REGULATIONS AND CURRICULUM
FOR
POSTGRADUATE DEGREE AND DIPLOMA COURSES
2010

GENERAL MEDICINE

JSS UNIVERSITY
JSS MEDICAL INSTITUTIONS CAMPUS
SRI SHIVARATHREESHWARA NAGARA, MYSORE 570 015
KARNATAKA, INDIA
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## Postgraduate Medical Degree and Diploma Courses 2010

### GENERAL MEDICINE

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CHAPTER I

Regulations for Postgraduate Degree and Diploma Courses in Medical Sciences

1. Branch of Study

1.1 Postgraduate degree courses

Post Graduate Degree courses may be pursued in the following subjects:

a) MD (Doctor of Medicine)
   i) Anaesthesiology
   ii) Anatomy
   iii) Biochemistry
   iv) Community Medicine
   v) Dermatology, Venereology and Leprosy
   vi) Forensic Medicine
   vii) General Medicine
   viii) Microbiology
   ix) Pathology
   x) Paediatrics
   xi) Pharmacology
   xii) Physiology
   xiii) Psychiatry

b) MS (Master of Surgery)
   i) General Surgery
   ii) Obstetrics and Gynaecology
   iii) Ophthalmology
   iv) Orthopedics
   v) Oto-Rhino-Laryngology

1.2 Postgraduate Diploma Courses

Post Graduate Diploma Courses may be pursued in the following subjects:

 a) Anesthaesiology (DA)
 b) Child Health (DCH)
 c) Clinical pathology (DCP)
 d) Dermatology, Venerology and Leprosy (DDVL)
 e) Obstetrics and Gynaecology (DGO)
 f) Ophthalmology (DO)
 g) Orthopaedics (D Ortho)
 h) Oto-rhino-laryngology (DLO)
 i) Psychiatry (DPM)
2. Eligibility for Admission

**MD / MS Degree and Diploma courses**: A candidate affiliated to this University and who has passed final year MBBS examination after pursuing a study in a medical college recognized by the Medical Council of India, or from a recognized medical college affiliated to any other university recognized as equivalent thereto and has completed one year compulsory rotating internship in a teaching institution or other institution recognized by the Medical Council of India, and has obtained permanent registration of any State Medical Council, shall be eligible for admission.

3. Obtaining Eligibility Certificate by the University before making admission

No candidate shall be admitted for any Postgraduate Degree/Diploma courses unless the candidate has obtained and produced the eligibility certificate issued by the University. The candidate has to make an application to the University with the following documents along with the prescribed fee:

a) MBBS pass/degree certificate issued by the university.

b) Mark cards of all the university examinations passed before MBBS course.

c) Attempt certificate issued by the Principal.

d) Certificate regarding the recognition of the medical college by the Medical Council of India

e) Completion of internship certificate.

f) In case internship was done in a non-teaching hospital, a certificate from the Medical Council of India that the hospital has been recognized for internship.

g) Registration by any state Medical Council.

h) Proof of ST/SC or Category I, as the case may be.

Candidates should obtain the eligibility certificate before the last date for admission as notified by the university.

A candidate who has been admitted to postgraduate course should register his / her name in the university within a month of admission after paying the registration fee.

4. Intake of students

The intake of students to each course shall be in accordance with the MCI and GOI permissions in this regard.

5. Course of study

5.1 Duration

a) **MD, MS Degree Courses**: The course of study shall be for a period of 3 years consisting of 6 terms.

b) **Diploma courses**: The course of study shall be for a period of 2 years consisting of 4 terms.
6. Method of training

The training of postgraduate for degree/diploma shall be residency pattern, with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should be required to participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Basic medical sciences students should be posted to allied and relevant clinical departments or institutions. Similarly, clinical subjects’ students should be posted to basic medical sciences and allied specialty departments or institutions.

7. Attendance, Progress and Conduct

7.1 A candidate pursuing degree/diploma course, should work in the concerned department of the institution for the full period as full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate course, nor can he/she work in a nursing home or other hospitals/clinic/laboratory while studying postgraduate course.

7.2 Each year shall be taken as a unit for the purpose of calculating attendance.

7.3 Every student shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

7.4 Every candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate course. Provided, further, leave of any kind shall not be counted as part of academic term without prejudice to minimum 80% attendance of training period every year.

7.5 Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the University Examinations.

8. Monitoring Progress of Studies:

8.1 Work diary / Log Book: Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the
candidate as well as details of clinical or laboratory procedures, if any, conducted by the candidate. The work diary shall be scrutinised and certified by the Head of the Department and Head of the Institution, and presented in the University practical/clinical examination.

8.2 **Periodic tests:** In case of degree courses of three years duration (MD/MS, DM, M Ch.), the concerned departments may conduct three tests, two of them be annual tests, one at the end of first year and the other at the end of the second year. The third test may be held three months before the final examination. The tests may include written papers, practical / clinical and viva voce. Records and marks obtained in such tests will be maintained by the Head of the Department and sent to the University, when called for.

8.3 In case of diploma courses of two years duration, the concerned departments may conduct two tests, one of them at the end of first year and the other in the second year, three months before the final examination. The tests may include written papers, practical / clinical and viva voce.

8.4 **Records:** Records and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University or MCI.

9. **Dissertation**

9.1 Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

9.2 The dissertation is aimed to train a post graduate 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 results and drawing conclusions.

9.3 Every candidate shall submit to the Director (Academic) of the University in the prescribed proforma, 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.

9.4 Such synopsis will be reviewed and the 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.
9.5 The dissertation should be written under the following headings

a) Introduction
b) Aims or Objectives of study
c) Review of Literature
d) Material and Methods
e) Results
f) Discussion
g) Conclusion
h) Summary
i) References
j) Tables
k) Annexure

9.6 The written text of 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 line spacing on one side of paper (A4 size, 8.27” x 11.69”) and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

9.7 Four copies of dissertation thus prepared shall be submitted to the Registrar (Evaluation), six months before final examination, on or before the dates notified by the University.

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

9.9 Guide: The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as per Medical Council of India, Minimum Qualifications 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 teaching experience as Lecturer or Assistant Professor gained after obtaining post graduate degree shall be recognised as post graduate teachers.

9.10 Co Guide: A Co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognised for teaching/training by JSS University / Medical Council of India. The co-guide shall be a recognised post graduate teacher of JSS University.

9.11 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.
10. Schedule of Examination
The examination for MD / MS courses shall be held at the end of three academic years (six academic terms). The examination for DM and M Ch courses shall be held at the end of three years. The examination for the diploma courses shall be held at the end of two academic years (four academic terms). For students who have already passed Post Graduate Diploma and appearing for MD examination, the examination shall be conducted after two academic years (four academic terms, including submission of dissertation) The University shall conduct two examinations in a year at an interval of four to six months between the two examination. Not more than two examinations shall be conducted in an academic year.

11. Scheme of Examination
11.1 MD / MS Degree
MD / MS Degree examinations in any subject shall consist of dissertation, written paper (Theory), Practical/Clinical and Viva voce.

11.1.1 Dissertation: Every candidate shall carry out work and submit a dissertation as indicated in Sl NO 9. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

11.1.2 Written Examination (Theory): A written examination shall consist of four question papers, each of three hours duration. Each paper shall carry 100 marks. Out of the four papers, the 1st paper in clinical subjects will be on applied aspects of basic medical sciences. Recent advances may be asked in any or all the papers. In basic medical subjects and para-clinical subjects, questions on applied clinical aspects should also be asked.

11.1.3 Practical / Clinical Examination: In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures as well as testing student’s ability to make relevant and valid observations, interpretations and inference of laboratory or experimental work relating to his/her subject.

In case of clinical examination, it should aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases.

The total marks for Practical / clinical examination shall be 200.

11.1.4 Viva Voce. Viva Voce Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 100 and the distribution of marks shall be as under:
i) For examination of all components of syllabus 80 Marks  
ii) For Pedagogy 20 Marks  

If there is skills evaluation, 10 marks shall be reserved for Pedagogy and 10 marks for skill evaluation.

11.1.5 Examiners. There shall be at least four examiners in each subject. Out of them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

11.1.6 Criteria for declaring as pass in University 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.

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Registrar (Evaluation).

11.1.7 Declaration of class: A successful candidate passing the University examination in first attempt and secures grand total aggregate 75% of marks or more will be declared to have passed the examination with distinction, 65% but below 75% declared as First Class and 50% but below 65% declared as Second Class.

A candidate passing the University examination in more than one attempt shall be declared as Pass Class irrespective of the percentage of marks.

11.2 DM/M Ch

The examination shall consist of theory, clinical/practical and viva voce examination.

11.2.1 Theory (Written Examination): The theory examination shall consist of four question papers, each of three hours duration. Each paper shall carry 100 marks. Out of the four papers, the first paper will be on basic medical sciences. Recent advances may be asked in IV Paper.

11.2.2 Practical / Clinical Examination: In case of practical examination it should be aimed at assessing competence, skills of techniques and procedures as well as testing student’s ability to make relevant and valid observations, interpretations and experimental work relevant to his / her subject.
In case of clinical examination it should aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases.

The maximum marks for Practical / Clinical shall be 200.

11.2.3 **Viva-Voce:** Viva Voce examination shall aim at assessing thoroughly, depth of knowledge, logical reasoning, confidence and oral communication skills. The maximum marks shall be 100. This also includes spotters like instruments, anaesthesia machines, drugs, ECG, X-ray.

11.2.4 **Examiners:** There shall be at least four examiners in each subject. Out of them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

11.2.5 **Criteria for declaring as pass in University 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.

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Registrar (Evaluation).

11.3 **Diploma Examination:**

Diploma examination in any subject shall consist of theory (written papers), Practical / Clinical and Viva-Voce.

11.3.1 **Theory:** There shall be three written question papers each carrying 100 marks. Each paper will be of three hours duration. In clinical subjects one paper out of this shall be on basic medical sciences. In basic medical subjects and Para-clinical subjects, questions on applied clinical aspects should also be asked.

11.3.2 **Practical Clinical Examination:** In case of practical examination it should be aimed at assessing competence, skills related to laboratory procedures as well as testing students ability to make relevant and valid observations, interpretation of laboratory or experimental work relevant to his/her subject.

In case of clinical examination, it should aim at examining
clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases.

The maximum marks for Practical / Clinical shall be 150.

11.3.3 **Viva Voce Examination.** Viva Voce examination should aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 50. This also includes spotters like instruments, anesthesia machines, drugs, ECG, X-ray.

11.3.4 **Criteria for declaring as pass in University 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.

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Registrar (Evaluation).

11.3.5 **Declaration of distinction.** A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate marks is 75 percent and above. Distinction will not be awarded for candidates passing the examination in more than one attempt.

11.3.6 **Examiners.** There shall be at least four examiners in each subject. Out of them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

12. **Number of Candidates per day**

The maximum number of candidates for practical / clinical and viva-voce examination shall be as under:

- **MD /MS Course:** Maximum of 6 per day.
- **Diploma Course:** Maximum of 8 per day.
CHAPTER II

GOALS AND GENERAL OBJECTIVES OF POSTGRADUATE MEDICAL EDUCATION PROGRAM

GOAL
The goal of postgraduate medical education shall be to produce competent specialists and/or medical teachers:

1. Who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
2. Who shall have mastered most of the competencies, pertaining to the speciality, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
3. Who shall be aware of the contemporary advance and developments in the discipline concerned.
4. Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology and
5. Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

GENERAL OBJECTIVES
At the end of the postgraduate training in the discipline concerned the student shall be able to:

1. Recognize the importance to the concerned speciality in the context of the health needs of the community and the national priorities in the health section.
2. Practice the speciality concerned ethically and in step with the principles of primary health care.
3. Demonstrate sufficient understanding of the basic sciences relevant to the concerned speciality.
4. Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive and primitive measure/strategies.
5. Diagnose and manage majority of the conditions in the speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
6. Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the speciality.

7. Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.

8. Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behaviour in accordance with the societal norms and expectations.

9. Play the assigned role in the implementation of national health programme, effectively and responsibly.

10. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.

11. Develop skills as a self-directed learner, recognize continuing education needs; select and use appropriate learning resources.

12. Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyze relevant published research literature.

13. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.

14. Function as an effective leader of a health team engaged in health care, research or training.

**STATEMENT OF THE COMPETENCIES:** Keeping in view the general objectives of postgraduate training, each discipline shall aim at development of specific competencies which shall be defined and spelt out in clear terms. Each department shall produce a statement and bring it to the notice of the trainees in the beginning of the programme so that he or she can direct the efforts towards the attainment of these competencies.

**COMPONENTS OF THE POSTGRADUATE CURRICULUM:**
The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Thesis skills.
- Attitudes including communication skills.
- Training in research methodology.

(Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000)
CHAPTER III

M D GENERAL MEDICINE

Goal:

The postgraduate education is intended to produce a well informed, well trained doctor in medicine who is able to take care of patients, understand the essence of modern medicine, and scrutinize the published literature while maintaining acceptable standards in discipline. It is expected that during tenure of the course he develops optimum communication skills. The postgraduate education exposes the student not only to internal medicine, but also to other well established departments and sub specialities and allied subjects. The staff of all these departments will be involved in the PG programme. A well-motivated and monitored student is the key to the success of this programme.

The clinical rotation is intended to provide opportunity to post graduate student (PG) to the patient care and hands on experience. He/she is expected to acquire skills to be competent clinician in General Medicine. Most importantly, the student should learn to formulate diagnosis, plan diagnostic procedures / investigations and plan rational therapy. Meticulous documentation of patients’ medical record by the PG is encouraged. During this time the PG is encouraged to learn the art of lengthy as well as brief presentations.

The PG is rotated through the sub-speciality departments during second year of the three years course. This roster is provided to PGs at the entry to the course. One faculty member should be selected by the department and he/she should act as friend, guide, counselor and philosopher for PG throughout the training course.

The medical PG after completion of MD (Gen Med) should be able to manage patients independently as a specialist. He should be able to plan and carry out research activity in the field of General Medicine. He should be able to teach under graduate medical student the subject of General Medicine.
Objectives:

The following objectives are laid out to achieve the goals of the course. These objectives are to be achieved by the time the candidate completes the course. The Objectives may be considered under the subheadings:

1. Knowledge (cognitive domain).
2. Skills (psycho-motor domain).
3. Human values, ethical practice and communication abilities.

Knowledge:

- Describe aetiology, pathophysiology, principles of diagnosis and management of common problems including emergencies, in adults and children.
- Describe indications and methods for fluid and electrolyte replacement therapy including blood transfusion.
- Describe common malignancies in the country and their management including prevention.
- Demonstrate understanding of basic sciences relevant to this speciality
- Identify social, economic, environmental and emotional determinants in a given case, and take them into account for planning therapeutic measures.
- Recognize conditions that may be outside the area of his specialty/competence and to refer them to the proper specialist.
- Advice regarding the operative or non-operative management of the case and to carry out this management effectively.
- Update oneself by self-study and by attending courses, conferences and seminars relevant to the speciality.
- Teach and guide his team, colleagues and other students.
- Undertake audit, use information technology tools and carry out research, both basic and clinical, with the aim of publishing his work and presenting his work at various scientific fora.
Skills

- Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the clinical condition.
- Perform common procedures relevant to the speciality.
- Provide basic and advanced life saving support services (BLS & ACLS) in emergency situations.
- Undertake complete monitoring of the patient.
- Human values, ethical practice and communication abilities
- Adopt ethical principles in all aspects of his/her practice. Professional honesty and integrity are to be fostered. Care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
- Develop communication skills, in particular the skill to explain various options available in management and to obtain a true informed consent from the patient.
- Provide leadership and get the best out of his team in a congenial working atmosphere.
- Apply high moral and ethical standards while carrying out human or animal research.
- Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
- Respect patient’s rights and privileges including patient’s right to information and right to seek a second opinion.

The goal is to provide learning opportunities for acquisition of knowledge, human values and skills that may enable to diagnose and treat relevant diseases and disorders as a specialist.
Course Contents

**Theory:**

**Introduction to Clinical Medicine:** The practice of medicine, ethical issues in clinical medicine, quantitative aspects of clinical reasoning, host and disease: influence of demographic and socio-economic factors, influence of environmental and occupational hazards on disease, women's health, medical disorders during pregnancy, adolescent health problems, geriatric medicine, principles of disease prevention, cost awareness in medicine.

**Cardinal Manifestations and Presentation of Diseases:**

- **Pain:** pathophysiology and management, chest discomfort and palpitation, abdominal pain, headache, back and neck pain
- Alterations in body temperature: fever and hyperthermia, fever and rash, hypothermia
- **Nervous system dysfunction:** faintness, syncope, dizziness, and vertigo, weakness, abnormal movements and imbalance, episodic muscle spasms, cramps and weakness, numbness, tingling and sensory loss, acute confusional states and coma, aphasia and other focal cerebral disorders, memory loss and dementia disorders of sleep and circadian rhythms.

- **Disorders of the eyes, ears, nose and throat:** disorders of the eye disorders of smell, taste and hearing, infections of the upper respiratory tract, oral manifestations of disease.

- **Alterations in Circulatory and Respiratory Functions:** dyspnoea and pulmonary oedema, cough and hemoptysis, approach to the patient with a heart murmur, approach to the patient with hypertension, hypoxia, polycythemia and cyanosis, edema, shock, cardiovascular collapse, cardiac arrest, and sudden cardiac death.

- **Alterations in Gastrointestinal Function:** dysphagia, nausea, vomiting and indigestion, diarrhea and constipation, gain and loss in weight, gastrointestinal bleeding, jaundice abdominal swelling, ascites.

- **Alterations in Urinary Function and Electrolytes:** cardinal manifestations of renal disease, voiding dysfunction, incontinence, and bladder pain, fluid and electrolyte disturbances, acidosis and alkalosis.

- **Alterations in the Urogenital Tract:** impotence, disturbances of menstruation and other common gynecologic complaints in women, hirsutism and virilization.
• **Alteration in the Skin:** Approach to the patient with skin disorders: eczema, psoriasis, cutaneous infections, acne, and other common skin disorders. Cutaneous drug reactions, skin manifestations of internal disease, photosensitivity and other reactions to light.

• **Hematological alterations:** anemia, bleeding and thrombosis. Enlargement of lymph nodes and spleen, disorders of granulocytes and monocytes.

• **Manifestations of Cancer:** presentations of the patient with cancer, solid tumors in adults, evaluation of breast masses.

• **Genetics and Disease:** genetics and disease, cytogenetic aspects of human disease, treatment and prevention of genetic disease.

• **Clinical Pharmacology:** principles of drug therapy, adverse reactions to drugs, physiology and pharmacology of the autonomic nervous system, nitric oxide biologic and medical implications.

• **Nutrition:** nutrition and nutritional requirements, assessment of nutritional status, protein and energy malnutrition, obesity, anorexia nervosa and bulimia nervosa, diet therapy, enteral and parenteral nutrition therapy. Vitamin deficiency and excess, disturbances in trace elements.

• **Oncology and Hematology.** Neoplastic Disorder: approach to the patient with cancer, prevention and early detection of cancer, cell biology of cancer, cancer genetics, invasion and metastasis, principles of cancer therapy, infections in patients with cancer, melanoma and other skin cancers, head and neck cancer, neoplasms of the lung, breast cancer, gastrointestinal tract cancer, tumors of the liver and biliary tract, pancreatic cancer, endocrine tumors of the gastrointestinal tract and pancreas, bladder and renal cell cancer, hyperplasia and carcinoma of the prostate, testicular cancer, gynecologic malignancies, sarcomas of soft tissue and bone, metastatic cancer of unknown primary site, paraneoplastic syndromes, paraneoplastic neurologic syndromes, oncologic emergencies.

• **Disorders of Hematopoiesis:** hematopoiesis, iron deficiency and other hypoproliferative anemias disorders of hemoglobin, megaloblastic anemias, hemolytic anemias and acute blood loss, aplastic anemia and myelodysplasia, polycythemia vera and other myeloproliferative diseases, acute and chronic myeloid leukaemias, malignancies of lymphoid cells, plasma cell disorders transfusion biology and therapy, bone marrow transplantation.
• **Disorders of Hemostasis:** disorders of the platelet and vessel wall, disorders of coagulation and thrombosis, anticoagulant, fibrinolytic and antiplatelet therapy.

**Infectious Diseases:**

• Basic Considerations in infectious diseases, introduction to infectious diseases: host parasite interaction, laboratory diagnosis of infectious diseases, immunization principles and vaccine use, health risks to travelers.

• Clinical syndromes, community acquired: sepsis and septic shock, fever of unknown origin, infective endocarditis, intraabdominal infections and abscesses, acute infectious diarrheal diseases and bacterial food poisoning, sexually transmitted diseases: overview and clinical approach, pelvic inflammatory disease, urinary tract infections and pyelonephritis, osteomyelitis, infections of the skin, muscle, and soft tissues, infections (excluding AIDs) in injection drug users, infections from bites scratches and burns.

• Clinical Syndromes: nosocomial infections, infections in transplant recipients, hospital, acquired and intravascular device, related infections infection control in the hospital.

• Bacterial Diseases: general considerations, molecular, mechanisms of bacterial pathogenesis, treatment and prophylaxis of bacterial infections.

  o Diseases Caused by Gram-Positive Bacteria: pneumococcal infections, staphylococcal infections, streptococcal and enterococcal infections, diphtheria, other corynebacterial infections, and anthrax, infections caused by listeria monocytogenes, tetanus, botulism, gas gangrene, antibiotic, associated colitis, and other clostridial infections.

  o Diseases caused by Gram negative bacteria: meningococcal infections, gonococcal infections, moraxella (branchamella) catarrhalis other moraxella species and kingnella, infections due to heamophilus influenzae, other haemophilus species, the hacek group, and other gram, negative bacilli, legionella infection, pertussis diseases caused by gram, negative enteric bacilli, helicobacter infections, infections due to pseudomonas species and related organisms, salmonellosis, shigellosis, infections due to campylobacter and related species, cholera and other vibrios, brucellosis, tularemia, plague and other yersinia infections, bartonella infections, including cat scratch disease, Donovans (granuloma inguinale).

  o Miscellaneous Bacterial Infections: nocardiosis, actinomycosis, infections due to mixed anaerobic organisms.
- **Mycobacterial Diseases**: antimycobacterial agents, tuberculosis, leprosy (Hansen's disease), infections due to nontuberculous mycobacteria.
- **Spirochaetal Diseases**: syphilis, endemic treponematoses, leptospirosis, relapsing fever, lyme borreliosis.
- **Rickettsia, Mycoplasma and Chlamydia**: rickettsial diseases, mycoplasma infections, chlamydial infections.
- **Viral Diseases**: medical virology, antiviral chemotherapy.
  - **DNA Viruses**: herpes simplex viruses, varicella, zoster virus infections, epsteinbarr virus infections, including infectious mononucleosis, cytomegalovirus and human herpesvirus types 6, 7 and 8, smallpox, vaccinia and other poxviruses, parovirus, human papillomavirus infections.
  - **DNA and RNA Respiratory Viruses**: common viral respiratory infections.
  - **RNA Viruses**: the human retroviuses, influenza, viral gastroenteritis, enteroviruses and reoviruses, measles (rubeola), rubella (German measles), mumps, rabies virus and other rhabdoviruses infections caused by arthropod and rodent borne viruses, Marburg and Ebola viruses (filoviridae).
- **Fungal Infections**: diagnosis and treatment of fungal infections, histoplasmosis, coccidioidomycosis, blastomycosis, cryptococcosis candidiasis, aspergillosis, mucormycosis, miscellaneous mycoses and prothotheca infections, pneumocystis carini infection.
- **Protozoal and Helminthic Infections**: general considerations, approach to the patient with parasitic infections, laboratory diagnosis of parasitic infections, therapy for parasitic infections.
  - **Protozoal Infections**: amoebiasis and infection with free, living amoebas, malaria and other diseases caused by red blood cell parasites leishmaniasis, trypanosomiasis, toxoplasma infection, protozoal intestinal infections and trichomoniasis.
  - **Helminthic Infections**: trichinosis and infections with other tissue nematodes, intestinal nematodes, filariasis and related infections (loiasis, onchocerciasis, and dracunculiasis), schistosomiasis and other trematode infections, cestodes.

**Disorders of the Cardiovascular System:**
- **Diagnosis**, approach to the patient with heart disease, physical examination of the cardio vascular system, electrocardiography, diagnostic cardiac catheterization and angiography. 
- **Disorders of Rhythm**: the bradyarrhythmias: disorders of sinus node function and AV conduction disturbances, the tachyarrhythmias.
- Disorders of the Heart: normal and abnormal myocardial function, heart failure, cardiac transplantation, congenital heart disease in the adult, rheumatic fever, valvular heart disease, cor pulmonale, the cardiomyopathies and myocarditis, pericardial disease, cardiac tumors, cardiac manifestations of systemic diseases, and traumatic cardiac injury
- Vascular Disease: atherosclerosis, acute myocardial infarction, ischemic heart disease, coronary angioplasty and other therapeutic applications of cardiac catheterization, hypertensive vascular disease, diseases of the aorta, vascular diseases of the extremities.

Disorders of the Respiratory System:
- Diagnosis, approach to the patient with disease of the respiratory system, disturbances of respiratory system, disturbances of respiratory function, diagnostic procedures in respiratory disease.
- Disease of the respiratory system: asthma, hypersensitivity pneumonitis and eosinophilic pneumonias, environmental lung diseases, pneumonia, including narcotizing pulmonary infections (lung abscess bronchiectasis, cystic fibrosis, chronic bronchitis, emphysema, and airway obstruction, interstitial lung diseases, primary pulmonary hypertension pulmonary thromboembolism, disorders of the pleura, mediastinum and diaphragm, disorders of ventilation, sleep apnea, acute respiratory distress syndrome, mechanical ventilatory support lung transplantation.

Disorders of the Kidney and Urinary Tract: approach to the patient with diseases of the kidneys and urinary tract, disturbances of renal function, acute renal failure chronic renal failure, dialysis and transplantation in the treatment of renal failure, pathogenetic mechanisms of glomerular injury, the major glomerulopathies, glomerulopathies associated with multisystem diseases, tubulointerstitial diseases of the kidney, vascular injury to the kidney, hereditary tubular disorders, nephrolithiasis, urinary tract obstruction.

Disorders of the Gastrointestinal System:
- Disorders of the alimentary tract: approach to the patient with gastrointestinal disease, gastrointestinal endoscopy, diseases of the esophagus, peptic ulcer and related disorders, disorders of absorption, inflammatory bowel disease: ulcerative colitis and Crohn's disease, irritable bowel syndrome, diverticular, vascular, and other disorders of the intestine and peritoneum, acute intestinal obstruction, acute appendicitis.
- Liver and Biliary tract disease: approach to the patient with liver disease, evaluation of liver function, derangements of hepatic metabolism, bilirubin metabolism and hyperbilirubinemia, acute viral hepatitis, toxic and drug, induced hepatitis, chronic hepatitis, cirrhosis and alcoholic
liver disease, major complications of cirrhosis, infiltrative and metabolic diseases affecting the liver, liver transplantation, diseases of the gallbladder and bile ducts.

- Disorders of the pancreas: approach to the patient with pancreatic disease, acute and chronic pancreatitis.

**Disorders of the immune system, connective tissue, and joints**

- Disorders of the immune system: introduction to the immune system, the major histocompatibility gene complex, primary immune deficiency disease, human immunodeficiency virus (HIV) disease: aids and related disorders, amyloidosis.

- Disorders of immune, mediated injury: diseases of immediate type hypersensitivity, immunologically mediated skin diseases, systemic lupus erythematosus, rheumatoid arthritis, systemic sclerosis (seleroderma) dermatomyositis and poly myositis, Sjogren's syndrome, ankylosing spondylitis, reactive arthritis and undifferentiated spondyloarthropathy, Behcet's syndrome, the vasculitis syndromes, sarcoidosis.

- Disorders of the joints: approach to articular and musculoskeletal disorders, osteoarthritis, arthritis due to deposition of calcium crystals, infectious arthritis, psoriatic arthritis and arthritis associated with gastrointestinal disease, relapsing polychondritis and other arthritides.

**Endocrinology and Metabolism:**

- Endocrinology, approach to the patient with endocrine and metabolic disorders, neuroendocrine regulation and diseases of the anterior pituitary and hypothalamus, disorders of growth, disorders of the neurohypophysis, diseases of the thyroid, diseases of the adrenal cortex, pheochromocytoma, diabetes mellitus, hypoglycemia, disorders of the testes, disorders of the ovary and female reproductive tract, endocrine disorders of the breast, disorders of sexual differentiation, disorders affecting multiple endocrine systems.

- Disorders of intermediary Metabolism: disorders of lipoprotein metabolism, hemochromatosis, the porphyries, gout and other disorders of Purina metabolism, Wilson's disease, lysosomal storage diseases, glycogen storage diseases, inherited disorders of connective tissue, inherited disorders of amino acid metabolism and storage, inherited defects of membrane transport, galactosemia, galactokinase deficiency and other rare disorders of carbohydrate metabolism, the lipodystrophies and other rare disorders of adipose tissue.

- Disorders of Bone and Mineral Metabolism: calcium, phosphorus, and bone metabolism, calcium, regulating hormones, diseases of the parathyroid glands and other hyper, and hypocalcemic disorders,
metabolic bone disease, disorders of phosphorus metabolism, disorders of magnesium metabolism, Paget's disease of bone, hyperostosis, fibrous dysplasia, and other dysplasia of bone and cartilage.

**Neurologic Disorders:**

- Diagnosis of neurologic disorders, approach to the patient with neurologic disease, electrophysiological studies of the central and peripheral nervous systems, neuroimaging in neurologic disorders, molecular diagnosis of neurologic disorders.
- Diseases of the Central Nervous System: migraine and the cluster headache syndrome, seizures and epilepsy, Alzheimer's disease and other primary dementias, Parkinson's disease and other extrapyramidal disorders, ataxic disorders, the motor neuron diseases, disorders of the autonomic nervous system, disorders of the cranial nerves, diseases of the spinal cord. Traumatic injuries of the head and spine tumors of the nervous system, multiples sclerosis and other demyelinating diseases, bacterial meningitis, brain abscess, and other suppurative intracranial infections, chronic and recurrent meningitis - aseptic meningitis, viral encephalitis, and prion diseases, nutritional and metabolic diseases of the nervous system.
- Disorders of the nerve and muscle: diseases of the peripheral nervous system, myasthenia gravis and other diseases of the neuromuscular junction, diseases of muscle.
- Chronic fatigue syndrome: chronic fatigue syndrome.
- Psychiatric Disorders: mental disorders.
- Alcoholism and Drug Dependency: alcohol and alcoholism, opioid drug abuse and dependence, cocaine and other commonly abused drugs, nicotine addiction.

**Environmental and Occupational Hazards:** specific environmental and occupational hazards:

- Illnesses due to poisons, drug overdose and envenomation: poisoning and drug overdose, disorders caused by reptile bites and marine animal envenomations, ectoparasite infestations and arthropod bites and stings.
- Specific Environmental and Occupational Hazards, drowning and near drowning, electrical injuries, radiation injury, heavy metal poisoning.

**Teaching and Learning Activities**

A candidate pursuing the course should work in the institution as a full time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.
Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below:

1. **Lectures**: Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.
   
a. **Didactic Lectures**: Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested as examples:
   
i. Bio-statistics
   ii. Use of library
   iii. Research methods
   iv. Medical code of conduct and medical ethics
   v. National Health and Disease Control Programmes
   vi. Communication skills etc.

   These topics may preferably be taken up in the first few weeks of the 1st year.

   b. **Integrated Lectures**: These are recommended to be taken by multidisciplinary teams for selected topics, eg. jaundice, diabetes mellitus, thyroid etc.

2. **Journal Club**: Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the log book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See Checklist in Chapter IV). A time table with names of the student and the moderator should be announced at the beginning of every year.

3. **Subject Seminar**: Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must present on selected topics at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See Checklist in Chapter IV). A timetable for the subject with names of the student and the moderator should be scheduled at the beginning of every year.

4. **Student Symposium**: Recommended as an optional multi disciplinary programme. The evaluation may be similar to that described for subject seminar.
5. **Ward Rounds:** Ward rounds may be service or teaching rounds.
   a. Service Rounds: Postgraduate students and Interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
   b. Teaching Rounds: Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.

   Entries of (a) and (b) should be made in the log book.

6. **Clinico-Pathological Conference:** Recommended once a month for all postgraduate students. Presentation be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.

7. **Inter Departmental Meetings:** Strongly recommended particularly with departments of Pathology and Radio-Diagnosis, is at least once a week. These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.

   - **Pathology:** A dozen interesting cases may be chosen and presented by the post graduate students and discussed by them as well as the senior staff of Medicine department. The staff of Pathology department would then show the slides and present final diagnosis. In these sessions the advance immuno-histo-chemistry techniques, the burgeoning markers other recent developments can be discussed.
   
   - **Radio-diagnosis:** Interesting cases and the imaging modalities should be discussed.

8. **Teaching Skills:** Post graduate students must teach under graduate students (Eg. medical, nursing) by taking demonstrations, bed side clinics, tutorials, lectures etc. Assessment is made using a checklist by surgery faculty as well students. (See model check list in Chapter IV). Record of their participation be kept in log book. Training of post graduate students in Educational Science and Technology is recommended.

9. **Continuing Medical Education Programmes (CME):** Recommended that at least 2 state level CME programmes should be attended by each student in 3 years.

10. **Conferences:** Attending conferences is optional. However it is to be encouraged.
Method of Training:

Emphasis is on hospital training with candidates given graded responsibility in the management and treatment of patients entrusted to them, while rotating in General medicine units and of subspecialty units. PG also attend respective units outpatient and inpatient activities and consultations.

Didactic lecture and demonstrations by basic and clinical departments to orient all new post graduate house staff to various departmental services and introduce basic concept of acute care management of medical / surgical emergencies, involving laboratory, radiology, blood bank services Also orientation to medical records and library facility. Lectures are organised over a period of two months and serve as introduction to all new post graduates to promote the need for integrated approach between various disciplines. Preferably these should be organized between 8-9 AM / 3-4 PM to minimise interference with the working of parent departments.

Special orientation to bio statistics, research methodology, and legal medicine and computer skills should be organised through lectures for all first year post graduates during first six months.

Clinical seminar once a week involving participation of all staff of the department of Medicine to ensure combined staff moderated teaching.

Bedside clinics once a week involving one individual senior Professor or Associate Professor or Specialist.

Hospital conference once in fortnight involving multidisciplinary approach. Case selection to be done by senior faculty members to emphasize current diagnostic – therapeutic advances.

Journal club once a week 3-4 Journals by PGs and junior faculty under supervision of senior faculty.

Subject seminar once a week topics to be selected carefully and should not be repeated unnecessarily within 2 years (Total period of PG training is 3 years).

Mortality – CPC once a month (instead of Journal Club). Two to three cases will be discussed and moderated by senior faculty. Other consultants invited based on the need.

Besides traditional black board presentations, use of other forms of audio-visual aids (power point presentations) may be encouraged.
Dissertation Work

1. Every candidate pursuing degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

2. The dissertation is aimed to train a post graduate 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 results and drawing conclusions.

3. Every candidate shall submit to the Registrar (Academic), in the prescribed proforma, a synopsis containing particulars of proposed dissertation work 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 the proper channel.

4. Such synopsis will be reviewed and the 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.

5. The dissertation should be written under the following headings:
   a. Introduction
   b. Aims or Objectives of study
   c. Review of Literature
   d. Material and Methods
   e. Results
   f. Discussion
   g. Conclusion
   h. Summary
   i. References (Vancouver style)
   j. Tables
   k. Annexure

6. The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexures. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

7. Four copies of dissertation thus prepared shall be submitted to the Registrar (Evaluation), six months before final examination, on or before the dates notified by the University.
8. The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.

9. For some more details regarding Guide etc please see Chapter I and for books on research methodology, ethics, etc see Chapter IV.

Rotation

Details of rotation including ancillary postings year wise as follows:

1. PG I Year:
General Medicine - First four months in parent medical unit and next eight months in two or three other units. (PG will return to parent unit during III year of rotation for six months before submission of dissertation)

2. PG II Year:
Cardiology, Neurology - two months each = 4 months
One month each in Pulmonary medicine, Oncology, Hematology, Endocrinology, Nephrology, Gastroenterology, Dermatology & Psychiatry = 6 months

Special Elective rotation: 2 months
Special elective rotation should be encouraged like Cancer Institutes, Cardiology Institute, and Neurology Institute and multi-speciality centers of national & international repute. Candidate should make arrangement much in advance with approval of HOD of medicine.

Medical departments with less number of specialities may rotate PGs in general medicine department with postings in medical intensive care unit, coronary care unit and emergency departments.

3. PG III Year:
General Medicine — parent medical unit: 6 months
Three medical units: 6 months (2 months each)

During 3rd year rotation PG student works six months in parent unit and three months each in other two medical units. PG in III year training is expected to assume more responsibilities in managing patients and assist in first year residents and interns in wards, critical care unit and emergency rooms. Also should participate actively in teaching undergraduate medical students and prepare himself or herself for the role of General Medical Specialist.

The students are encouraged to attend local, state and national level conferences of API, CSI etc. as part of CME programme.
Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklists are given in Chapter IV.

The learning outcomes to be assessed should include: (1) Personal Attitudes, (2) Acquisition of Knowledge, (3) Clinical and operative skills, (4) Teaching skills and (5) Dissertation.

1. **Personal Attitudes.** The essential items are:
   a. Caring attitudes
   b. Initiative
   c. Organisational ability
   d. Potential to cope with stressful situations and undertake responsibility
   e. Trustworthiness and reliability
   f. To understand and communicate intelligibly with patients and others
   g. To behave in a manner which establishes professional relationships with patients and colleagues
   h. Ability to work in a team
   i. A critical enquiring approach to the acquisition of knowledge

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. **Acquisition of Knowledge:** 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 in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. The list is not complete. Institutions may include additional activities, if so, desired.

   a. **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 checklist (see Model Checklist – I, Chapter IV)

   b. **Seminars / Symposia:** The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do
literature search, in depth study, presentation skills and use of audio-visual aids are to be assessed using a checklist (see Model Checklist-II, Chapter IV)

c. **Clinico-pathological conferences:** This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

d. **Medical Audit:** Periodic morbidity and mortality meeting be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

3. **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 (see Model Checklist III, Chapter IV).

   a. **Clinical meetings:** Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist IV, Chapter IV).

   b. **Clinical and Procedural skills:** The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (Table No.3, Chapter IV)

4. **Teaching skills:** Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist V, Chapter IV)

5. **Dissertation in the Department.** Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the University for registration, again before finalisation for critical evaluation and another before final submission of the completed work (See Model Checklist VI & VII, Chapter IV)

6. **Periodic tests:** The departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practical / clinical and viva voce.
7. **Work diary / Log Book**- Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidates.

8. Records: Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available so the University or MCI.

**Log book**

The log book is a record of the important activities of the candidates during his training; internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies the record includes academic activities as well as the presentations and procedures carried out by the candidate.

**Format for the log book** for the different activities is given in Tables 1, 2 and 3 of Chapter IV. Copies may be made and used by the institutions.

Every student must maintain a record book (diary/log book) and the work carried out by him and the training programme undergone by him during the training, including details of rotation, night calls, procedure and consultations done as M.D. candidates. These record books should be checked and assessed by faculty members imparting the training and certified by the head of the department.

Postgraduate student diary should include following activities.

**Format for PG Diary (Log Book)**

1. Cases seen on rounds – description of interesting cases and other miscellaneous topics discussed.
2. Outpatient cases seen and details of interesting cases with follow up.
3. Procedures done on inpatients and outpatients and consultation done. Undergraduate teaching done during the day with details.
4. PG training programmes attended: details of bedside clinics, basic sciences, subject and clinical seminars, journal clubs, mortality meet and hospital conference.
6. Details of study with topics covered during off hours in library / home.
7. Periodicals and journals reviewed with notes on interesting articles.

8. Medical meetings, seminars, local API / CSI meetings or other interesting CME, seminars attended.

9. Diary should be reviewed on weekly basis by unit faculty and certified on monthly basis for PG's benefit at the end of each medical/speciality rotation. Faculty should comment regarding absences and irregularities (late arrivals and early departure) and make appropriate comments and suggest remedial measure for problematic prodigies.

10. Satisfactory progress and 80% attendance is mandatory before student is allowed to appear for University examination.

11. Size of note book: 15 cm x 21 cm with 200 pages. All note books should have seal of college and HOD’s approval: Extra note books may be utilised as and when necessary. Diaries should be presented at the time of University clinical exam for review by examiners as per University regulations.

Internal evaluation of PG Students performance during three years

**I Year of MD Students**

Assessment of students with multiple choice questions multiple short notes covering wide range of topics and practical examination with attention to history taking, symptomatology, clinical skills, relevant diagnostics and therapeutic plans ascertained. Suggested time of evaluation: after first six months and at the end of first year rotation.

**II Year of MD Students**

Students should be evaluated at the end of cardiology and neurology postings with theory and practical examinations by concerned specialities along with one faculty from general medicine and make appropriate recommendation to meet minimal satisfactory guidelines expected of second year PG students. Other specialities with short rotations of one month should be evaluated with MCQ format and viva regarding candidates’ comprehension of the subject.

**III Year of M.D. Students**

PGs should be evaluated at the beginning of 3rd year training by panel of senior Postgraduate teachers. Suggested pattern of assessment with two essay type theory papers and multiple choice questions, clinical skills, diagnostic and therapeutic skills evaluated intermittently by unit faculties.

Mock examination is suggested 3 to 4 months prior to final university exam and should consist of two question papers each of 3 hours duration, one MCQ with 200 questions and practical and viva voice similar to university examination under the supervision of senior faculty.
Results of all evaluations should be entered into PG’s diary and departmental file for documentation purposes. Main purpose of periodic examination and accountability is to ensure clinical expertise of students with practical and communication skills and balance broader concept of diagnostic and therapeutic challenges.

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

**Scheme of Examination**

A. **Written Papers (Theory)**

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions each question carrying 20 marks and 6 short essay questions each carrying 10 marks. Total marks for each paper will be 100. **Questions on recent advances may be asked in any or all the papers.** Details of distribution of topics for each paper will be as follows.

- **Paper I** will include basic sciences, current advances in genetics, nutrition, and clinical pharmacology

- **Paper II** will include cardiovascular system - gastro intestinal system, infectious diseases including tropical medicine

- **Paper III** will include central nervous system, respiratory system, immune system connective tissue and joint disorders

- **Paper IV** will include nephrology, endocrinology & metabolism, haematology, oncology, dermatology and psychiatry poisoning, environmental and occupational hazards

**Note:** The distribution of chapters / topics shown against the papers are suggestive only.

B. **Clinical Examination**

To elicit competence in clinical skills and Differential diagnostic formulations

<table>
<thead>
<tr>
<th>Total marks 200</th>
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<tbody>
<tr>
<td>One Long case – 100 marks</td>
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<tr>
<td>Two Short cases – 50 x 2</td>
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</table>
C. **Viva Voce Examination**  
**Marks 100**

Aims to elicit candidates knowledge and investigative / therapeutic skills.

1. **Viva-voce Examination:** (80 marks)

All examiners will conduct viva-voce conjointly on candidate’s comprehension, analytical approach, expression and interpretation of data. It includes all components of course contents. In addition, candidates may be also be given case reports, charts, gross specimens, histopathology slides, x-rays, ultrasound, CT scan images, etc., for interpretation. Questions on use of instruments will be asked. It includes discussion on dissertation also.

2. **Pedagogy Exercise:** (20 marks)

A topic be given to each candidate in the beginning of clinical examination. He / she is asked to make a presentation on the topic for 8-10 minutes.

D. **Maximum marks**

<table>
<thead>
<tr>
<th>Theory</th>
<th>Practical</th>
<th>Viva</th>
<th>Grand total</th>
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<tr>
<td>400</td>
<td>200</td>
<td>100</td>
<td>700</td>
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**Recommended Books**

I. **Clinical Methods**


II. **General Medicine**

3. Cecil's Textbook of Medicine - Bennet & Plum. 20th edition (Saunders)
III. Cardiology

1. The Clinical Recognition of Congenital Heart Diseases - Joseph K. Perloff, 4th edition (Jaypee Brothers)
2. An Introduction to Electrocardiography - Leoshamroth, 7th edition (Blackwell Science)
5. The Heart-Hurst, 9th edition.

IV. Neurology

1. Principles of Neurology - Adam's, Victor, 6th edition (Mcgraw Hill)
2. Diseases of the Brain - Ed Brain, John Walton, 10th edition (Oxford uni)
3. Neurological differential diagnosis - John Patten.

V. Gastroenterology

1. Current Diagnosis & treatment in Gastroenterology.
2. Diseases of the Liver and Biliary System - S. Sherlock, Dooley, 10th edition (Blackwell Sciences)
3. Gastrointestinal and liver diseases - Mark Feldman, Bruce Scharschmidt, 6th edition (Saundars)

VI. Nephrology

1. Textbook of Renal Disease, Judith, Lowrence, 2nd edition (Churchill Livingstone)
3. Manual of Nephrology

VII. Hematology

1. Wintrobe's Clinical Hematology, Richard Lee, 10th edition (Willium & Wilkins)

VIII. Rheumatology


IX. Endocrinology

X. **Respiratory Medicine/Critical Care Medicine**
   1. Chest Medicine essentials of Pulmonary and Critical Medicine, Ronald George, 3rd edition (Williams & Wilkins)
   4. A Practical guide to Pulmonary medicine, Goldstein.
   5. Interpretation of Pulmonary Function Tests, Hyatt, scalan.

XI. **Geriatrics/gerontology**
   1. Geriatric Medicine, 3rd edition.

XII. **Oncology**
   1. Principles and practice of Oncology, De Vita.

XIII. **Infectious Disease**
   1. A Practical approach to Infectious Diseases, Reese, 3rd edition.

**Reference Books**

I. **Anatomy/physiology/Biochemistry/Biostatistics**

II. **Pharmacology/Microbiology/Pathology**
   1. Textbook of Pharmacology, Goodmann & Gillmann's.

III. **Clinical Methods**
   1. Mcleod's Clinical Examination, 10th edition (Churchill Livingstone)
   2. Bickerstaffs Neurological examination clinical practice, J. Spillane, 6th edition (Blackwell science)
   4. The Neurologic Examination, de'jong, 5th edition (Lippincott)
Journals

1. Journal of Association of Physicians of India (JAPI)
2. British Medical Journal (BMJ) - weekly
4. The Lancet - monthly
5. American Journal of Medicine - monthly
6. Issues in Medical Ethics
7. Indian Journal of Tuberculosis
8. Dermatology Clinics
9. GUT (Gastroenterology)
10. Postgraduate Medical Journal
11. Stroke
12. Blood
13. Neurologic Clinic
14. Indian Journal of Nephrology
15. Public Health Papers
CHAPTER IV

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring shall be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Model checklists are given in this chapter which may be copied and used.

The learning outcomes to be assessed should include:

1. Personal Attitudes.
2. Acquisition of Knowledge.
3. Clinical and operative skills and
4. Teaching skills.

1. **Personal Attitudes**: The essential items are:
   
   a. Caring attitude.
   b. Initiative.
   c. Organisational ability.
   d. Potential to cope with stressful situations and undertake responsibility.
   e. Trust worthiness and reliability.
   f. To understand and communicate intelligibly with patients and others.
   g. To behave in a manner that establishes professional relationships with patients and colleagues.
   h. Ability to work in a team.
   i. A critical enquiring approach to the acquisition of knowledge.

   The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. **Acquisition of Knowledge**: 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 in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.
a. **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 checklist (see Model Checklist – I, Chapter IV)

b. **Seminars / Symposia.** The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio-visual aids are to be assessed using a checklist (see Model Checklist-II, Chapter IV)

c. **Clinico-pathological conferences.** This should be a multidisciplinary study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

d. **Medical Audit.** Periodic morbidity and mortality meeting shall be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

3. **Clinical skills:**

   a. **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 (see Model Checklist III, Chapter IV).

   b. **Clinical meetings:** Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist IV, Chapter IV).

   c. **Clinical and Procedural skills:** The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (Table No.3, Chapter IV)

4. **Teaching skills:** Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist V, Chapter IV)

5. **Periodic tests:** In case of degree courses of three years duration, the department may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. In case of diploma courses of two
year duration, the departments may conduct two tests. One of them at the end of first year and the other in the second year, three months before the final examination. The tests may include written papers, practical / clinical and viva voce.

6. **Work diary:** Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

7. **Records:** Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University or MCI.

8. **Log book:** The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate. Format for the log book for the different activities is given in Tables 1, 2 and 3 of Chapter IV. Copies may be made and used by the institutions.

**Procedure for defaulters:** Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set him or herself right.
CHAPTER IV (Contd)
Format of Model Check Lists

Check List-I

MODEL CHECK-LIST FOR EVALUATION OF
JOURNAL REVIEW PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Items for observation during presentation</th>
<th>Poor 0</th>
<th>Below Average 1</th>
<th>Average 2</th>
<th>Good 3</th>
<th>Very Good 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Article chosen was</td>
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<tr>
<td>2.</td>
<td>Extent of understanding of scope &amp; objectives of the paper by the candidate</td>
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</tr>
<tr>
<td>3.</td>
<td>Whether cross references have been consulted</td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>Whether other relevant publications consulted</td>
<td></td>
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<tr>
<td>5.</td>
<td>Ability to respond to questions on the paper / subject</td>
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<tr>
<td>6.</td>
<td>Audio-visual aids used</td>
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<tr>
<td>7.</td>
<td>Ability to defend the paper</td>
<td></td>
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</tr>
<tr>
<td>8.</td>
<td>Clarity of presentation</td>
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</tr>
<tr>
<td>9.</td>
<td>Any other observation</td>
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</tbody>
</table>

**Total Score**
## Check List – II

**MODEL CHECK-LIST FOR EVALUATION OF SEMINAR PRESENTATIONS**

**Name of the Student:**

**Name of the Faculty/Observer:**

**Date:**

<table>
<thead>
<tr>
<th>SI No</th>
<th>Items for observation during presentation</th>
<th>Poor 0</th>
<th>Below Average 1</th>
<th>Average 2</th>
<th>Good 3</th>
<th>Very Good 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Whether other relevant publications consulted</td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Whether cross references have been consulted</td>
<td></td>
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<tr>
<td>3.</td>
<td>Completeness of Preparation</td>
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<tr>
<td>4.</td>
<td>Clarity of Presentation</td>
<td></td>
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<tr>
<td>5.</td>
<td>Understanding of subject</td>
<td></td>
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<tr>
<td>6.</td>
<td>Ability to answer questions</td>
<td></td>
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<tr>
<td>7.</td>
<td>Time scheduling</td>
<td></td>
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<tr>
<td>8.</td>
<td>Appropriate use of Audio-Visual aids</td>
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<tr>
<td>9.</td>
<td>Overall Performance</td>
<td></td>
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<tr>
<td>10.</td>
<td>Any other observation</td>
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</tbody>
</table>

**Total Score**
Check List - III

MODEL CHECK LIST FOR EVALUATION OF
CLINICAL WORK IN WARD / OPD

(To be completed once a month by respective Unit Heads, including posting in other departments)

Name of the Student:

Name of the Faculty/Observer:

Date:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Points to be considered</th>
<th>Poor 0</th>
<th>Below Average 1</th>
<th>Average 2</th>
<th>Good 3</th>
<th>Very Good 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regularity of attendance</td>
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<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Punctuality</td>
<td></td>
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</tr>
<tr>
<td>3.</td>
<td>Interaction with colleagues and supportive staff</td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>Maintenance of case records</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>Presentation of cases during rounds</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6.</td>
<td>Investigations work up</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>Beside manners</td>
<td></td>
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<tr>
<td>8.</td>
<td>Rapport with patients</td>
<td></td>
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<tr>
<td>9.</td>
<td>Counseling patient's relatives for blood donation or Postmortem and Case follow up.</td>
<td></td>
<td></td>
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<tr>
<td>10.</td>
<td>Overall quality of ward work</td>
<td></td>
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</tbody>
</table>

Total Score
Check List - IV
EVALUATION FORM FOR CLINICAL PRESENTATION

Name of the Student:
Name of the Faculty:
Date:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Points to be considered</th>
<th>Poor 0</th>
<th>Below Average 1</th>
<th>Average 2</th>
<th>Good 3</th>
<th>Very Good 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Completeness of history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Whether all relevant points elicited</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3.</td>
<td>Clarity of Presentation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>Logical order</td>
<td></td>
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<tr>
<td>5.</td>
<td>Mentioned all positive and negative points of importance</td>
<td></td>
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</tr>
<tr>
<td>6.</td>
<td>Accuracy of general physical examination</td>
<td></td>
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<tr>
<td>7.</td>
<td>Whether all physical signs elicited correctly</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>Whether any major signs missed or misinterpreted</td>
<td></td>
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<tr>
<td>9.</td>
<td>Diagnosis: Whether it follows follows logically from history and findings</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10.</td>
<td>Investigations required</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Complete list</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relevant order</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Interpretation of investigations</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11.</td>
<td>Ability to react to questioning</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Whether it follows logically from history and findings</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12.</td>
<td>Ability to defend diagnosis</td>
<td></td>
<td></td>
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<tr>
<td>13.</td>
<td>Ability to justify differential diagnosis</td>
<td></td>
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<tr>
<td>14.</td>
<td>Others</td>
<td></td>
<td></td>
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**Total Score**
<table>
<thead>
<tr>
<th>SI No</th>
<th>Strong Point</th>
<th>Weak Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Communication of the purpose of the talk</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Evokes audience interest in the subject</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>The introduction</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The sequence of ideas</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>The use of practical examples and/or illustrations</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Speaking style (enjoyable, monotonous, etc., specify)</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Attempts audience participation</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Summary of the main points at the end</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Asks questions</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Answers questions asked by the audience</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Rapport of speaker with his audience</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Effectiveness of the talk</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Uses AV aids appropriately</td>
<td></td>
</tr>
</tbody>
</table>
## Check List - VI

MODEL CHECK LIST FOR DISSERTATION PRESENTATION

Name of the Student:

Name of the Faculty:

Date:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Points to be considered divine</th>
<th>Poor 0</th>
<th>Below Average 1</th>
<th>Average 2</th>
<th>Good 3</th>
<th>Very Good 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Interest shown in selecting a topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Appropriate review of literature</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3.</td>
<td>Discussion with guide &amp; other faculty</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>Quality of Protocol</td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>Preparation of proforma</td>
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</tr>
</tbody>
</table>

**Total Score**
## Check List - VII

### CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE / CO GUIDE

**Name of the Student:**

**Name of the Faculty:**

**Date:**

<table>
<thead>
<tr>
<th>SI No</th>
<th>Items for observation during presentations</th>
<th>Poor 0</th>
<th>Below Average 1</th>
<th>Average 2</th>
<th>Good 3</th>
<th>Very Good 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Periodic consultation with guide/co-guide</td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Regular collection of case Material</td>
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<tr>
<td>3.</td>
<td>Depth of analysis / discussion</td>
<td></td>
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<tr>
<td>4.</td>
<td>Departmental presentation of findings</td>
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<tr>
<td>5.</td>
<td>Quality of final output</td>
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<tr>
<td>6.</td>
<td>Others</td>
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</table>

**Total Score**
LOG BOOK

**Table 1:** Academic activities attended

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<thead>
<tr>
<th>Name:</th>
<th>Admission Year:</th>
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<tbody>
<tr>
<td>College:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th><strong>Type of Activity</strong> Specify Seminar, Journal Club, Presentation, UG teaching</th>
<th>Particulars</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>
**LOG BOOK**

**Table 2:** Academic presentations made by the student

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Type of Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Specify Seminar, Journal Club, Presentation, UG teaching</td>
</tr>
</tbody>
</table>

Name:  
Admission year:  
College:
LOG BOOK

**Table 2:** Diagnostic and Operative procedures performed

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>ID No.</th>
<th>Procedure</th>
<th>Category O, A, PA, PI*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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* Key:

O - Washed up and observed
A - Assisted a more senior Surgeon
PA - Performed procedure under the direct supervision of a senior Surgeon
PI - Performed independently
<table>
<thead>
<tr>
<th>Sl No</th>
<th>Faculty Member &amp; Others</th>
<th>Name of Student and Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td>A</td>
</tr>
<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<tr>
<td>4.</td>
<td></td>
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<tr>
<td>5.</td>
<td></td>
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<tr>
<td></td>
<td><strong>Total Score</strong></td>
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</table>
Chapter V

Medical Ethics

Sensitisation and Practice

Introduction

There is now a shift from the traditional individual patient-doctor relationship and medical care. With the advances in science and technology and the needs of patients, their families and the community, there is an increased concern with the health of society. There is a shift to greater accountability to the society. Doctors and health professionals are confronted with many ethical problems. It is, therefore necessary to be prepared to deal with these problems. To accomplish the Goal and General Objective stated in Chapter II and develop human values it is urged that ethical sensitisation be achieved by lectures or discussion on ethical issues, clinical discussion of cases with an important ethical component and by including ethical aspects in discussion in all case presentation, bedside rounds and academic postgraduate programmes.

Course Contents

1. Introduction to Medical Ethics
   - What is Ethics?
   - What are values and norms?
   - Relationship between being ethical and human fulfillment.
   - How to form a value system in one's personal and professional life.
   - Heteronomous Ethics and Autonomous Ethics.
   - Freedom and personal Responsibility.

2. Definition of Medical Ethics
   - Difference between medical ethics and bio-ethics
   - Major Principles of Medical Ethics
     - Beneficence = fraternity
     - Justice = equality
     - Self determination (autonomy) = liberty

3. Perspective of Medical Ethics
   - The Hippocratic Oath.
   - The Declaration of Helsinki.
   - The WHO Declaration of Geneva.
   - International code of Medical Ethics. (1993)
   - Medical Council of India Code of Ethics.
4. Ethics of the Individual

- The patient as a person.
- The Right to be respected.
- Truth and Confidentiality.
- The autonomy of decision.
- The concept of disease, health and healing.
- The Right to health.
- Ethics of Behaviour modification.
- The Physician – Patient relationship.
- Organ donation.

5. The Ethics of Human life

- What is human life?
- Criteria for distinguishing the human and the non-human.
- Reasons for respecting human life.
- The beginning of human life.
- Conception, contraception.
- Abortion.
- Prenatal sex-determination.
- In vitro fertilization (IVF).
- Artificial Insemination by Husband (AIH).
- Artificial Insemination by Donor (AID).
- Surrogate motherhood.
- Semen Intra-fallopian Transfer (SIFT).
- Gamete Intra-fallopian Transfer (GIFT).
- Zygote Intra-fallopian Transfer (ZIFT).
- Genetic Engineering.

6. The Family and Society in Medical Ethics

- The Ethics of human sexuality.
- Family Planning perspectives.
- Prolongation of life.
- Advanced life directives – The Living Will
- Euthanasia
- Cancer and Terminal Care

7. Profession Ethics

- Code of conduct.
- Contract and confidentiality.
- Charging of fees, Fee-splitting.
- Prescription of drugs.
- Over-investigating the patient.
• Low – Cost drugs, vitamins and tonics.
• Allocation of resources in health care.
• Malpractice and Negligence.

8. Research Ethics

• Animal and experimental research / humaneness.
• Human experimentation.
• Human volunteer research — Informed Consent Drug trials.

9. Ethical workshop of cases

• Gathering all scientific factors.
• Gathering all human factors.
• Gathering all value factors.
• Identifying areas of value — conflict, setting of priorities
• Working out criteria towards decisions.

Recommended Reading

1. Francis C.M., Medical Ethics, 1 Ed, 1993, Jaypee Brothers, New Delhi, p 189, Rs. 150/-


4. CPCSEA Guidelines 2001 (www.cpcsea.org.)
