

Dr. M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE
Deemed to be University

Maduravoyal, Chennai – 600 095, Tamilnadu, India
(An ISO 2001:2018 Certified Institution)

University with Graded Autonomy Status



SYLLABUS & CURRICULUM
for
M.D. GENERAL MEDICINE
2020 onwards

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M.D. GENERAL MEDICINE

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I. COURSE DESCRIPTION

➤ GOALS AND OBJECTIVES

GOAL

The goal of Postgraduate course in M.D. General Medicine is to train MBBS graduate into a competent, caring and a state Physician who:

Has acquired competencies pertaining to medicine, required to practice his art in the community backed by sound scientific knowledge and skill base. He is required to develop skills to effectively communicate with the patient, family and the community.

Is aware of the recent advances in medical sciences and evinces keen interest in continuing medical education.

Is oriented To principles of research methodology.

Recognizes his responsibility to the needs of the population and obligation towards National Health Policy ethics.

Be a motivated teacher who is keen to share his knowledge and skills with his students and medical professionals.

OBJECTIVES

By the end of the training period the candidate must be able to practice the speciality of Medicine with higher professional standards. He should be able to identify social, economic, environmental, biological determinants of an adult individual and institute diagnostic, therapeutic, rehabilitative, preventive and promotive measures to provide holistic care.

He/She must be able to take detailed history, perform full clinical examination and make proper clinical diagnosis. He must be able to perform relevant investigation & therapeutic procedures and interpret important imaging and laboratory results.

He / She Should be able to make an accurate diagnosis based on the analysis of history, physical examination and investigations.

He / She should be able to plan and deliver comprehensive treatment based on the principles of rational drug therapy.

He / She must be able to :

- ❖ Manage Emergencies Efficiently.
- ❖ Provide BLS and ALS when required.
- ❖ Demonstrate skills in documentation of patient details including epidemiological data.
- ❖ Have sound knowledge of basic medical sciences that are relevant
- ❖ Recognise conditions that maybe outside the area of the speciality/competence and to refer them to an appropriate specialist.
- ❖ Respect patients rights and privileges including patients right to information and right to seek a second opinion.
- ❖ Have empathy and humane approach towards patients and their families and respect their sensibilities.
- ❖ Demonstrate communication skills in explaining management and prognosis, counselling and health education to families and communities.
- ❖ Develop skills of self education, recognize continuing medical educational needs, use appropriate learning resources and critically analyse relevant published literature in order to practice evidence based medicine.
- ❖ Have competence in basic concepts of research methodology and epidemiology.
- ❖ Facilitate learning of medical / Nursing students, practicing physicians, Paramedical health workers and other providers as a teacher/trainer.

- ❖ Under take audit, use information technology tools and carryout research in both basic and clinical topics, with the aim of publishing the work and presenting work/papers at various scientific forum.
- ❖ Maintain Professional Honesty And Integrity.
- ❖ Be humble and accept the limitation of the knowledge and skill and to seek help from colleagues when needed.

2. DURATION OF THE COURSE

The course of the study shall be for 3years consisting of six terms and each year consisting of two terms

3. METHODS OF TRAINING

The training of postgraduate for MD degree in medicine should be residency pattern. It shall include graded responsibility in the management and treatment of patients entrusted to their care; participation in seminars, Journal Clubs, Group discussions, Clinical Meetings, Grand rounds and Clinico-pathological meetings; Practical training in diagnosis and medical management; training in basic medical sciences as well as allowed clinical specialities. Training shall include involvement in laboratory and experimental work and research studies. They shall participate in undergraduate teaching/training.

The Following Teaching/Learning Methods Are Recommended

- ❖ Lectures
- ❖ Case Based Discussions
- ❖ Bedside clinics
- ❖ Teaching onward rounds
- ❖ Symposia
- ❖ Seminars
- ❖ Journal Clubs
- ❖ Problem Based Learning
- ❖ Tele Medicine

4. ATTENDANCE PROGRESS AND CONDUCT:

- 4.1 A Candidate pursuing MD Degree In Medicine should work in the department as a fulltime student. No candidate is permitted to run or walk in clinic / nursing home while studying PG course. No candidate shall join any other course of study or appear for any other examination conducted by the parent university or any other university in India or abroad during the period of study.
- 4.2 Each year shall be taken as a unit for the purpose calculating the attendance.
- 4.3 Every student shall attend symposia, seminars , Journal clubs, clinical case presentations, conferences, grand rounds, CPC, Lecturers during each year as prescribed by the department and not absent himself/herself from work without valid reasons.
- 4.4 Every candidate is required to attend a minimum of 80% of the training programmes during each academic year of Post Graduate Course.
- 4.5 Any student who fails to complete the course in the manner stated above shall not be permitted appear for the University Examinations.

5 MONITORING PROGRESS OF STUDIES

5.A ACQUISITION OF KNOWLEDGE

I. LOGBOOK

The methods used comprise of LOG Book which records participation in various teaching / learning activities by the students. The number of activities attended and the number of presentations made are to be recorded. The LOG BOOK should periodically be validated by the supervisors. Some of the activities are listed here.

JOURNAL REVIEW MEETING (Journal CLUB)

The ability to do literature search, in depth study, presentation skills and use of audio visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a appropriate checklist.

SEMINARS / SYMPOSIA

Topics should be assigned to the students well in advance to facilitate in depth study. The assessment is made by the faculty.

CLINICO– PATHOLOGICAL CONFERENCES

This should be multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. Assessment is done for seminars.

MEDICAL AUDIT

Periodic morbidity and mortality meeting must be held. Attendance and participation must be insisted upon. This may not be included in assessment.

II CLINICAL SKILLS

DAY TO DAY WORK

Skills in outpatient and ward work should be assessed periodically. The Assessment should include the candidates sincerity and punctuality, analytical ability and communication skills.

CLINICAL MEETINGS

Candidates should periodically present cases to his peers and faculty members. This should be assessed using checklist.

CLINICAL and PROCEDURAL SKILLS

The candidate should be given graded responsibility to learn by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are to be recorded by the student in the logbook.

III TEACHING SKILLS

Candidates should be encouraged to teach undergraduate medical students and paramedical students. This performance must be assessed by the faculty members of the Department and from the feedback of the undergraduate students.

5.B PERIODIC TESTS

I. Three tests may be conducted, one each at the end of 1st year and 2nd year. The Third test may be held 3 months before the final examination. The tests may include written papers, clinical and viva voce.

II. Work diary / LOG Books must be maintained by every student. Special Mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures conducted by the candidate. Internal assessment should be based on the evaluation of the log book. Collectively Log Books are a tool for evaluation of the training programme of the institution by the external agencies

III. RECORDS: Records, Logbooks and marks obtained in tests will be maintained by Head of the Department and will be made available to the University or MCI.

IV. Procedure for defaulters: The department should have a committee to review such situations. Defaulting student is counseled by the guide and Head of the Department. In extreme cases of default the departmental committee may recommend that the defaulting candidate be withheld from appearing the examination, if he/she fails to fulfill the requirements inspite of being given adequate chances to set himself or herself right.

6 DISSERTATION

- 6.1** Every candidate pursuing M.D. Degree course in General Medicine is required carryout work on a selected research project under guidance of a recognized postgraduate teacher. The results of such a work shall be submitted in the form of a dissertation.
- 6.2 The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of resource and drawing conclusions.
- 6.3 Every candidate shall submit to the registrar (Academic) of the university, in the prescribed Performa, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course, on or before the dates notified by the university the synopsis shall be sent through proper channel. Only one change of topic with proper justification from the Head of the Department of permitted before 31stMarch of the Postgraduate year No further change of dissertation title is allotted.
- 6.4 Such synopsis will be reviewed and dissertation topic will be registered by the university. No change in the dissertation topic or guide shall be made without prior approval of the university
- 6.5 The dissertation should be written under the following heading
- Introduction
 - Aims or Objective of the study
 - Review of Literature
 - Material and Methods
 - Results
 - Discussions

- Conclusions
- Summary
- References
- Tables
- Annexure

6.6 The written text of the dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references tables, questionnaires and other annexure. It should be neatly typed in double lines spacing on one side of paper (A4 size) and bound properly. Spiral binding should not be done. A declaration by the candidate that the work was done by him/ her shall be included. The guide, head of the department and head of the institution shall certify the dissertations.

6.7 Four copies of dissertation along with soft copy on a CD shall be submitted to the Registrar (Evaluation), six months before the examination on or before the dates notified by the university.

6.8 The dissertation shall be valued by the examiners appointed by the university. Approval of dissertation work is an essential precondition for a candidate to appear in the university examination.

6.9 **GUIDE:** The academic qualification and teaching experience required for recognition by the university as a guide for dissertation work is as per Medical Council of India minimum qualification for Teachers in Medical Institutions Regulations 1998. Teachers in a Medical College / Institution Having a total of eight years teaching experience out of which at least five years of teaching experience as a Lecturer or Assistant Professor gained after obtaining Postgraduates degree shall be recognized as Postgraduate teachers.

A CO-GUIDE may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by the parent university/Medical Council of India. The co-guide shall be a recognized postgraduate teacher of the parent university.

6.10 Change of Guide : In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the university.

II COURSE CONTENT

1. SYLLABUS

1.1 BASIC SCIENCES: Applied aspects of Anatomy, Physiology, Biochemistry, Pathology, Hematology and Pharmacology.

1.2 GENERAL MEDICINE TOPICS

- ❖ History of Medicine
- ❖ Clinical History and Examination: Collecting history in detail , carry out clinical examination of various systems and diagnose the condition on clinical grounds.
- ❖ Rational Diagnostic Tests: Ordering Diagnostic Tests With Prioritizing The needs, based on the clinical, hospital and the socio – economic condition of the patient.
- ❖ Concept of Essential Drugs and Rational Use of Drugs
- ❖ Communication Skills With Patients: Learning effective communication skills including compassion at explanation and giving emotional support the suffering patient and his family.
- ❖ Statistics : Descriptive statistics, analytical statistics, Qualitative Research Methodology, research design and critical review of statistical procedures.
- ❖ Principles of Evidence Based Medicine: Understanding journal based literature study, the value of text book, reference books, articles and review articles, original article and her assessment. Understanding The value of retrospective, prospective, randomized controlled and blinded studies the principles including meanings of various biostatistics tests applied in these studies.

- ❖ Medical Ethics and Social Responsibilities of Physicians
- ❖ Use of Computers and Modern Gadgets Medicine.

1.3 GENERAL MEDICINE TOPICS

- Genetics–Basic principles of genetics, Molecular basis of genetics, genetic engineering, human genome mapping, chromosomal disorders genetic basis of cancer, genetic and gene therapy.
- Immunology – Basics in immunology, Autoimmune disorders, immune deficiency diseases, hypersensitivity reaction–Anaphylaxis, angioedema, adverse drug reactions, complement, HLA system, Transplantation Immunology.
- Fluid and Electrolytic Balance / Acid Base Metabolism- The body fluid components, metabolism of water and electrolytes. Factors Maintaining homeostasis, diagnosis and management of acidosis and alkalosis; electrolyte imbalance.
- Blood transfusion :Blood grouping, cross matching, component therapy, complications of blood transfusion; blood substitutes.
- Shock And Multiorgan Failure : Types of shock, diagnosis of shock resuscitation; pharmacological support, ARDS, Ventilator support, prevention of shock.
- Nutrition: RDA of nutritional substances, nutritional assessment nutritional recall, metabolic response to stress, malnutrition, PCM nutritional deficiency states, nutritional response to stress, enteral and parenteral nutrition, dietary advice in obesity, DM, Renal and hepatic failure, hyperlipidemia, IHD.
- Poisoning: OP compounds, sedatives, alcohol, corrosive, anticonvulsants, general principles of management of poisons; specific management of poisons including snakebites, scorpion stings.
- Toxicology : Heavy Metal Poisoning, fluorosis, lathyrism
- Postoperative Medical Problems
- Geriatric Medicine
- Pregnancy Medicine
- Adolescent Medicine

1.4 INFECTIOUS DISEASES

BASIC CONSIDERATIONS: Host parasite interactions; Immunization principles, Lab diagnosis of infectious diseases, vaccination – BCG, Typhoid, Tetanus, Hepatitis A & B; Antimicrobial agents, molecular mechanism of microbial pathogenesis. Clinical syndromes in community setting – septic shock, Infective endocarditis, PUO, Infectious diarrhea, Bacterial food poisoning, common STD syndrome, infective complications of bites and stings. Infections of skin, muscle, soft tissue, osteomyelitis; Intraabdominal infections and abscess, PID, nosocomial infections, Hospital acquired infections, Infections in Transplant patients; Infection Control In hospital

Bacterial Infection : Pneumococcal, staphylococcal, streptococcal and enterococcal infections, Tetanus, diphtheria, anthrax, Listeria Gas gangrene, Botulism, other clostridia infections, meningococcal, H.Pylori, Salmonella, Shigella, Cholera, Legionella, Moraxella, Brucella, Pseudomonas, Mixed anaerobic infections, H influenza, gonococcal, pertussis, plague, campylobacter; donovanosis, Actinomycosis.

- Anaerobic Infections
- Mycobacterial diseases – Tuberculosis, Leprosy, Nontuberculous Mycobacterium, spirochete–Syphilis, Leptospirosis, Endemic trepanosis
- Rickettsiae ; Rocky Mountain Spotted Forms
- Mycoplasma M.Pneumonia
- Chlamydia, psittacosis

FUNGAL INFECTIONS : Candidiasis, P.carina, Aspergillosis, mucormycosis, coccidioidomycosis, cryptococcosis, histoplasmosis

VIRAL INFECTIONS : Antiviral Chemotherapy

DNA virus : Herpes simplex; CMV, Chickenpox vaccine, other pox viruses, varicella zoster, parvovirus Epstein Barr ; HPV, DNA and RNA respiratory viruses –Influenza

RNA viruses: Rabies, arboviruses – dengue, KED, Japanese encephalitis
Humanretrovirus, enterovirus, mumps, Rubella.

HIV & AIDS Epidemiology, clinical stages, complications, opportunistic
infections laboratory investigations, HAART, PEP S counseling.

PROTOZOAL AND HELMINTHIC INFECTIONS – Life cycle, clinical
manifestations, laboratory diagnosis and therapy. Amoebiasis, malaria,
giardiasis, Taenia echinococcosis, E.vernicularis, Trichuristrichura, Ascariasis,
Hookworm Infections, Filariasis, Leishmaniasis, Toxoplasmosis Trichinella,
Trypanosomiasis. Trichomoniasis, HNarki, DLatum, Schistosomiasis, Larva
Migrans Syndrome.

1.5 CARDIOVASCULAR DISEASES

- ❖ Principles Of Clinical Electrocardiogram
- ❖ Rheumatic Fever and Rheumatic Heart Diseases
- ❖ Congenital Heart Disease
- ❖ Atherosclerosis, coronary artery diseases
- ❖ Primary And Secondary Hypertension
- ❖ Heart failure
- ❖ Cardiac dysarrhythmias–Tachy & Bradyarrhythmias, Heart Block
- ❖ Infective Endocarditis
- ❖ Myocardial Pericardial heart diseases, cardiac tumors
- ❖ Pregnancy And Heart Diseases
- ❖ Diseases Of The Aorta, cardiovascular syphilis
- ❖ DVT and pulmonary embolism
- ❖ Peripheral Arterial And Nervous Diseases
- ❖ Acute And Chronic Cor Pulmonale
- ❖ Diseases Of Lymphatic System
- ❖ Non Cardiac Surgeries In Cardiac Patients–Assessment For fitness

- ❖ Cardiac Drugs and Drug Interactions.
- ❖ Guidelines Published By Standard Cardiology Journal
- ❖ Primary and Secondary Prevention of Cardiac Disorders.
- ❖ CLINICAL CARDIOLOGY – adequate exposure to cardiac OPD work, cardiology ward work and coronary care unit.
- ❖ One month posting cardiac OPD/ward and one month in CCU.
- ❖ During the posting, the student should accompany his cases for stress ECG(TMT), Echocardiography in Cathlab.

1.6 RESPIRATORY MEDICINE

- ❖ Applied aspects of Respiratory system Respiratory Physiology
- ❖ Diseases Of Upper Respiratory Tract
- ❖ Disorders Of Ventilation, obstructive Airway diseases, COPD
- ❖ Bronchiectasis, Lung Abscess, Broncholithiasis.
- ❖ Mycobacteriology –Diagnostic methods, pathogenesis of Mycobacterial diseases and their clinical manifestations, pulmonary and extra pulmonary as well as disseminated tuberculosis, its pathogenesis, clinical features, diagnosis and management, national programme of tuberculosis including DOTS.
- ❖ Non Tuberculous Respiratory Infection – Community and Hospital Acquired pneumonia, Infections of Tracheo-bronchia tract including cystic fibrosis, parasitic and fungal disease of the lungs, HIV infection
- ❖ Allergic diseases of the Respiratory system including Bronchial Asthma
- ❖ Interstitial Lung Diseases, industrial, occupational lung diseases, including interstitial pulmonary fibrosis.
- ❖ Suppurative Lung Diseases.
- ❖ Granulomatous Diseases And The Lungs Including Sarcoidosis.
- ❖ Pulmonary manifestation of systemic disease and drug induced lung diseases

- ❖ Tropical Pulmonary Eosinophilia
- ❖ Pulmonary Thromboembolism
- ❖ Primary Pulmonary Hypertension
- ❖ Diseases Of Pleura, Mediastinum And Diaphragm
- ❖ Intrathoracic Malignancy Including Etiology, diagnosis, staging and management of Lung Cancer.
- ❖ Obstructive Sleep Apnea Syndrome

1.7 CENTRAL NERVOUS SYSTEM

- ❖ Applied Anatomy – Brain Spinal Cord
- ❖ Evaluation and Diagnostic methods in Neurology
- ❖ Clinical approach to coma, Headache, Seizure, Dementia, Aphasia, Sleep disorders
- ❖ Brain death
- ❖ Cerebrovascular Disease, Traumatic Diseases Of The Brain
- ❖ Cranial Nerve Disorder
- ❖ CNS infections – Bacterial, Neurotuberculosis, Viral, Fungal and Parasitic
- ❖ Motor System Disease
- ❖ Tumors of the Brain and Spinal cord
- ❖ Extra pyramidal disorders, Parkinson’s disease and other movement disorders
- ❖ Cerebellar disorders
- ❖ Demyelinating Diseases
- ❖ Neurodegenerative disorders
- ❖ Nutritional disorders affecting the nervous system / Metabolic disease the Brain
- ❖ Cerebrovascular Anomalies – Developmental and other congenital anomalies
- ❖ Peripheral Neuropathies, Polyneuritis & Guillain Barre Syndrome

- ❖ Cervical Spondylosis
- ❖ Disorders Of Muscle –dystrophy, myopathies,
- ❖ Autonomic Nervous System Disorders

1.8. **GASTROINTESTINAL AND HEPATOBILIARY SYSTEM:**

- ❖ Approach the patient with Gastrointestinal Diseases/gastrointestinal endoscopy GI function tests.
- ❖ Diseases of esophagus ; Motility Disorders Of The Oesophagus.
- ❖ Acid-Peptic Disease and its management /carcinoma of stomach
- ❖ Upper Gastrointestinal Bleed; lower gastrointestinal bleed.
- ❖ Approach To Malabsorption and Maldigestion.
- ❖ Inflammatory Bowel Diseases.
- ❖ Functional Gastrointestinal Disorders; Irritable Bowel Syndrome(IBS)
- ❖ Gastrointestinal Motility Disorders.
- ❖ Acute and Chronic diarrhea.
- ❖ Diseases of Peritoneum And Mesentery.

LIVER

- ❖ Diagnostic Procedures In Liver Diseases/derangements of hepatic metabolism.
- ❖ Bilirubin Metabolism
- ❖ Cirrhosis of liver biliary cirrhosis , non cirrhotic portal hypertension , Buddchiari syndrome.
- ❖ Acute & Chronic Hepatitis– Viral, toxic
- ❖ Alcoholic liver Disease/ Nonalcoholic steatohepatitis.
- ❖ Amoebic Liver Abscess
- ❖ Obstructive Jaundice
- ❖ Acute and chronic hepatic insufficiency / Hepatic failure / Liver Transplantation
- ❖ Congenital Hyperbilirubinemias

- ❖ Infiltrative diseases affecting the Liver.
- ❖ Tumours of the Liver.
- ❖ Drugs and Liver.
- ❖ Diseases of Gallbladder and bile ducts
- ❖ Acute and Chronic Cholecystitis; cholelithiasis.
- ❖ Diseases and Disorders of Pancreas– Acute & Chronic Pancreatitis

1.8 ENDOCRINOLOGY & METABOLISM:

PRINCIPLES OF ENDOCRINOLOGY: Mechanism of action of hormones and receptors, assessment of endocrine function.

HYPOTHALAMUS & PITUITARY – Approach to pituitary disease; Diseases of anterior & posterior pituitary lobes; Pituitary tumors; Acromegaly; Short Stature; Prolactinoma; Diabetes Insipidus; SIADH; Panhypopituitarism; Sheehan's Syndrome; Pituitary Adenomas.

PANCREAS : Hypoglycemia; Insulinoma

Diabetes Mellitus : Prevalence; etiopathogenesis; ADA criteria for diagnosis; ADA classification; clinical features; investigations; complications→ Micro and macro vascular; Management – Diet, exercise, oral hypoglycemic agents, Insulin Therapy in Type 1 & Type 2 DM; Gestational diabetes; Diabetic ketoacidosis; HONK; Hypoglycemia.

THYROID: Iodine metabolism; Iodine deficiency disorder, synthesis and secretion of thyroid hormone; Hypothyroidism, Hyperthyroidism, cretinism, sick euthyroid syndrome, Thyroiditis; evaluation of thyroid nodule; carcinoma thyroid

PARATHYROID : Primary Hyperparathyroidism; Hypoparathyroidism; Tetany; Pseudohypoparathyroidism.

ADRENAL : Steroid biochemistry; Addison's disease; Cushing's syndrome; congenital adrenal hyperplasia; Pheochromocytoma, Primary aldosteronism;

GONADS – MEN – Testes; Hypogonadism – Polyglandular autoimmune syndromes; Hypogonadotropic (Kallman's syndrome); Hypergonadotropic (Klinefelter's syndrome) Delayed puberty; precocious puberty , Infertility.

OVARY – Delayed Puberty – Turner's syndrome; Polycystic ovarian disease; Hirsutism; precocious puberty; Approach to amenorrhoea; Postmenopausal syndrome, current concepts in management.

1.9 SEXUAL MEDICINE

Applied aspects of anatomy and physiology of reproductive system – Male & female; Human sexual response.

Etiology, clinical features and management of common sexual problems male and female.

Effects of psychiatric illness and systemic diseases including commonly used drugs on reproductive system.

Infertility – Male and female – etiology, clinical features, investigations and physician's role in Management.

1.10 ERRORS OF METABOLISM AND METABOLIC BONE DISORDERS (MBD)

Genetic Disorders of aminoacid metabolism; cystinuria; Renal glucosuria; Renal Tubular acidosis (RTA); Carcinoid syndrome; Gout; Haemochromatosis; Disorders of porphyrias metabolism; Hepatolenticular degeneration; Disorders of lipid metabolism; amyloidosis. Bone mineral metabolism; Osteoporosis; Osteomalacia & rickets; Carcinoid Tumors.

1.11 NEPHROLOGY

- ❖ Evaluation of Patient with renal diseases/ Interpretation of Laboratory Tests.
- ❖ Acute and chronic renal failure – Pathogenesis; pathology; clinical features; management; Diet in renal Failure.
- ❖ Glomerulonephritis–Acute GN including idiopathicGN

- ❖ Nephrotic Syndrome.
- ❖ Vascular Diseases of Kidney; toxemia of pregnancy.
- ❖ Urinary Tract Infections
- ❖ Drugs and Kidney.
- ❖ Nephrolithiasis and Obstructiveuropathy
- ❖ Renal Involvement in Systemic Diseases
- ❖ Diabetic nephropathy
- ❖ Cystic diseases of kidneys; other congenital and hereditary disorders of the kidneys and urinary tract / tumors of kidneys and urinary tract.
- ❖ Renal transplantation / Organ donation / Concept of brain death and cadaveric transplantation.
- ❖ Electrolytes Disturbance And Its Management
- ❖ Immunosuppressive Drugs–Renal Replacement Therapy

1.12 HAEMATOLOGY

- ❖ Haematopoiesis
- ❖ ANAEMIAS – causes, clinical features, Investigations and treatment
 - Iron deficiency, Megaloblastic, Haemolytic and Aplasticanaemias
- ❖ Thalassemia Syndromes
- ❖ Haemoglobin–Electrophoresis/Haemoglobinopathies
- ❖ Polycythemia
- ❖ Iron Overload Disorders
- ❖ Autoimmune Blood Disorders
- ❖ Transfusion medicine-Recognition and management of transfusion disorders.
- ❖ Transfusion Haematological diseases(component therapy)
- ❖ Coagulopathy,Hypercoagulable state.
- ❖ Leukaemias and its management/Lympomas.
- ❖ Myelodysplastic syndromes and myeloproliferative disorders

- ❖ Platelet Disorders–Primary And Secondary Purpuras
- ❖ Therapeutic Plasmapheresis And Cytophairesis
- ❖ Chemotherapy– ABVD regimen, CHOP regimen.
 - Haematopoietic stem cell transplantation.

1.13 RHEUMATOLOGY AND CONNECTIVE TISSUE DISORDERS

- ❖ Structure Of Connective Tissues–collagen, elastin & proteoglycans
- ❖ Immunological Mechanisms.
- ❖ Rheumatoid Arthritis
- ❖ SLE
- ❖ Osteoarthritis
- ❖ Vasculitis
- ❖ Seronegative spondyloarthropathy
- ❖ Crystal Arthritis
- ❖ Inflammatory/Metabolic myopathies
- ❖ Arthropathies associated with – endocrine diseases, haematological diseases, malignant diseases.
- ❖ Fibromyalgia Syndromes
- ❖ Lowback ache
- ❖ Systemic Sclerosis, scleroderma
- ❖ Myositis, Polymyalgia rheumatica
- ❖ Mixed Connective Tissue Disorder (MCTD)
- ❖ Tumors of Bone Paget's Disease.

1.14 EMERGENCY MEDICINE

- ❖ Basic & Advanced life support
- ❖ Shock Syndromes
- ❖ Anaphylaxis
- ❖ Acid Base Balance

- ❖ Multiorgan failure
- ❖ Poisoning–OP compound, Sedatives, Drug over dose
- ❖ Reptilebites, Stings, Envenomation
- ❖ Basics Of Mechanical Ventilation
- ❖ Transfusion reaction
- ❖ Upper GIhaemorrhage
- ❖ Upper airway obstruction
- ❖ Tension Pneumothorax
- ❖ Acute Asthma,ARDS
- ❖ Cardiac Arrest
- ❖ Cardiac Tamponade
- ❖ Hypertensive emergencies
- ❖ Status Epilepticus
- ❖ Coma Diabetes
- ❖ Endocrine Emergencies
- ❖ Cerebral Malaria
- ❖ Emergencies In Cancer
- ❖ Infections in ICU
- ❖ Enteral and Parenteral nutrition
- ❖ Brain death
- ❖ List of skills – cardiopulmonary resuscitation/ cardio version/
Defibrillation
- ❖ Emergent airway intubation
- ❖ Central Venous Cannulation
- ❖ Arterial Cannulation
- ❖ Mechanical Ventilation
- ❖ Temporary Transvenous Pacemaker
- ❖ Percutaneous Tracheostomy
- ❖ Pericardiocentesis

- ❖ Therapeutic bronchoscopy, Tube Thoracostomy
- ❖ Disorders due to environment, temperature, electric shock, lightning, hanging, barometric pressure problems of air and space travel, radioactive isotopes, radiation injury, electrical infusion, immersion injury and drowning.

1.15 MEDICAL ONCOLOGY

- ❖ Basics Of Oncology
- ❖ Normal cell, cancer cell–cell cycle and its regulation.
- ❖ Molecular Biology Techniques such as southern blot, northern blot, western blot, karyotyping, FISH, PCR.
- ❖ Metastatic cascade
- ❖ Angiogenesis
- ❖ Basic Principles of chemotherapy
- ❖ Drug Classification, Drug Action Side Effects
- ❖ Radiotherapy
- ❖ Structure of Atom, radioactivity and its effect on cell, side effects.
- ❖ Clinical oncology.
- ❖ Hematologic cancers
- ❖ Hematopoiesis
- ❖ Leukemias & Lymphomas –classification, diagnosis, management
- ❖ Blood Component therapy
- ❖ Bone Marrow Transplant
- ❖ Newer Modalities In Therapy Supportive Care
- ❖ Biologic Response Modifiers
- ❖ Gene Therapy
- ❖ Stem Cell Transplant
- ❖ Newer Antibiotics
- ❖ Nutritional Support
- ❖ Growth Factors

1.16 RADIODIAGNOSIS

- General : Importance and scope of different radiological examinations in the diagnosis, treatment and management of various diseases
- Newer imaging modalities : Different imaging modalities including the newer imaging techniques – Ultrasonography, Colour Doppler imaging colour flow mapping, computed tomography, MRI, Nuclear imaging, PET and SPECT –Basic Principles.
- Protocols to be followed while referring for various routine investigations:
 - Barium Studies
 - Ultrasonography
 - Computed Tomography
 - MRI imaging
 - Nuclear Medicine Investigations
 - Various contrast investigations and contrast materials and imaging techniques and their adverse reactions.
 - Interpretation of Plain, Contrast X-rays, Ultrasonography, CT, MRI scan

1.17 PSYCHIATRY

- ❖ Delirium And Dementia
- ❖ Misuse Of And Dependence On Alcohol And Drugs
- ❖ Schizophrenia And Related Disorders, including acute and chronic decisional disorders.
- ❖ Depressive and Manic disorders of all degrees of severity
- ❖ Acute reactions to stress, PTSD and adjustment disorders including reactions to terminal illness and normal abnormal grief
- ❖ Anxiety, Phobic And Obsessional Disorders.
- ❖ Somatoform Disorders
- ❖ Disorders of eating, sleeping, psycho sexual functions.

- ❖ Personality disorders
- ❖ Mental retardation
- ❖ Childhood psychiatric disorders
- ❖ Old age psychiatric disorders
- ❖ Suicide
- ❖ Other Syndromes – Dangerousness and the management of potentially violent people, Physical Abuse of Children and adults.

1.18 GERIATRICMEDICINE

- ❖ Problems of older and disease conditions peculiar to the aged.

1.19 COMMUNITY MEDICINE

- ❖ Problems of overpopulation, Family planning programme, National Health Programmes.

1.20 IATROGENIC DISORDERS

- ❖ Induced by Drug and other forms of Therapy.

1.21 DERMATOLOGY/STD

- ❖ Structure and function of Skin
- ❖ The Skin Manifestations Of Various Diseases
- ❖ Leprosy
- ❖ STD
- ❖ HIV
- ❖ Systemic Infections And Infestations
- ❖ Dermatological Manifestations Of Internal Malignancy
- ❖ Drug Reactions
- ❖ Systemic Diseases With Skin Manifestations
- ❖ Psoriasis
- ❖ Vitiligo

- ❖ Fungal Infections
- ❖ Lichen Planus
- ❖ Viral, bacterial infections
- ❖ Cutaneous Metastasis
- ❖ panniculitis
- ❖ Disorders of hair and nails
- ❖ Photodermatology-Principles Of Topical Therapy

1.22 OCCUPATIONAL DISEASES

Note : The List of topics given are general guidelines. They are neither comprehensive nor all inclusive.

2. SKILLS TO BE ACQUIRED

List of Essential Competencies:

- ❖ Clinical assessment Skills
- ❖ Laboratory Diagnostic Abilities
- ❖ Interpretation abilities
- ❖ Communication abilities
- ❖ Therapeutic Skills

SKILL OF HISTORY TAKING AND CLINICAL EXAMINATION

- ❖ Active And Positive Listening, empathy
- ❖ Non-verbal communication
- ❖ Art of history taking in handicapped individuals like deaf, elderly, aphasics. Ascertaining Life History and Lifestyle.
- ❖ Tactful Elicitation of Personal And Confidential History.
- ❖ Carryout Meticulous General and Systemic Examination.
- ❖ Specific Areas of examination based on clues in the history.
- ❖ Make Personality Assessment.

INFORMATION, EVALUATION SKILLS INTERPRETATION :

- ❖ Diagnosis and Differential Diagnosis–Evaluation & Formulation.
- ❖ Role of personal and social factors contributing to the patients behavioural pattern.
- ❖ Formulate plane of management which includes referral to a specialist, whenever appropriate.

INFORMATION GIVING SKILLS

- ❖ Pass Information To Promote Health.
- ❖ Explain Implication Of Diagnosis To patients as well as the family.
- ❖ Inform the patient about beneficial aspects and also potential adverse effects treatment
- ❖ Philosophical Approach To life and death.
- ❖ Informed Consent, discharge summaries, death certificates

REPORTING SKILLS:

- ❖ Report Verbally or in writing or any other media of communication to medical colleagues, To lay people, to Non-Medical agencies involved inpatient care.
- ❖ Promote Public Education.
- ❖ Promote Skills Incase Reporting and Publication Of Data.

TREATMENT SKILLS

- ❖ Promote Compliance With Prescribed Treatment.
- ❖ Basic Prescribing Skills For Medical disorders commonly encountered
- ❖ Rational Drug Prescribing Skills
- ❖ Recognise early adverse effects treatment and distinguish them from those symptoms illness.

LEARNING SKILLS

- ❖ Sustained Self Dissected Independent Learning.
- ❖ Keeping Abreast with Advances in Medical Practice.
- ❖ Internalising the Concept of Lifelong Learning
- ❖ Access to Computer Usage Including Internet Browsing
- ❖ Critical appraisal of latest and best information and data analysis
- ❖ Skills of using library facilities, including electronic media.

TEAM WORK SKILLS

- ❖ Cooperate with Medical Colleagues, Non-Medical health care workers, patient and his family, organizations, community services, Non-governmental organisations and general public.

PRACTICAL AND CLINICAL SKILLS

COMPETENCY LIST

Key

- ❖ PI–Perform Independently
- ❖ PA–Performs Under Assistance

DESCRIPTION OF COMPETENCIES:

□ CLINICAL ASSESSMENT SKILLS (ALLPI)

- ❖ Elicit a detailed clinical history including dietary habits, calorie and protein estimation.
- ❖ Perform a thorough clinical examination including anthropometry.
- ❖ Optic Fundus Examination
- ❖ Per rectal examination

PROCEDURAL SKILLS (ALLPI)

- ❖ Test Dose Administration/Mantoux Test
- ❖ Sampling Of Fluid For Culture
- ❖ IV infusions
- ❖ Intravenous cannulation, IV infections
- ❖ Venescction
- ❖ ECG recording
- ❖ Pleuraltap / Peritonealtap / Pericardiocentesis
- ❖ Pleural Biopsy
- ❖ Lumbar Punctures
- ❖ Cardiac –TMT, Holter monitoring, Echocardiogram, Doppler studies
- ❖ Resuscitation –BLS,ALS(CPR)
- ❖ Central Line, CVP
- ❖ Blood And Blood Components Matching And Transfusions.
- ❖ Arterial Puncture for ABG
- ❖ Fine Needle Aspiration Cytology(FNAC)from palpable lumps.
- ❖ Bone Marrow Aspiration And Biopsy.
- ❖ Liver biopsy/Liver abscess aspiration.
- ❖ Glucometer Usage
- ❖ Urine analysis
- ❖ Urinary catheterization
- ❖ Ryle's, Stomach Tube use
- ❖ Sputum– Gram's/AFB staining (ZN)
- ❖ Respiratory systems PFT, Peak flow meter, pulse oximetry
- ❖ Respiratory Management –Nebulization, Inhaler therapy, Oxygen delivery

PROCEDURAL SKILLS (ALL PA)

- ❖ Peritoneal Dialysis
- ❖ Subdural Ventricular tap
- ❖ Haemodialysis
- ❖ ERCP
- ❖ Joint Aspiration–Infection
- ❖ Pleurodesis

CRITICALLY ILL PERSON–(ALL PI SKILLS)

- ❖ Monitoring A Sick Person
- ❖ Endotracheal Intubation
- ❖ CPR
- ❖ Using a defibrillator
- ❖ Pulse Oxymetry
- ❖ Feeding Tube Use/ Ryle's tube/ Stomachwash / Nasogastric Intubation
- ❖ Urinary Catheterization–Male and female
- ❖ Intercostal tube Placement with under water seal
- ❖ Sedation/Analgesia
- ❖ Venesection
- ❖ CUP monitoring
- ❖ Assessment Of Brain Death

LABORATORY DIAGNOSTIC ABILITIES– (ALLPI)

- ❖ Urine–Protein, sugar, Microscopy
- ❖ Peripheral Blood Smear
- ❖ Malarial Smear
- ❖ Ziehl Neelsen smear–sputum, gastric aspirate
- ❖ Gram Stain Smear–CSF, pus
- ❖ Stool PH, occult blood, microscopy

- ❖ KOH smear
- ❖ Cell count–CSF, Pleural, Peritoneal, any serous fluid

INTERPRETATIONSKILLS–(ALLPI)

- ❖ Clinical data (history and examination findings), formulating a differential diagnosis in order of priority, using principles of clinical decision making ,plan investigative workup, keeping in mind the cost effective approach i.e.,problem solving and clinical decision making
- ❖ Blood, urine, CSF and fluid investigations–Haematology, biochemistry
- ❖ X-ray-Chest, abdomen, bones and joints
- ❖ ECG
- ❖ Treadmill testing
- ❖ ABG analysis
- ❖ CT scan–chest and abdomen
- ❖ CT scan– Head And Spine
- ❖ MRI
- ❖ Barium Studies
- ❖ Ultrasonography–Abdomen/ chest
- ❖ IVP, VUR studies
- ❖ Pulmonary Function Tests
- ❖ Immunological Investigations
- ❖ Echocardiographic Studies

INTERPRETATION UNDER SUPERVISION– ALLPA

- ❖ Haemodynamic Monitoring
- ❖ Handling Ventilators
- ❖ Cardiac pacing
- ❖ GIendoscopy– Upper, lower
- ❖ Bronchoscopy

- ❖ Bronchial Artery Embolization
- ❖ Tracheostomy
- ❖ US Gabdomen
- ❖ Ultrasound Guided Aspiration And Biopsy
- ❖ ECHO
- ❖ TMT
- ❖ EEG
- ❖ Nuclear is tope scanning
- ❖ MRI scanning of head/ Neck/ Evoked Potential interpretation
- ❖ Polysonography

TO BE FAMILIAR WITH

- ❖ Defibrillation
- ❖ Temporary Pacing
- ❖ Radiofrequency Ablation
- ❖ PTCA stent
- ❖ Peripheral Carotid Doppler
- ❖ Peripheral Angioplasty
- ❖ PFT
- ❖ Nerve Conduction Studies

INTERPRETATIONSKILLS

- ❖ All Haematological Biochemical Investigations
- ❖ X-ray chest, abdomen, bones & joints
- ❖ Barium Studies
- ❖ ECG/ECHO/TMT
- ❖ Ultrasound Abdomen
- ❖ Doppler Studies
- ❖ CT/MRI of head, chest & abdomen

- ❖ Immunological studies Polymerase chain reaction
- ❖ PFT
- ❖ EEG/ ENMG

NUTRITIONAL ADVICE IN

- ❖ Diabetes mellitus
- ❖ Obesity/malnutrition
- ❖ Cirrhosis Of Liver
- ❖ Renal failure
- ❖ Hypertension / Ischaemic Heart Disease
- ❖ Diarrhoea

PRINCIPLES OF REHABILITATION

- ❖ Strokes & Neurodegenerative diseases
- ❖ Muscular Dystrophies
- ❖ COPD/Suppurative Lung diseases
- ❖ IHD
- ❖ Epilepsy & others

DEMONSTRATING: professionalism, ethical behavior, humane and professional care of patients.

- ❖ Self Directed Learning
- ❖ Utilization of information technology, Medline search, Internet access, computer usage identifying key information sources, literature search information management.
- ❖ Research Methodology –Interpretation And Presentation of Scientific data.

THERAPEUTIC DECISION MAKING

- ❖ Managing Multiple Problems Simultaneously
- ❖ Assessing Risks, benefits and costs of treatment options
- ❖ Involving Patients in Decision Making
- ❖ Selecting Specific Drugs within Classes
- ❖ Rational Use of Drugs

3. TRAINING PROGRAMME

To attain proficiency in the subject and practice, the post graduate student has to be trained in an organized and structured manner. Graded Responsibility is to be given to the postgraduate student on a progressive scale in an integrated manner in the three year course so as to attain his /her identity as a physician capable of holistic approach to the patient care, Independent self directed problem based learning, skill acquisition oriented learning, ambulatory and emergency care.

Seminars, Journal clubs, symposia, reviews and guest lectures should get priority for acquiring theoretical knowledge. Bedside teaching, grand rounds, interactive group discussions should be the hallmark of clinical /practical learning. Students should have hands on training in performing various procedures and ability to interpret results of various tests/investigations. Exposure to newer specialized diagnostic / therapeutic procedures should be given. Development of independent skills is an important fact of postgraduate learning.

- ❖ The training techniques and approach should provide opportunities for practicing skills, initially in controlled or simulated situations. Repetition would be Necessary to become competent or proficient in a particular skill. Time must be available for academic work and audit.

- ❖ The following as rough guideline to various teaching/ Learning Activities that maybe employed:
- ❖ Independent Self Directed Learning
- ❖ Intra departmental and inter departmental conferences related to case discussions
- ❖ Ward Rounds Including Emergency Admissions
- ❖ Attendance at subspecialty clinics
- ❖ External rotation postings in departments like cardiology, neurology and other subspecialties
- ❖ Skill training
- ❖ Conferences, Seminars, Continuing Medical Education (CME) programmes
- ❖ Journal Club
- ❖ Research Presentation and Review of Research Work.
- ❖ A Postgraduate student would be required to present one poster presentation, to read one paper at a national/ state conference and to present one research paper which should be published / accepted for publication / for publication during the period of his/her postgraduate studies so as to make him / her eligible to appear at the postgraduate degree examination
- ❖ Participation in workshops, conferences and presentation of papers etc
- ❖ **Maintenance of records:** Logbooks should be maintained to record the work done which shall be checked and assessed periodically by the faculty members imparting training.
- ❖ Postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

ILLUSTRATION OF STRUCTURED TRAINING

FIRST YEAR

- ❖ Ability to obtain a clear and thorough history, physical examination and follow up notes. Capability to manage routine & on call duties of the wards. Supervising and follow up of investigations. Ability to develop a rational treatment plan, initiate and carry out treatment, identify emergency problems, seek help from seniors & initiate treatment so as to develop decision making and judgment skills.
- ❖ Supervise House Surgeons Work.
- ❖ Prepare Synopsis For Dissertation

SECOND YEAR

- ❖ Develop basic knowledge of the subject in case of the patient
- ❖ Witness/perform procedures in speciality
- ❖ Learn Indications and contraindications of the procedures.
- ❖ To learn when to refer a case to refer a case the subspecialist.
- ❖ To know when to intervene and when not to intervene in a case
- ❖ To Carry Out Data Collection for the Dissertation.

THIRD YEAR

- ❖ Able to handle cases independently, diagnose and manage the cases in wards.
- ❖ Diagnose and treat cases in emergency ICU setup.
- ❖ Problem identification of referral cases & advise suitably supervise 1st year PG students
- ❖ Teach Undergraduates And Interns
- ❖ Help junior residents in their responsibilities at all levels and to intervene at appropriate times when occasions demand.

- ❖ In Problem cases—to seek help from senior staff members.
- ❖ Successfully Complete Data collection, analysis and writing up of dissertation and its submission
- ❖ Develop specialized skills including exchange transfusions, inter costal drainage, peritoneal dialysis, Defibrillation, Cardio-version etc.

ROTATION POSTINGS

GENERAL GUIDELINES

<u>DEPARTMENT</u>	<u>DURATION OF POSTING</u>	<u>YEAR POSTINGS</u>
General Medicine	24 months	I and III
Emergency	02 months	II
I CU	01 month	II
Cardiology, including ICCU	02 months	II
Neurology	02 months	II
Gastroenterology	01 month	II
Pulmonology	01 month	II
Nephrology	01 month	II
Endocrinology	15 days	II
Dermatology	15 days	II
Psychiatry	15 days	II

Rest of the training in II year will be in the Department of Medicine

Speciality Departments Shall Ensure:

Adequate Exposure To Cases In Respective Fields.

A minimum exposure to the following procedures

<u>Department</u>	<u>No. of Procedures</u>
Cardiology	05
Gastroenterology	05
Respiratory Medicine	10
Neurology	10
Nephrology–Haemodialysis & Peritoneal dialysis	05each
TMT	05
Holter	05
Upper GI Endoscopy	10
Sigmoidoscopy	03
Colonoscopy	03
Bronchoscopy	02
Pleural Biopsy	02
EMG	02
EEG	05
Muscle Biopsy	

III. In addition a minimum number of cases of the following sub-specialities must be seen and entered in the logbook.

Psychiatry	10
Dermatology	10
Endocrinology	05

III ASSESSMENT

❖ Internal Assessment should be conducted once a year in theory and clinical examination.

❖ MD Degree examination in General Medicine shall consist of dissertation, written papers, Practical/clinical and viva voce.

1. DISSERTATION

Every candidate shall submit a dissertation at least six months before the theory and clinical / practical examination. The dissertation shall be examined by a minimum of three examiners, one internal and two external examiners. Acceptance of dissertation by the examiners shall be a precondition for the candidate appear for the final examination.

2. THEORY EXAMINATION

There shall be four question papers, each of three hours duration each paper shall consist of ten questions each question carrying ten marks. Total marks for each paper will be 100.

Paper I	= 100 Marks
Paper II	= 100 Marks
Paper III	= 100 Marks
Paper IV	= 100 Marks
Total	400 Marks

Distribution of topics for each paper are as follows;

Paper I	: Basic Medical Sciences
Paper II	: Medicine and allied specialties including pediatrics, dermatology & psychiatry
Paper III	: Tropical Medicine and Infectious Diseases
Paper IV	: Recent Advances in Medicine

3. CLINICAL/PRACTICAL AND ORAL/VIVA VOCE EXAMINATION TOTAL–300 MARKS

A. Clinical Examination 200 MARKS

It should aim at examining skills and competence of candidate for undertaking independent work as a specialist

Each candidate should examine:

One long case = 80 Marks (Time– 60minutes)

Three short cases = 40 Marks for each case (Time 30minutes for each case)

VIVA VOCE EXAMINATION

TOTAL-100 MARKS

1. Viva Voce Examination [80Marks]

All examiners will conduct viva voce on : Candidate comprehension, analytical approach, expression and interpretation of data. It includes all components of course contents. In addition candidates may also be given case reports, ECG's, charts, gross specimens, histopathology slides, X-rays, Ultrasound and CT Scan images for interpretation. Questions on use of instruments will be asked. Include Discussion On Dissertation.

2. PEDAGOGY EXERCISE (Teaching Skills) [20Marks]

A topic to be given to each candidate in advance. He / She is asked to make a presentation on the topic for 8 to 10 minutes and assessed.

Maximum marks for M.D. General Medicine	Theory	Practical & Viva	Grand Total
	400	300 (Practical – 200 & Viva – 100)	700

MARKS QUALIFYING FOR A PASS

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examination. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the degree examination.

Recommended Books and Journals

Text Books : Latest Edition

1. Harrison's Principles of Internal Medicine
2. Davidson's Principles and Practice of Medicine
3. Oxford Textbook of Medicine
4. API Text Book of Medicine
5. Manson's Tropical Diseases

6. Kumar and Clark Clinical Medicine
7. Cecil Text Book of Medicine
8. Physical Diagnosis : Rustomjalvakil

REFERENCE BOOKS

CARDIOLOGY

1. Hurst: the heart
2. Braunwald – heart disease : a textbook of cardio vascular medicine
3. Leoschamroth : an introduction of electro cardiography
4. Marriott's practical electro cardiography

PULMONOLOGY

1. Crofton and douglas's : Respiratory Diseases
2. Textbook of Tuberculosis : Knrao
3. Fishman Respiratory Medicine
4. Tuberculosis: Sksharma, A.Mohan

EMERGENCY MEDICINE

1. Text Book of Critical Care–Shoemaker, Ayres, Grenvik, Holbrook
2. Emergency Medicine : Howell, Attieri, Jogoda, Prescott, Scot,Stair
3. Clinical procedures in Emergency Medicine, Jamesroberts, Jerris Bhedges

ENDOCRINOLOGY

1. Williams Textbook of Endocrinology
2. Degroot Jameson Endocrinology

GASTROENTEROLOGY

1. Sleisenger and Fordtron’s Gastro Intestinal and Liver Disease
2. Text Book of Gastroenterology : Tadatakayamada, Davidhalpers.
3. Oxford Textbook of Clinical Hepatology.

4. Diseases of the Liver and Biliary System Sheila Sherlock, Jamesdooley

HAEMATOLOGY

1. Text book of Hematology: Shirlynbmeckenrie.
2. Wintrobe's Clinical Haematology:G Richardlee: Johnfoerster
3. Williams Haematology: Earnestbeutler, Marshallalichtman
4. Deg Ruch's Clinical Haematology in Medicine Practice.

RHEUMATOLOGY

1. Kelley's Text book of Rheumatology
2. Oxford Text book of Rheumatology
3. Pathological Basis of Connective Tissue Disease : Dugaldlindsaygardner.

NEUROLOGY

1. Brain Diseases of the Nervous System : Mkheal Donaghy.
2. Adam's Principles of Neurology: Raymond Diadams, Mauriie Victor
3. Bicker Staff's Neurological Examination in Clinical Practice
4. Dejong's : The Neurologic Examination of Haerer
5. Text Book of Neurology: Jagjits Chopra, Garjundas, S.Prabhakar

NEPHROLOGY

1. Oxford Textbook of Clinical Nephrology: Stewart Cameron
2. The Kidney: Brenner and Rector

INTECTIOUS DISEASES

1. Manson's Tropical Diseases
2. Tropical Infectious Diseases : Principles, Pathogenesis & Practice
3. Hunter's tropical medicine and emerging infectious diseases

DIABETOLOGY

1. Joslin's Diabetes Mellitus : Cronaldkahn : Gordonc Weri
2. Text Book of Diabetes : John pickup, Gareth williams
3. Rssdi, Textbook of Diabetes Mellitus.
4. Diabetes Mellitus in Developing Countries : J.S. Bajaj

ONCOLOGY

1. Oxford Text Book of Oncology: Michealpeckham, Herbertmpinelo
2. Cancer Principles and Practice and Practice of Oncology : Vincentdevita, JR.S.Shellman
3. Clinical Oncology: Martin D Abeloff, James O.Armhage, allenslichter.

CLINICAL METHODS

1. Hutchinson's Clinical Methods
2. Macleod's Clinical Examination
3. Chamberlain's Symptoms and Signs in Clinical Medicine

JOURNALS

1. New England Journal of Medicine
2. British Medical Journal
3. Lancet
4. Journal of Association of Physicians Of India
5. Indian Heart Journal
6. Medicine Clinics of North America
7. American Journal of Cardiology
8. Postgraduate Medicine

FORMAT MODEL CHECKLISTS
CHECKLIST –I : MODEL CHECK LIST FOR EVALUATION
JOURNAL REVIEW PRESENTATIONS

Name Of The Student: **Name Of The Faculty/Observer:** **Date:**

Sln.	Items for Observation During Presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Article Chosen was					
2	Extent of understanding of scope and objections of the paper by the candidate					
3	Whether Cross References Have Been Consulted					
4	Whether other relevant Publications Consulted					
5	Ability To Respond To Questions On the Papers/Subject					
6	Audio–Visual Aids Used					
7	Ability To Discuss The Paper					
8	Clarity of Presentation					
9	Any other observation					
	Total Score					

FORMAT MODEL CHECKLISTS
CHECKLIST –II: MODEL CHECKLIST FOR EVALUATION SEMINAR PRESENTATIONS

Name Of The Student: **Name Of The Faculty/Observer:** **Date:**

Sl. No.	Items for Observation During Presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Whether Other Relevant Publications Consulted					
2	Whether Cross References Have Been Consulted					
3	Completeness of Preparation					
4	Clarity Of Presentation					
5	Understanding Subject					
6	Ability To Answer Questions					
7	Time Scheduling					
8	Appropriate use of Audio–Visual Aids					
9	Overall performance					
10	Any other observation					
	Total Score					

FORMAT MODEL CHECKLISTS
CHECKLIST –IV:EVALUATION FORM FOR CLINICAL
PRESENTATION

Name of The Student:

Name Of The Faculty/Observer:

Date:

Sl No.	Items for Observation During Presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Completeness History					
2	Whether All Relevant Points Elicited					
3	Clarity of Presentation					
4	Logical order					
5	Mentioned all positive and negative points of importance					
6	Accuracy of General Physical examination					
7	Whether All Physical Signs Elicited correctly					
8	Whether Any Major Signs Missed or misinterpreted					
9	Diagnosis : Whether It Follows Logically From History and findings.					
10	Investigations Required Complete list Relevant Order Interpretation of Investigations					
11	Ability to React to Questioning Whether it follows logically from history and findings					
12	Ability to Defend Diagnosis					
13	Ability to Justify Differential Diagnosis					
14	Others					
	Grand Total					

**CHECKLIST –V:MODEL CHECKLIST FOR EVALUATION OF
TEACHING SKILL PRACTICE**

Sl No.	Items for Observation During Presentation	Strong point	Weak point
1	Communication Of The Purpose Of The Talk		
2	Evoked Audience interest in subject		
3	The Introduction		
4	The Sequence Of Ideas		
5	The use of practical examples and illustrations		
6	Speaking Style (enjoyable, monotonous etc., specify)		
7	Attempts Audience Participation		
8	Summary Of Main Points At The End		
9	Ask Questions		
10	Answers Questions Asked By The Audience		
11	Rapport Of Speaker With His Audience		
12	Effectiveness Of The Talk		
13	Uses Avoid Appropriately		

**CHECKLIST –VI:MODEL CHECKLIST FOR DISSERTATION
PRESENTATION**

Name of the Student:

Name Of The faculty/Observer:

Date:

Sl No.	POINTS TO BE CONSIDERED	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Interest Shown In Selecting A Topic					
2	Appropriate Review of Literature					
3	Discussion with Guide & Other Faculty					
4	Quality Protocol					
5	Preparation of Proforma					

**CHECKLIST-VII:CONTINUOUS EVALUATION DISSERTATION
WORKBY GUIDE/CO-GUIDE**

Name Of The Student: **Name Of The Faculty/Observer:** **Date:**

Sl No.	POINTS TO BE CONSIDERED	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Periodic Consultation with Guide/Co-Guide					
2	Regular Collection of Case Material					
3	Depth of Analysis/discussion					
4	Departmental Presentation Findings					
5	Quality Of Final Output					
6	Others					
	Total Score					

MODEL OVERALL ASSESSMENT SHEET

NAME OF THE COLLEGE:

ACADEMIC YEAR:

SI NO.		Name of the Student and Mean Score				
		A	B	C	D	E
1	Journal Review Presentation					
2	Seminars					
3	Clinical Work in Wards					
4	Clinical Work in Wards					
5	Teaching Skill Practice					
	Total Score					

Note: Use Separate Sheet for Each Year

Signature of HOD

Signature of Principal

The above overall assessment sheet used along with the Logbook should form the basis of certifying satisfactory completion of course of study addition to the attendance requirement.

KEY:

Mean Score: Is the sum of all the scores of checklists 1 to 7A,B, C,D,E: Name of the trainees.