVE ANATOMY by Rome R.

BIOSTATISTICS – An introduction to Biostatistics.

A manual for students in Health Sciences P.S.S. Sunder Roq.

JOURNALS

1) Journal of Anatomical Society of India.
2) Journal of Anatomy London.
3) Anatomical Record.
4) American Journal of Anatomy.
5) Clinical Adjuncts.
6) Anatomical adjuncts.
7) Cells, Tissues & Organs (Formerly Acta Anatomical).

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