MAHATMA GANDHI UNIVERSITY
of
MEDICAL SCIENCES & TECHNOLOGY
JAIPUR

Syllabus

MD – FAMILY MEDICINE (MD22)

(3 Years Post Graduate Degree Course)

Edition 2021-22

Notice

1. Amendment made by the National Medical Commission (NMC) in Rules/Regulations of Post Graduate Medical Courses shall automatically apply to the Rules/Regulations of the Mahatma Gandhi University of Medical Sciences & Technology (MGUMST), Jaipur.

2. The University reserves the right to make changes in the syllabus/books/guidelines, fees-structure or any other information at any time without prior notice. The decision of the University shall be binding on all.

3. The Jurisdiction of all court cases shall be Jaipur Bench of Hon'ble Rajasthan High Court only.

RULES & REGULATIONS

MD FAMILY MEDICINE (MD22)
(3 Years Post Graduate degree course)

TITLE OF THE COURSE: It shall be called Doctor of Medicine.

ELIGIBILITY FOR ADMISSION:

No candidate shall be eligible for admission to MD/MS courses, if he or she has not qualified NEET PG (MD/MS) conducted by National Board of Examinations or any other Authority appointed by the Government of India for the purpose.

(1) General Seats

a) Every student, selected for admission to postgraduate medical course shall possess recognized MBBS degree or equivalent qualification and should have obtained permanent Registration with the Medical Council of India, or any of the State Medical Councils or should obtain the same within one month from the date of his/her admission, failing which the admission of the candidate shall be cancelled;
b) Completed satisfactorily one year's rotatory internship or would be completing the same before the date announced by the University for that specific year as per NMC rules after passing 3rd professional MBBS Part II Examination satisfactorily.
c) In the case of a foreign national, the Medical Council of India may, on payment of the prescribed fee for registration, grant temporary registration for the duration of the postgraduate training restricted to the medical college/institution to which he/she is admitted for the time being exclusively for postgraduate studies; however temporary registration to such foreign national shall be subject to the condition that such person is duly registered as medical practitioner in his/her own country from which he has obtained his basic medical qualification and that his degree is recognized by the corresponding Medical Council or concerned authority.

(2) NRI Seats

a) Students from other countries should possess passport, visa and exchange permits valid for the period of their course of study in this Institution and should also observe the regulations of both central and state governments regarding residential permits and obtain no-objection certificate from the same.
b) The candidate should have a provisional "Student Visa". If he comes on any other visa and is selected for admission, he will have to first obtain a student visa from his country and then only he will be allowed to join the course. Therefore, it is imperative to obtain provisional student visa before coming for Counseling.
c) This clause is applicable to NRI/Foreign Students only.

CRITERIA FOR SELECTION FOR ADMISSION:

a) Admission shall be made on the basis of the merit obtained at the NEET conducted by the National Board of Examinations or any other Authority appointed by the Government of India for the purpose
b) The admission policy may be changed according to the law prevailing at the time of admission.

COUNSELING/INTERVIEW:

(1) Candidates in order of merit will be called for Counseling/Interview and for verification of original documents and identity by personal appearance.
(2) Counseling will be performed, and the placement will be done on merit-cum-choice basis by the Admission Board appointed by the Government of Rajasthan.

RESERVATION:

Reservation shall be applicable as per policy of the State Government in terms of scheduled caste, scheduled tribe, back ward class, special back ward class, women, and handicapped persons.

ELIGIBILITY AND ENROLMENT:

Every candidate who is admitted to MD/MS course in Mahatma Gandhi Medical College & Hospital shall be required to get himself/herself enrolled and registered with the Mahatma Gandhi University of Medical Sciences & Technology (MGUMST) after paying the prescribed eligibility and enrolment fees.

The candidate shall have to apply to the MGUMST through Principal of College for the enrolment/eligibility along with the following original documents and the prescribed fees within two months of his/her admission or up to November 30 of the year of admission whichever is later without late fees. Then after, students will have to pay applicable late fees as per prevailing University Rules –

(a) MBBS pass Marks sheet/Degree certificate issued by the University (Ist MBBS to Final MBBS)
(b) Certificate regarding the recognition of medical college by the Medical Council of India.
(c) Completion of the Rotatory Internship certificate from a recognized college.
(d) Migration certificate issued by the concerned University.
(e) Date of Birth Certificate
(f) Certificate regarding registration with Rajasthan Medical Council / Medical Council of India / Other State Medical Council.

REGISTRATION

Every candidate who is admitted to MD/MS course in Mahatma Gandhi Medical College & Hospital shall be required to get himself/herself registered with the Mahatma Gandhi University of Medical Sciences & Technology after paying the prescribed registration fees.

The candidate shall have to submit application to the MGUMST through Principal of College for registration with the prescribed fees within two months of his/her admission or up to November 30 of the year of admission whichever is later without late fees. Then after, students will have to pay applicable late fees as per prevailing University Rules.

DURATION OF COURSE:

The course shall be of 3 years duration from the date of commencement of academic session.

PERIOD OF TRAINING:

The period of training for obtaining Post graduate degrees (MD/MS) shall be three completed years including the period of examination.

MIGRATION:
No application for migration to other Medical Colleges will be entertained from the students already admitted to the MD/MS course at this Institute.

METHODS OF TRAINING FOR MD/MS:
Method of training for MD/MS courses shall be as laid down by the Medical Council of India.

ONLINE COURSE IN RESEARCH METHODS

i. All postgraduate students shall complete an online course in Research Methods to be conducted by an Institute(s) that may be designated by the Medical Council of India by way of public notice, including on its website and by Circular to all Medical Colleges. The students shall have to register on the portal of the designated institution, or any other institute as indicated in the public notice.
ii. The students must complete the course by the end of their 2nd semester.
iii. The online certificate generated on successful completion of the course and examination, thereafter, will be taken as proof of completion of this course
iv. The successful completion of the online research methods course with proof of its completion shall be essential before the candidate is allowed to appear for the final examination of the respective postgraduate course.
v. This requirement will be applicable for all postgraduate students admitted from the academic year 2019-20 onwards

ATTENDANCE, PROGRESS AND CONDUCT:

(1) Attendance:
(a) 80% attendance in each course is compulsory. Anyone failing to achieve this, shall not be allowed to appear in the University examination.
(b) A candidate pursuing MD/MS course shall reside in the campus and work in the respective department of the institution for the full period as a full-time student. No candidate is permitted to run a clinic/work in clinic/laboratory/ nursing home while studying postgraduate course. No candidate shall join any other course of study or appear for any other examination conducted by this university or any other university in India or abroad during the period of registration. Each year shall be taken as a unit for the purpose of calculating attendance.
(c) Every candidate shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, CCR, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons. Candidates should not be absent continuously as the course is a full time one.

(2) Monitoring Progress of Studies- Work diary/Logbook:

(a) Every candidate shall maintain a work diary in which his/her participation in the entire training program conducted by the department such as reviews, seminars, etc. must be chronologically entered.
(b) The work scrutinized and certified by the Head of the Department and Head of the Institution is to be presented in the University practical/clinical examination.

(3) Periodic tests:

There shall be periodic tests as prescribed by the Medical Council of India and/ or the Board of Management of the University, tests shall include written papers, practical/clinical and viva voce.

(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 when called for.

THESIS:

(1) Every candidate pursuing MD/MS degree course is required to carry out work on research project under the guidance of a recognized post graduate teacher. Then such a work shall be submitted in the form of a Thesis.
(2) The Thesis is aimed to train a postgraduate student in research methods & techniques.
(3) It includes identification of a problem, formulation of a hypothesis, designing of a study, getting acquainted with recent advances, review of literature, collection of data, critical analysis, comparison of results and drawing conclusions.
(4) Every candidate shall submit to the Registrar of the University in the prescribed format a Plan of Thesis containing particulars of proposed Thesis work within six months of the date of commencement of the course on or before the dates notified by the University.
(5) The Plan of Thesis shall be sent through proper channel.
(6) Thesis topic and plan shall be approved by the Institutional Ethics Committee before sending the same to the University for registration.
(7) Synopsis will be reviewed, and the Thesis topic will be registered by the University.
(8) No change in the thesis topic or guide shall be made without prior notice and permission from the University.
(9) The Guide, Head of the Department and head of the institution shall certify the thesis. Three printed copies and one soft copy of the thesis thus prepared shall be submitted by the candidate to the Principal. While retaining the soft copy in his office, the Principal shall send the three printed copies of the thesis to the Registrar six months before MD/MS University Examinations. Examiners appointed by the University shall evaluate the thesis. Approval of Thesis at least by two examiners is an essential pre-condition for a candidate to appear in the University Examination.
(10) Guide: The academic qualification and teaching experience required for recognition by this University as a guide for thesis work is as laid down by Medical Council of India/Mahatma Gandhi University of Medical Sciences & Technology, Jaipur.
(11) Co-guide: A co-guide may be included provided the work requires substantial contribution from a sister department or from another institution recognized for teaching/training by Mahatma Gandhi University of Medical Sciences & Technology, Jaipur/Medical Council of India. The co-guide shall be a recognized postgraduate teacher.
(12) 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.

ELIGIBILITY TO APPEAR FOR UNIVERSITY EXAMINATION:

The following requirements shall be fulfilled by every candidate to become eligible to appear for the final examination:

(1) Attendance: Every candidate shall have fulfilled the requirement of 80% attendance prescribed by the University during each academic year of the postgraduate course. (As per NMC rules)
(2) Progress and Conduct: Every candidate shall have participated in seminars, journal review meetings, symposia, conferences, case presentations, clinics and didactic lectures during each year as designed by the department.
(3) Work diary and Logbook: Every candidate shall maintain a work diary for recording his/her participation in the training program conducted in the department. The work diary and logbook shall be verified and certified by the Department Head and Head of the Institution.
(4) Every student would be required to present one poster presentation, to read one paper at a National/State Conference and to have one research paper which should be published/accepted for publication/ sent for publication to an indexed journal during the period of his/her post graduate studies to make him/her eligible to appear at the Post Graduate Degree Examination.
(5) Every student would be required to appear in and qualify the Pre-University Post graduate degree Mock examination. Post graduate students who fail to appear in or do not qualify the Pre-University Post graduate degree Mock examination shall not be permitted to appear in the final examination of the University.

The certification of satisfactory progress by the Head of the Department/ Institution shall be based on (1), (2), (3), (4) and (5) criteria mentioned above.

ASSESSMENT:

(1) The progress of work of the candidates shall be assessed periodically by the respective guides and report submitted to the Head of the Institution through the Head of the Department at the end of every six months. The assessment report may also be conveyed in writing to the candidate who may also be advised of his/her shortcomings, if any.
(2) In case the report indicate that a candidate is incapable of continuing to do the work of the desired standard and complete it within the prescribed period, the Head of the Institution may recommend cancellation of his/her registration at any time to the University.
(3) Formative Assessment:
   (a) General Principles
      i. The assessment is valid, objective, constructive and reliable.
      ii. It covers cognitive, psychomotor and affective domains.
      iii. Formative, continuing and summative (final) assessment is also conducted.
      iv. Thesis is also assessed separately.
   (b) Internal Assessment
      i. The internal assessment is continuous as well as periodical. The former is based on the feedback from the senior residents and the consultants concerned. Assessment is held periodically.
      ii. Internal assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.
      iii. The performance of the Postgraduate student during the training period should be monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student.
      iv. Marks should be allotted out of 100 as under
         1) Personal Attributes - 20 marks

a. Behavior and Emotional Stability: Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.
b. Motivation and Initiative: Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.
c. Honesty and Integrity: Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.

2) Clinical Work - 20 marks
   a Availability: Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.
   b Diligence: Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.
   c Academic Ability: Intelligent, shows sound knowledge and skills, participates adequately in academic activities and performs well in oral presentation and departmental tests.
   d Clinical Performance: Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing Documents of the case history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bed side procedures and handling emergencies.
3) Academic Activities - 20 marks
   Performance during presentation at Journal club/ Seminar/Case discussion/Stat meeting and other academic sessions. Proficiency in skills as mentioned in job responsibilities.
4) End of term theory examination - 20 marks
   End of term theory examination conducted at end of 1st, 2nd year and after 2 years 9 months.
5) End of term practical examination - 20 marks
   a. End of term practical/oral examinations after 2 years 9 months.
   b. Marks for personal attributes and clinical work should be given annually by all the consultants under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20.
   c. Marks for academic activity should be given by the all consultants who have attended the session presented by the resident.
   d. The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.
   e. Yearly (end of 1st, 2nd & 3rd year) theory and practical examination will be conducted by internal examiners and each candidate will enter details of theory paper, cases allotted (2 long & 2 short) and viva.
   f. Log book to be brought at the time of final practical examination.

APPOINTMENT OF EXAMINERS:

Appointment of paper setters, thesis evaluators, answer books evaluators and practical & viva voce examiners shall be made as per regulations of the National Medical Commission (NMC).

SCHEME OF EXAMINATION:

Scheme of examination in respect of all the subjects of MD/MS shall be as under :

(1) The examination for MD/MS shall be held at the end of three Academic Years.

(2) Examinations shall be organized on the basis of marking system.

(3) The period of training for obtaining MD/MS degrees shall be three completed years including the period of examination.

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

(5) The examinations shall consist of:

(a) Thesis :

i. Thesis shall be submitted at least six months before the main Theory examinations.

ii. The thesis shall be examined by a minimum of three examiners – one Internal and two External examiners who shall not be the examiners for Theory and Clinical/Practical.

iii. In departments where besides the two earmarked practical/clinical examiners no one else is a qualified P.G. teacher, in that case the Thesis shall be sent to the third external examiner who shall actually be in place of the internal examiner.

iv. Only on the acceptance of the thesis by any two examiners, the candidate shall be eligible to appear for the final examination.

v. A candidate whose thesis has been once approved by the examiners will not be required to submit the Thesis afresh, even if he/she fails in theory and/or practical of the examination of the same branch.

vi. In case the Thesis submitted by a candidate is rejected, he/she should be required to submit a fresh Thesis.

(b) Theory papers:

i. There shall be four theory papers.

ii. Each theory paper examination shall be of three hours duration.

iii. Each theory paper shall carry maximum 100 marks.

iv. The question papers shall be set by the External Examiners.

v. There will be a set pattern of question papers.

Every question paper shall contain three questions. All the questions shall be compulsory, having no choice.

Question No. 1 shall be of long answer type carrying 20 marks.

Question No. 2 shall have two parts of 15 marks each. Each part will be required to be answered in detail.

Question No. 3 shall be of five short notes carrying 10 marks each.

vi. The answer books of theory paper examination shall be evaluated by two External and two internal examiners. Out of the four paper setters, the two paper setters will be given answer books pertaining to their papers and the answer books of the remaining two papers will be evaluated by two Internal Examiners. It will be decided by the President as to which paper is to be assigned to which Internal Examiner for evaluation.

vii. A candidate will be required to pass theory and practical examinations separately in terms of the governing provisions pertaining to the scheme of examination in the post graduate regulations. The examinee should obtain minimum 40% marks in each

theory paper and not less than 50% marks cumulatively in all the four papers for degree examination to be cleared as "passed" at the said Degree examination.

(c) Clinical/ Practical & Oral examinations:
   i. Clinical/Practical and Oral Examination of 400 marks will be conducted by at least four examiners, out of which two (50%) shall be External Examiners.
   ii. A candidate will be required to secure at least 50% (viz. 200/400) marks in the Practical including clinical and viva voce examinations.

(6) If a candidate fails in one or more theory paper(s) or practical, he/she shall have to reappear in the whole examination i.e. in all theory papers as well as practical.

GRACE MARKS

No grace marks will be provided in MD/MS examinations.

REVALUATION / SCRUTINY:

No Revaluation shall be permitted in the MD/MS examinations. However, the student can apply for scrutiny of the answer books as per University Rules.

GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAININ PROGRAMME FOR MD IN FAMILY MEDICINE (MD22)

Preamble

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

The Indian health care scenario is very complex and heterogeneous covering a range from world-class private tertiary care facilities to deplorably inadequate public services at all levels, including primary disease care. A system to provide affordable, accessible and effective health care and disease care to all the citizens of the nation is an urgent requirement of the country and should be based on a strong foundation of primary care and Family Medicine/ General Practice.
A well-trained family medicine practitioner with a specialist degree can bring some much-needed improvement in health delivery by offering integrated medical care at a lower cost than is happening today.

The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by various subject-content specialists. The Reconciliation Board of the Academic Committee has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of "domains of learning" under the heading "competencies".

SUBJECT SPECIFIC OBJECTIVES

Goal

The broad objectives of the course will be that, after qualifying the final examination, the post graduate student should be able to function as specialist in Family Medicine, rendering primary and secondary health care services to the community and to all members of a family registered with them, becoming their first contact family doctor. The Doctor thus becomes friend, philosopher and guide to families registered under them.

The objectives include:

- Promotion of health and prevention of diseases in the families under care.
- Effective medical management of common diseases in all age groups, in various clinical specialties within the limited resources of family practice setting.
- Identification of red flag signs and symptoms in any disease or health problem and their appropriate management or referral.
- Co-ordination of care with the specialists, follow up, continuity of care, domiciliary care, and palliative care.
- Awareness and implementation of National Health programmes.
- Ability to care for disadvantaged groups in the community such as the elderly, mentally and physically handicapped persons.

- Application of behavioral sciences related to family practice to develop a healthy relationship inside the family.
- Effectively communicate with patients, family, colleagues and other health care workers in the community.
- Management of a wide range of common medical emergencies in family practice, with evidence-based medicine.
- Develop ability to take decisions on appropriate and cost-effective use of investigations and interpret the results of these investigations.
- Develop ability to solve patient problems within a particular socio-cultural setting, harnessing available community services.
- Be a role model in behavior and able to organize community care programmes, focusing on promotion and maintenance of health of the family and the community in general.
- Acquire competency in legal certification and documentation.
- Acquire competencies in medical records keeping and data management.
- Able to conduct research and submit the results as thesis.

SUBJECT* SPECIFIC *COMPETENCIES

The functioning of a family physician is based on nine core principles as listed below:

1. Person centred care
2. Family oriented care
3. Community based care
4. Comprehensive care
5. Continuous care
6. Health promotion and disease prevention
7. Collaborative, coordinated team based care
8. Resource management and health advocacy
9. Lifelong self-learning

To achieve this, the training must emphasize:

1. Clinical expertise in Family medicine
2. Scholarship
3. Social outlook and responsibilities
4. Collaborator and coordinator
5. Leadership
6. Communication skills
7. Professionalism

A. Cognitive domain

1. Clinical expertise in Family medicine:

The physician should be able to provide comprehensive and continuous clinical care during acute and chronic conditions to a population with wide variety of clinical problems.

At the end of the MD programme, the post graduate should also be able to:

a) Handle the *whole spectrum of diseases* presenting in the community at primary care level, both chronic and acute, affecting all age groups, including emergency and elective problems.
b) deal with *undifferentiated problems*, form provisional diagnoses, and formulate management plans in a step-wise manner, based on evolution of the clinical problem.
c) deal with *multiple co-morbidities* in a variety of clinical situations. This will often involve integrating care between the family physician and many specialists, as well as between specialists.
d) make logical and appropriate decisions regarding *referral to tertiary care* centres, acting as a gatekeeper to tertiary care (aids in preventing fragmentation of care and escalation of cost of care).
e) employ a *patient-centred approach*, in contrast to a "disease-centred approach" in which the illness is dealt with in the specific patient's unique socio-cultural context.
f) practice a *multi-disciplinary approach to health-care*, and work as a leader of the health team comprising of ANM/ VHN (auxiliary nurse midwife/ voluntary health nurses), physiotherapists, nurses, occupational therapists and trained attendants.
g) provide *continuity of care* by engaging in a two-way referral network between primary/secondary and tertiary levels, as well as by organizing an efficient access to health care facility.
h) provide community oriented care to the defined population served by them.
i) provide family oriented care to the individuals/families served by them.
j) be involved in health promotion, disease prevention, rehabilitation and palliation.

The student should be able to elicit clinical history, perform a comprehensive physical examination and demonstrate problem-solving competencies like:

a) ability to generate an initial list of differential diagnoses given a specific chief complaint and patient characteristics.
b) ability to re-rank the differential diagnoses based on information gathered from the history, physical, and auxiliary studies.
c) ability to explain a mechanism for each aspect of a patient's problem, including biological, behavioural, and social aspects.
d) ability to evaluate scientific/clinical information and critically analyze conflicting data and hypotheses.
e) ability to identify and find information relevant to the clinical problem from print and electronic media
f) ability to organise medical record keeping.

g) be well versed in principles of bioethics, legal matters pertaining to health care, gender issues, social and cultural beliefs of the community.
h) Continue to keep up to date with new information in all branches of clinical medicine with special relevance to primary care.
i) be committed to cost-effective patient care.
j) Able to organize medical data in oral and written presentations.
k) Demonstrate use and interpretation of diagnostic procedures and laboratory data.

2. Scholar

The student should demonstrate a lifelong commitment to excellence in practice through continuous learning and teaching of others and be able to:

a) analyse the quality and implications of medical literature and apply new knowledge in the delivery of health care.
b) identify future areas of inquiry in medical research.
c) demonstrate enthusiasm and positive attitude in the educational process and participate fully in educational activities.
d) demonstrate familiarity with research methodology, epidemiology and information technology skills.
e) plan protocol of thesis, its execution and thesis writing.
f) review literature on evidence based medicine
g) conduct clinical sessions for undergraduate medical students, nurses and paramedical workers.
h) write and present a paper
i) collect and analyse primary and secondary data and perform simple descriptive and inferential statistical analysis.

3. Social outlook and responsibilities

The trainee should be aware of the patient's problems, the social, cultural and environmental issues behind the diseases and the social and financial issues involved in management of the diseases; these include:

a) ability to engage the patient family in diagnosis and therapeutic treatment planning recognizing its social and economic impact.
b) practical, efficient and cost effective approach to diagnosis and management, and in choosing the health care delivery options.
c) knowledge of evidence based medicine in making patient management decisions.
d) knowledge of National Health Programmes and the epidemiology of common diseases.

4. Collaborator / coordinator

This is defined as the ability of the family physicians to work with patients, families, health care teams, other health professionals, government agencies and communities to achieve optimal patient care and education in a multi-professional environment and includes:

a) understanding of the roles and competencies of other health care professionals and is able to work with them in a team approach.
b) ability to sustain a relationship of trust and mutual respect with all stakeholders.
c) ability to engage patients and their families as active participants in health care.
d) ability to collaborate with other professionals in training of health professionals.
e) ability to follow up and coordinate care of patients when referred to other professionals and when at home.

5. Leader

The trainee should take responsibility for providing optimum health care by acting as a leader in giving optimum health care and should initiate and participate in quality improvement processes in the area of practice (e.g. audits).

B. Affective domain

1. **Communicator:**

The student should be able to communicate effectively with family members, health professionals and the community, by the following mechanisms:

- Use of patient-centred interviewing techniques during consultations
- Provides effective education, counselling and guidance
- Demonstrates adaptable communication style
- Interacts effectively with allied health professionals so that multi-disciplinary care is delivered in a seamless comprehensive manner
- Demonstrates ability to communicate bad news and deal with conflict situations effectively.
- Demonstrates competence in *communicating effectively* with patients, relatives and with other members of the health team as outlined below:
  - knowledge of family and support systems,
  - identifying and addressing ethical, cultural, and spiritual issues associated with health care delivery
  - understanding of psychological, social, and economic factors which are pertinent to the delivery of health care.
  - Able to assess a patient's ideas, concerns and expectations about the illness and in accessing the health care system.

2. **Professionalism and work ethics:**

- Accepts personal responsibility for care of one's patients, consistent with good work ethics and empathy.
- truthfulness and honesty with colleagues, respect for colleagues and team members
- behaviour that reassures everyone that the physician is responsible, reliable, and trustworthy.

- knows her/ his limits of clinical competence and seeks help appropriately.
- make sure that her/ his personal beliefs and prejudices do not come in the way of providing service.

- Respecting patient confidentiality at all times in verbal and written communication with others.
- flexible open-minded approach when dealing with uncertainty.

C. Psychomotor domain

At the end of the course, the student should have acquired the following psychomotor skills:

General Medicine

At the end of the course, the family physician should be able to perform the following skills in a community health centre:

1. Cardio-pulmonary resuscitation: adults and children
   a. Basic life support and advanced cardiac life support, stabilisation and referral
   b. Use of defibrillator including Automatic external defibrillator
2. Interpret an ECG, and X-ray of chest, abdomen, spine and limbs, basic antenatal ultrasound; understand the indications for CT scan and MRI, and be able to act on their reports.
3. Chest-tube drainage with under-water seal
4. Abdominal paracentesis
5. Pleural fluid aspiration
6. Naso-gastric intubation
7. Intravenous access
8. Urinary bladder catheterization
9. Estimation of haemoglobin, total count, differential count, ESR, preparing and staining of blood smears, AFB
10. Lumbar puncture
11. Cerebrospinal fluid examination.
12. Health Promotion/ disease prevention for the following
13. Maintain accurate records of all patient consultations, procedures and outcomes.
14. Record of Family Profiles – The post graduate student will maintain the profiles of at least five families in which at least one member of the family has a health problem, eliciting its impact on the family and the role of family, taking into account their social, cultural and economic backgrounds.

The student should be able to educate all patients, independently or in liaison with health care professionals on the following general aspects of health promotion:

- Nutrition
- Exercise
- Smoking cessation
- Alcohol de-addiction
- Stress reduction

Child health

1. Intravenous access
2. Lumbar puncture
3. Neonatal resuscitation
4. Assessment of the newborn
5. Assessment of nutritional status and management of the malnourished child including preparation of a diet sheet
6. Use the IMNCI guidelines to manage childhood diseases
7. Management of common childhood emergencies including seizures, burns, poisoning, dehydration, acute severe breathlessness.

Adolescent health

1. History taking for adolescents
2. Assessment and management of common behavior problems in adolescents with appropriate referral

General Surgery

1. Recognition and evaluation of conditions requiring surgical intervention
2. Management and appropriate referral of primary surgical emergencies including burns, haemorrhage, shock, sepsis, acute abdomen, head injuries
3. Management of minor trauma, injuries, including immediate and resuscitative treatment of acute injuries, management of electrolyte and fluid requirements, blood transfusion.
4. Foreskin dorsal slit
5. Fine needle aspiration cytology (FNAC)
6. Proctoscopy
7. Incision & drainage abscess
8. Suturing, wound dressing/bandage
9. Circumcision
10. Reduction of paraphimosis

11. Vasectomy
12. Hydrocelectomy
13. excision and biopsy of superficial swellings
14. Venesection
15. Suprapubic cystostomy

Orthopaedics

1. Emergency care of patients with multiple injuries, transportation of trauma patients, splinting, application of casts, diagnosis and management of injuries, sprains, control of external haemorrhage, fractures and dislocations with proper referral.
2. Management of Colle' s fracture, fracture clavicle, shoulder dislocation
3. Provide health education for prevention of injuries.

Maternal and Women's Health

1. Antenatal care
2. Conduct of a normal delivery
3. Detect high-risk ante-natal cases, and perform LSCS or refer when necessary
4. Vacuum and forceps delivery
5. Manage post-partum haemorrhage and refer appropriately
6. Care of the new-born
7. Pap smear
8. Cervical and endometrial biopsy
9. Dilatation and curettage
10. Insertion and removal of IUCD
11. Provide contraceptive advice
12. Medical termination of pregnancy.

Community Health:

1. Investigation of an epidemic
2. Implementation of National health programmes
3. Provide health education for schools, health workers and the community

Otorhinolaryngology:

1. removal of wax from external auditory canal, foreign body removal, nasal packing, Ear lobe repair, ear syringing, tracheostomy, cricothyroidotomy

Ophthalmology:

1. Fundus examination with an opthalmoscope
2. Vision screening
3. Epilation

4. Removal of superficial foreign body
5. Fluorescent dye examination of cornea

Dermatology:

1. Minor surgical procedures in dermatology including electrocautery, chemical cauterization, skin-biopsy.

Geriatrics:

1. Assessment for risk of falls
2. Assessment and management of depression in the elderly patients
3. Management of the agitated elderly patient

Mini Mental Status Examination

Comprehensive geriatric assessment

Physical Medicine and Rehabilitation

1. Co-ordinate the following rehabilitation and palliation care aspects with respective health care professionals.
   a. Stroke rehabilitation
   b. Cardiovascular rehabilitation
   c. Post-trauma rehabilitation
   d. Musculoskeletal diseases
2. Assessment and management of patients with disabilities
3. Prevention and management of bed sores

Pain and Palliative care:

1. Management of common symptoms in terminally ill patients and its management
2. management of pain
3. Provide end of life care
4. Management of grief
5. Breaking bad news

Emergency Medicine:

1. Initiate management of patient in shock, status epilepticus, poisoning, acute respiratory distress, coma
2. Skills for life-saving procedures in medical, obstetric, paediatric, including neonatal resuscitation, surgical and trauma emergencies
3. Management of common emergencies seen in family practice including cardio - vascular, respiratory, gastrointestinal, neurological, metabolic and others like snake bite and heat stroke

4. Basic and advanced life support, cardio-pulmonary resuscitation,
5. Endotracheal intubation
6. Intravenous access (peripheral and central lines, venesection, intravenous infusion)
7. Disaster management.

Anaesthesia

1. Administer local, spinal and regional anaesthesia including field , digital , wrist, penile and ankle blocks

Mental Health

1. Recognition and management of depression and anxiety states
2. Recognition and referral of patients with psychosis
3. Follow-up care of patients with psychosis
4. Care of patients with unexplained symptoms without organic basis
5. Care of patients undergoing bereavement, social and family stress
6. Diagnosis, detoxification and team based management of patients with substance abuse
7. Assessment of suicide risk

Medical Jurisprudence

1. Document injuries
2. Provide appropriate medical certificates

Academic Skills

1. Collect and analyse primary and secondary data and perform simple descriptive and inferential statistical analysis.
2. Read and analyse published literature pertaining to primary care.
3. Teach undergraduate students and allied health professional students.

Syllabus

Description of primary-care setting

A family physician should posses the core content of knowledge, skills and attitude which would enable him/her to address effectively all the problems of patients at the point of first contact. This highly individualized patient-centred approach is the hallmark of a Family Medicine specialist as opposed to a disease-centred approach of other specialists. Primary care is thus performed by a personal physician who also coordinates the care when required by referral to other specialists and health care professionals and follows up the patient as the physician whose aim is to keep the person healthy as the entry point for their health needs. In the existing Indian health care delivery system the Family Medicine specialist can function effectively at the Community Health or PHC

where he/she can take up the role of multiple specialists and to enable early diagnosis and to make treatment cost effective.

During the training of the post graduate students in each rotation, the focus and emphasis should be on development of clinical skills, ability to make a correct clinical diagnosis, and to provide cost effective, and conservative management for the illnesses they encounter.

Course contents:

1. **Applied Basic Science (as relevant to Family Medicine)**

Anatomy:

- Gross applied anatomy of the upper and lower limb, musculoskeletal system, brain, heart, lungs, abdominal and pelvic organs and embryology.

Physiology:

- Clinically relevant physiology of heart, lungs, endocrine, gastro-intestinal, genito-urinary, and CNS reproductive physiology

Biochemistry:

- Carbohydrate, lipid, protein, bone and renal metabolism

Pharmacology:

- Mode of action and therapeutic uses of drugs commonly used in clinical practice in common diseases.

Pathology/microbiology:

- Review of clinical pathology of common diseases relevant to Family Medicine and an understanding of the basis of common investigations.

Radiological and imaging:

- Interpretation of conventional X-rays, and ultrasound reports in making clinical decision making. The physician should have knowledge of the indications for CT scan and MRI scan in various clinical contexts, and be able to act on the reports furnished by the radiologist.

Electrocardiographic interpretation

- Understanding on the utility of treadmill and ECHO reports

2. **Accident and Emergency medicine** (Common emergencies including shock, acute respiratory distress, status epilepticus, acute myocardial infarction, trauma, poisonings, acute renal failure, spine injury, disaster management, triaging).

3. **Surgical conditions: (**diagnosis and treatment or stabilisation and referral of common surgical conditions including acute abdomen, burns, ulcers, superficial soft tissue trauma, abscess, wound and ulcer management, electrolyte and fluid requirements, blood transfusion, suture methods and materials, universal precautions. Cancer screening, disorders of thyroid, diseases of the breast; neck swellings, varicose veins, deep vein thrombosis, peripheral vascular disease; abdominal pain, dysphagia, nausea, vomiting, haematomesis and malena, peptic ulcer, GORD, gastritis, disorders of gall bladder and pancreas. intestinal obstruction, specific and non specific infections. Common cysts, swellings, sinuses, fistulae, abscess, ulcers and tumours. Lymphadenopathy. Hernia, inguino-scrotal swellings, hydrocoele, prostate diseases, renal and genitor-urinary tract disorders; anorectal disorders including fissure in ano, haemorrhoids, pilonidal sinus, phimosis, paraphimosis, ingrowing toe nail, diabetic foot.

4. **Child health**
    - Care of new born, growth and development, nutrition including protein energy malnutrition and obesity
    - vitamin deficiency diseases
    - immunization
    - recognition and referral of common birth anomalies
    - common childhood infections including measles, mumps, rubella, poliomyelitis, diphtheria, pertussis, acute respiratory infections, tuberculosis, H. Influenza, hepatitis, meningitis, chicken pox, acute diarrhoeal diseases, cholera, food poisoning, worm infestations
    - Bronchial asthma, congenital heart disease, rheumatic fever, hypothyroidism, nephritic syndrome, glomerulonephritis
    - Behaviour disorders, mental retardation, learning disabilities, child abuse issues, sudden infant death syndrome (SIDS), genetic disorders, school health programme, breast feeding
    - National Immunisation Programme
    - Integrated Management of Childhood and Neonatal Illnesses

5. **Adolescent Health**

    Puberty: male and female, adolescents and the law, behavioural problems/stress/ psycho-social problems, nutrition and exercise.

6. **Gender specific and sexual health**

    Menopausal woman, reproductive and sexual health, domestic violence/gender-related health issues, erectile dysfunction, sexual abuse and rape.

7. Community Health

Aspects of community medicine relevant for Family Medicine

- Concept of health and disease, primary health care and its implementation, principles of epidemiology and epidemiological methods.
- Epidemiology of communicable diseases, hospital acquired infections, emerging and reemerging infectious diseases, epidemiology of chronic non-communicable diseases and conditions.
- Environment and health, basic principles of household waste management, sanitation, safety and availability of drinking water.
- Health care of the community, health services at centre, state and district levels National health programmes and policies
- Demography and family planning
- Health information and basic medical statistics, health education
- Principles of health education and methods
- Health planning and five year plans
- National Health insurance schemes and other private schemes
- School health programmes
- Management of epidemics and national disasters
- Role of NGOs
- Research in community medicine and interaction with other fields of medicine.
- Preventive medicine in Obstetrics, Paediatrics and Geriatrics, medical sociology, genetics and health, international health, public health aspects of disaster management.
- Hospital waste management.

8. Maternal and Women's Health

- Physiological changes in pregnancy, antenatal care, normal labour and post natal care
- Common problems during pregnancy including hyperemesis gravidarum, urinary tract infections, low back ache
- Obstetric complications including hypertensive disorders, obstetric hemorrhage, anaemia in pregnancy, gestational diabetes, multiple pregnancy
- Antenatal care, preconception counselling, prenatal care, ectopic pregnancy, gestational trophoblastic diseases, abortion, teratology, medications during pregnancy, intrapartum assessment
- Medical termination of pregnancy
- Family planning
- Physiology of menstruation and its deviations
- Common problems in Gynaecology including genital tract infections
- Dysfunctional uterine bleeding

- Common disorders of uterus and ovary including fibroid uterus, genital prolapse, ovarian tumours, polycystic ovarian disease
- Sexually transmitted diseases including HIV, gonorrhoea, chlamydia, bacterial vaginosis, trichomonas, candidiasis, human papilloma virus, herpes infection
- Genital tract malignancies
- Preventive oncology- screening and early diagnosis of genital tract malignancies

9. Otorhinolaryngology

- Anatomy of ear, nose and throat, recognition and first line management of common diseases of ear, nose and throat like acute and chronic otitis media, otalgia, rhinitis, sinusitis, pharyngitis, tonsillitis, laryngitis, foreign body, epistaxis, nasal polyps, vertigo, tinnitus, hoarseness of voice, stridor, deafness, ear wax, dysphagia,, snoring, allergic disorders, temporomandibular joint disorders, otitis externa, facial nerve paralysis, hearing loss, hearing assessment, tumours.
- Emergencies in ENT

10. Oral cavity and dental

- Oral hygiene, oral ulcers, gingivitis, stomatitis, premalignant lesions.

11. Ophthalmology:

- Common eye diseases including conjunctivitis, corneal ulcer, inflammatory disorders of eyelids, allergic conditions of eye, red eye, dry eye, painful eye, cataract, glaucoma, diabetic retinopathy, hypertensive retinopathy
- Emergencies in eye including eye injuries
- National Programme for Prevention of Blindness, Vitamin A deficiency
- Refractive errors, indications, contraindications and advantages of contact lens and Intra Ocular Lenses (IOL)
- Ocular side effects of commonly used pharmacological agents.

12. Geriatrics:

- Common health problems and diseases in the old age & their management eg. vascular, musculosketetal, oncological, psychological, neurological, hearing and vision problems
- Special attention to nutrition, falls in elderly, incontinence, constipation, delirium, dementia, aches and pains, pruritus
- Drug therapy in elderly
- Rehabilitation, management of terminally ill patients
- Communication skills in bereavement, problems of the family after death

- Caregiver support, care of elderly, social and psychological problems in elderly, elderly abuse.

13. **Physical Medicine and Rehabilitation:**
    - Basics of rehabilitation and basic physiotherapy advice
    - Role of Family Physician in management of patients with disabilities
    - Bladder care
    - Team concept in rehabilitation
    - Management of the bed ridden patient; Bed sores
    - Community based rehabilitation.
14. **Pain and Palliative care**
    - Common symptoms in terminally ill patients and its management
    - Management of pain, opioid analgesics, Co-analgesics, hospice care
    - End of life care
    - Management of grief
    - Breaking bad news
15. **Anaesthesia**:
    - Basic principles of local aneasthesia, regional anaesthesia, intravenous sedation, relaxants in anaesthesia, spinal anaesthesia, epidural anaesthesia, pre-anaesthetic health check up.
16. **Medical Jurisprudence:**
    - Knowledge of health legislation and duties of doctor attending to cases
    - Knowledge of medical ethics and principles of good practice
    - Medical negligence
    - Medical certificates
    - Examination of injury cases and its medico-legal importance
    - Legal certification and documentation.

B. **Common diseases in the community**

The student should be able demonstrate theoretical competencies in order to deliver appropriate health care in a Family Practice setting for **all age groups in the following types of common illnesses.**

1. **Infections** ((Tropical diseases and common infections including viral, bacterial rickettsial, mycobacterial, malaria, filariasis, rabies, leptospirosis, dengue fever, enteric fever,

hepatitis, poliomyelitis, meningitis, encephalitis, HIV/AIDS, sexually transmitted infections, common fungal infections, skin infections, varicella, herpes zoster, rickettsia, Chikungunya fever newer emerging infections: avian influenza and Zika virus)

2. **Cardiovascular diseases** (hypertension, ischemic heart disease, rheumatic fever & rheumatic heart disease, cardiac failure, pulmonary edema, infective endocarditis, pericardial diseases, cerebrovascular disorders, peripheral vascular diseases, common cardiac arrhythmias, valvular heart disease, ischemic heart disease and common congenital heart diseases)

3. **Common skin diseases** (Prevention, diagnosis and management of common dermatological conditions including acne vulgaris, dermatitis, fungal infections, skin diseases due to bacterial infection, scabies, pediculosis, wart, corn, pityriasis rosea, lichen planus, psoriasis, H. zoster; principles of dermatological therapy; principles of rehabilitation of chronic dermatological patients; principle of diagnosis and management of sexually transmitted

   diseases, leprosy, skin disorders in diabetes, urticaria, hypopigmentation and hyperpigmentation, photodermatitis, allergies, eczema's, nutritional skin disorders skin manifestations of systemic diseases and autoimmune disorders)

4 **Gastro-intestinal diseases** (Jaundice, hepatitis, cirrhosis of liver, portal hypertension, hepatic encephalopathy, hematemesis, non-alcoholic fatty liver disease, cholecystitis, pancreatitis, peptic ulcer disease, non-ulcer dyspepsia, gastrointestinal bleeding, gastritis, dyspepsia, GORD, inflammatory bowel disease, irritable bowel syndrome, malabsorption syndromes, acute and chronic diarrhea, acute infectious diarrhoeal diseases, food poisoning, parasitology including amebiasis/ giardiasis/worm infestations, and investigations in gastro-intestinal diseases)

5 **Neruological diseases** (headache, memory loss, peripheral neuropathy, seizures, dizziness, vertigo, syncope, migraine, transient loss of consciousness, cerebro-vascular accidents, hemiparesis, hemiplegia, paraplegia, quadriparesis, strokes, Parkinsons' disease, neuropathies and myopathies)

6 **Metabolic and endocrine diseases** (Common endocrine diseases related to pancreas, thyroid, pituitary and adrenal gland, glucose metabolism, glucose tolerance test, diabetes mellitus, dyslipidaemia, iodine metabolism, thyroid function tests, hypothyroidism, hyperthyroidism, metabolic syndrome, obesity, osteoporosis, Vitamin D deficiency and undernutrition

7 **Substance abuse** (alcohol, tobacco, drugs including performance enhancing drugs)

8 **Poisoning** (general emergency measures, poisoning caused by paracetamol, organo-phoshorous compounds, alcohol, kerosene, barbiturates, corrosives, insecticides, organophosphorus compounds, carbon monoxide, sedatives, phosphide, snakebite, scorpion sting and Cerebra Odollum)

9 **Haematological diseases** (Anemias, Iron deficiency, B12 and folic deficiency, polycythemia, and common disorders of RBC, WBC and platelets, coagulopathies, leukaemias, lymphomas)

10 **Common cancers** (cervical, breast, prostate, haematological, gastro-intestinal, head and neck, lung, cancer screening)

11 **Orthopaedic and musculoskeletal diseases** (inflammatory and degenerative arthritis, osteoporosis, common fractures, dislocations, osteomyelitis. Low back ache. Common bone and joint diseases, entrapment neuropathies and neuromuscular disorders including arthritis, cervical spondylosis, intervertebral disc prolapse, bursitis, ganglion, tenosynovitis, plantar fasciitis, carpel tunnel syndrome, tennis elbow, osteomyelitis, degenerative disorders. Volkmans ischemia, bone tumours, fibromyalgia)

12 **Common renal disorders** (acute and chronic renal failure, glomerular and tubular renal pathologies, renal replacement therapy. Renal failure, hematuria, proteinuria, urinary tract infections, glomerulonephritis, pyelonephritis, genitourinary infections)

13 **Common mental health problems** (Common psychiatric problems and their management: depression, anxiety, somatization, substance abuse, medically unexplained symptoms, personality disorders, psychosis, delirium, suicide, grief, stress, eating disorders, behavioral disorders in children and adolescents, adjustment disorders, bipolar disorders, dementia, organic disorders presenting with psychiatric symptoms, basic principles of psychotherapy, rational use of psychotherapeutic medication)

14 **Common genetic/hereditary diseases** (Haemophilia, Haemoglobinopathies, Downs' syndrome, muscular dystrophy)

15 **Common respiratory diseases** (Diagnostic methods in pulmonary medicine, principles of the pulmonary function tests, approach to chest pain, bronchial asthma, chronic obstructive pulmonary disease (COPD), acute and chronic bronchitis, pneumonia, pleural effusion, pneumothorax, atelectasis, bronchiectasis, allergic disorders, smoking cessation, occupational lung diseases, tuberculosis, bronchodilators and steroids in respiratory medicine, carcinoma lung, sleep apnoea, management of acute exacerbation of bronchial asthma and COPD, sarcoidosis, interstitial lung diseases, chronic cough)

TEACHING AND LEARNING METHODS

Teaching methodology

Traditionally teaching has been done by didactic methods, namely lectures and bedside clinics. It is advised that a variety of other methods should form the core of the training process. These methods are characterized by being student-directed and therefore active, more analytical, rather than teacher-directed passive methods.

The suggested teaching and learning activities should include:

1. Lecture cum demonstration
2. Small group discussion
3. Seminars, case presentations
4. Bedside- Case-Based Learning
5. Role Play
6. Simulated Patient Lab
7. Electronic and Computer Simulators
8. Web Based

The teaching and learning activities should be organized primarily around the clinical case material being seen on a daily basis. Clinical case-discussions both during regular clinical ward rounds, and as special academic sessions will ensure that the learning is contextual, and that it is continuous. Clinical service and training must be a seamless integrated process.

1. Small group teaching /learning activities are the main methods to be used. Case-based discussions, seminars, bedside clinics, assignments, projects, and problem-solving activities are other examples. These are best organized in the teaching hospitals, but if the district hospitals have the trained faculty then teaching can be planned there as well.
2. Didactic teaching is required for basic science concepts as well as core topics in clinical subjects as deemed necessary. Lectures may be used to teach concepts and approaches to clinical situations, rather than factual details which should be left to the student to self-learn.
3. Self-learning methods are to be encouraged. Students should be directed to explore subjects and topics, which they are relevant to their clinical work, thus providing context to the learning. Internet, and library facilities should be available. Assignments and project work is to be encouraged.
4. **Research:** Each student has to engage in original research with the purpose to learning research methodology. Thesis on a topic relevant to primary care must be undertaken and completed as partial fulfillment of the course. Thesis should incorporate study of patients

in ambulatory care rather than hospitalized patients. Recognized experts should impart a brief training on research methodology to the students.

5. **Log book** shall be maintained to keep record of activities undertaken, must be accurate and authentic and should be checked and assessed periodically by the faculty members imparting the training.
6. A post graduate student of a post graduate degree course in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his post graduate studies so as to make him eligible to appear at the postgraduate degree examination.
7. The post graduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.
8. The student should undergo training on research methodology in the first year.
9. Department should encourage e-learning activities.

Rotation:

Posting in Community based hospitals: District/ Taluk Hospital/ Community Health Centers (CHCs)/ PHCs : Total duration: 3 months

1. **Out patient service:** The students should be posted to these peripheral hospitals and the faculty of the teaching hospital should conduct out-patient clinics in anyone community based teaching hospital some days of the week, along with the staff of the concerned hospital, and should use this opportunity to supervise and mentor the PG student who is posted there.
2. **In-patient beds:** The faculty of the teaching department, along with the students will be involved in the care of these patients. The students will also do emergency on-call duty along with the staff of the hospital.

The three-year course may be divided into the following postings, with the duration indicated alongside.

Postings in other departments

To sustain their identity and training as family medicine specialists, they will **come back to the Family Medicine department one day every week** during the postings in other departments. This day will be utilized for

- Student seminars
- Follow up of their patients in the family medicine out-patients
- Experiencing the long term relationship with patients which is a fundamental principle of family medicine
- Scholarly work including thesis work and teaching under-graduate and paramedical students

Distribution of Postings for 3 years

Foundation course at Family Medicine department	2 months
General Medicine	3 months
Obstetrics & Gynaecology (Including 1 month of labour room)	3 months
Paediatrics (Including one month of paediatric casualty)	3 months
Orthopaedics	1 month
Surgery	1 month
Dermatology	1 month
Psychiatry	1 month
Ophthalmology	1 month
ENT	1 month
Emergency services	2 months
*Elective	1 month
Family Medicine Department	16 months

(Including **3 months in Community based hospital posting** in PHC/CHC/Taluk/ District Hospital)

* During the elective posting, the student can spend more time in any of the above specialties, or choose a new area such as Haematology, Endocrinology, Cardiology, Neurology, Gastro-enterology, Geriatrics, Palliative care, PMR, TB and chest diseases or Academic Family Medicine in Medical education department/Unit.

During the training programme, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of skills laboratories in medical colleges is mandatory.

ASSESSMENT

FORMATIVE ASSESSMENT, ie., during the training

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.

Quarterly assessment during the MD training should be based on:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).

2. SUMMATIVE ASSESSMENT, ie., assessment at the end of training:

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.

The examination shall be in three parts:

1. Thesis

Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A post graduate student shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

2. Theory Examination:

There shall be four papers each of three hours duration.

Paper I: Principles of Family Medicine, basic sciences and laboratory sciences relevant for Family Medicine

Paper II: General Medicine including Nutrition, Infections, Lifestyle Diseases, Non- communicable disease & Allied Sciences including psychiatry, geriatrics, dermatology, pulmonology [As applied to Family Medicine].

Paper III: Surgery and Allied Sciences including ENT, Ophthalmology, Orthopedics, pain, and palliative care, emergency care [As applied to Family Medicine]

Paper IV: Obstetrics and gynecology, pediatrics, community medicine, Recent advances [As applied to Family Medicine]

3. **Clinical/ practical & Viva Voce Examination:**

Practical:

a) Long case: 02 semi-long cases 30 minutes each (Medicine, Obstetrics & Gynecology, Pediatrics). The aim of this assessment is to test communication skills, ability to take history, do clinical examination, diagnose and management plan.

b) 02 short cases: 15 minutes each (Dermatology, Eye, ENT, surgery, Psychiatry). The aim of this assessment is to test the ability to elicit short relevant history, clinical findings and arrive at a diagnosis, and knowledge of appropriate management plan.

c) 02 ward rounds cases: (acute case pertaining to any discipline). A short case history will be given at bedside. The student will do a focused examination under the observation of the examiners, in 10 minutes, and then propose a diagnosis and line of management. (The student will also discuss the test results available). The aim is to test the ability to manage acute cases and decide about necessity for referral.

Care must be taken to test each post graduate student on the whole spectrum of cases so that a post graduate student does not get all cases from one specialty alone.

Oral/Viva voce should incorporate all clinical domains (ECG, X rays, communication skills, data interpretation, clinical case scenarios, instruments, CPR etc). At least four stations should be kept as given below. OSCE/spotters can be incorporated into this and stations can be increased if feasible. The aim of this is to test ability to interpret investigations, communication skills, procedural skills, and overall skills.

Examples of stations

- Station 1 – Family medicine case scenarios with charts and case histories
- Station 2 -, ECG,, Radiographs, laboratory results from biochemistry, pathology, microbiology, CT scan/ MRI/Ultrasound reports
- Station 3 – Drugs & Routinely used Instruments
- Station 4 – Thesis, Recent trends Portfolio including log book

Recommended reading:

Books (latest edition)

1. John Murtagh's Textbook of General Practice
2. Practice tips – John Murtagh
3. Oxford Hand book of General Practice
4. Textbook of Family Medicine- Ian. R. McWhinney, Thomas Freeman
5. Text book of Family Medicine: Robert. E. Rakel, David. P. Rakel
6. Clinical methods: Mac Leod
7. Swanson's Family Medicine Review

Journals:

Three international and two national (all indexed) journals.

Annexure I

Postgraduate Students Appraisal Form

Clinical Disciplines

Name of the Department/Unit :

Name of the PG Student :

Period of Training : FROM……TO……

Sr. No.	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3	4 5 6	7 8 9	
1.	Journal based / recent advances learning				
2.	Patient based /Laboratory or Skill based learning				
3.	Self directed learning and teaching				
4.	Departmental and interdepartmental learning activity				
5.	External and Outreach Activities / CMEs				
6.	Thesis / Research work				
7.	Log Book Maintenance				

Publications **Yes/ No**

Remarks*_____

*REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.

SIGNATURE OF ASSESSEE SIGNATURE OF CONSULTANT SIGNATURE OF HOD

MODEL PAPER

MD22301 **Fam.Med-I**

MD Examination Month, Year

FAMILY MEDICINE

Paper- I

Principles of Family Medicine, basic sciences and laboratory sciences relevant for Family Medicine

Time : Three Hours
Maximum Marks : 100

Attempt all questions
All the parts of one question should be answered at one place in sequential order.
Draw diagrams wherever necessary

Q1	Describe difference between patient centered medicine and disease centered medicine	20 marks
Q2	Write on :	2x15=30 marks
	a Discuss vaccine hesitancy and its implications for public health	
	b Describe health problems of Urban poor	
Q3	Write short notes on	5x10=50 marks
	a Discuss role of Family Physician as counselor	
	b Covid -19 infection	
	c Smoking cessation	
	d Observational study	
	e Ayushman Bharat	

MODEL PAPER

MD22302 **Fam.Med-II**

MD Examination Month, Year

FAMILY MEDICINE

Paper – II

General Medicine including Nutrition, Infections, Lifestyle Diseases, Non-communicable disease & Allied Sciences including psychiatry, geriatrics, dermatology, pulmonology

[As applied to Family Medicine]

Time : Three Hours
Maximum Marks : 100

Attempt all questions
All the parts of one question should be answered at one place in sequential order
Draw diagrams wherever necessary

Q1 Discuss Pathophysiology and management of Bronchial Asthma. Explain role of preventer and reliever in using Metered Dose Inhaler (MDI) for treatment of patient with bronchial asthma. 20 marks

Q2 Write on : 2x15=30 marks

a Aetiology, Clinical features and Management of Vitamin B12 deficiency.

b Approach to weight loss in Elderly.

Q3 Write short notes on 5x10=50 marks

a Anxiety Disorder

b Migraine

c Alcohol withdrawl

d Psoriasis

e Osteoporosis

MODEL PAPER

MD22303 **Fam.Med-III**

MD Examination Month, Year

FAMILY MEDICINE

Paper – III

Surgery and Allied Sciences including ENT, Ophthalmology, Orthopedics, pain, and palliative care, emergency care [As applied to Family Medicine]

Time : Three Hours
Maximum Marks : 100

Attempt all questions
All the parts of one question should be answered at one place in sequential order
Draw diagrams wherever necessary

Q1 Discuss differential diagnosis of right upper quadrant pain abdomen. Write clinical features and management of Acute Cholecystitis — 20 marks

Q2 Write on : — 2x15=30 marks

a Clinical features and management of Breast abscess in lactating mother

b Risk factors, clinical features and management of Rhino-orbital mucormycosis

Q3 Write short notes on — 5x10=50 marks

a Periarthritis of Shoulder

b Diabetic Foot

c Otitis externa

d Carpal tunnel syndrome

e Perianal abscess

MODEL PAPER

MD22304 **Fam.Med-IV**

MD Examination Month, Year
FAMILY MEDICINE

Paper – IV

Obstetrics and gynecology, pediatrics, community medicine, Recent advances [As applied to Family Medicine]

Time : Three Hours
Maximum Marks : 100

Attempt all questions
All the parts of one question should be answered at one place in sequential order
Draw diagrams wherever necessary

Q1 Discuss the methods of cervical cancer screening 20 marks

Q2 Write on : 2x15=30 marks

a Aetiology and assessment of dyspareunia

b Clinical features and management of croup

Q3 Write short notes on 5x10=50 marks

a Acute otitis media

b Protein Energy and Malnutrition

c Ectopic Pregnancy

d Febrile seizures

e Recurrent UTI in post menaupausal women