

MEDICAL COUNCIL OF INDIA

REGULATIONS

ON

GRADUATE MEDICAL EDUCATION,

2012



MEDICAL COUNCIL OF INDIA
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1. The undergraduate medical education programme is designed with a **goal** to create an **“Indian Medical Graduate” (IMG)** possessing requisite knowledge, skills, attitudes, values and responsiveness, so that he or she may function appropriately and effectively *as a physician of first contact of the community* while being globally relevant.
2. In order to fulfil this goal, the IMG must be able to function in the following **ROLES** appropriately and effectively:
 - 2.1. **Clinician** who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.
 - 2.2. **Leader and member of the health care team and system** with capabilities to collect analyze, synthesize and communicate health data appropriately.
 - 2.3. **Communicator** with patients, families, colleagues and community.
 - 2.4. **Lifelong learner** committed to continuous improvement of skills and knowledge.
 - 2.5. **Professional**, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.
3. **Competencies:** Competency based learning would include designing and implementing medical education curriculum that focuses on the desired and observable ability in real life situations. In order to effectively fulfil the roles as listed in item 1 above, the Indian Medical Graduate would have obtained the following set of competencies at the time of graduation:
 - 3.1. *Clinician, who understands and provides preventive, promotive, curative, palliative and holistic care with compassion*
 - 3.1.1. Demonstrate knowledge of normal human structure, function and development from a molecular, cellular, biologic, clinical, behavioral and social perspective.
 - 3.1.2. Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioural and social perspective.
 - 3.1.3. Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principles that influence health care.
 - 3.1.4. Demonstrate knowledge of national and regional health care policies including the National Rural Health Mission (NRHM), frameworks, economics and systems

that influence health promotion, health care delivery, disease prevention, effectiveness, responsiveness, quality and patient safety.

- 3.1.5. Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- 3.1.6. Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- 3.1.7. Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- 3.1.8. Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values.
- 3.1.9. Demonstrate effective clinical problem solving, judgment and ability to interpret and integrate available data in order to address patient problems, generate differential diagnoses and develop individualized management plans that include preventive, promotive and therapeutic goals.
- 3.1.10. Maintain accurate clear and appropriate record of the patient in conformation with legal and administrative frame works.
- 3.1.11. Demonstrate ability to choose the appropriate diagnostic tests and interpret these tests based on scientific validity, cost effectiveness and clinical context.
- 3.1.12. Demonstrate ability to prescribe and safely administer appropriate therapies including nutritional interventions, pharmacotherapy and interventions based on the principles of rational drug therapy, scientific validity, evidence and cost that conform to established national and regional health programmes and policies for the following:
 - a. Disease prevention,
 - b. Health promotion and cure,
 - c. Pain and distress alleviation, and
 - d. Rehabilitation and palliation.

- 3.1.13 Demonstrate ability to provide a continuum of care at the primary and/or secondary level that addresses chronicity, mental and physical disability.
- 3.1.14 Demonstrate ability to appropriately identify and refer patients who may require specialized or advanced tertiary care.
- 3.1.15 Demonstrate familiarity with basic, clinical and translational research as it applies to the care of the patient.

3.2. *Leader and member of the health care team and system*

- 3.2.1 Work effectively and appropriately with colleagues in an inter-professional health care team respecting diversity of roles, responsibilities and competencies of other professionals.
- 3.2.2 Recognize and function effectively, responsibly and appropriately as a health care team leader in primary and secondary health care settings.
- 3.2.3 Educate and motivate other members of the team and work in a collaborative and collegial fashion that will help maximize the health care delivery potential of the team.
- 3.2.4 Access and utilize components of the health care system and health delivery in a manner that is appropriate, cost effective, fair and in compliance with the national health care priorities and policies, as well as be able to collect, analyze and utilize health data.
- 3.2.5 Participate appropriately and effectively in measures that will advance quality of health care and patient safety within the health care system.
- 3.2.6 Recognize and advocate health promotion, disease prevention and health care quality improvement through prevention and early recognition: in a) life style diseases and b) cancer, in collaboration with other members of the health care team.

3.3. *Communicator with patients, families, colleagues and community*

- 3.3.1 Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients in a language that the patient understands and in a manner that will improve patient satisfaction and health care outcomes.

- 3.3.2 Demonstrate ability to establish professional relationships with patients and families that are positive, understanding, humane, ethical, empathetic, and trustworthy.
- 3.3.3 Demonstrate ability to communicate with patients in a manner respectful of patient's preferences, values, prior experience, beliefs, confidentiality and privacy.
- 3.3.4 Demonstrate ability to communicate with patients, colleagues and families in a manner that encourages participation and shared decision-making.

3.4. *Life long learner committed to continuous improvement of skills and knowledge*

- 3.4.1 Demonstrate ability to perform an objective self-assessment of knowledge and skills, continue learning, refine existing skills and acquire new skills.
- 3.4.2 Demonstrate ability to apply newly gained knowledge or skills to the care of the patient.
- 3.4.3 Demonstrate ability to introspect and utilize experiences, to enhance personal and professional growth and learning.
- 3.4.4 Demonstrate ability to search (including through electronic means), and critically evaluate the medical literature and apply the information in the care of the patient.
- 3.4.5 Be able to identify and select an appropriate career pathway that is professionally rewarding and personally fulfilling.

3.5. *Professional who is committed to excellence, is ethical, responsive and accountable to patients community and the profession*

- 3.5.1 Practice selflessness, integrity, responsibility, accountability and respect.
- 3.5.2 Respect and maintain professional boundaries between patients, colleagues and society.
- 3.5.3 Demonstrate ability to recognize and manage ethical and professional conflicts.
- 3.5.4 Abide by prescribed ethical and legal codes of conduct and practice.
- 3.5.5 Demonstrate a commitment to the growth of the medical profession as a whole.

4. In order to ensure that training is in alignment with the goals and competencies listed in items,1 and 0 above:
 - 4.1. There shall be a bridge course termed as "Foundation Course" to orient medical students to MBBS programme, and provide them with requisite knowledge, communication (including electronic), technical and language skills required.
 - 4.2. The curricular content shall be vertically and horizontally aligned and integrated to the maximum extent possible in order to enhance student interest and eliminate redundancy and overlap.
 - 4.3. Teaching-learning methods shall be student centric and shall predominantly include small group learning, interactive teaching methods and case based learning.
 - 4.4. Clinical training shall emphasize early clinical exposure, skill acquisition, certification in essential skills; community/primary/secondary care based learning experiences and emergencies.
 - 4.5. Training shall primarily focus on preventive and community based approaches to health and disease, with specific emphasis on national health priorities such as family welfare, communicable diseases, epidemics and disaster management.
 - 4.6. Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories.
 - 4.7. The development of ethical values and overall professional growth as integral part of curriculum shall be emphasized through a structured longitudinal and dedicated programme on professional development and ethics.
 - 4.8. Progress of the medical student shall be documented through structured periodic assessment that includes formative assessment. Logs of skill-based training shall be also maintained.
 - 4.9. Appropriate faculty development programmes shall be conducted regularly by institutions to facilitate medical teachers at all levels to continuously update their professional and teaching skill; and align their teaching skills to curricular objective.
5. **Admission to the MBBS programme**
6. **Migration:** Migration from one medical college to other is not a right of a student and normally shall not be allowed. However, migration from one medical college to another

medical college within India may be considered by the Medical Council of India only in exceptional cases, on extreme compassionate grounds, provided the following criteria are fulfilled.

- 6.1 Both colleges i.e., the one at which the student is enrolled and one to which migration is sought, are recognized by the Medical Council of India.
- 6.2 The applicant candidate should have passed first Professional MBBS examination in the first attempt.
- 6.3 The applicant shall submit his application for migration, complete in all respects, to all authorities concerned within a period of one month of passing (declaration of result) the first Professional Bachelor of Medicine and Bachelor of Surgery (MBBS) examination.
- 6.4 The applicant shall submit an affidavit stating that he/she will pursue 14 months of prescribed study before appearing at IInd Professional Bachelor of Medicine and Bachelor of Surgery (MBBS) examination at the transferee medical college, which should be duly certified by the Registrar of the concerned University in which he/she is seeking transfer. The transfer will be applicable only after receipt of the affidavit.
- 6.5 Migration shall be restricted to 5% of the sanctioned intake of the college during the year. No migration will be permitted on any ground from one medical college to another located within the same city.
- 6.6 There should be clear vacancy that has arisen due to non-filling of seats. A student who wishes to migrate may be accommodated only in the event of vacancy in sanctioned seats strength. Failure of students in examination will not count as vacancy of sanctioned seats strength.
- 6.7 Migration shall be allowed only for the regular batch.
- 6.8 Migration during clinical course of study shall not be allowed on any grounds.
- 6.9 All applications for migration shall be referred to Medical Council of India by college authorities. No institution/University shall allow migrations directly without the approval of the Council.
- 6.10 Council reserves the right, not to entertain any application which is not under the prescribed compassionate grounds and also to take independent decision where applicant has been allowed to migrate without referring the same to the Council. The

Medical Council of India shall communicate its decision within 04 weeks of receipt of application.

6.11 Compassionate grounds criteria:

- 6.11.1 Death of parent or supporting guardian during duration of first Professional phase (First MBBS).
- 6.11.2 Illness of candidate causing disability.
- 6.11.3 Disturbed conditions as declared by Government in the area in which the Medical College is located.

7 Training period and time distribution:

- 7.1. Every student shall undergo a period of certified study extending over 4 ½ years from the date of commencement of study for the subjects comprising the medical curriculum to the date of completion of examination which shall be followed by one year of compulsory rotating internship.
- 7.2. Each academic year will consist of a minimum of 240 teaching days with a minimum of 08 hours each working day including one hour for lunch.
- 7.3. Teaching and learning shall be aligned and integrated across specialties both vertically and horizontally for better student comprehension. Student centered learning methods should include problem oriented learning, case studies, community oriented learning, self- directed and experiential learning.
- 7.4. The period of 4 ½ years is divided as follows:
 - 7.4.1 Pre - clinical Phase (12 months preceded by foundation course of 2 months): will consist of preclinical subjects – Human Anatomy, Physiology, Biochemistry, introduction to Community Medicine, humanities and early clinical exposure ensuring both horizontal and vertical integration.
 - 7.4.2 Phase 2 (12 months): will consist of Para-clinical, namely Pathology, Pharmacology, Microbiology, Community Medicine, Forensic Medicine and Toxicology, and clinical subjects as detailed below (III MBBS) ensuring both horizontal and vertical integration.
 - a. The clinical exposure to students will be in the form of student doctor method of clinical training. The emphasis will be on primary, preventive and comprehensive

health care. A part of training during clinical postings should take place at the *primary level* of health care. It is desirable to provide learning experiences in secondary health care, wherever possible. This will involve:

- i) Experience in recognizing and managing common problems seen in outpatient, inpatient and emergency settings.
- ii) Involvement in patient care as a team member.
- iii) Involvement in patient management and performance of basic procedures.

7.4.3 Phase 3 (28 months)

- a. Part 1 (13 months) - The clinical subjects include Oto-rhinolaryngology, Ophthalmology, Community Medicine and Forensic Medicine and Toxicology.
- b. *Elective* (2 months) - To provide students with opportunity for diverse learning experiences, to do research /community projects that will stimulate enquiry, self directed, experiential learning and lateral thinking [item 9.3].
- c. Part 2 (13 months) - Clinical subjects include:
 - i) Medicine and allied specialties (General Medicine, Pediatrics, Tuberculosis and Chest, Skin and Sexually Transmitted Diseases, Psychiatry, Radio-diagnosis, Infectious diseases).
 - ii) Surgery and allied specialties (General Surgery, Orthopedics including trauma, physiotherapy and rehabilitation, Anesthesia, Dentistry, Radiotherapy).
 - iii) Obstetrics and Gynecology (including Family Medicine and Family Welfare).
 - iv) Pediatrics.

7.5. Didactic lectures shall not exceed one third of the schedule; two third of the schedule shall include interactive, practical, clinical or/and group discussions. The learning process should include living experiences, problem oriented approach, case studies and community health care activities. The teaching roster should be carefully prepared by each institution so as to give adequate and justified time for students to learn as well as prepare for their assessments.

- 7.6. Universities shall organize admission timing and admission process in such a way that teaching in the first Professional year commences with induction through the Foundation Course by the 1st of August each year.
- 7.7. Supplementary examinations shall be conducted not earlier than 60 days and not later than 90 days after the declaration of results, so that the students who pass can join the main batch and the students who fail, will appear in the subsequent year.
- 7.8. A student shall not be allowed to graduate later than 9 years of joining first MBBS course.
- 7.9. Passing in the 1st Professional examinations is compulsory before proceeding to Phase II training.
- 7.10. No more than 04 attempts shall be allowed for a candidate to pass the first Professional examinations. Total period for successful completion of first Professional shall not exceed 04 years. Partial attendance of examination in any subject shall be counted as an attempt.
- 7.11. A student, who fails in the IInd Professional examination, shall not be allowed to appear in IIIrd Professional Part I examination unless he passes all subjects of IInd Professional examination.
- 7.12. Passing in IIIrd Professional (Part I) examination is not compulsory before starting 4th year training, however passing of IIIrd Professional (Part I) is compulsory for being eligible for IIIrd Professional (Part II) examination.
- 7.13. During Phase II and Phase III including prescribed 04 weeks of electives, clinical postings of three hours duration daily as specified in Table is suggested for various departments.

8. Phase Distribution and Timing of examination

- 8.1. Time distribution of the MBBS programme is given in table 1.
- 8.2. Phase-wise distribution of subjects is given in table 2.
- 8.3. Minimum teaching hours prescribed in various disciplines are as under tables 3-7.
- 8.4. Distribution of clinical postings is given in table 8.
- 8.5. Total weeks of clinical postings will be:
 - 8.5.1 Phase II: 36 weeks

8.5.2 Phase III part 1: 42 weeks

8.5.3 Phase III part 2: 44 weeks

- 8.6. Time allotted excludes time reserved for internal / university examinations, and vacation
- 8.7. Second phase clinical postings shall commence after declaration of results of the first professional phase examinations. Third Professional phase I and phase II clinical postings shall start no later than two weeks after completion of the previous phase examination
- 8.8. 25% of allotted time of Phase 3 shall be utilized for integrated learning with pre- and para-clinical subjects. This will be included in the assessment of clinical subjects.

Table 1: Time distribution of MBBS programme

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							Foundation		I MBBS		
I MBBS								I yr exam	II MBBS		
II MBBS								II yr exam	III MBBS Part 1		
III MBBS Part 1									Part 1 exam	Electives and skills	
III MBBS Part 2											
Part 2 exam	NEET	Internship									

NEET examination will comprise of 60-70% of the course content from Phase III and rest will be from phase I and II. NEET will be held in the last week of February.

Table 2: Phase-wise distribution of subjects

Phase & year of MBBS training	Subjects & New Teaching Elements	Duration	University examination
Phase 1 I MBBS	Foundation Course (2 months) Anatomy, Physiology and Biochemistry Early Clinical Exposure (12 months) Professional Development including Ethics	2 + 12 months	I st Professional
Phase 2 II MBBS	Pathology, Microbiology and Pharmacology, Forensic Medicine and Toxicology Introduction to clinical subjects Professional Development including Ethics	12 months	II nd Professional
Phase 3 III MBBS Part I	Oto-rhinolaryngology, Ophthalmology, Community Medicine and Forensic Medicine and Toxicology Clinical subjects Professional development including ethics	13 months	III rd Professional (Part 1)
Electives	Electives, Skills and assessment*	2 months	
Phase III III MBBS Part 2	Medicine, Surgery, Obstetrics and Gynecology and Pediatrics and specialties Professional Development including Ethics	13 months	III rd Professional (Part 2)

*Assessment of electives and skills will be included in Internal assessment.

Table 3: Foundation Course

Subjects/ Contents	Teaching hours	Self Directed Learning (hours)	Total hours
Orientation ¹	30	0	30
Skills Module ²	35	0	35
Core Subject Orientation ³	120	15	135
Field visit to community health center	8	0	8
Sports and Extracurricular including Yoga	32	0	32
Enhancement of language/ computer skills ⁴	80	0	80
			320

1. Orientation course will be completed as single block in first week and will contain elements outlined in 9.1.

2. Skills modules will contain elements outlined in 9.1

3. Core subject orientation includes a) Integrated cell biology module -15 hours b) Introduction to Anatomy, Physiology and Biochemistry.

4. Based on perceived need students, may choose language enhancement (English or local spoken or both) and computer skills. This should be provided longitudinally through the duration of the Foundation Course after the orientation block.

Table 4: Phase I teaching hours

Subjects	Lectures (hours)	Small Group Teaching/ Tutorials/ Integrated learning/ Practical (hours)	Self directed learning (hours)	Total (hours)
Anatomy	200	350	30	580
Physiology	170	235	25	430
Biochemistry	90	115	20	225
Early Clinical Exposure	80		0	80
Community Medicine	20	27	5	52
Professional development including ethics*	35		0	35
Sports and extracurricular including Yoga				38
Total				1440

*Professional development shall be a longitudinal teaching program.

Table 5: Phase II teaching hours

Subjects	Lectures (hours)	Small group learning(Tutorials / Seminars)/Integrated learning (hours)	Clinical Postings (hours)	Self - Directed Learning (hours)	Total (hours)
Pathology	80	138		12	230
Pharmacology	80	138		12	230
Microbiology	70	110		10	190
Community Medicine	20	30		10	60
Forensic Medicine and Toxicology	15	30		5	50
Clinical Subjects	75		540©		615
Professional development including ethics	35	0		35	35
Sports and extracurricular including Yoga				40	40
Total					1440

- At least 3 hours of clinical instruction each week must be allotted to training in clinical and procedural skill laboratories. The hours maybe distributed weekly or as a block in each posting based on institutional logistics.
- © : The clinical postings in the second phase shall be 15 hours per week 3 hrs per day only from Monday to Friday. The rest of the time shall be used for para-clinical subjects

Table 6: Phase III Part 1 teaching hours

Subjects	Teaching Hours	Tutorials / Seminars/Integrated Teaching (hours)	Self - Directed Learning (hours)	Total (hours)
General Medicine	25	35	5	65
General Surgery	25	35	5	65
Obstetrics and Gynecology	25	35	5	65
Pediatrics	20	30	5	55
Orthopedics	15	20	5	40
Forensic Medicine and Toxicology	25	45	5	75
Community Medicine	40	60	5	105
Dermatology	20	5	5	30
Psychiatry	25	10	5	40
Pulmonary Medicine	10	8	2	20
Oto-rhinolaryngology	25	40	5	70
Ophthalmology	30	60	10	100
Radiology and Radiotherapy	10	8	2	20
Anesthesiology	8	10	2	20
Clinical Postings				756
Professional development including Ethics				25
Total	303	401	66	1680

Table 7: Phase III Part 2 teaching hours

Subjects	Teaching Hours	Tutorials / Seminars/Integrated Teaching (hours)	Self - Directed Learning (hours)	Total* (hours)
General Medicine	70	125	15	210
General Surgery	70	125	15	210
Obstetrics And Gynecology	70	125	15	210
Pediatrics	20	35	10	65
Orthopedics	20	25	5	50
Clinical Postings				792
Professional Development including Ethics				43
Electives				200
Total	250	435*	60	1760

*25% of allotted time of Phase 3 shall be utilized for integrated learning with pre- and para- clinical subjects. This will be included in the assessment of clinical subjects.

Table 8: Clinical postings

Subjects	Period of training in weeks			Total weeks
	II MBBS	III MBBS Part I	III MBBS Part II	
Electives	-	-	8‡ (4 regular clinical posting)	4
General Medicine ¹	4	4	8+4	20
General Surgery ²	4	4	8+4	20
OB/GYN ³	4	4	8 +4	20
Pediatrics	2	4	4	10
Community Medicine ³	4	6		10
Orthopedics- including Trauma ⁴	2	4	2	8
Oto-rhino-laryngology	4	4		8
Ophthalmology	4	4		8
Tuberculosis and respiratory diseases	2			2
Psychiatry	2	2		4
Radiology ⁵	2			2
Dermatology, STD and HIV ⁶	2	2	2	6
Dentistry		2		2
Casualty		2		2
	36	42	44	122

‡ In four of the eight weeks of electives regular clinical postings shall be accommodated.

Clinical postings maybe adjusted within the time framework

¹ This posting includes Laboratory Medicine and Infectious Diseases.

² This posting includes 2 weeks of Dentistry, surgical dressing, and Anesthesia.

³ This includes maternity training and family welfare (including family planning).

⁴ This posting includes Trauma, Rehabilitation and Physiotherapy.

⁵ This posting includes Radiotherapy, where feasible.

⁶ If HIV clinic is not under the Department of Dermatology – the student must be sent to the appropriate clinical department.

9. New teaching / learning elements

9.1. Foundation Course

9.1.1 **Goal:** The goal of the Foundation Course is to prepare a student to study medicine effectively. It will be of two months duration after admission.

9.1.2 **Objectives:** The objectives are to:

a. Orient the student to:

- i) The medical profession and the physician's role in society,
- ii) The MBBS programme,
- iii) Alternate health systems in the country,
- iv) Medical ethics, attitudes and professionalism,
- v) Health care system and its delivery,
- vi) National health priorities and policies,
- vii) Universal precautions and vaccinations,
- viii) Patient safety and biohazard safety,
- ix) Principles of family practice,
- x) Indian medical graduate document of the Medical Council of India,
- xi) The medical college and hospital,

b. Enable the student to acquire enhanced skills in:

- i) Language,
- ii) Interpersonal relationships,

- iii) Communication,
 - iv) Learning including self-directed learning,
 - v) Time management,
 - vi) Stress management,
 - vii) Use of information technology.
- c. Train the student to provide:
- i) First-aid,
 - ii) Basic life support.

9.1.3 **Elements:** The program will include, in addition to the modules listed in the objectives above:

- a. Training in language and computer skills,
- b. Integrated Cell Biology Module,
- c. Foundation elements of preclinical sciences.

9.1.4 These sessions must be as interactive as possible.

9.1.5 Sports (to be used through the Foundation Course as protected 04 hours per week).

9.1.6 Leisure and extracurricular activity (to be used through the Foundation Course as protected 02 hours per week).

9.1.7 Students may be enrolled in one of the following programmes which will be run concurrently:

- a. Local language programme,
- b. English language programme,
- c. Computer skills,
- d. These may be done in the last two hours of the day for the duration of the Foundation Course.

- 9.1.8 Subject foundation elements, inclusive of the integrated cell biology module, may start after the first two weeks (Anatomy 60 hours; Physiology 40 hours; Biochemistry 20 hours).
- 9.1.9 Many of these elements will require to be continued beyond the Foundation Course.
- 9.1.10 Institutions shall develop learning modules and identify the appropriate resource persons for their delivery.
- 9.1.11 The time committed for the Foundation Course may not be used for any other curricular activity.
- 9.1.12 From the 2nd week onwards, until the end of the Foundation Course, the last 02 hours of each day will remain protected for language and computer skill classes.
- 9.1.13 Every college must arrange for a meeting with parents and their wards.

9.2. Early Clinical Exposure

- 9.2.1 **Objectives:** The objective of early clinical exposure of the first year medical students is to enable the student to:
- Recognize the relevance of basic sciences in patient care,
 - Provide a context that will enhance basic science learning, and
 - Relate to experience of patients as a motivation to learn,
 - Recognize ethics and professionalism as integral to the doctor-patient relationship,
 - Understand the socio-cultural context of disease through study of humanities.
- 9.2.2 **Elements**
- Basic science correlation:** i.e. apply and correlate principles of basic sciences as they relate to the care of the patient (This will be part of integrated modules).
 - Clinical skills:** to include Basic skills in interviewing patients, doctor-patient communication, ethics and professionalism, critical thinking and analysis and self-learning (This training will be imparted in the time allotted for early clinical exposure).

- c. **Humanities:** To introduce students to a broader understanding of the socio-economic framework and cultural context within which health is delivered through the study of humanities and social sciences.

9.3. Electives

9.3.1 **Objectives:** To provide the student with opportunities:

- a. For diverse learning experiences,
- b. To do research / community projects that will stimulate enquiry, self-directed, experiential learning and lateral thinking.

9.3.2 Two months are designated for elective rotations after completion of the exam at end of the IIIrd MBBS part 1 and before commencement of IIIrd MBBS part 2.

9.3.3 It is mandatory for students to do an elective. The elective time may not be used to make up for missed clinical postings, shortage of attendance or other purposes.

9.3.4 **Structure**

- a. The student shall rotate through two elective blocks of 04 weeks each,
- b. Block 1 shall be done in a pre-selected preclinical or para-clinical or other basic sciences laboratory

OR

under a researcher on an ongoing research project. During the electives regular clinical postings shall continue.

- c. Block 2 shall be done in a clinical department (including specialties, super-specialties, ICUs, blood bank and casualty) from a list of electives developed and available in the institution

OR

as a supervised learning experience at a rural or urban community clinic.

- d. Institutions will pre-determine the number and nature of electives, names of the supervisors, the number of students in each elective based on the local conditions, available resources and faculty.

9.3.5 Each institution will develop its own mechanism for allocation of electives.

- 9.3.6 It is preferable that elective choices are made available to the students in the beginning of the academic year.
- 9.3.7 The student must submit a learning logbook based on both blocks of the elective.
- 9.3.8 75% attendance in the elective and submission of log book maintained during elective is required for eligibility to appear in the final MBBS examination.
- 9.3.9 Institutions may use part of this time for strengthening basic skill certification.
- 9.3.10 All electives are required to be done in India ONLY.

9.4. Professional Development including Ethics and Medical Humanities

- 9.4.1 **Objectives** of the programme: At the end of the programme, the student must demonstrate ability to:
 - a. understand and apply principles of bioethics and law as they apply to medical practice and research,
 - b. understand and apply the principles of clinical reasoning as they apply to the care of the patients,
 - c. understand and apply the principles of system based care as they relate to the care of the patient,
 - d. understand and apply empathy and other human values to the care of the patient,
 - e. communicate effectively with patients, families, colleagues and other health care professionals,
 - f. understand the strengths and limitations of alternative systems of medicine,
 - g. respond to events and issues in a professional, considerate and humane fashion
 - h. translate learning from the humanities in order to further his / her professional and personal growth
- 9.4.2 **Learning experiences:**
 - a. This will be a longitudinal programme spread across the continuum of the MBBS programme including internship,

- b. Learning experiences may include – small group discussions, patient care scenarios, workshop, seminars, role plays, lectures etc.
- 9.4.3 75% attendance in professional development program is required for eligibility to appear for final examination in each professional year.
- 9.4.4 Internal Assessment will include:
- a. Written tests comprising of short notes and creative writing experiences,
 - b. OSCE based clinical scenarios / viva.
- 9.4.5 At least one question in each paper of the clinical specialties in the university examination should test knowledge competencies acquired during the professional development program
- 9.4.6 Skill competencies acquired during the professional development program must be tested during the clinical, practical and viva.

9.5. Student doctor Method of Clinical Training

- 9.5.1 **Goal:** To provide students with experience in:
- a. Longitudinal patient care,
 - b. Being part of the health care team,
 - c. Hands-on care of patients in outpatient and inpatient setting.
- 9.5.2 **Structure:**
- a. The first clinical posting in phase II shall orient students to the patient, their roles and the specialty,
 - b. The student doctor programme will progress as outlined in the table 9,
 - c. The student will function as a part of the health care team with the following responsibilities:
 - i) Be part of the unit's outpatient services on admission days,
 - ii) Remain with the admission unit until 6 PM except during designated class hours,

- iii) Be assigned not more than 2 patients admitted during each admission day for whom he/she will undertake responsibility as outlined in the table above, under the supervision of a senior resident or faculty member,
 - iv) Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician,
 - v) Follow the patient's progress throughout the hospital stay until discharge,
 - vi) Participate, under supervision, in procedures, surgeries, deliveries etc. of the assigned patients (according to responsibilities outlined in the table above),
 - vii) Participate in unit rounds on at least one other day of the week excluding the admission day,
 - viii) Discuss ethical and other humanitarian issues during unit rounds,
 - ix) Attend all scheduled classes and educational activities,
 - x) Document his/her observations in a prescribed logbook / case record.
- d. No student will be given independent charge of the patient.
 - e. The supervising physician will be responsible for all patient care decisions.

9.5.3 **Assessment:**

- a. A designated faculty member in each unit will coordinate and facilitate the activities of the student, monitor progress, provide feedback and review the logbook/ case record.
- b. The logbook/ case record must include the written case record prepared by the student including relevant investigations, treatment and its rationale, hospital course, family and patient discussions, discharge summary etc.,
- c. The logbook should also include records of outpatients assigned. Submission of the log book/ case record to the department is required for eligibility to appear for the final examination of the subject.

Table 9: Student Doctor program

Year of Curriculum	Focus of Student Doctor programme
Year 2	History taking, physical examination, assessment of change in clinical status, communication and patient education
Year 3	All of the above and choice of investigations, basic procedures and continuity of care
Year 4	All of the above and decision making, management and outcomes

10. Competencies

10.1. **Preamble:** The salient feature of the revision of the medical curriculum in 2012 is the emphasis on learning which is competency-based, integrated and student-centered acquisition of skills and ethical and humanistic values.

Each of the competencies described below must be read in conjunction with the goals of the medical education as listed in item 2 and 3.

10.2. **Integration** must be horizontal (i.e. across disciplines in a given phase of the course) and vertical (across different phases of the course). As far as possible, it is desirable that teaching/learning occurs in each phase through study of organ systems or disease blocks in order to align the learning process. Clinical cases must be used to integrate and link learning across disciplines.

10.3. For clinical subjects, it is recommended that didactic teaching be restricted to less than 30% of the total time allotted for that discipline. Greater emphasis is to be laid on hands-on training, symposia, seminars, small group discussions, problem-oriented and problem-based discussions and self-directed learning. Students must be encouraged to take active part in and shared responsibility for their learning.

10.4. Pre-clinical Subjects

10.4.1. Human Anatomy

a. **Competencies:** The undergraduate must demonstrate:

- i. Understanding of the gross and microscopic structure and development of human body,
 - ii. Comprehension of the normal regulation and integration of the functions of the organs and systems on basis of the structure,
 - iii. Understanding of the clinical correlation of the organs and structures involved and interpret the anatomical basis of the disease presentations.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in organ systems with clinical correlation that will provide a context for the student to understand the relationship between structure and function and interpret the anatomical basis of various clinical conditions and procedures.

10.4.2. **Physiology**

- a. **Competencies:** The undergraduates must demonstrate:
- i. Understanding of the normal functioning of the organs and organ systems of the body,
 - ii. Comprehension of the normal structure and organization of the organs and systems on basis of the functions,
 - iii. Understanding of age-related physiological changes in the organ functions that reflect normal growth and development,
 - iv. Understand the physiological basis of disease.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in organ systems in order to provide a context in which normal function can be correlated both with structure and with the biological basis, its clinical features, diagnosis and therapy.

10.4.3. **Biochemistry**

- a. The course will comprise Cellular Biochemistry and Molecular Biology.
- b. **Competencies:** The student must demonstrate an understanding of:
- i. biochemical and molecular processes involved in health and disease,
 - ii. importance of nutrition in health and disease,

- iii. biochemical basis and rationale of clinical laboratory tests and Demonstrate ability to interpret these in the clinical context.
- c. **Integration:** The teaching/learning programme should be integrated horizontally and vertically, as much as possible, to enable students to make clinical correlations and to acquire an understanding of the cellular and molecular basis of health and disease.

10.4.4. Introduction to Community Medicine

- a. **Competencies:** The undergraduate must demonstrate:
 - i. Understanding of the concept of health and disease,
 - ii. Understanding of demography, population dynamics and disease burden in National and global context,
 - iii. Comprehension of principles of health economics and hospital management.

10.5. Phase 2 (Para-Clinical)

10.5.1. Pathology

- a. **Competencies:** The undergraduate must demonstrate:
 - i. Comprehension of the causes, evolution and mechanisms of disease,
 - ii. Knowledge of alterations in gross and cellular morphology of organs in disease states,
 - iii. Ability to correlate the natural history and structural and functional changes with the clinical manifestations of diseases, their diagnosis and therapy.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in organ systems recognizing deviations from normal structure and function and clinically correlated so as to provide an overall understanding of the etiology, mechanisms, laboratory diagnosis and therapy of disease.

10.5.2. Microbiology

- a. **Competencies:** The undergraduate student demonstrate:
 - i. Understanding of role of microbial agents in health and disease,

- ii. Understanding of the immunological mechanisms in health and disease,
 - iii. Ability to correlate the natural history, mechanisms and clinical manifestations of infectious diseases as they relate to the properties of microbial agents,
 - iv. Knowledge of the principles and the application of infection control measures,
 - v. An understanding of the basis of choice of laboratory diagnostic tests and their interpretation, antimicrobial therapy, control and prevention of infectious diseases.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in organ systems with emphasis on host - microbe - environment interactions and their alterations in disease and clinical correlations so as to provide an overall understanding of the etiological agents, their laboratory diagnosis and prevention.

10.5.3. Pharmacology

- a. **Competencies:** The undergraduate must demonstrate :
- i. Knowledge about essential and commonly used drugs and an understanding of the pharmacologic basis of therapeutics,
 - ii. Ability to select and prescribe medicines based on clinical condition and the pharmacologic properties, efficacy, safety, suitability and cost of medicines for common clinical conditions of national importance,
 - iii. Knowledge of pharmaco - vigilance, essential drug concept and list, sources of drug information and industry-doctor relationships,
 - iv. Ability to counsel patients regarding appropriate use of prescribed drug and drug delivery systems
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in organ systems recognizing the interaction between drug, host and disease in order to provide an overall understanding of the context of therapy.

10.6. Phase III Part 1

10.6.1. Forensic Medicine and Toxicology

- a. **Competencies:** The student must demonstrate:
 - i. Understanding of medico-legal responsibilities of physicians in primary and secondary care settings,
 - ii. Understanding of the rational approach to the investigation of crime, based on scientific and legal principles,
 - iii. Ability to manage medical and legal issues in cases of poisoning / overdose,
 - iv. Understanding the medico-legal framework of medical practice and medical negligence,
 - v. Understanding of codes of conduct and medical ethics.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically recognizing the importance of medico-legal, ethical and toxicological issues as they relate to the practice of medicine

10.6.2. Community medicine

- a. **Competencies:** The student must demonstrate:
 - i. Understanding of physical, social, psychological, economic and environmental determinants of health and disease,
 - ii. Ability to recognize and manage common health problems including physical, emotional and social aspects at individual family and community level in the context of National Health Programmes,
 - iii. Ability to Implement and monitor National health programmes in the primary care setting,
 - iv. Knowledge of maternal and child wellness as they apply to national health care priorities and programmes,
 - v. Ability to recognize, investigate, report, plan and manage community health problems and emergencies,

vi. Ability to recognize, investigate, report and manage community health problems and emergencies.

b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the impact of environment, society and national health priorities as they relate to the promotion of health and prevention and cure of disease.

10.6.3. **Oto-Rhinolarngology**

a. **Competencies:** The student must demonstrate:

i. Knowledge of the common Oto-rhino laryngological (ENT) emergencies and problems,

ii. Ability to recognize, diagnose and manage common ENT emergencies and problems in primary care setting,

iii. Ability to perform simple ENT procedures as applicable in a primary care setting,

iv. Ability to recognize hearing impairment and refer to the appropriate hearing impairment rehabilitation programme,

b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the structural basis of ENT problems, their management and correlation with function, rehabilitation and quality of life.

10.6.4. **Ophthalmology**

a. **Competencies:** The student must demonstrate:

i. Knowledge of common eye problems in the community,

ii. Recognize, diagnose and manage common eye problems and identify indications for referral,

iii. Ability to recognize visual impairment and blindness in the community and implement National programme as applicable in the primary care setting.

b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the structural basis of

ophthalmologic problems, their management and correlation with function, rehabilitation and quality of life.

10.7. Phase III (Part 2)

10.7.1. Medicine

- a. **Competencies:** Must demonstrate ability to do the following in relation to common medical problems in the adult in the community:
 - i. Demonstrate understanding of the patho-physiologic basis, epidemiological profile, signs and symptoms, of disease and their investigation and management,
 - ii. Competently interview and examine an adult patient and make a clinical diagnosis,
 - iii. Appropriately order and interpret laboratory tests,
 - iv. Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures,
 - v. Follow up patients with medical problems and refer whenever required,
 - vi. Communicate effectively, educate and counsel the patient and family,
 - vii. Manage common medical emergencies and refer when required,
 - viii. Independently perform common medical procedures safely and understand patient safety issues,
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide sound biologic basis and incorporating the principles of internal medicine into a holistic and comprehensive approach to the care of the patient.

10.7.2. Pediatrics

- a. **Competencies:** The student must demonstrate:
 - i. Ability to assess and promote optimal growth, development and nutrition of children and adolescents and identify deviations from normal,

- ii. Ability to recognize and provide emergency and routine ambulatory and First Level Referral Unit care for neonates, infants, children and adolescents and refer as may be appropriate,
 - iii. Ability to perform procedures as indicated for children of all ages in the primary care setting,
 - iv. Ability to recognize children with special needs and refer appropriately,
 - v. Ability to promote health and prevent diseases in children,
 - vi. Ability to participate in National Programmes related to child health and in conformation with the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Strategy,
 - vii. Ability to communicate appropriately and effectively.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for neonates, infants, children and adolescents based on a sound knowledge of growth, development, disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.

10.7.3. Psychiatry

- a. **Competencies:** The student must demonstrate:
- i. Ability to promote mental health and mental hygiene,
 - ii. Knowledge of etiology (bio-psycho-social-environmental interactions), clinical features, diagnosis and management of common psychiatric disorders across all ages,
 - iii. Ability to recognize and manage common psychological and psychiatric disorders in a primary care setting, institute preliminary treatment in disorders difficult to manage, and refer appropriately,
 - iv. Ability to recognize alcohol/ substance abuse disorders and refer them to appropriate centers,
 - v. Ability to assess risk for suicide and refer appropriately,
 - vi. Ability to recognize temperamental difficulties and personality disorders.

- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand bio-psycho-social-environmental interactions that lead to diseases/ disorders for preventive, promotive, curative, rehabilitative services and medico-legal implications in the care of patients both in family and community.

10.7.4. **Dermatology, sexually transmitted diseases and HIV**

- a. **Competencies:** The undergraduate student must demonstrate:
 - i. Understanding of the principles of diagnosis of diseases of the skin, hair, nail and mucosa,
 - ii. Ability to recognize, diagnose, order appropriate investigations and treat common diseases of the skin including leprosy in the primary care setting and refer as appropriate,
 - iii. A syndromic approach to the recognition, diagnosis, prevention, counseling, testing and management of common sexually transmitted diseases including HIV based on national health priorities,
 - iv. Ability to recognize and treat emergencies including drug reactions and refer as appropriate.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to emphasize the biologic basis of diseases of the skin, sexually transmitted diseases and leprosy and to provide an understanding that skin diseases may be a manifestation of systemic disease.

10.7.5. **Tuberculosis and respiratory diseases**

- a. **Competencies:** The student must demonstrate:
 - i. Knowledge of common chest diseases, their clinical manifestations, diagnosis and management,
 - ii. Ability to recognize, diagnose and manage pulmonary tuberculosis as contemplated in National Tuberculosis Control programme,
 - iii. Ability to manage common respiratory emergencies in primary care setting and refer appropriately.

- b. Integration:** The teaching should be aligned and integrated horizontally and vertically in order to allow the student to recognize diagnose and treat TB in the context of the society, national health priorities, drug resistance and co-morbid conditions like HIV.

10.7.6. Surgery

- a. **Competencies:** The undergraduate student must demonstrate:
- i. Understanding of the structural and functional basis, principles of diagnosis and management of common surgical problems in adults and children,
 - ii. Ability to choose, calculate and administer appropriately intravenous fluids, electrolytes, blood and blood products based on the clinical condition,
 - iii. Ability to apply the principles of asepsis, sterilization, disinfection, rational use of prophylaxis, therapeutic utilities of antibiotics and universal precautions in surgical practice,
 - iv. Knowledge of common malignancies in India and their prevention, early detection and therapy,
 - v. Ability to perform common diagnostic and surgical procedures at the primary care level,
 - vi. Ability to recognize, resuscitate, stabilize and provide advanced life support to patients following trauma,
 - vii. Ability to administer informed consent and counsel patient prior to surgical procedures,
 - viii. Commitment to advancement of quality and patient safety in surgical practice.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide a sound biologic basis and a holistic approach to the care of the surgical patient.

10.7.7. Orthopaedics

- a. **Competencies:** The student must demonstrate:

- i. Ability to recognize and assess bone injuries, dislocation and poly-trauma and provide first contact care prior to appropriate referral,
 - ii. Knowledge of the medico-legal aspects of trauma,
 - iii. Ability to recognize and manage common infections of bone and joints in the primary care setting,
 - iv. Recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bone diseases and refer appropriately,
 - v. Ability to perform simple orthopedic techniques as applicable to a primary care setting,
 - vi. Ability to recommend rehabilitative services for common orthopedic problems across all ages.
- b. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the structural basis of orthopedic problems, their management and correlation with function, rehabilitation and quality of life.

10.7.8. Radio-Diagnosis

- a. **Competencies:** The student must demonstrate:
 - i. Understanding of indications for various radiological investigations in common clinical practice,
 - ii. Awareness of the ill effects of radiation and various radiation protective measures to be employed,
 - iii. Ability to identify abnormalities in common radiological investigations.
- b. **Integration:** Horizontal and vertical integration to understand the fundamental principles of radiologic imaging, anatomic correlation and their application in diagnosis and therapy.

10.7.9. Radiotherapy

- a. **Competencies:** The student must demonstrate understanding of:
 - i. Clinical presentations of various cancers,

- ii. Appropriate treatment modalities for various types of malignancies,
 - iii. Principles of radiotherapy and techniques.
- b. **Integration:** Horizontal and vertical integration to enable basic understanding of fundamental principles of radio-therapeutic procedures.

10.7.10. **Obstetrics and Gynaecology**

- a. **Competency in Obstetrics:** The student must demonstrate ability to:
- i. Provide peri-conceptual counseling and antenatal care,
 - ii. Identify high-risk pregnancies and refer appropriately,
 - iii. Conduct normal deliveries, using safe delivery practices in the primary and secondary care settings,
 - iv. Prescribe drugs safely and appropriately in pregnancy and lactation,
 - v. Diagnose complications of labor, institute primary care and refer in a timely manner,
 - vi. Perform early neonatal resuscitation,
 - vii. Provide postnatal care, including education in breast-feeding,
 - viii. Counsel and support couples in the correct choice of contraception,
 - ix. Interpret test results of laboratory and radiological investigations as they apply to the care of the obstetric patient,
 - x. Apply medico-legal principles as they apply to tubectomy, Medical Termination of Pregnancy (MTP) and Pre-conception and Prenatal Diagnostic Techniques (PC PNDT Act).
- b. **Competency in Gynecology:** The student must demonstrate ability to:
- i. Elicit a gynecologic history perform appropriate physical, pelvic examination and PAP smear in the primary care setting,
 - ii. Recognize diagnose and manage common reproductive tract infections in the primary care setting,

- iii. Recognize and diagnose common genital cancers and refer them appropriately.
- c. **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for women in their reproductive years and beyond, based on a sound knowledge of structure function and disease and their clinical, social, emotional, psychological correlates in the context of nation health priorities.

11. Assessment

11.2. Eligibility to appear for Professional examinations

11.2.1. The performance in essential components of training are to be assessed, based on:

a. Attendance

- i. Attendance requirements are 75% in theory and practicals /clinical combined for eligibility to appear for the examinations in that subject,
- ii. In subjects that are taught in more than one phase – the student must have 75% attendance in theory and 75% in practical in each phase of instruction in that subject,
- iii. When subjects are taught in more than one phase – the internal assessment must be done in each phase and must contribute proportionally to final internal assessment,
- iv. If an examination comprises more than one subject (for e.g., Surgery and allied branches), the candidate must have 75% attendance in each subject and clinical posting,
- v. The final internal assessment in a broad clinical specialty (e.g., Surgery and allied etc.) shall comprise of marks from all the constituent specialties. The proportion of the marks for each constituent specialty shall be determined by the time of instruction allotted to each,
- vi. Students who do not have at least 75% attendance in the Foundation Course will not be eligible for the phase I examination,

vii. Students who do not have at least 75% attendance in the electives will not be eligible for the phase III - part 2 examination.

- b. **Internal Assessment:** Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which students participate in learning process including assignments, preparation for seminar, clinical case presentation, preparation of clinical case for discussion, clinical case study/problem solving exercise, participation in project for health care in the community, proficiency in carrying out a practical or a skill in small research project, a written test etc.
- i. Regular periodic examinations shall be conducted throughout the course. There shall be no less than two internal assessment examinations in each non-clinical subject and no less than one examination in each clinical subject in a professional year. An end of posting clinical assessment shall be conducted for each clinical posting in each professional year.
 - ii. In subjects that are taught at more than one phase, proportionate weightage must be given for internal assessment for each Phase. For example, Medicine must be assessed in 3rd, 4th and 5th years independently.
 - iii. Day to day records should be given importance during internal assessment.
 - iv. Students must secure at least 50% marks of the total marks (separately in theory and practicals / clinicals) fixed for internal assessment in a particular subject in order to be eligible to appear in final university examination of that subject.
 - v. Internal assessment marks will determine eligibility for appearing for university examination. Internal assessment marks will not be added to the final examinations marks to determine pass or fail.

11.3. University Examinations

11.3.1. University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimum skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact. Assessment shall be carried out on an objective basis to the extent possible.

- 11.3.2. Nature of questions will be structured essay, short answer type/objective type and marks for each part indicated separately.
- 11.3.3. Practical/clinical examinations will be conducted in the laboratories or hospital wards. The objective will be to assess proficiency and skill to conduct experiments, interpret data and form logical conclusion. Clinical cases kept in the examination must be common conditions that the student may encounter as a physician of first contact in the community. Rare syndromes and disorders are to be discouraged. Emphasis should be on candidate's capability in elicit a history demonstrate physical signs write a case record, analyze the case and develop a management plan.
- 11.3.4. Viva/oral includes assessment of management approach and handling of emergencies, ethical and professional values. Candidate's skill in interpretation of common investigative data, x-rays, identification of specimens, ECG, etc. also is to be assessed.
- 11.3.5. There shall be one main examination in a year and a supplementary to be held not earlier than 60 days and no later than 90 days after the publication of its results.
- 11.3.6. A student shall not be allowed to graduate later than 09 (nine) years of joining first MBBS course.
- 11.3.7. University Examinations shall be held as under:-
- a. First Professional**
- i. The first Professional examination shall be held at the end of Phase 1 training (2 +12 months), in the subjects of Anatomy, Physiology and Biochemistry.
 - ii. Maximum number of attempts allowed at the first Professional University examinations will be four; the first Professional course must be completed within 4 years of admission. Partial attendance in an examination in any subject shall be counted as an attempt.

b. Second Professional

- i. The second Professional examination shall be held at the end of Phase 2 training (12 months), in the subjects of Pathology, Microbiology, and Pharmacology.

c. Third Professional

- i. Part 1 shall be held at end of Phase 3 (Part 1) of training (13 months) in the subjects of Ophthalmology, Oto-rhino-laryngology, Community Medicine and Forensic Medicine and Toxicology

- ii. Third Professional Part II - (Final Professional) shall be at the end of Phase 3 of training (15 months including 2 months of electives) in the subjects of Medicine, Surgery, Obstetrics & Gynecology and Pediatrics. "The discipline of Orthopedics will constitute 25% of the total theory marks in Surgery. The questions will form a separate section in Surgery Paper II. The student must secure at least 40% marks in the Orthopedics Section with the proviso 'to obtain 50% of marks in total as pass percentage'.

The discipline of Psychiatry and Dermatology, Venereology and Leprology (DVL) will constitute 25% of the total theory marks in Medicine. The questions will form a separate section in Medicine Paper II. The student must secure at least 40% marks in the Psychiatry and DVL Section with the proviso 'to obtain 50% of marks in total as pass percentage'.

- d. Examination schedule is in table 1.
- e. Marks distribution is in table 10.

Table 10: Mark distribution for various subjects

Phase of Course	Written-Theory – 200 Total	Practicals/Orals/Clinicals- 100	Pass Criteria
Phase – I			<u>Internal Assessment:</u> 50% separately in theory and practicals for eligibility to appear for University Exam University Exam Mandatory 50% marks in theory and practical (practical = practical/clinical + viva)
Anatomy - 2 papers	200	100	
Physiology - 2 papers	200	100	
Bio-Chemistry & Molecular Biology - 2 papers	200	100	
Phase – II			
Pharmacology - 2 Papers	200	100	
Pathology - 2 papers	200	100	
Microbiology and Virology - 2 papers	200	100	
Phase – III			
Part - I			
Forensic Medicine - 1 paper	100	100	
Ophthalmology – 1 paper	100	100	
Oto-rhino-laryngology – 1 paper	100	100	
Community Medicine - 2 papers	200	100	

Phase – III			
Part - II			
Medicine - 2 papers	200	200	
Surgery - 2 papers	200	200	
Paediatrics – 1 paper	100	100	
Ob. & Gy. - 2 papers	200	200	

Note: At least one question in each paper of the clinical specialties should test knowledge -competencies acquired during the professional development program; Skill - competencies acquired during the professional development program must be tested during the clinical, practical and viva.

11.3.8. Criteria for Passing in a Subject: A candidate shall obtain 50% marks in University conducted examination separately in Theory and Practical (practical includes: practical/ clinical and viva voce) in order to be declared as passed in that subject.

11.3.9. Appointment of Examiners

- a. No person shall be appointed as an examiner in any of the subjects of the Professional examination leading to and including the final Professional examinations for the award of the MBBS degree unless he/she has taken at least eight years previously, a doctorate degree from a recognized University or an equivalent qualification in the particular subject as per recommendation of the Council on teachers' eligibility qualifications and has had at least eight years of total teaching experience in the subject concerned in a college affiliated to a recognized University at a faculty position.
- b. There shall be at least four examiners for 100 students, out of whom not less than 50% must be external examiners. Of the four examiners, the senior most external examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained. Where candidates appearing are more than 100, two additional examiners for every additional 50 or part thereof candidates appearing, be appointed.

- c. Non-medical scientists engaged in the teaching of medical students as whole time teachers, may be appointed examiners in their concerned subjects provided they possess requisite doctorate qualifications and five year teaching experience of medical students after obtaining their postgraduate qualifications. Provided further that the 50% of the examiners (Internal & External) are from the medical qualification stream.
- d. External examiners shall not be from the same University and must be from outside the state.
- e. The internal examiner in a subject shall not accept external examinership for a college from which external examiner is appointed in his/her subject. A University having more than one college shall have separate sets of examiners for each college, with internal examiners from the concerned college.
- f. External examiners shall rotate at an interval of 2 years.
- g. There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.
- h. Except Head of the Department of subject concerned in a college/institution, all other with the rank of reader or equivalent and above with requisite qualifications and experience shall be appointed internal examiners by rotation in their subjects; provided that where there are no posts of readers, then an Assistant Professor of 05 years (total 08 years after MD/MS) standing as Assistant Professor may be considered for appointment as examiner.
- i. The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a student who has failed only in one subject but has passed in all other subjects.