



## **MD Anatomy**

Curriculum and Syllabus 2011

Branch Code: 11

**SRM Medical College Hospital & Research Centre**

SRM University

SRM Nagar, Kattankulathur

Kancheepuram (Dt). 603 203

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## **M.D (ANATOMY)**

### **GOAL**

The broad goal of Postgraduate students in Anatomy aims at acquiring comprehensive knowledge in macroscopic and microscopic anatomy including surgical & embryological aspects. After acquiring comprehensive knowledge, the postgraduates at the end of training should be able to take classes for medical & paramedical students.

### **OBJECTIVES**

#### **KNOWLEDGE & SKILL**

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

- 1) Be a competent anatomist.
- 2) Teach the undergraduate students gross anatomy, radiological anatomy, embryology, histology, neuroanatomy and elementary genetics.
- 3) Assess the students understanding of the anatomy
- 4) Assess the undergraduate programmes.
- 5) Plan and modify the undergraduate curriculum.
- 6) Prepare the tissues for light microscopic study.
- 7) Embalm a cadaver.
- 8) Design Gross Anatomy and Histology laboratories for teaching undergraduate and postgraduate students of anatomy.
- 9) Plan and implement research programme.
- 10) Undertake histomorphometric studies.

## **COURSE OVERVIEW**

### **DURATION OF THE COURSE**

The period of certified study and training for the Post-Graduate MD ANATOMY shall be Three Academic years.(six academic terms). The academic terms shall mean six months training period.

### **COMMENCEMENT OF ACADEMIC SESSION**

The academic year for the Post-Graduate (M.D.) Degree General Medicine shall commence from May 2<sup>nd</sup> of the Academic Year.

### **DATE OF EXAMINATION**

The students admitted up to May 31<sup>st</sup> of the academic year shall be registered for that academic year and shall take up their Final Third Year regular examination in April of the due year and October of the academic year after completion of 3 years.

### **NUMBER OF EXAMINATIONS**

The University shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

### **ATTENDANCE**

All students joining the postgraduate training programme shall work as full time residents during the period of training, attending not less than 80% (eighty percent) of the training during each calendar year, and will be given full time responsibility, assignments and participation in all facets of the educational process.

The period of training for obtaining the degrees shall be three completed years including the period of examination.

## **COURSE CONTENTS**

### **Theory:**

1. History of anatomy.
2. General anatomy.
3. Elements of anatomy.
4. Gross human anatomy including cross sectional anatomy and applied anatomy.
5. Principles of microscopy and histological techniques.
6. General and systemic histology.
7. General and systemic embryology including growth, development and teratology.
8. Neuro anatomy.
9. Surface anatomy.
10. Radiological anatomy including principles of newer techniques and interpretation of CT scan, sonography and MRI.
11. Human genetics.
12. Comparative anatomy.
13. Principles of physical anthropology.
14. Museum techniques, embalming techniques including medico legal aspects and knowledge of Anatomy Act.
15. Medical ethics.
16. Recent advances in anatomy.

### **II. Practical schedule**

1. The PG students should dissect the entire human cadaver, during the course.
2. They should embalm and maintain record of the embalming work done.
3. They should prepare and mount at least 10 museum specimens.

4. In histology section:

- a. Collection of tissues, fixing, block making, section cutting, use of different types of microtomes and preparation of general and systemic slides.
- b. Haematoxylin & eosin
  - i. Preparation of stains.
  - ii. Staining techniques.
- c. Knowledge of special staining techniques like silver nitrate, PAS staining, osmium tetroxide, Van Gieson etc.
- d. Embryo (chick embryo) mounting and serial sections of embryo - should be taken, stained with haematoxyline & eosin.
- e. Knowledge of light microscope and electron microscope.
- f. Detailed microscopic study of all the tissues (general and systemic slides).

**III. Method of Training:**

The students shall attend all the undergraduate theory and practical classes regulary. Rotation postings of PG students shall be made in the II and III years of the course as follows:

**I. Details of Clinical Training**

Surgical Ward Posting	- 1 ½ Months
Neurology Department	- 1 Month
Department of Biostatistics & Research Methodology, community medicine, structured training programme	- 2 Months
Ultra Sonography, Body Scan, Doppler, Echo Cardiogram, Electron Microscopy	- 1 ½ Months
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	<b>6 Months</b>
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At the end of the posting, a certificate has to be obtained from the concerned Heads of the departments for satisfactory learning.

The Postgraduate students shall take part in teaching undergraduate students in gross anatomy, histology, tutorials, group discussions and seminars, during the three years of the course.

## **SYLLABUS**

### **GENERAL ANATOMY**

Anatomical terms, Nomenclature, Tissues of the body, General Osteology, Arthrology, Muscle & Fascia, Nervous system, Principles governing arterial, Venous and lymphatic pathways, Innervation of blood vessels.

#### **a. GROSS ANATOMY**

Detailed Gross Anatomy of the human body including cross sectional anatomy & Anatomical basis of clinical conditions.

#### **b. PRACTICAL**

Dissection of Human body region wise – Upper limb, Lower limb, Thorax, Abdomen & Pelvis, Head & Neck, Brain. 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 electro microscopic appearance.

#### **I) EMBALMING AND MUSEUM TECHNIQUES**

#### **II) RADIOLOGICAL ANATOMY**

a. Principles involved in plain radiography, Special investigative procedures and newer imaging techniques such as ultrasound, CT-scans, MRI, PET, etc.

### **III) EMBRYOLOGY**

General Embryology

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

### **IV) GENETICS:-**

Structure of chromosomes, Structure of gene, Karyotype, Chromosomal aberrations, Inheritance, Basic Molecular genetics, Common Genetic disorders, teratogens, Pedigree analysis.

### **V) COMPARATIVE ANATOMY : Only Knowledge Purpose**

### **VI) HISTOLOGY**

Embalming techniques study of neuroanatomy & embryology slides. 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 electro microscopic appearance.

### **VII) NEUROANATOMY:-**

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.

### **VIII) APPLIED ANATOMY INCLUDING RADIOLOGICAL 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) Sectional Anatomy.
- f) Principles and Interpretation of CT Scan, Sonography and MRI
- g) Surface Anatomy.
- h) Embalming Techniques including medico-legal aspects.

**II. Period of Study (3 Years):-**

- 1<sup>st</sup> Year - Learning of Gross anatomy, thesis topic decision .
- 2<sup>nd</sup> Year - Histology Techniques, Museum, Clinical Postings. Embalming Techniques, Genetics & thesis
- 3<sup>rd</sup> Year - Study of Neuro anatomy & Embryology

**III. Details of Clinical Training**

Surgical Ward Posting	-	1 ½ Months
Neurology Department	-	1 Month
Department of Biostatistics & Research Methodology, Community Medicine structured training programme	-	2 Months
Ultra Sonography, Body Scan, Doppler, Echo Cardiogram, Electron Microscopy	-	1 ½ Months
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		<b>6 Months</b>
		-----

### I YEAR M.D- ANATOMY

Day	8.00 – 10.00A.M	10.15.A. M – 11.00 A.M	11.00 A.M. – 12.00 Noon	12.00 Noon – 1.00 p.m	1.00 P.M.– 2.00P.M.	2.00 P.M. – 4.00 P.M.
<b>Monday</b>	Dissection	Lecture	BDS - Dissection		Lunch Break	Seminar
<b>Tuesday</b>	Dissection	-	-	Lecture		
<b>Wednesday</b>	Dissection	-	Lecture	-		Journal Club
<b>Thursday</b>	Dissection	Lecture	BDS - Dissection			-
<b>Friday</b>	Dissection	-	BDS Dissection	Lecture		Histology
<b>Saturday</b>	Dissection	Lecture		-		

### II YEAR M.D ANATOMY (for first six months)

Day	8.00 – 10.00A.M	10.15.A.M – 1.00 P.M	1.00 P.M.– 2.00P.M.	2.00 P.M. – 4.00 P.M.
<b>Monday</b>	Dissection	<b>CLINICAL POSTINGS</b>	Lunch Break	Histology Seminar
<b>Tuesday</b>	Dissection			Thesis work
<b>Wednesday</b>	Dissection			
<b>Thursday</b>	Dissection			
<b>Friday</b>	Dissection			Histological techniques / embalming / museum techniques
<b>Saturday</b>	Dissection			-

## II YEAR M.D ANATOMY (for second six months )

Day	8.00 – 10.00A.M	10.15. A.M – 1.00 P.M.	1.00 P.M.– 2.00P.M.	2.00 P.M. – 4.00 P.M.
Monday	Dissection	<b>PARA MEDICAL LECTURE / DEMONSTRATION CLASS ( BPT,BOT,BASLP,BSC (NURSING), BSC (MLT ) , B.OPTOM )</b>	Lunch Break	Histology Seminar
Tuesday	Dissection			Thesis work
Wednesday	Dissection			
Thursday	Dissection			
Friday	Dissection			Histological techniques / embalming / museum techniques
Saturday	Dissection	ASSIGNMENT TEST		-

**REVIEW AND PROGRESS OF THESIS WILL BE PRESENTED AT END OF EACH MONTH**

## FINAL YEAR M.D ANATOMY

Day	8.00 – 10.00A.M	10.15.A.M – 11.00 A.M	11.00 A.M. – 12.00 Noon.	12.00 Noon – 1.00 PM	1.00 P.M.– 2.00P.M.	2.00 P.M. – 4.00 P.M.
Monday	Dissection	MBBS Lecture			Lunch Break	NEUROANATOMY SEMINAR
Tuesday	Dissection	-	JOURNAL CLUB			
Wednesday	Dissection	-	BDS Lecture	-		EMBRYOLOGY SEMINAR S
Thursday	Dissection	MBBS Lecture				-
Friday	Dissection	BDS Lecture				OSTEOLGY/RADIOL OGY DISCCUSION
Saturday	Dissection	ASSIGNMENT TEST				

**\*LECTURE CLASSES WILL BE MONITORED BY THE SENIOR  
PROFESSORS TO TRAIN THE POSTGRADUATE FOR PEDAGOGY**

**MAINTENANCE OF LOG BOOK**

- a. Every Post Graduate student shall maintain a record of skills He/She has acquired during the three years training period certified by the various Head of departments where He/She has undergone training including outside the institution.
- b. The student should also participate in the teaching and training programs of Under Graduate students of medical, Dental and Other paramedical courses, both in Theory and Practicals from the first year onwards of the Post Graduate Degree course.
- c. In addition the Head of the department should involve their post graduate students in Seminars, Journal clubs, group discussions and participation in workshops, CME program's national and international conferences organized by the Department, Institution and outside the institution in the state and outside the state.
- d. Every Post Graduate student should be encouraged to present short title papers in conferences and improve on it and submit them for publication in indexed journals. Motivation by the Head of the Department is essential in this area to sharpen the skills of the Post Graduate students.
- e. The Head of the Department should scrutinize the log book every three months and certify the work done.
- f. At the end of the course the student should summarise the contents and get the logbook certified by the Head of the Department and submit the log book at the time of the University Practical Examination for the scrutiny of the board of examiners.

It is preferable that a post graduate student during the course to present one poster presentation and /or to read one paper at a national /state conference and /or to present one research paper which can be published/accepted for publication/sent for publication during the period of his/her postgraduate studies.

## **THESIS**

Every student registered as post graduate shall carry out work on an assigned research project under the guidance of a recognized post graduate teacher, the result of which shall be written up and submitted in the form of a thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be a bound volume of a minimum of 50 pages and not exceeding 75 pages of typed matter (Double line spacing and on one side only) excluding certification, acknowledgements, annexure and bibliography.

Thesis should consist of

- (a) Introduction
- (b) Review of literature
- (c) Aims and objectives
- (d) Material and methods
- (e) Result
- (f) Discussion
- (g) Summary and conclusion
- (h) Tables
- (i) Annexure
- (j) Bibliography

Four copies of thesis shall be submitted six months prior to the commencement of the theory examinations on the date prescribed by the Controller of Examinations of this University. The thesis should be approved by the Professor of that branch and the same has to be forwarded to the Controller of Examinations, by the head of the department through the Dean of the college.

Two copies are to be submitted as an electronic version of the entire thesis in a standard C.D. format by mentioning the details and technicalities used in the C.D. format.



**Day - 1**

Practicals	Session	Duration	Marks
Practical – I Gross Anatomy (Dissection)	F.N	3 hrs.	75
Practical – II Histology	A.N.	3 hrs.	75
Breakup Details (Practical – II):-			
Histology–5 Slides for spotters & discussion			
5 X 10 (Embryo -2, General – 1, systemic -2)		50 Marks	
Section Cutting		10 Marks	
Staining of one Paraffin section		10 Marks	
Embedding of one Paraffin Block		05 Marks	

<b>Day - II</b>		
Practical – Genetics 2 Charts ( 2 X 10)	20 Marks	
III Neuroanatomy 2 Slides Brain Discussion	30 Marks	50
<b>Total Practical Marks</b>		<b>200</b>

Pedagogy (30 Minutes) = 50 Marks

Oral/Viva = 50 Marks

NOTE: No. of Students to be examined 4 per day for Practical /Viva

**MARKS QUALIFYING FOR A PASS**

MARKS QUALIFYING FOR A PASS	MAXIMUM MARKS	QUALIFYING FOR A PASS 50% MARKS
Theory Examination	400	200
Practical Including clinical and Viva voce examination	300	150

A student shall secure not less than 50% marks in each head of passing which shall include 1.Theory 2. Practical including clinical and viva voce examination.

## **EXAMINATION AND EVALUATION**

### **(1) EXAMINERS**

(a) All the Post Graduate Examiners shall be recognised Post Graduate Teachers holding recognised Post Graduate qualifications in the subject concerned.

(b) For all Post Graduate Examinations, the minimum number of Examiners shall be four, out of which at least two (50%) shall be External Examiners, who shall be invited from other recognised universities from outside the State and other two will be internal examiners for M.D.

(c) Under exceptional circumstances, examinations may be held with 3 (three) examiners provided two of them are external and Medical Council of India is intimated the justification of such action prior to publication of result for approval. Under no circumstances, result shall be published in such cases without the approval of Medical Council of India.

(d) In the event of there being more than one centre in one city, the external examiners at all the centres in that city shall be the same. Where there is more than one centre of examination, the University shall appoint a Supervisor to coordinate the examination on its behalf.

(e) The guidelines regarding appointment of examiners are as follows;-

1. No person shall be appointed as an examiner in any subject unless he fulfils the minimum requirements for recognition as a Post Graduate teacher as laid down by the Medical Council of India and has teaching experience of 8 (Eight) years as a Lecturer / Assistant Professor out of which he has not less than 5 (Five) years teaching experience after obtaining Post Graduate degree. For external examiners, he should have minimum three years experience of examinership for Post Graduate diploma in the concerned subject. Out of internal examiners, one examiner shall be a professor and Head of Department or Head of Department.

2. There shall be at least four examiners in each subject at an examination out of which at least 50% (Fifty percent) shall be external examiners. The external examiner who fulfils the condition laid down in clause – 1 above shall ordinarily be invited from another recognised university, from outside the State: provided that in exceptional circumstances examinations may be held with 3 (three) examiners if two of them are external and Medical council of India is intimated with the justification of such examination and the result shall be published in such a case with the approval of Medical council of India.
3. An external examiner may be ordinarily been appointed for not more than three years consecutively. Thereafter he may be reappointed after an interval of two years.
4. The internal examiner in a subject shall not accept external examinership for a college from which external examiner is appointed in his subject.
5. The same set of examiners shall ordinarily be responsible for the written, practical or part of examination.
6. In the event of there being more than one centre in one city, the external examiners at all the centres in the city shall be the same.
7. There shall be a Chairman of the Board of paper – setters who shall be an external examiner and shall moderate the question papers.
8. Where there is more than one centre of examination, there shall be Co-ordinator appointed by the University who shall supervise and Co-ordinate the examination on behalf of the University with independent authority.
9. The Head of the Department of the institution concerned shall ordinarily be one of the internal examiners and second internal examiner shall rotate after every two year.

## **(2) Number of candidates**

The maximum number of candidates to be examined in Clinical / practical and Oral on any day shall not exceed eight for M.D. degree examination.

## **3) Number of examinations**

The university shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

## **(4) Doctor of Medicine (M.D.) Anatomy**

M.D. examination shall consist of Thesis, Theory Papers, and clinical/Practical and Oral examinations.

### **(a) Thesis**

Every candidate shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical; and on the acceptance of the thesis by two examiners, the candidate shall appear for the final examination.

### **(b) Theory**

(i) There shall be four theory papers.

(ii) Out of these one shall be of Basic Medical Sciences and one shall be of recent advances.

(iii) The theory examinations shall be held sufficiently earlier than the Clinical and Practical examination, so that the answer books can be assessed and evaluated before the start of the Clinical/Practical and Oral examination.

### **(c) Clinical / Practical and Oral**

(i) Clinical examination for the subjects in Clinical Sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a specialist/Teacher, for which candidates shall examine a minimum one long case and two short cases.

(ii) Practical examination for the subjects in Basic Medical Sciences shall be conducted to test the knowledge and competence of the candidates for making valid and relevant observations based on the experimental/Laboratory studies and his ability to perform such studies as are relevant to his subject.

(iii) The Oral examination shall be thorough and shall aim at assessing the candidate knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and viva voce examination.

### **Evaluation of Answer Scripts**

The answer books will be valued by two examiners. One of the two examiners will be from this university and the other will be from any other university. The Average of the two marks secured by the candidate will be taken into account. If the difference between two marks exceeds 10%, the answer scripts shall be valued by the third examiner. The average of the nearest two marks shall be considered as the final mark.

**Model Question Paper**  
**MD Anatomy**  
**PAPER I**  
**Gross Anatomy**

Essay

Marks: 2X20=40

1. Describe in detail the joints, mechanism and muscles involved in supination & pronation movements.
2. Describe the skeletal framework, intrinsic and extrinsic ligaments of Larynx. Add a note on actions of muscles of Larynx.

Write short notes on:-

Marks: 10x6=60

1. Superficial perineal space
2. Coronary sinus
3. Innervation of urinary bladder
4. Inguinal lymph nodes
5. Azygos vein
6. Lesser sac
7. Screw home movement
8. Inferior constrictor of pharynx
9. Auditory tube
10. Middle meningeal artery

**MD Anatomy**  
**PAPER II**  
**Embryology and Genetics**

Essay

Marks: 2X20=40

1. Describe in detail the formation, fate and associated anomalies of mesonephric duct.
2. Discuss in detail the development of inferior vena cava and associated anomalies.

Write short notes on:-

Marks 10x6=60

1. Development of urethra
2. Fluorescent in situ hybridization
3. Banding pattern of chromosomes
4. Development of vagina
5. Genetic markers
6. Duplication
7. Ring chromosome
8. Development of lens
9. Genetic symbols
10. Development of interventricular septum

**MD Anatomy**  
**PAPER III**

Histology, Neuro anatomy and Museum techniques

Essay

Marks: 2X20=40

1. Discuss in detail the topography of cerebellum with its functional divisions and connections.
2. Discuss the microstructure of lower respiratory tract.

Write short notes on:-

Marks 10x6=60

1. Preparation of a corrosion cast
2. Juxta glomerular apparatus
3. Fornix
4. Freezing microtome
5. Periodic acid Schiff stain
6. Medial longitudinal bundle
7. Nuclei of trigeminal nerve
8. Microstructure of skin
9. Superior colliculus
10. Microanatomy of Thymus

# **MD Anatomy**

## **PAPER IV**

### **Surgical anatomy and Applied anatomy and recent advances & Embalming techniques**

Marks: 2X20=40

#### **Essay**

1. Describe the fascial spaces in the neck and their applied importance.
2. Discuss in detail the surgical anatomy thyroid gland.

#### **Write short notes on:-**

Marks 10x6=60

1. Embalming fluids
2. Stem cells
3. Umbilical hernia
4. Embalming of a body after autopsy
5. Coverings of kidney
6. Pancreatic transplantation
7. Angiogram
8. Trendelenberg's sign
9. Great saphenous vein
10. Frey's syndrome

## **RECOMMENDED BOOKS & JOURNALS**

### **GROSS ANATOMY**

1. Grays Anatomy. Standing Susan 40<sup>th</sup> Edition, Churchill Livingston, 2008.
2. Essentials of Human Anatomy 3 Volume by A.K. Dutta 3<sup>rd</sup> Edition, Current Book, 2004.
3. Cunninghams Manual of Practical Anatomy 3 Volumes by G.T. Romanes 5<sup>th</sup> Edition, Oxford, 2003
4. Grant's Dissection – Patrick, Tank.w.14<sup>th</sup> Edition, Lippincott, 2009.
5. Clinical Anatomy for Students Problem solving approach - Neeta Kulkarni 2<sup>nd</sup> Edition, Jaypee, 2012.

### **EMBRYOLOGY**

1. Human Embryology by W.J.Hamilton & H.W.Mossman
2. Medical Embryology by Jan Langman 10<sup>th</sup> Edition, Lippincott, 2006.
3. Human Embryology by A.K.Dutta 4<sup>th</sup> Edition, Current Book, 2000.
4. Human Embryology by Inderbir Singh 8<sup>th</sup> Edition, Macmillan, 2010.
5. Human Embryology by William J Larsen 3<sup>rd</sup> Edition, Churchill Livigston, 2001.
6. A Developing Human Clinical oriented embryology by Keith L.Moore 8<sup>th</sup> Edition, Saunders, 2008.
7. Before we are born by More & Persaud 7<sup>th</sup> Edition, Saunders, 2008.

### **GENETICS**

1. Genetics of Medicine – J.S. Thompson & H.W.Mossman
2. Elements of Medical Genetics - F. Robert Mueller, 13<sup>th</sup> Edition, Churchill Livingston, 2007.

### **EMBALMING & MUSEUM TECHNIQUES**

1. Internet
2. Anatomical Techniques - Tompset
3. Embalming Techniques - Dr. Jayavelu
4. Embalming Principles & Legal Aspects - M.L. Ajmani Jaypee Publication, 2009.

## **NEURO ANATOMY**

1. Barr's Human Nervous System an anatomical viewpoint. John Kiernan.A, 9<sup>th</sup> Edition, Lippincott, 2009.
2. Clinical Neuro Anatomy - Snell, Richard 7<sup>th</sup> Edition, Lippincott, 2010.
3. Text Book of Clinical Neuro anatomy - Vishram Singh 2<sup>nd</sup> Edition, Elsevier, 2010.
4. Neuro Anatomy - Inderbir Singh 7<sup>th</sup> Edition, Jaypee, 2006.
5. Human Neuroanatomy – Truex & Carpenter
6. Text book of Neuroanatomy – Dutta 3<sup>rd</sup> Edition, Current Book, 2007.

## **OSTEOLOGY**

1. Gray's Anatomy - Standring Susan 40<sup>th</sup> Edition, Churchill Livingstone, 2008.

## **SURGICAL & APPLIED**

1. Last Anatomy Regional & Applied anatomy – Chummy Sinnatamby.S.11<sup>th</sup> Edition, Churchill Livingstone, 2009.
2. Hollinshed Text Book of Anatomy – 5<sup>th</sup> Edition, Cornelius Rosse, Lippincott, 1997.
3. Synopsis of surgical anatomy – McGregor 12<sup>th</sup> Edition, Varghese Publishing, 1986.
4. Clinical Anatomy for Medical Students – Snell Richard 8<sup>th</sup> Edition, Lippincott, 2008.
5. Clinical Oriented anatomy – Keith L. Moore 6<sup>th</sup> Edition, Lippincott, 2010

## **HISTOLOGY**

1. Carltons Histological Techniques - Drury R.A.B. Wallington E.A,
2. Ham's Histology
3. Text Book of Histology - Bloom & Fawcett.T
4. Tissues of the Body Lee Gross Clark.
5. Basic Histology –Juncquera 12<sup>th</sup> Edition, McGraw Hill, 2010.
6. Histological Techniques – Bancroft 6<sup>th</sup> Edition, Churchill Livingstone, 2008.
7. Wheater's Histology - Barbara young 5<sup>th</sup> Edition, Elsevier, 2006.
8. Grays Anatomy by Standring Susan 40<sup>th</sup> Edition, Churchill Livingstone, 2008.

**COMPARATIVE ANATOMY:** by Romer.

**BIostatistics:**

An Introduction to Biostatistics a Manual for students in Health Sciences P.S.S  
Sunder Rao. 3<sup>rd</sup>Edition, Prentice-Hall, 1996

**JOURNALS**

1. Surgical & Radiological Anatomy
2. Journal of Anatomical Society of India
3. Indian Journal of Human Genetics
4. Journal of Anatomy
5. American Journal of Anatomy
6. International journal of Anatomy

*The common denominator for success is hard work*

- *John. D.Rock feller Jr.*