FACULTY OF MEDICAL SCIENCES
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Amendment to MBBS ordinance for the students admitted in the Academic Session 2019-2020 and onwards in the light of Regulations on Graduate Medical Education (Amendment) , 2019, published in the Gazette of India dated 6.11.2019

(Applicable to MBBS Batches joining in the Academic Session 2019-2020 and onwards)

The following may be added as a Part –II of the existing MBBS Ordinance approved by the Executive Council in its meeting held on 09.07.2011 and on 28.12.2020 (Academic Council meeting held on 08.07.2011 and 08.12.2020 respectively).

Part II

For MBBS course starting from the academic session 2019-20 onwards

ARRANGEMENT OF CLAUSES

CHAPTER I

GENERAL CONSIDERATIONS AND TEACHING APPROACH

1. Introduction
2. Objectives of the Indian Medical Graduate Training Programme
   2.1. National Goals
   2.2. Institutional Goals
   2.3. Goals and Roles for the Learner
3. Competency Based Training Programme of the Indian Medical Graduate
4. Broad Outline on training format

CHAPTER II

5. Admission

CHAPTER III

6. Migration

CHAPTER IV

PHASE WISE TRAINING AND TIME DISTRIBUTION FOR PROFESSIONAL DEVELOPMENT

7. Training period and time distribution:
8. Phase distribution and timing of examination
9. New teaching / learning elements
   - 9.1. Foundation Course
   - 9.2. Early Clinical Exposure
   - 9.3. Electives
   - 9.4. Professional Development including Attitude, Ethics and Communication Module (AETCOM)
   - 9.5. Learner-doctor method of clinical training (Clinical Clerkship)

CHAPTER V

COMPETENCY BASED CURRICULUM OF THE INDIAN MEDICAL GRADUATE PROGRAMME

10. Specific Competencies
    - 10.1. Preamble
    - 10.2. Integration
    - 10.3. Curriculum Pre-clinical Subjects
    - 10.4. Curriculum Second Professional(Para-Clinical)
    - 10.5. Curriculum Third Professional (Part I)
    - 10.6. Curriculum Third Professional (Part II)
    - 10.7. List of Certifiable Procedural Skills

CHAPTER VI

ASSESSMENT

11. Assessment
    - 11.1 Eligibility to appear for Professional examinations
    - 11.2 University Examinations

CHAPTER VII

INTERNSHIP

12. Internship

12.1 Goal

12.2 Objectives

12.3 Time Distribution

12.4 Other details

12.5 Assessment of Internship

12.6 No Dues

12.7 Repeating Internship

12.8 Externship

12.9 Guidelines for outside candidates to do internship

12.10 Guidelines for Discipline wise internship

CHAPTER I

GENERAL CONSIDERATIONS AND TEACHING APPROACH

1 Introduction

The provisions contained in Part II of these Regulations shall apply to the MBBS course starting from academic year 2019-20 onwards

1. Indian Medical Graduate Training Programme

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 she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. To achieve this, the following national and institutional goals for the learner of the Indian Medical Graduate training programme are hereby prescribed:-

2 Objectives of the Indian Medical Graduate Training Programme

2.1 National Goals

At the end of undergraduate program, the Indian Medical Graduate should be able to:

(a) Recognize "health for all" as a national goal and health right of all citizens and by undergoing training for medical profession to fulfill his/her social obligations towards realization of this goal.

(b) Learn every aspect of National policies on health and devote her/him to its practical implementation.

(c) Achieve competence in practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.

(d) Develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.

(e) Become exemplary citizen by observance of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

2.2Institutional Goals

(1) In consonance with the national goals each medical institution should evolve institutional goals to define the kind of trained manpower (or professionals) they intend to produce. The Indian Medical Graduates coming out of a medical institute should:

(a) be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.

(b) be competent to practice preventive, promotive, curative, palliative and rehabilitative medicine in respect to the commonly encountered health problems.

(c) appreciate rationale for different therapeutic modalities; be familiar with the administration of "essential medicines" and their common adverse effects.

(d) be able to appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.

(e) Possess the attitude for continued self learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.

(f) be familiar with the basic factors which are essential for the implementation of the National Health Programmes including practical aspects of the following:

(i) Family Welfare and Maternal and Child Health(MCH)

(ii) Sanitation and water supply

(iii) Prevention and control of communicable and non-communicable diseases

(iv) Immunization

(v) Health Education

(vi) Indian Public Health Standards (IPHS), at various levels of service delivery

(vii) Bio-medical waste disposal

(viii) Organizational and/or institutional arrangements.

(g) acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, hospital management, inventory skills and counseling.

(h) be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures.

(i) be able to work as a leading partner in health care teams and acquire proficiency in communication skills.

(j) be competent to work in a variety of health care settings.

(k) have personal characteristics and attitudes required for professional life such as personal integrity, sense of responsibility and dependability and ability to relate to or show concern for other individuals.

(2) All efforts must be made to equip the medical graduate to acquire the skills as detailed in Table 11 Certifiable procedural skills – A Comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate.

2.3Goals and Roles for the Learner

In order to fulfill the goal of the IMG training programme, the medical graduate must be able to function in the following roles appropriately and effectively:-

(a) Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.

(b) Leader and member of the healthcare team and system with capabilities to collect analyze, synthesized communicate health data appropriately.

(c) Communicator with patients, families, colleagues and community.

(d) Lifelong learner committed to continuous improvement of skills and knowledge.

(e) Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.

3. Competency Based Training Programme of the Indian Medical Graduate

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 fulfill the roles as listed in clause 2, 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, behavioral 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 Health Mission that incorporates National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), 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 appropriate 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 the rapeutic goals.

3.1.10 Maintain accurate, clear and appropriate record of the patient in conformation with legal and administrative frameworks.

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:

(i) Disease prevention,

(ii) Health promotion andcure,

(iii) Pain and distress alleviation, and

(iv) Rehabilitation.

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 andsystem

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) cancers, 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 Lifelong 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 Broad Outline on training format

4.1 In order to ensure that training is in alignment with the goals and competencies listed in sub-clause 2 and 3 above:

4.1.1 There shall be a "Foundation Course" to orient medical learners to MBBS programme, and provide them with requisite knowledge, communication (including electronic), technical and language skills.

4.1.2 The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible in order to enhance learner's interest and eliminate redundancy and overlap.

4.1.3. Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case based learning.

4.1.4. Clinical training shall emphasize early clinical exposure, skill acquisition, certification in essential skills; community/primary/secondary care-based learning experiences and emergencies.

4.1.5. 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 and non- communicable diseases including cancer, epidemics and disaster management.

4.1.6. Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories.

4.1.7. 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 including attitude, ethics and communication.

4.1.8. Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

4.2 Appropriate Faculty Development Programmes shall be conducted regularly by institutions to facilitate medical teachers at all levels to continuously update their professional and teaching skills, and align their teaching skills to curricular objectives.

CHAPTER II

5. ADMISSION TO THE INDIAN MEDICAL GRADUATE PROGRAMME: NATIONAL ELIGIBILITY-CUM- ENTRANCE TEST AND COMMON COUNSELLING

Admission to the Indian Medical Graduate Programme

1. Eligibility Conditions/Requirement for admission to MBBS Course : -

a. Age: The candidates complete the age of 17 (seventeen) years on or before 31st December of the year of admission to MBBS Course.

Note : The candidates above 25 years are provisionally permitted to appear and their candidature is subject to the outcome of pending Petitions before the Hon'ble Supreme Court.

b. Qualifying examination:

(i) The educational qualification for admission is as per National Eligibility Entrance Test (NEET) conducted by National Testing Agency (NTA).

(ii) Further to become eligible for 85% Delhi Quota, the candidate must have passed 11th and 12th standard examination under 10 + 2 system conducted by CBSE/Indian school certificate examination/Jamia Millia Islamia, New Delhi or any other equivalent examination from a recognized school situated within the NCT of Delhi only. The Candidates who have passed qualifying examination from **Patrachar Vidyalaya or National Institute of Open Schooling** will be eligible for admission in MBBS/BDS courses under 85% Delhi Quota provided their study center and the examination Center were within the National Capital Territory of Delhi (NCTD) and they must upload a certificate from the controlling authority of Patrachar Vidyalaya/NIOS in this regard.

(iii) Further, guidelines / eligibility conditions and other requirements will be decided by the Medical Sciences Course Admission Committee (MSCAC) from time to time with the approval of Competent Authority and published in the Bulletin of Information every year.

The candidates who do not qualify the NEET – UG Examination conducted by NTA are not eligible.

2. Procedure for selection to MBBS course shall be as follows:

(1) There shall be a uniform entrance examination to all medical educational institutions at the under graduate level namely 'National Eligibility-cum- Entrance Test for admission to MBBS course in each academic year and shall be conducted under overall supervision of the Ministry of Health & Family Welfare, Government of India.

(2) The "designated authority" to conduct the 'National Eligibility-Cum-Entrance Test' shall be the National Testing Agency (NTA) or any other body/organization so designated by the Ministry of Health & Family Welfare, Government of India, in consultation with the National Medical Commission.

(3) The language and manner of conducting the 'National Eligibility-Cum- Entrance Test' shall be determined by the "designated authority" in consultation with the National Medical Commission and the Ministry of Health and Family Welfare, Government of India.

(4) In order to be eligible for admission to MBBS Course for an academic year, it shall be necessary for a candidate to obtain minimum of marks at 50th percentile in 'National Eligibility-cum-Entrance Test to MBBS course' held for the said academic year. However, in respect of candidates belonging to Scheduled Castes, Scheduled Tribes, Other Backward Classes, the minimum marks shall be at 40th percentile. In respect of candidates with benchmark disabilities specified under the Rights of Persons with Disabilities Act, 2016, in terms of Clause 4(3) above, the minimum marks shall be at 45th percentile. The percentile shall be determined on the basis of highest marks secured in the All- India common merit list for admission in 'National Eligibility-cum- Entrance Test for admission to MBBS course.

(5) Provided when sufficient number of candidates in the respective categories fail to secure minimum marks as prescribed in National Eligibility-cum-Entrance Test held for any academic year for admission to MBBS Course, the Central Government in consultation with National Medical Commission may at its discretion lower the minimum marks required for admission to MBBS Course for candidates belonging to respective categories and marks so lowered by the Central Government shall be applicable for the said academic year only.

(6) The reservation of seats in Medical Colleges for respective categories shall be as per applicable laws prevailing in States/Union Territories. An All India merit list as well as State/Union Territory-wise merit list of the eligible candidates shall be prepared on the basis of marks obtained in 'National Eligibility-cum-Entrance Test and candidates shall be admitted to MBBS course from the said lists only.

(7) No candidate who has failed to obtain the minimum eligibility marks as prescribed in Sub-clause (4) above shall be admitted to MBBS course in the said academic year.

(8) No authority/institution shall admit any candidate to the MBBS course in contravention of the criteria/procedure as laid down by these Regulations and / or in violation of the judgments passed by the Hon'ble Supreme Court in respect of admissions. Any candidate admitted in contravention/violation of aforesaid shall be discharged by the Council forthwith. The authority/institution which grants admission to any student in contravention / violation of the Regulations and / or the judgments passed by the Hon'ble Supreme Court, shall also be liable to face such action as may be prescribed by the Council, including surrender of seats equivalent to the extent of such admission made from its sanctioned intake capacity for the succeeding academic year/years.

(9) All admission to MBBS course within the respective categories shall be based solely on the marks obtained in the 'National Eligibility-Cum- Entrance Test.

6. Migration

No migration is permitted in the Medical Colleges of the University of Delhi.

CHAPTER IV

PHASE WISE TRAINING AND TIME DISTRIBUTION FOR PROFESSIONAL DEVELOPMENT

The Competency based Undergraduate Curriculum and Attitude, Ethics and Communication (AETCOM) course, as published by the National Medical Commission and also made available on the Commission's website, shall be the curriculum for the batches admitted in MBBS from the academic year 2019-20 onwards.

Provided that in respect of batches admitted prior to the academic year 2019-20, the governing provisions shall remain as contained in the Part I of these Regulations.

7. Training period and time distribution:

7.1	**Every very learner shall undergo a period of certified study extending over 4 ½ academic years, divided into nine semesters from the date of commencement of course to the date of completion of examination which shall be followed by one year of compulsory rotating internship.**
7.2	**Each academic year will have at least 240 teaching days with a minimum of eight hours of working on each day including one hour as lunch break.**
7.3	**Teaching and learning shall be aligned and integrated across specialties both vertically and horizontally for better learner comprehension. Learner 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 [(Phase I) - First Professional phase of 13 months preceded by Foundation Course of one month]: will consist of preclinical subjects – Human Anatomy, Physiology, Biochemistry, Introduction to Community Medicine, Humanities, Professional development including Attitude, Ethics & Communication (AETCOM) module and early clinical exposure, ensuring both horizontal and vertical integration.
7.4.2	Para-clinical phase [(Phase II) - Second Professional (12 months)]: will consist of Para-clinical subjects namely Pathology, Pharmacology, Microbiology, Community Medicine, Forensic Medicine and Toxicology, Professional development including Attitude, Ethics & Communication (AETCOM) module and introduction to clinical subjects ensuring both horizontal and vertical integration. The clinical exposure to learners will be in the form of learner-doctor method of clinical training in all phases. 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: (a) Experience in recognizing and managing common problems seen in outpatient, inpatient and emergency settings, (b) Involvement in patient care as a team member, (c) Involvement in patient management and performance of basic procedures.
7.4.3	Clinical Phase – [(Phase III) Third Professional (28months)] 2.3. Part I (13 months) - The clinical subjects include General Medicine, General Surgery, Obstetrics & Gynaecology, Pediatrics, Orthopaedics, Dermatology, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Psychiatry, Respiratory Medicine, Radio-diagnosis & Radiotherapy and Anaesthesiology & Professional development including AETCOM module. 2.4 Electives (2 months) - To provide learners with opportunity for diverse learning experiences, to do research/community projects that will stimulate enquiry, self directed experimental learning and lateral thinking [9.3]. 2.5 Part II (13 months) - Clinical subjects include: • Medicine and allied specialties (General Medicine, Psychiatry, Dermatology Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis) • Surgery and allied specialties (General Surgery, Orthopedics [including trauma]), Dentistry, Physical Medicine and rehabilitation, Anaesthesiology and Radio-diagnosis)

	• Obstetrics and Gynecology (including FamilyWelfare) • Pediatrics • AETCOM module
7.5	Didactic lectures shall not exceed one third of the schedule; two third of the schedule shall include interactive sessions, practicals, clinical or/and group discussions. The learning process should include clinical experiences, problem oriented approach, case studies and community health careactivities. The admission shall be made strictly in accordance with the statutory notified time schedule towards the same.
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 the1st of August of each year. (i) Supplementary examinations shall not be conducted later than 90 days from the date of declaration of the results of the main examination, so that the learners who pass can join the main batch for progression and the remainder would appear for the examination in the subsequent year. (ii) A learner shall not be entitled to graduate later than ten (10) years of her/his joining the first MBBS course.
7.7	No more than four attempts shall be allowed for a candidate to pass the first Professional examination. The total period for success full completion of first Professional course shall not exceed four (4) years. Partial attendance of examination in any subject shall be counted as an attempt.
7.8	A learner, who fails in the second Professional examination, shall not be allowed to appear in third Professional Part I examination unless he/she passes all subjects of second Professional examination
7.9	Passing in third Professional (Part I) examination is not compulsory before starting part II training; however, passing of third Professional (Part I) is compulsory for being eligible for third Professional (Part II) examination.
7.10	During para-clinical and clinical phases, including prescribed 2 months of electives, clinical postings of three hours duration daily as specified in Tables 5, 6, 7 and 8 would apply for various departments.
8.	Phase distribution and timing of examination
8.1	Time distribution of the MBBS programme is given in Table1. (Modified time duration duringf COVID 19 as prescribed by National Medical Commission (Appendix 1)
8.2	Distribution of subjects by Professional Phase-wise is given in Table2.
8.3	Minimum teaching hours prescribed in various disciplines are as under Tables3-7.
8.4	Distribution of clinical postings is given in Table8.
8.5	Duration of clinical postings will be: 8.5.1 Second Professional : 36 weeks of clinical posting (Three hours per day - five days per week : Total 540 hours) 8.5.2 Third Professional part I: 42 weeks of clinical posting (Three hours per day - six days per week : Total 756 hours) 8.5.3 Third Professional part II: 44 weeks of clinical posting (Three hours per day - six days per week : Total 792 hours)
8.6	Time allotted excludes time reserved for internal / University examinations, and vacation.
8.7	Second professional clinical postings shall commence before / after declaration of results of the first professional phase examinations, as decided by the institution/ University. Third Professional parts I and part II clinical postings shall start no later than two weeks after the completion of the previous

	professional examination.
8.8	25% of allotted time of third Professional shall be utilized for integrated learning with pre- and para-clinical subjects. This will be included in the assessment of clinical subjects.
8.9	Vacations will be in last two weeks of June and last two weeks of December for all Professionals

8.10	VACATIONS FOR TEACHERS:-

i)	20th December to 26th January	38 day
ii)	7th May to 15th July	70 day
	Total	108 day

Note:	1.	Each vacation will be in 2 halves with 1 common working day, in between
	2.	If the common working day happen to be a holiday then the next working day shall be common working day.
	3.	May be adjusted at College level.

Table 1: Time distribution of MBBS Programme & Examination Schedule

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							Foundation Course	I MBBS			
I MBBS								Exam I MBBS	II MBBS		
II MBBS								Exam II MBBS	III MBBS		
III MBBS Part I									Exam III MBBS PartI	Electives & Skills	
III MBBS Part II											
Exam III MBBS Part II	Internship										
Internship											

- One month is provided at the end of every professional year for completion of examination and declaration of results.

Table 2: Distribution of subjects by Professional Phase

Phase & year of MBBS training	Subjects\& New Teaching Elements	Duration#	University examination
First Professional MBBS	• Foundation Course (1month) • Human Anatomy, Physiology & Biochemistry, introduction to Community Medicine, Humanities • Early Clinical Exposure	1 + 13 months	I Professional
	• Attitude, Ethics, and Communication Module (AETCOM)		
Second Professional MBBS	• Pathology, Microbiology, Pharmacology, Forensic Medicine and Toxicology, • Introduction to clinical subjects including Community Medicine • Clinical postings • Attitude, Ethics & Communication Module(AETCOM)	12 months	II Professional
Third Professional MBBS Part I	• General Medicine, General Surgery, Obstetrics & Gynecology, Pediatrics, Orthopedics, Dermatology, Psychiatry, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Respiratory medicine, Radiodiagnosis & Radiotherapy, Anesthesiology • Clinical subjects/postings • Attitude, Ethics & Communication Module(AETCOM)	13 months	III Professional (Part I)
Electives	• Electives, Skills and assessment*	2 months	
Third Professional MBBS Part II	• General Medicine, Pediatrics, General Surgery, Orthopedics, Obstetrics and Gynecology including Family welfare and allied specialties • Clinical postings/subjects • Attitude, Ethics & Communication Module(AETCOM)	13 months	III Professional (Part II)

*Assessment of electives shall be included in Internal Assessment.

Table 3: Foundation Course (one month)

Course Component	Teaching (hours)	Self-Directed Learning (hours)	Total (hours)
Orientation	30	0	30
Skills Module	35	0	35
Early Medical Care and Rehabilitation	8	0	8
Attitude, Ethics, Communication Development & AETCOM	-	-	40
Human Values	22	0	22
Community Orientation	40	0	40
Total	-	-	175

1. Orientation course will be completed as single block in the first week and will contain elements outlined in9.1.
2. Skills modules will contain elements outlined in9.1.
3. Based on perceived need of learners, one 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.

Teaching of Foundation Course will be organized by pre-clinical departments

Table 4: First Professional teaching hours

Subjects	Lectures (hours)	Small Group Teaching/ Tutorials/ Integrated learning/ Practical(hours)	Self directed learning (hours)	Total (hours)
Human Anatomy*	220	415	40	675
Physiology*	160	310	25	495
Biochemistry*	80	150	20	250
Early Clinical Exposure**	90	-	0	90
Community Medicine	20	27	5	52
Attitude, Ethics & Communication Module (AETCOM)***	-	26	8	34
Sports and extracurricular activities	-	-	-	60
Formative assessment and Term examinations	-	-	-	80
Total	-	-	-	1736

* including MolecularBiology.
** Early clinical exposure hours to be divided equally in all three subjects.
*** AETCOM module shall be a longitudinal programme.

Table 5: Second Professional 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
Attitude, Ethics & Communication Module (AETCOM)		29	-	8	37
Sports and extracurricular activities	-	-	-	28	28
Total	-	-	-	-	1440

* Atleast 3hours of clinical instruction each week must be allotted to training in clinical and procedural skill laboratories. Hours may be distributed weekly or as a block in each posting based on institutional logistics.

** 25 hours each for Medicine, Surgery and Gynecology & Obstetrics.

***The clinical postings in the second professional shall be 15 hours per week (3 hrs per day from Monday to Friday).

Table 6: Third Professional Part I 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
Orthopaedics	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
Respiratory Medicine	10	8	2	20
Otorhinolaryngology	25	40	5	70
Ophthalmology	30	60	10	100
Radiodiagnosis and Radiotherapy	10	8	2	20
Anesthesiology	8	10	2	20
Clinical Postings*	-	-	-	756
Attitude, Ethics & Communication Module (AETCOM)		19	06	25
Total	303	401	66	1551

** The clinical postings in the third professional part I shall be 18 hours per week (3 hrs per day from Monday to Saturday).*

Table 7: Third Professional Part II 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
Orthopaedics	20	25	5	50
Clinical Postings*				792
Attitude, Ethics & Communication Module (AETCOM)	28		16	43
				200
Total	250	435	60	1780

* 25% of allotted time of third professional shall be utilized for integrated learning with pre- and para- clinical subjects and shall be assessed during the clinical subjects examination. This allotted time will be utilized as integrated teaching by para-clinical subjects with clinical subjects (as Clinical Pathology, Clinical Pharmacology and Clinical Microbiology).

** The clinical postings in the third professional part II shall be 18 hours per week (3 hrs per day from Monday to Saturday).

*** Hours from clinical postings can also be used for AETCOM modules.

Table 8: Clinical postings

Subjects	Period of training in weeks			Total weeks
	I 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	4	4	8+4	20
Obstetrics & Gynaecology[2]	4	4	8 +4	20
Pediatrics	2	4	4	10
Community Medicine	4	6	-	10
Orthopedics - including Trauma[3]	2	4	2	8
Otorhinolaryngology	4	4	-	8
Ophthalmology	4	4	-	8
Respiratory Medicine[1]	2	-	-	2
Psychiatry	2	2	-	4
Radiodiagnosis[4]	2	-	-	2
Dermatology, Venereology & Leprosy	2	2	2	6
Dentistry & Anesthesia	-	2	-	2
Casualty	-	2	-	2
Total	36	42	48	126

* In four of the eight weeks of electives, regular clinical postings shall be accommodated. Clinical postings may be adjusted within the time framework.

[1] This posting includes Laboratory Medicine (Para-clinical) & Infectious Diseases (Phase III Part I).

[2] This includes maternity training and family welfare (including Family Planning).

[3] This posting includes Physical Medicine and Rehabilitation.

[4] This posting includes Radiotherapy, wherever available.

9	**New teaching / learning elements**
9.1	**Foundation Course**
9.1.1	**Goal:** The goal of the Foundation Course is to prepare a learner to study medicine effectively. It will be of one month duration after admission.
9.1.2	**Objectives:** The objectives are to: **(a) Orient the learner to:** (i) The medical profession and the physician's role insociety (ii) The MBBS programme (iii) Alternate health systems in the country and history ofmedicine (iv) Medical ethics, attitudes and professionalism (v) Health care system and its delivery

	(vi) National health programmes and policies (vii) Universal precautions and vaccinations (viii) Patient safety and biohazard safety (ix) Principles of primary care (general and community basedcare) (x) The academic ambience **(b) Enable the learner to acquire enhanced skillsin:** (i) Language (ii) Inter personal relationships (iii) Communication (iv) Learning including self-directed learning (v) Time management (vi) Stress management (vii) Use of information technology **(c) Train the learner to provide:** (i) First-aid (ii) Basic life support
9.1.3	In addition to the above, learners 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.
9.1.4	These sessions must be as interactive as possible.
9.1.5	Sports (to be used through the Foundation Course as protected 04 hours /week).
9.1.6	Leisure and extracurricular activity (to be used through the Foundation Course as protected 02 hours per week).
9.1.7	Institutions shall develop learning modules and identify the appropriate resource persons for their delivery.
9.1.8	The time committed for the Foundation Course may not be used for any other curricular activity.
9.1.9	The Foundation Course will have compulsory 75% attendance. This will be certified by the Dean of the college.
9.1.10	The Foundation Course will be organized by the Coordinator appointed by the Dean of the college and will be under supervision of the heads of the pre-clinical departments.
9.1.11	Every college must arrange for a meeting with parents and their wards.
9.2	**Early Clinical Exposure**
9.2.1	**Objectives:** The objectives of early clinical exposure of the first-year medical learners are to enable the learner to: (a) Recognize the relevance of basic sciences in diagnosis, patient care and treatment,

	(b) Provide a context that will enhance basic science learning, (c) Relate to experience of patients as a motivation to learn, (d) Recognize attitude, ethics and professionalism as integral to the doctor-patient relationship, (e) Understand the socio-cultural context of disease through the study of humanities.
9.2.2	**Elements** (a) 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). (b) 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 learners 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 learner 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 examination at end of the third MBBS Part I and before commencement of third MBBS Part II.
9.3.3	It is mandatory for learners to do an elective. The elective time should not be used to make up for missed clinical postings, shortage of attendance or other purposes.
9.3.4	**Structure** (a) The learner 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 in 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, and the number of learners 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 learners in the beginning of the academic year.
9.3.7	The learner must submit a learning log book based on both blocks of the elective.
9.3.8	75% attendance in the electives 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.
9.4	**Professional Development including Attitude, Ethics and Communication Module (AETCOM)**

9.4.1	**Objectives** of the programme: At the end of the programme, the learner must demonstrate ability to: (a) understand and apply principles of bioethics and law as they apply to medical practice and research understand and apply the principles of clinical reasoning as they apply to the care of the patients, (b) understand and apply the principles of system based care as they relate to the care of the patient, (c) understand and apply empathy and other human values to the care of the patient, (d) communicate effectively with patients, families, colleagues and other health care professionals, (e) understand the strengths and limitations of alternative systems of medicine, (f) respond to events and issues in a professional, considerate and humane fashion, (g) 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. (c) Attitude, Ethics & Communication Module (AETCOM module) developed by Medical Council of India should be used longitudinally for purposes of instruction.
9.4.3	75% attendance in Professional Development Programme (AETCOM Module) 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-voce.
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 programme.
9.4.6	Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva-voce.
9.5	**Learner-doctor method of clinical training (Clinical Clerkship)**
9.5.1	**Goal**: To provide learners with experience in: (a) Longitudinal patient care, (b) Being part of the health care team, (c) Hands-on care of patients in out-patient and in-patient setting.
9.5.2	**Structure**:

	(a) The first clinical posting in second professional shall orient learners to the patient, their roles and the specialty. (b) The learner-doctor programme will progress as outlined in Table9. (c) The learner 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 patients admitted during each admission day for whom he/she will undertake responsibility, 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 assigned patients (according to responsibilities outlined in table9), (vii) Participate in unit rounds on atleast 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 log book / case record. **(d) No learner 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 learner, monitor progress, provide feedback and review the log book/ case record. (b) The log book/ case record must include the written case record prepared by the learner including relevant investigations, treatment and its rationale, hospital course, family and patient discussions, discharge summary etc. (c) The log book 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: Learner - Doctor programme (Clinical Clerkship)

Year of Curriculum	Focus of Learner - Doctor programme
Year 1	Introduction to hospital environment, early clinical exposure, understanding perspectives of illness
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	Specific Competencies
10.1	**Preamble:** The salient feature of the revision of the medical curriculum in 2019 is the emphasis on learning which is competency-based, integrated and learner-centered acquisition of skills and ethical & humanistic values. Each of the competencies described below must be read in conjunction with the goals of the medical education as listed in items 2 to 3.5.5 It is recommended that didactic teaching be restricted to less than one third 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. Learners must be encouraged to take active part in and shared responsibility for their learning. The global competencies to be achieved by the learner are outlined above in Chapter 1- section 3. Since the MBBS programme assessment will continue to be subject based, subject specific competencies have been outlined. These have to be acquired by the learner in the corresponding professional year. These competencies must be interpreted in the larger context outlined in section 3 and may be considered as "sub-competencies" of the global competencies.
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	**First Professional (Pre-clinical)** The curriculum in individual subjects will be made by Committee of Courses and Studies of respective departments. The course curriculum prepared by Committee of Courses and studies of Anatomy, Biochemistry and Physiology are at appendix 2.
10.4	**Second Professional (Para-Clinical)** The curriculum in individual subjects will be made by Committee of Courses and Studies of respective departments
10.5	**Third Professional (Part I)** The curriculum in individual subjects will be made by Committee of Courses and Studies of respective departments
10.6	**Third Professional (PartII)** The curriculum in individual subjects will be made by Committee of Courses and Studies of respective departments
	Note : The curriculum of MBBS Course shall be as per National Medical Commission (NMC) Regulation on Graduate Medical Education Regulation 2019. The syllabus may be decided by the respective committee of courses and studies in their department under Faculty of Medical Sciences from time to time.
10.7	A list of certifiable procedural skills is during internship is given in Table 11.

CHAPTER VI

11	**Assessment**
11.1	**Eligibility to appear for Professional examinations**
11.1.1	The performance in essential components of training are to be assessed, based on: **(a) Attendance** (i) Attendance requirements are 75% in theory and 80% in practical /clinical for eligibility to appear for the examinations in that subject. In subjects that are taught in more than one phase – the learner must have 75% attendance in theory and 80% in practical in each phase of instruction in that subject. (ii) If an examination comprises more than one subject (for e.g., General Surgery and allied branches), the candidate must have 75% attendance in each subject and 80% attendance in each clinical posting. (iii) Learners who do not have at least 75% attendance in the electives will not be eligible for the Third Professional - Part II examination. (b) **Internal Assessment**: Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners 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. 1. Regular periodic examinations shall be conducted throughout the course. There shall be no less than three internal assessment examinations in each Preclinical / Para-clinical subject and no less than two examinations 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. 2. When subjects are taught in more than one phase, the internal assessment must be done in each phase and must contribute proportionately to final assessment. For example, General Medicine must be assessed in second Professional, third Professional Part I and third Professional Part II, independently. 3. Day to day records and log book (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills. 4. The final internal assessment in a broad clinical specialty (e.g., Surgery and allied specialties 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. 5. Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in a particular subject in order to be eligible for appearing at the final University examination of that subject. Internal Assessment (Theory and Practical Marks) i.e, 20% of total Marks in final exam of each subject will reflect as separate head of passing at summative examination. (Table – 10b) 6. Internal assessment marks Theory and Practical will reflect as separate head of passing at the summative examination. 7. The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test. The remedial measures should be taken at college level for students who are either not able to score qualifying marks or have missed on some assessments due to any reason. 8. Learners must have completed the required certifiable competencies for that phase of training and completed the log book appropriate for that phase of training to be eligible for appearing at the final university examination of that subject.

11.2	**University Examinations**
11.2.1	University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of 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
11.2.2	Nature of questions will include different types such as structured essays (Long Answer Questions-LAQ), Short Answers Questions (SAQ) and objective type questions (e.g. Multiple Choice Questions - MCQ). Marks for each part should be indicated separately. MCQs shall be accorded a weightage of not more than 20% of the total theory marks. In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass.
11.2.3	Practical/clinical examinations will be conducted in the laboratories and /or hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusion. Clinical cases kept in the examination must be common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders as examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyze the case and develop a management plan.
11.2.4	Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.
11.2.5	There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.
11.2.6	A learner shall not be entitled to graduate after 10 years of his/her joining of the first part of the MBBS course.
11.2.7	University Examinations shall be held asunder: **(a) First Professional** 1. The first Professional examination shall be held at the end of first Professional training (1+12 months), in the subjects of Human Anatomy, Physiology and Biochemistry. 2. A maximum number of four permissible attempts would be available to clear the first Professional University examination, whereby the first Professional course will have to be cleared within 4 years of admission to the said course. Partial attendance at any University examination shall be counted as an availed attempt. **(b) Second Professional** (i) The second Professional examination shall be held at the end of second professional training (11months) ,in the subjects of Pathology, Microbiology and Pharmacology. **(c) Third Professional** (i) Third Professional Part I shall be held at end of third Professional part 1 of training (12 months) in the subjects of Ophthalmology, Otorhinolaryngology, Community Medicine and Forensic Medicine and Toxicology (ii) Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics. The discipline of Orthopedics, Anesthesiology, Dentistry and Radio-diagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery. (iii) The discipline of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine. **(d) Examination schedule is in Table1.**

	(e) Marks distribution is in Table10.

Table 10 (a) : Marks distribution for various subjects in final examination.

Phase of Course	Written – Theory – Total	Practical s/ Orals/ Clinicals	Pass Criteria
First Professional			Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations University Examination Mandatory 50% marks separately in theory and practical (practical =practical/ clinical +viva)
Human Anatomy - 2 papers	200	100	
Physiology - 2 papers	200	100	
Biochemistry - 2 papers	200	100	
Second Professional			
Pharmacology - 2 Papers	200	100	
Pathology - 2 papers	200	100	
Microbiology - 2 papers	200	100	
Third Professional Part - I			
Forensic Medicine & Toxicology - 1 paper	100	100	
Ophthalmology - 1 paper	100	100	
Otorhinolaryngology - 1 paper	100	100	
Community Medicine - 2 papers	200	100	
Third Professional Part - II			
General Medicine - 2 papers	200	200	
General Surgery - 2 papers	200	200	
Pediatrics - 1 paper	100	100	
Obstetrics & Gynaecology - 2 papers	200	200	

Note: Atleast one question in each paper of the clinical specialties should test knowledge-competencies acquired during the professional development programme (AETCOM module); Skills competencies acquired during the Professional Development programme (AETCOM module) must be tested during clinical, practical and viva.

In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

Table 10 b INTERNAL ASSESMENT MARKS

First Professional	Theory	Practical
Anatomy	40	20
Physiology	40	20
Biochemistry	40	20
Second Professional		
Pharmacology	40	20
Pathology	40	20
Microbiology	40	20
Third Prof I		
Forensic Medicine	20	20
Ophthalmology	20	20
ENT	20	20
Community Medicine	40	20
Third Prof. II		
General Medicine	40	40
General Surgery	40	40
Pediatrics	20	20
Obst & Gyn.	40	40

Internal Assessment:

50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

11.2.8	**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.
11.2.9	**Appointment of Examiners** a) Person appointed as an examiner in the particular subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college. b) For the Practical/Clinical examinations, there shall be atleast four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal 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 (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed. c) In case of non-availability of medical teachers, approved teachers without a medical degree (engaged in the teaching of MBBS students as whole-time teachers in a recognized medical college), may be appointed examiners in their concerned subjects provided they possess requisite doctorate qualifications and four years teaching experience (as assistant professors) of MBBS students. Provided further that the 50% of the examiners (Internal & External) are from the medical qualification stream. d) External examiners may not be from the same University. 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. f) A University having more than one college shall have separate sets of examiners for each college, with internal examiners from the concerned college. g) External examiners shall rotate at an interval of 2years. h) There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions. i) All eligible examiners with requisite qualifications and experience can be appointed internal examiners by rotation in their subjects. j) All theory paper assessment should be done as central assessment program (CAP) of concerned university. k) Internal examiners should be appointed from same institution for unitary examination in same institution. For pooled examinations at one centre approved internal examiners from same university may be appointed l) The grace marks upto a maximum of 5 marks may be awarded at the discretion of the University to a learner for clearing (passing) the examination as a whole (irrespective of the number of subjects) but not for clearing a subject resulting in exemption.

12	**INTERNSHIP** Internship is a phase of training wherein a graduate will acquire the skills and competencies for practice of medical and health care under supervision so that he/she can be certified for independent medical practice as an Indian Medical Graduate. In order to make trained work force available, it may be considered as a phase of training wherein the graduate is expected to conduct actual practice under the supervision of a trained doctor. The learning methods and modalities have to be done during the MBBS course itself with larger number of hands on session and practice on simulators.
12.1	**Goal**: The goal of the internship programme is to train medical students to fulfill their roles as doctors of first contact in the community.
12.2	**Objectives**: At the end of the internship period, the medical graduate will possess all competencies required of an Indian Medical Graduate, namely:
12.2.1	Independently provide preventive, promotive, curative and palliative care with compassion,
12.2.2	Function as leader and member of the health care team and health system,
12.2.3	Communicate effectively with patients, families, colleagues and the community,
12.2.4	Be certified in diagnostic and therapeutic skills in different disciplines of medicine taught in the undergraduate programme,
12.2.5	Be a lifelong learner committed to continuous improvement of skills and knowledge,
12.2.6	Be a professional committed to excellence and is ethical, responsive and accountable to patients, community and profession

Time Distribution

Community Medicine (Residential posting)	: 2 months
General Medicine including 15 days of Psychiatry	: 2 months
General Surgery including 15days Anaesthesia	: 2 months
Obstetrics & Gynaecology including Family Welfare Planning	: 2months
Pediatrics	: 1month
Orthopaedics including PM&R	: 1month
Otorhinolaryngology	: 15days
Ophthalmology	: 15days
Casualty	: 15days
Elective posting (1x15days)	15days

Subjects for Elective posting will be as follows:

1. Dermatology, Venereology & Leprosy
2. Respiratory Medicine
3. Radio diagnosis
4. Forensic Medicine &Toxicology
5. Blood Bank
6. Psychiatry

Note: Structure internship with assessment at the end in the college.

12.4	**Other details:**
12.4.1	The core rotations of the internship shall be done in primary and secondary/ tertiary care institutions in India. In case of any difficulties, the matter may be referred to the Medical Council of India to be considered on individual merit.
12.4.2	Every candidate will be required after passing the final MBBS examination to undergo compulsory rotational internship to the satisfaction of the College authorities and University concerned for a period of 12 months so as to be eligible for the award of the degree of Bachelor of Medicine and Bachelor of Surgery (MBBS) and full registration.
12.4.3	The University shall issue a provisional MBBS pass certificate on passing the final examination.
12.4.4	The State Medical Council will grant provisional registration to the candidate upon production of the provisional MBBS pass certificate. The provisional registration will be for a period of one year. In the event of the shortage or unsatisfactory work, the period of provisional registration and the compulsory rotating internship shall be suitably extended by the appropriate authorities.
12.4.5	The intern shall be entrusted with clinical responsibilities under direct supervision of a designated supervising physician. They shall not work independently.
12.4.6	Interns will not issue medical certificate or death certificate or other medico-legal document under their signature.
12.4.7	Each medical college must ensure that the student gets learning experience in primary/secondary and urban/rural centers in order to provide a diverse learning experience and facilitate the implementation of national health programmes/ priorities. These shall include community and outreach activities, collaboration with rural and urban community health centers, participation in government health missions etc.
12.4.8	One year's approved service in the Armed Forces Medical Services, after passing the final MBBS examination shall be considered as equivalent to the pre-registration training detailed above; such training shall, as far as possible, be at the Base/General Hospital. The training in Community Medicine should fulfill the norms of the National Medical Commission as proposed above.
12.4.9	In recognition of the importance of hands-on experience, full responsibility for patient care and skill acquisition, internship should be increasingly scheduled to utilize clinical facilities available in District Hospital, Taluka Hospital, Community Health Centre and Primary Health Centre, in addition to Teaching Hospital. A critical element of internship will be the acquisition of specific experiences and skill as listed in major areas: provided that where an intern is posted to District/Sub Divisional Hospital for training, there shall be a committee consisting of representatives of the college/University, the State Government and the District administration, who shall regulate the training of such trainee. Provided further that, for such trainee a certificate of satisfactory completion of training shall be obtained from the relevant administrative authorities which shall be countersigned by the Principal/Dean of College.
12.5	**Assessment of Internship:**
12.5.1	The intern shall maintain a record of work in a log book, which is to be verified and certified by the medical officer under whom he/she works. Apart from scrutiny of the record of work, assessment and evaluation of training shall be undertaken by an objective approach using situation tests in knowledge, skills and attitude during and at the end of the training.

12.5.2	Based on the record of work and objective assessment at the end of each posting, the Dean/Principal shall issue cumulative certificate of satisfactory completion of training at the end of internship, following which the University shall award the MBBS degree or declare him eligible for it.
12.5.3	Full registration shall only be given by the State Medical Council/National Medical Commission on the award of the MBBS degree by the University or its declaration that the candidate is eligible for it.
12.5.4	Some guidelines for the implementation of the training programme are given in section 12.10 discipline wise
12.6	No Dues To avoid any unnecessary delay in clearance, a signed 'No Dues' Certificate should be taken by the Intern at the end of each posting from the concerned department.
12.7	**Repeating Internship** An Intern must ordinarily complete his/her Internship during the scheduled period of **1st January to 31st December** for Regular Batch **and the Supplementary Batch Intern may start internship training after declaration of the Supplementary Examination. Stipulation for repeat posting:** i) Unsatisfactory performance. ii) Prolonged illness, Medical Certificate must be validated by a Medical Board set up by the Institution, where rotatory internship is being undertaken. iii) No Hostel accommodation shall be provided for the repeat period. However, in extraordinary circumstances the institute may provide accommodation only if it is available. iv) In the event of repeat posting, the period of provisional registration and compulsory rotating internship may be suitably exte3nded by appropriate authorities.
12.8	**Externship** Ordinarily rotatory internship must be undertaken in the institution where the student has enrolled. However, a student can do internship in National Medical Commission approved hospital/institution for which the following guidelines may be followed: **Externship in India:** i) A student must apply for permission to do internship outside Delhi on the annexed proforma alongwith the desired documents. Before considering the student's application to do internship in another hospital/medical college he/she will be required to produce the following documents: a. Permission from the institutions where the student wishes to do internship b. Certificate from National Medical Commission that the hospital/institution is recognized for undergoing internship training c. Permission from the University of Delhi d. Documentary proof of the reason for doing internship from outside Delhi ii) All students intending to do internship outside must submit duly completed application to the concerned authorities at the beginning of the internship programme not later **15th January**. However, an exception may be made on merit of the case. iii) Each institution will constitute a committee to recommend such cases. The committee must include the Academic In charge and Registrar Academic of the Institute and Heads of the following Departments: (a) Medicine (b) Surgery

	(c) Obstt. And Gynae. (d) Community Medicine iv) No externship can be for less than two months. v) Rotatory Internship in Community Medicine must be completed within the institution of enrollment. vi) A certificate of satisfactory completion of training should be submitted to theInstitution duly signed and stamped by the administrative authorities of theHospital/District Centre, where the student has undergone externship. vii) Externship in multiple institutes will not be permitted. viii) Externship in India once done in a particular institution/hospital recognized by National Medical Commission is not repeated in parent institution. Only the records of satisfactory completion of training, duly certified by Medical Office alongwith assessment report/evaluation report, meeting the objectives of training are submitted.
12.8.1	**Externship outside India:** i) Externship outside India: "Clerkship/Elective" will be allowed for a period of maximum one month. The period of elective posting combined with 12 days of Casual Leave will give the student a period of approximately one month. ii) "Clerkship/Elective" must include good hands-on experience, student should be allowed to do physical exams, touch the patients besides taking histories, case presentations and lab-result follow ups. No Observer ship will be allowed while availing the externship under any circumstances. iii) The permission for the "Clerkship/Elective" will have to be taken from the University. This would, however, be without any commitments on the part of the University, financial or otherwise. iv) The student will fill up a proforma provided by the Faculty of Medical Sciences which will have to be signed by the Dean of the University where the student wishes to do his/her Clerkship. After completion of the Clerkship the students will have to submit a certificate of satisfactory completion from the institute where Clerkship was done.
12.9	**Guidelines for outside candidates wishing to do Internship in medical Institutions under University of Delhi**
	The prime responsibility and commitment of the institution is to train its own Undergraduates during the rotatory internship period. However, it has been seen that students from outside apply for rotatory internsh training to the medical institutions under University of Delhi. (i) Ordinarily the capacity and infrastructure of the institutions is to train only the number students that they have enrolled. The students may apply if there is a clear cut vacancy in th institution provided the following certificates / documents are produced: (a) Application of the students giving reasons to do internship and documentary proof thereof. (b) No Objection Certificate from his/her parent institution clearly stating that institution is recognize by National Medical Commission and that during the course of his/her training from admission his/her passing out, the college was not derecognized by National Medical Commisssion at ar time. (c) Permission of the University to which the above college is affiliated. (ii) Certificate from National Medical Commission that Medical College/Institution where the student at present studying has been recognized by the National Medical Commission from the year th student was admitted in that institution to the year of his/her passing out. (iii) Certificate of provisional registration by National Medical Commission.

(iv) Certificate of good character and conduct of the student from the parent college/institution.

(v) Permission of Delhi University.

(vi) Permission of concerned State Government.

(vii) An undertaking that the student is prepared to do internship without any pay, stipend o honorarium:

a. That he/she would follow the Internship Programme of the University of Delhi.

b. That he/she would maintain good conduct, discipline and decorum of the institution and the authorities of the University have the right to expel him/her on misconduct, indiscipline and unsatisfactor work.

How to select: If there is more than one applicant wishing to do internship at the institutions, they will be selected strictly on the basis of merit. While making the list, consideration will be given to all the three/fou University Examinations and from the total marks **5% marks** deducted for each additional attempt Candidates who did not avail the chance of University Examination when it was due should not be considered a failure in that subject/s and it should be counted as first attempt and marks should not be deducted. Also, 5% extra marks will be allotted for distinction or medal in any subject.

When to apply: All applications of internship alongwith relevant documents should be received between**1st January to 15th April however, permission to do internship should be considered** subject to availability of vacancy in the respective colleges.

12.10 INTERNSHIP – GUIDELINES DISCIPLINE RELATED:

12.10.1 COMMUNITYMEDICINE GOAL:

The aim of teaching the undergraduate student in Community Medicine is to impart such knowledge and skills that may enable him to diagnose and treat common medical illnesses and recognize the importance of community involvement. He/she shall acquire competence to deal effectively with an individual and the community in the context of primary health care. This is to be achieved by hands-on experience in the District Hospital and Primary Health Centre. The details are as under: -

I) **District Hospital /Community Health Centre/Attachment to General Practitioner:**

A. **An intern must be able to do without assistance:**

1. An intern must:
   a) Be able to diagnose common ailments and advise primary care;
   b) Demonstrate knowledge on 'Essential drugs' and their usage;
   c) Recognize medical emergencies, resuscitate and institute initial treatment and refer to a suitable institution.

2. An intern must be familiar with all National Health Programmes (e.g. RCH, UIP, CDD, ARI, FP, ANC, Tuberculosis, Leprosy and others), as recommended by the Ministry of Health and Family Welfare.

3. An intern must:
   a) Gain full expertise in immunization against infectious disease;
   b) Participate in programmes related to prevention and control of locally prevalent endemic diseases including nutritional disorders;
   c) Learn skills in family welfare planning procedures;

4. An intern must:
   a) Conduct programmes on health education,

b) Gain capabilities to use Audio-visual aids

c) Acquire capability of utilization of scientific information for promotion o community health

B. An intern must have observed or preferably assisted at the following:

1. An intern should be capable of establishing linkages with other agencies as water supply, food distribution and other environmental/social agencies.
2. An intern should acquire managerial skills including delegation of duties to and monitoring the activities of paramedical staff and other health professionals.

II) Taluka Hospital/ First Referral Unit

A. An intern must be able to do without assistance:

1. An intern shall provide health education to an individual/community on:

a) tuberculosis,
b) small family, spacing, use of appropriate contraceptives,
c) applied nutrition and care of mothers and children,
d) immunization.

B. An intern must be able to do with supervision:

An intern shall attend at least one school health programme with the medical officer.

III) Primary Health Centre / Urban Health Centre

A. An intern must be able to do without assistance the following:

a) Participate in family composite health care (birth to death), inventory c events.

b) Participate in use of the modules on field practice for community healt e.g. safe motherhood, nutrition surveillance and rehabilitation, diarrheal disorders etc.

c) Participate in and maintain documents related to immunization and cold chain.

d) Acquire competence in diagnosis and management of common ailments e.g. malaria, tuberculosis, enteric fever, congestive heart failure, hepatitis, meningitis acute renal failure etc.

B. An intern must be able to do under supervision thefollowing:

a) Acquire proficiency in Family Welfare Programmes (antenatal care, normal delivery, contraception etc.).

b) Undergo village attachment of atleast one week duration to understand issues of community health along with exposure to village health centres, ASHA Sub Centres.

c) Participate in Infectious Diseases Surveillance and Epidemic Management activities along with the medical officer.

12.10.2

GENERAL MEDICINE GOAL:

The aim of teaching the undergraduate student in General Medicine is to impart such knowledge and skills that may enable him to diagnose and treat common medical illnesses. He/she shall acquire competence in clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral infections, nutritional disorders, including dehydration and electrolyte disturbances) and various system illnesses.

An intern must be able to do without assistance and interpret the results of:

(a) The following laboratory investigations:

i) Blood : (Routine haematology smear and blood groups)

	ii) Urine : (Routine chemical and microscopic examination) iii) Stool : (for ova/cyst and occult blood) iv) Sputum and throat swab for gram stain or acid-fast stain and v) Cerebrospinal Fluid (CSF) for smear vi) Electrocardiogram (ECG) vii) Glucometer recording of blood sugar viii) Routine radiographs of chest, abdomen, skull etc. **(b) Perform independently the following** i) Diagnostic procedures: Proctoscopy Ophthalmoscopy / Otoscopy Indirect laryngoscopy ii) Therapeutic procedures: Urethral catheterization Insertion of Ryle's Tube, Pleural Ascitic fluid aspiration Cerebrospinal Fluid (CSF) aspiration Air way tube installation Oxygen administration etc. **An intern must have observed or preferably assisted at the following operations/procedures:** **a)** Biopsy Procedures: **Liver, Kidney, Skin, Nerve, Lymph node, and muscle biopsy, Bone marrow aspiration, Biopsy of Malignant lesions on surface, nasal/nerve/skin smear for leprosy under supervision.** **C) Skills that an intern should be able to perform under supervision:** a) An intern should be familiar with lifesaving procedures, including use of aspirator, respirator and defibrillator, cardiac monitor, blood gasanalyser. b) An intern should be able to advise about management and prognosis of acute & chronic illnesses like viral fever, gastroenteritis, hepatitis, pneumonias, myocardial infarction and angina, TIA and stroke, seizures, diabetes mellitus, hypertension renal and hepatic failure, thyroid disorders and hematological disorders. He should participate in counseling sessions for patients with non-communicable diseases and tuberculosis, HIV patients etc. c) Intern should be able to confirm death and demonstrate understanding of World Health Organisation cause of death reporting and data quality requirements. d) Intern should be able to demonstrate understanding of the coordination with local and national epidemic management plans. e) Intern shall be able to demonstrate prescribing skills and demonstrate awareness of pharma co-vigilance, antibiotics policy, prescription audit and concept of essential medicines list.
12.10.3	**PEDIATRICS:** **GOAL:** The aim of teaching the undergraduate student in Pediatrics is to impart such knowledge and skills that may enable him to diagnose and treat common childhood illnesses including neonatal disorders. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral

	infections, nutritional disorders, including dehydration and electrolyte disturbances) and various system illnesses. **A. An intern must be able to do without assistance:** An intern shall be able to diagnose and manage common childhood disorders including neonatal disorders and acute emergencies, examining sick child making a record of information. An intern shall perform: a) **diagnostic techniques**: blood collection (including from femoral vein and umbilical cord), drainage of abscess, collection of cerebrospinal, pleural and peritoneal fluids, suprapubic aspiration of urine. b) **techniques related to patient care:** immunization, perfusion techniques, nasogastric tube insertion, feeding procedures, tuberculin testing & breast-feeding counseling. c) **use of equipments:** vital monitoring, temperature monitoring, resuscitation at birth and care of children receiving intensive care. d) institute early management of common childhood disorders with special reference to pediatric dosage and oral rehydration therapy. **B. An intern must have observed or preferably assisted at the following operations/procedures** a) screening of newborn babies and those with risk factors for any anomalies and steps for prevention in future; detect congenital abnormalities; b) recognize growth abnormalities; recognize anomalies of psychomotor development; c) assess nutritional and dietary status of infants and children and organize prevention, detection and follow up of deficiency disorders both at individual and community levels,such as: • protein-energy malnutrition • deficiencies of vitamins especially A, B, C and D; • Iron deficiency C. Skills that an intern should be able to perform under supervision: a) An intern should be familiar with life-saving procedures, including use of aspirator, respirator, cardiac monitor, blood gasanalyser. b) An intern should be able to advise about management and prognosis of acute & chronic illnesses like viral fever, gastroenteritis, hepatitis, pneumonias, congenital heart diseases, seizures, renal and hepatic diseases, thyroid disorders and hematological disorders. She/he should participate in counseling sessions with parents including HIV counseling.
12.10.4	**GENERALSURGEY** **GOAL:** The aim of teaching the undergraduate student in General Surgery is to impart such knowledge and skills that may enable him to diagnose and treat common surgical ailments. He/she shall have ability to diagnose and suspect with reasonable accuracy all acute and chronic surgical illnesses. **(A) THERAPEUTIC- An intern must perform or assistin:** a) venesection or venous access b) tracheastomy and endotrachealintubation c) catheterization of patients with acute retention or trocar cystostomy d) drainage of superficial abscesses e) basic suturing of wound and wound management (including bandaging) f) biopsy of surfacetumours g) performvasectomy **(B) Skill that an intern should be able to perform under supervision:** a) Advise about prognosis of acute & chronic surgical illnesses, head injury, trauma, burns and cancer. Counsel patients regarding the same.

	b) Advise about rehabilitation of patients after surgery and assist them for early recovery. c) Intern should be able to demonstrate understanding of World Health Organization cause of death reporting and data quality requirements. d) Intern should be able to demonstrate understanding of the use of national and sub-national cause of death statistics. **(C) An intern must have observed or preferably assisted at the following operations/procedures:** a) Resuscitation of critical patients b) Basic surgical procedures for major and minor surgical illnesses c) Wound dressings and application of splints d) Laparoscopic/ Minimally Invasive surgery e) Lymph node biopsy
12.10.5	**CASUALTY:** **GOAL:** The aim of teaching the undergraduate student in casualty is to impart such knowledge and skills that may enable him/her to diagnose and treat common acute surgical /medical ailments. He/she shall have ability to diagnose and suspect, with reasonable accuracy, acute surgical illnesses including emergencies, resuscitate critically injured patient and a severely burned patient, control surface bleeding and manage open wounds and monitor and institute first-line management of patients of head, spine, chest, abdominal and pelvic injury as well as acute abdomen. **(A) THERAPEUTIC- An intern must perform or assistin:** a) Identification of acute emergencies in various disciplines of medical practice, b) Management of acute anaphylactic shock, c) Management of peripheral-vascular failure and shock, d) Management of acute pulmonary edema and Left Ventricular Failure(LVF), e) Emergency management of drowning, poisoning and seizure, f) Emergency management of bronchial asthma and status asthmaticus, g) Emergency management of hyperpyrexia, h) Emergency management of comatose patients regarding airways, positioning prevention of aspiration and injuries, i) Assessment and administering emergency management of burns, j) Assessing and implementing emergency management of various trauma victims, k) Identification of medico-legal cases and learn filling up of forms as well as complete other medico-legal formalities in cases of injury, poisoning, sexual offenses, intoxication and other unnatural conditions. **(B) Skill that an intern should be able to perform under supervision:** a) Advise about prognosis of acute surgical illnesses, head injury, trauma and burns. Counsel patients regarding the same. **(C) An intern must have observed or preferably assisted at the following operations/procedures:** a) Resuscitation of critical patients b) documentation medico legal cases c) management of bleeding and application of splints;

12.10.6	**OBSTETRICS AND GYNAECOLOGY GOAL:** The aim of teaching the undergraduate student in Obstetrics & Gynaecology is to impart such knowledge and skills that may enable him to diagnose and manage antenatal and post natal follow up; manage labor and detect intrapartum emergencies; diagnose and treat common gynaecologic ailments. **(A) THERAPEUTIC-An intern must perform or assist in:** a) Diagnosis of early pregnancy and provision of ante-natal care; ante natal pelvic assessment and detection of cephalo pelvic disproportion, b) Diagnosis of pathology of pregnancy related to: • abortion • ectopic pregnancy • tumours complicating pregnancy • acute abdomen in early pregnancy • hyper emesis gravid arum, c) Detection of high risk pregnancy cases and give suitable advice e.g. PIH, hydramanios, antepartumhaemorrhage,multiplepregnancies,abnormalpresentations andintra-uterine growth retardation, d) Induction of labor and amniotomy under supervision, e) Induction of labor and amniotomy under supervision, f) Management of normal labor, detection of abnormalities, post-partumhemorrhage and repair of perennialtears, g) Assist in forceps delivery, h) Detection and management of abnormalities of lactation, i) Evaluation and prescription oral contraceptives with counseling, j) Perspeculum, pervaginum and perrectal examination for detection of common congenital, inflammatory, neoplastic and traumatic conditions of vulva, vagina, uterus and ovaries, k) Medico-legal examination in Gynecology and Obstetrics. **(B) Skills that an intern should be able to perform under supervision:** a) Dilatation and curettage and fractiona lcurettage, b) Endometrialbiopsy, c) Endometrialaspiration, d) Pap smearcollection, e) Intra Uterine Contraceptive Device (IUCD)insertion, f) Minilapligation, g) Urethralcatheterization, h) Suture removal in postoperativecases, i) Cervical punchbiopsy. **(C) An intern must have observed or preferably assisted at the following operations/procedures:** a) Major abdominal and vaginal surgery cases, b) Second trimester Medical Termination of Pregnancy (MTP)procedures e.g. Emcredyl Prostaglandin instillations, Caesarean section.
12.10.7	**OTORHINOLARYNGOLOGY(ENT)** **GOAL:** The aim of teaching the undergraduate student in ophthalmology is to impart such knowledge and skills that may enable him to diagnose and treat common otorhinolaryngological conditions such as ear pain, foreign bodies and acquire ability for a comprehensive diagnosis of common Ear, Nose and Throat (ENT) diseases including emergencies and malignant neoplasms of the head and neck. **(A) THERAPEUTIC- An intern must perform or assist in:**

	a) Ear syringing, antrum puncture and packing of the nose for epistaxis, b) Nasal douching and packing of the external canal, c) Removing foreign bodies from nose and ear, d) Observing or assisting in various endoscopic procedures and tracheostomy. **(B) Skill that an intern should be able to perform under supervision:** a) Intern shall have participated as a team member in the diagnosis of various ENT- related diseases and be aware of National programme on prevention of deafness, b) Intern shall acquire knowledge of various ENT related rehabilitative programmes. **(C) An intern must have observed or preferably assisted at the following operations/procedures:** a) Intern shall acquire skills in the use of head mirror, otoscope and indirect laryngoscopy and first line of management of common Ear Nose and Throat (ENT) problems.
12.10.8	**OPHTHALMOLOGY** **GOAL:** The aim of teaching the undergraduate student in ophthalmology is to impart such knowledge and skills that may enable him to diagnose and treat common ophthalmological conditions such as Trauma, Acute conjunctivitis, allergic conjunctivitis, xerosis, entropion, corneal ulcer, iridocyclitis, myopia, hypermetropia, cataract, glaucoma, ocular injury and sudden loss of vision. **(A) THERAPEUTIC- An intern must perform or assistin:** a) Subconjunctival injection b) Ocular bandaging c) Removal of concretions d) Epilation and electrolysis e) Corneal foreign body removal f) Cauterization of cornealulcers g) Chalazion removal h) Entropion correction i) Suturing conjunctival tears j) Lids repair k) Glaucoma surgery(assisted) l) Enucleation of eye in cadaver. **(B) Skill that an intern should be able to perform under supervision:** 4.2.6. Advise regarding methods for rehabilitation of the blind. **(C) An intern must have observed or preferably assisted at the following operations/procedures:** a) Assessment of refractive errors and advise its correction, b) Diagnose ocular changes in common systemic disorders, c) Perform investigative procedures such as tonometry, syringing, direct ophthalmoscopy, subjective refraction and fluorescin staining of cornea.

12.10.9	**ORTHOPAEDICS GOAL:** The aim of teaching the undergraduate student in Orthopaedics and Physical Medicine and Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common ailments. He/she shall have ability to diagnose and suspect presence of fracture, dislocation, actual osteomyelitis, acute poliomyelitis and common congenital deformities such as congenital talipesequinovarus (CTEV) and dislocation of hip (CDH). **(A) THERAPEUTIC- An intern must assistin:** a) Splinting (plaster slab) for the purpose of emergency splintage, definitive splintage and post- operative splintage and application of Thomassplint, b) Manual reduction of common fractures – phalangeal, metacarpal, metatarsal and Colles' fracture, c) Manual reduction of common dislocations – interphalangeal, metacarpophalangeal, elbowand shoulder dislocations, d) Plaster cast application for undisplaced fractures of arm, fore arm, leg and ankle, e) Emergency care of a multiple injury patient, f) Transport and bed care of spinal cord injury patients. **(B) Skill that an intern should be able to perform under supervision:** a) Advise about prognosis of poliomyelitis, cerebral palsy, CTEV and CDH, b) Advise about rehabilitation of amputees and mutilating traumatic and leprosy deformities of hand. **(C) An intern must have observed or preferably assisted at the following operations:** a) Drainage for acute osteomyelitis, b) Sequestrectomy in chronicosteomyelitis, c) Application of external fixation, d) Internal fixation of fractures of long bones.
12.10.10	**DERMATOLOGY VENEREOLOGY &LEPROSY** **GOAL:** The aim of teaching the undergraduate student in Dermatology Venereology & Leprosy is to impart such knowledge and skills that may enable him to diagnose and treat common dermatological infections and leprosy. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral infections, and cutaneous manifestations of systemic illnesses. **THERAPEUTIC- At the end of internship an intern must be able to:** a) Conduct proper clinical examination; elicit and interpret physical findings, and diagnose common disorders and emergencies, b) Perform simple, routine investigative procedures for making bedside diagnosis, specially the examination of scraping for fungus, preparation of slit smears and staining for AFB for leprosy patient and for STD cases, c) Manage common diseases recognizing the need for referral for specialized care in case of inappropriateness of therapeutic response. **An intern must have observed or preferably assisted at the following operations/procedures:** a) Skin biopsy for diagnostic purpose

12.10.11	**PSYCHIATRY** **GOAL:** TheaimofteachingtheundergraduatestudentinPsychiatryistoimpartsuchknowledgeandskillsthat may enable him to diagnose and treat common psychiatric illnesses. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management. He/she should also be able to recognize the behavioural manifestations of systemic illnesses. **THERAPEUTIC- An intern must perform or assistin:** a) Diagnose and manage common psychiatric disorders, b) Identify and manage psychological reactions, c) Diagnose and manage behavioural disorders in medical and surgical patients. **An intern must have observed or preferably assisted at the following operations/procedures:** a) ECT administration, b) Therapeutic counseling and follow-up.
12.10.12	**RESPIRATORY MEDICINE** **GOAL:** The aim of teaching the undergraduate student in Respiratory Medicine is to impart such knowledge and skills that may enable him to diagnose and treat common respiratory illnesses. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management. **THERAPEUTIC - An intern must perform or assist in:** a) diagnosing and managing common respiratory disorders and emergencies, b) simple, routine investigative procedures required for making bed side diagnosis, especially sputum collection, examination for etiological organism like AFB, interpretation of chest X-rays and respiratory function tests, c) interpreting and managing various blood gases and pH abnormalities in various illnesses. **An intern must have observed or preferably assisted at the following operations/procedures:** a) Laryngoscopy, b) Pleural aspiration, respiratory physiotherapy, laryngeal intubation and pneumo-thoracic drainage aspiration, c) Therapeutic counseling and follow up.
12.10.13	**ANAESTHESIOLOGY** **GOAL:** The aim of teaching the undergraduate student in anaesthesia is to impart such knowledge and skills that may enable him to understand principles of anaesthesia and recognize risk and complications of anaesthesia. At the end of internship, graduate should be able to perform cardio-pulmonary resuscitation correctly, including recognition of cardiacarrest. (A) **THERAPEUTIC-** An intern must perform or assist in: a) Pre-anaesthetic checkup and prescribe pre-anaesthetic medications,

	b) Venepuncture and set up intravenousdrip, c) Laryngoscopy and endotrachealintubation, d) Lumbar puncture, spinal anaesthesia and simple nerve blocks, e) Simple general anaesthetic procedures under supervision, f) Monitor patients during anaesthesia and in the post-operative period, g) Maintain anaesthetic records, h) Perform cardio-pulmonary resuscitation correctly, including recognition of cardiacarrest. **(B) Skill that an intern should be able to perform under supervision:** a) Counseling and advise regarding various methods of anaesthesia, b) Recognize and manage problems associated with emergency anaesthesia, c) Recognize and treat complications in the post-operative period. **(C) An intern must have observed or preferably assisted at the following operations/procedures:** a) Anaesthesia for major and minor surgical and other procedures;
12.10.14	**RADIODIAGNOSIS** **GOAL:** The aim of teaching the undergraduate student in radio-diagnosis is to impart such knowledge and skills that may enable him to understand principles of imageology and recognize risk and complications of radiologic procedures and the need for protective techniques. At the end of internship, graduate should be able to counsel and prepare patients for various radiologic procedures. **An intern must acquire competency in:** a) Identifying and diagnosing acute abdominal conditions clinically and choose appropriate imaging modality for diagnosis, b) Identifying and diagnosing acute traumatic conditions in bones and skull using X rays / CT Scans with emphasis on fractures and head injuries, c) Recognizing basic hazards and precautions in radio-diagnostic practices specially related to pregnancy, d) Demonstrating awareness of the various laws like PC PNDT Act.
12.10.15	**PHYSICAL MEDICINE ANDREHABILITATION** **GOAL:** The aim of teaching the undergraduate student in Physical Medicine & Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common rheumatologic, orthopedic and neurologic illnesses requiring physical treatment. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management. **A THERAPEUTIC- An intern must perform or assist in:** a) Diagnosing and managing with competence clinical diagnosis and management based on detailed history and assessment of common disabling conditions like poliomyelitis, cerebral palsy, hemiplegia, paraplegia, amputations etc. b) Participation as a team member in total rehabilitation including appropriate follow up of common disabling conditions, c) Procedures of fabrication and repair of artificial limbs and appliances. **B An intern must have observed or preferably assisted at the following operations/procedure** a) Use of self-help devices and splints and mobility aids b) Accessibility problems and home making for disabled c) simple exercise therapy in common conditions like prevention of deformity in polio, stump exercise in an amputeeetc. d) Therapeutic counselling and follow up

12.10.16	**FORENSIC MEDICINE ANDTOXICOLOGY**
	GOAL: The aim of teaching the undergraduate student in Forensic Medicine is to impart such knowledge and skills that may enable him to manage common medico-legal problems in day to day practice. He/she shall acquire competence for post mortem diagnosis based on history, physical examination and relevant observations during autopsy. A. **An intern must perform or assist in:** a) Identifying and documenting medico-legal problems in a hospital and general practice, b) Identifying the medico-legal responsibilities of a medical man in various hospital situations, c) Diagnosing and managing with competence basic poisoning conditions in the community, d) Diagnosing and managing with competence and documentation in cases of sexual assault, e) Preparing medico-legal reports in various medico legal situations. B. **An intern must have observed or preferably assisted at the following operations/ procedures, as given in Table11:** a) Various medico legal / post-mortem procedures and formalities during their performance by police.

Table 11: Certifiable Procedural Skills:

A Comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate

Specialty	Procedure
General Medicine	• Venipuncture(I) • Intramuscular injection(I) • Intradermal injection(D) • Subcutaneousinjection(I) • Intra Venous (IV) injection(I) • Setting up IV infusion and calculating drip rate(I) • Blood transfusion (O) • Urinary catheterization(D) • Basic life support(D) • Oxygen therapy(I) • Aerosol therapy / nebulization(I) • Ryle's tube insertion(D) • Lumbar puncture(O) • Pleural and ascitic aspiration(O) • Cardiac resuscitation(D) • Peripheral blood smear interpretation(I) • Bedside urine analysis(D)
General Surgery	• Basic suturing(I) • Basic wound care(I)
	• Basic bandaging(I) • Incision and drainage of superficial abscess(I) • Early management of trauma (I) and trauma life support(D)
Orthopedics	• Application of basic splints and slings(I) • Basic fracture and dislocation management(O) • Compression bandage(I)
Gynecology	• .Per Speculum (PS) and Per Vaginal (PV) examination(I) • Visual Inspection of Cervix with Acetic Acid (VIA)(O) • Pap Smear sample collection & interpretation(I) • Intra- Uterine Contraceptive Device (IUCD) insertion & removal(I)
	• Obstetric examination(I) • Episiotomy(I) • Normal labor and delivery (including partogram)(I)
	• Neonatal resuscitation(D) • Setting up Pediatric IV infusion and calculating drip rate(I) • Setting up Pediatric Intraosseous line(O)

Forensic Medicine	• Documentation and certification of trauma(I) • Diagnosis and certification of death(D) • Legal documentation related to emergency cases(D) • Certification of medical-legal cases e.g. Age estimation, sexual assault etc.(D) • Establishingcommunicationinmedico-legalcaseswithpolice,publichealth authorities, other concerned departments, etc(D)
Oto rhino laryngology	• Anterior nasal packing (D) • Otoscopy(I)
Ophthalmology	• Visual acuity testing(I) • Digital tonometry(D) • Indirect ophthalmoscopy(O) • Epilation(O) • Eye irrigation(I) • Instillation of eye medication(I) • Ocular bandaging(I)
Dermatology	• Slit skin smear for leprosy(O) • Skin biopsy(O) • Gram's stained smearinterpretation(I) • KOH examination of scrapings for fungus(D) • Dark ground illumination (O) • Tissue smear(O) • Cautery - Chemical and electrical(O)

I-Independently performed on patients, O- Observed in patients or onsimulations,
D- Demonstration on patients or simulations and performance under supervision in patients

Certification of Skills: Any faculty member of concerned department can certify skills. For common procedures, the certifying faculty may be decided locally.

BOARD OF GOVERNORS IN SUPER-SESSION

OF MEDICAL COUNCIL OF INDIA

AMENDMENT NOTIFICATION

New Delhi, the 4th November, 2019

No. MCI-34(41)/2019-Med./161726.—In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956 (102 of 1956), the Board of Governors in super-session of Medical Council of India with the previous sanction of the Central Government, hereby makes the following Regulations to further amend the "Regulations on Graduate Medical Education , 1997", namely: -

1. (i)These Regulations may be called the "Regulations on Graduate Medical Education (Amendment), 2019.

(ii) They shall come into force from the date of their publication in the Official Gazette.

2. The following shall be added as clause 1A to the Regulations on Graduate Medical Education, 1997:-

(i) The Regulations of Graduate Medical Education, 1997 from clause 2 to 14 contained in Chapters I to V and the Appendices and Schedules appended therein shall be included as Part I of the Regulation. These provisions shall be the governing Regulations with respect to batches admitted in MBBS courses until academic year 2018-19.

(ii) Part II containing the following Chapters shall be added to the Regulations on Graduate Medical Education, 1997 that shall be the governing Regulations with respect to batches admitted in MBBS course from academic year 2019-20 onwards.

3. Following shall be added as Part II of the Regulations on Graduate Medical Education, 1997:-

Part II

For MBBS course starting from academic year 2019-20 onwards

THE REGULATIONS ON GRADUATE MEDICAL EDUCATION, 1997

PART II

ARRANGEMENT OF CLAUSES

CHAPTER I

GENERAL CONSIDERATIONS AND TEACHING APPROACH

1. **Introduction**
2. **Objectives of the Indian Medical Graduate Training Programme**
   - **2.1. National Goals**
   - **2.2. Institutional Goals**
   - **2.3. Goals and Roles for the Learner**
3. **Competency Based Training Programme of the Indian Medical Graduate**
4. **Broad Outline on training format**

CHAPTER II

ADMISSION TO INDIAN MEDICAL GRADUATE PROGRAMME:
NATIONAL ELIGIBILITY-CUM-ENTRANCE TEST
AND COMMON COUNSELLING

5. Admission to the Indian Medical Graduate Programme

CHAPTER III

MIGRATION

6. Migration

CHAPTER IV

PHASE WISE TRAINING AND TIME DISTRIBUTION
FOR PROFESSIONAL DEVELOPMENT

7. Training period and time distribution:

8. Phase distribution and timing of examination

9. New teaching / learning elements

- 9.1. Foundation Course
- 9.2. Early Clinical Exposure
- 9.3. Electives
- 9.4. Professional Development including Attitude, Ethics and Communication Module (AETCOM)
- 9.5. Learner-doctor method of clinical training (Clinical Clerkship)

CHAPTER V

COMPETENCY BASED CURRICULUM OF THE
INDIAN MEDICAL GRADUATE PROGRAMME

10. Specific Competencies

- 10.1. Preamble
- 10.2. Integration
- 10.3. Pre-clinical Subjects
- 10.4. Second Professional (Para-Clinical)
- 10.5. Third Professional (Part I)
- 10.6. Third Professional (Part II)

CHAPTER VI

ASSESSMENT

11. Assessment

- 11.1 Eligibility to appear for Professional examinations

11.2 University Examinations

CHAPTER VII

INTERNSHIP

12. Internship

12.1 Goal

12.2 Objectives

12.3 Time Distribution

12.4 Other details

12.5 Assessment of Internship

12.6 Internship – discipline related

CHAPTER I

GENERAL CONSIDERATIONS AND TEACHING APPROACH

1. Introduction

The provisions contained in Part II of these Regulations shall apply to the MBBS course starting from academic year 2019-20 onwards

2. Indian Medical Graduate Training Programme

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 she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. To achieve this, the following national and institutional goals for the learner of the Indian Medical Graduate training programme are hereby prescribed:-

2.1. National Goals

At the end of undergraduate program, the Indian Medical Graduate should be able to:

(a) Recognize "health for all" as a national goal and health right of all citizens and by undergoing training for medical profession to fulfill his/her social obligations towards realization of this goal.

(b) Learn every aspect of National policies on health and devote her/him to its practical implementation.

(c) Achieve competence in practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.

(d) Develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.

(e) Become exemplary citizen by observance of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

2.2. Institutional Goals

(1) In consonance with the national goals each medical institution should evolve institutional goals to define the kind of trained manpower (or professionals) they intend to produce. The Indian Medical Graduates coming out of a medical institute should:

(a) be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.

(b) be competent to practice preventive, promotive, curative, palliative and rehabilitative medicine in respect to the commonly encountered health problems.

(c) appreciate rationale for different therapeutic modalities; be familiar with the administration of "essential medicines" and their common adverse effects.

(d) be able to appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.

(e) possess the attitude for continued self learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.

(f) be familiar with the basic factors which are essential for the implementation of the National Health Programmes including practical aspects of the following:

(i) Family Welfare and Maternal and Child Health (MCH)

(ii) Sanitation and water supply

(iii) Prevention and control of communicable and non-communicable diseases

(iv) Immunization

(v) Health Education

(vi) Indian Public Health Standards (IPHS), at various levels of service delivery

(vii) Bio-medical waste disposal

(viii) Organizational and/or institutional arrangements.

(g) acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, hospital management, inventory skills and counseling.

(h) be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures.

(i) be able to work as a leading partner in health care teams and acquire proficiency in communication skills.

(j) be competent to work in a variety of health care settings.

(k) have personal characteristics and attitudes required for professional life such as personal integrity, sense of responsibility and dependability and ability to relate to or show concern for other individuals.

(2) All efforts must be made to equip the medical graduate to acquire the skills as detailed in Table 11 Certifiable procedural skills – A Comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate.

2.3. Goals and Roles for the Learner

In order to fulfil the goal of the IMG training programme, the medical graduate must be able to function in the following roles appropriately and effectively:-

2.3.1. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.

2.3.2. Leader and member of the health care team and system with capabilities to collect analyze, synthesize and communicate health data appropriately.

2.3.3. Communicator with patients, families, colleagues and community.

2.3.4. Lifelong learner committed to continuous improvement of skills and knowledge.

2.3.5. Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.

3. Competency Based Training Programme of the Indian Medical Graduate

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 clause 2, 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, behavioural 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 Health Mission that incorporates National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), 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:

(i) Disease prevention,

(ii) Health promotion and cure,

(iii) Pain and distress alleviation, and

(iv) Rehabilitation.

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) cancers, 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. Lifelong 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. Broad Outline on training format

4.1. In order to ensure that training is in alignment with the goals and competencies listed in sub-clause 2 and 3 above:

4.1.1 There shall be a "Foundation Course" to orient medical learners to MBBS programme, and provide them with requisite knowledge, communication (including electronic), technical and language skills.

4.1.2 The curricular contents shall be vertically and horizontally aligned and integrated to the maximum extent possible in order to enhance learner's interest and eliminate redundancy and overlap.

4.1.3. Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case based learning.

4.1.4. Clinical training shall emphasize early clinical exposure, skill acquisition, certification in essential skills; community/primary/secondary care-based learning experiences and emergencies.

4.1.5. 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 and non-communicable diseases including cancer, epidemics and disaster management.

4.1.6. Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories.

4.1.7. 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 including attitude, ethics and communication.

4.1.8. Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

4.2. Appropriate Faculty Development Programmes shall be conducted regularly by institutions to facilitate medical teachers at all levels to continuously update their professional and teaching skills, and align their teaching skills to curricular objectives.

CHAPTER II

ADMISSION TO INDIAN MEDICAL GRADUATE PROGRAMME: NATIONAL ELIGIBILITY-CUM-ENTRANCE TEST AND COMMON COUNSELLING

5. Admission to the Indian Medical Graduate Programme

The provision as contained in Part I – Chapter II shall be the governing provisions.

CHAPTER III

MIGRATION

6. Migration

The provision as contained in Part I - Chapter II Clause 6 shall be the governing provisions.

CHAPTER IV

PHASE WISE TRAINING AND TIME DISTRIBUTION FOR PROFESSIONAL DEVELOPMENT

The Competency based Undergraduate Curriculum and Attitude, Ethics and Communication (AETCOM) course, as published by the Medical Council of India and also made available on the Council's website, shall be the curriculum for the batches admitted in MBBS from the academic year 2019-20 onwards.

Provided that in respect of batches admitted prior to the academic year 2019-20, the governing provisions shall remain as contained in the Part I of these Regulations.

7. **Training period and time distribution**:

7.1. Every learner shall undergo a period of certified study extending over 4 ½ academic years, divided into nine semesters from the date of commencement of course to the date of completion of examination which shall be followed by one year of compulsory rotating internship.

7.2. Each academic year will have at least 240 teaching days with a minimum of eight hours of working on each day including one hour as lunch break.

7.3. Teaching and learning shall be aligned and integrated across specialties both vertically and horizontally for better learner comprehension. Learner 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 [(Phase I) - First Professional phase of 13 months preceded by Foundation Course of one month]: will consist of preclinical subjects – Human Anatomy, Physiology, Biochemistry, Introduction to Community Medicine, Humanities, Professional development including Attitude, Ethics & Communication (AETCOM) module and early clinical exposure, ensuring both horizontal and vertical integration.

7.4.2 Para-clinical phase [(Phase II) - Second Professional (12 months)]: will consist of Para-clinical subjects namely Pathology, Pharmacology, Microbiology, Community Medicine, Forensic Medicine and Toxicology, Professional development including Attitude, Ethics & Communication (AETCOM) module and introduction to clinical subjects ensuring both horizontal and vertical integration.

The clinical exposure to learners will be in the form of learner-doctor method of clinical training in all phases. 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:

(a) Experience in recognizing and managing common problems seen in outpatient, inpatient and emergency settings,

(b) Involvement in patient care as a team member,

(c) Involvement in patient management and performance of basic procedures.

7.4.3 Clinical Phase – [(Phase III) Third Professional (28 months)]

(a) Part I (13 months) - The clinical subjects include General Medicine, General Surgery, Obstetrics & Gynaecology, Pediatrics, Orthopaedics, Dermatology, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Psychiatry, Respiratory Medicine, Radiodiagnosis & Radiotherapy and Anaesthesiology & Professional development including AETCOM module.

(b) Electives (2 months) - To provide learners with opportunity for diverse learning experiences, to do research/community projects that will stimulate enquiry, self directed experimental learning and lateral thinking [9.3].

(c) Part II (13 months) - Clinical subjects include:

i. Medicine and allied specialties (General Medicine, Psychiatry, Dermatology Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis)

ii. Surgery and allied specialties (General Surgery, Orthopedics [including trauma]), Dentistry, Physical Medicine and rehabilitation, Anaesthesiology and Radiodiagnosis)

iii. Obstetrics and Gynecology (including Family Welfare)

iv. Pediatrics

v. AETCOM module

7.5 Didactic lectures shall not exceed one third of the schedule; two third of the schedule shall include interactive sessions, practicals, clinical or/and group discussions. The learning process should include clinical experiences, problem oriented approach, case studies and community health care activities.

The admission shall be made strictly in accordance with the statutory notified time schedule towards the same.

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 of each year.

(i) Supplementary examinations shall not be conducted later than 90 days from the date of declaration of the results of the main examination, so that the learners who pass can join the main batch for progression and the remainder would appear for the examination in the subsequent year.

(ii) A learner shall not be entitled to graduate later than ten (10) years of her/his joining the first MBBS course.

7.7 No more than four attempts shall be allowed for a candidate to pass the first Professional examination. The total period for successful completion of first Professional course shall not exceed four (4) years. Partial attendance of examination in any subject shall be counted as an attempt.

7.8 A learner, who fails in the second Professional examination, shall not be allowed to appear in third Professional Part I examination unless she/he passes all subjects of second Professional examination.

7.9 Passing in third Professional (Part I) examination is not compulsory before starting part II training; however, passing of third Professional (Part I) is compulsory for being eligible for third Professional (Part II) examination.

7.10 During para-clinical and clinical phases, including prescribed 2 months of electives, clinical postings of three hours duration daily as specified in Tables 5, 6, 7 and 8 would apply 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 Distribution of subjects by Professional Phase-wise 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 Duration of clinical postings will be:

8.5.1 Second Professional : 36 weeks of clinical posting (Three hours per day - five days per week : Total 540 hours)

8.5.2 Third Professional part I: 42 weeks of clinical posting (Three hours per day - six days per week : Total 756 hours)

8.5.3 Third Professional part II: 44 weeks of clinical posting (Three hours per day - six days per week : Total 792 hours)

8.6 Time allotted excludes time reserved for internal / University examinations, and vacation.

8.7 Second professional clinical postings shall commence before / after declaration of results of the first professional phase examinations, as decided by the institution/ University. Third Professional parts I and part II clinical postings shall start no later than two weeks after the completion of the previous professional examination.

8.8 25% of allotted time of third Professional 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 & Examination Schedule

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							Foundation Course	**I MBBS**			
I MBBS								**Exam I MBBS**	II MBBS		
II MBBS								**Exam II MBBS**	**III MBBS**		
III MBBS Part I									**Exam III MBBS Part I**	Electives & Skills	
III MBBS Part II											
Exam III MBBS Part II		**Internship**									
Internship											

- One month is provided at the end of every professional year for completion of examination and declaration of results.

Table 2: Distribution of subjects by Professional Phase

Phase & year of MBBS training	Subjects & New Teaching Elements	Duration#	University examination
First Professional MBBS	• Foundation Course (1 month) • Human Anatomy, Physiology & Biochemistry, introduction to Community Medicine, Humanities • Early Clinical Exposure	1 + 13 months	I Professional

	• Attitude, Ethics, and Communication Module (AETCOM)		
Second Professional MBBS	• Pathology, Microbiology, Pharmacology, Forensic Medicine and Toxicology, • Introduction to clinical subjects including Community Medicine • Clinical postings • Attitude, Ethics & Communication Module (AETCOM)	12 months	II Professional
Third Professional MBBS Part I	• General Medicine, General Surgery, Obstetrics & Gynecology, Pediatrics, Orthopedics, Dermatology, Psychiatry, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Respiratory medicine, Radiodiagnosis & Radiotherapy, Anesthesiology • Clinical subjects /postings • Attitude, Ethics & Communication Module (AETCOM)	13 months	III Professional (Part I)
Electives	• Electives, Skills and assessment*	2 months	
Third Professional MBBS Part II	• General Medicine, Pediatrics, General Surgery, Orthopedics, Obstetrics and Gynecology including Family welfare and allied specialties • Clinical postings/subjects • Attitude, Ethics & Communication Module (AETCOM)	13 months	III Professional (Part II)

*Assessment of electives shall be included in Internal Assessment.

Table 3: Foundation Course (one month)

Subjects/ Contents	Teaching hours	Self Directed Learning (hours)	Total hours
Orientation [1]	30	0	30
Skills Module [2]	35	0	35
Field visit to Community Health Center	8	0	8
Introduction to Professional Development & AETCOM module	-	-	40
Sports and extracurricular activities	22	0	22
Enhancement of language/ computer skills[3]	40	0	40
	-	-	175

1. Orientation course will be completed as single block in the first week and will contain elements outlined in 9.1.
2. Skills modules will contain elements outlined in 9.1.
3. Based on perceived need of learners, one 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.

   Teaching of Foundation Course will be organized by pre-clinical departments.

Table 4: First Professional teaching hours

Subjects	Lectures (hours)	Small Group Teaching/ Tutorials/ Integrated learning/ Practical (hours)	Self directed learning (hours)	Total (hours)
Human Anatomy	220	415	40	675
Physiology*	160	310	25	495
Biochemistry	80	150	20	250
Early Clinical Exposure**	90	-	0	90
Community Medicine	20	27	5	52
Attitude, Ethics & Communication Module (AETCOM) ***	-	26	8	34
Sports and extracurricular activities	-	-	-	60
Formative assessment and Term examinations	-	-	-	80
Total	-	-	-	1736

* including Molecular Biology.

** Early clinical exposure hours to be divided equally in all three subjects.

*** AETCOM module shall be a longitudinal programme.

Table 5: Second Professional 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
Attitude, Ethics & Communication Module (AETCOM)		29	-	8	37
Sports and extracurricular activities	-	-	-	28	28
Total	-	-	-	-	1440

* At least 3 hours of clinical instruction each week must be allotted to training in clinical and procedural skill laboratories. Hours may be distributed weekly or as a block in each posting based on institutional logistics.

** 25 hours each for Medicine, Surgery and Gynecology & Obstetrics.

***The clinical postings in the second professional shall be 15 hours per week (3 hrs per day from Monday to Friday).

Table 6: Third Professional Part I 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
Orthopaedics	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
Respiratory Medicine	10	8	2	20
Otorhinolaryngology	25	40	5	70
Ophthalmology	30	60	10	100
Radiodiagnosis and Radiotherapy	10	8	2	20
Anesthesiology	8	10	2	20
Clinical Postings*	-	-	-	756
Attitude, Ethics & Communication Module (AETCOM)		19	06	25
Total	303	401	66	1551

* *The clinical postings in the third professional part I shall be 18 hours per week (3 hrs per day from Monday to Saturday).*

Table 7: Third Professional Part II 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
Orthopaedics	20	25	5	50
Clinical Postings**				792
Attitude, Ethics & Communication Module (AETCOM)***	28		16	43
Electives				200
Total	250	435	60	1780

* 25% of allotted time of third professional shall be utilized for integrated learning with pre- and para- clinical subjects and shall be assessed during the clinical subjects examination. This allotted time will be utilized as integrated teaching by para-clinical subjects with clinical subjects (as Clinical Pathology, Clinical Pharmacology and Clinical Microbiology).

** *The clinical postings in the third professional part II shall be 18 hours per week (3 hrs per day from Monday to Saturday).*

*** Hours from clinical postings can also be used for AETCOM modules.

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	4	4	8+4	20
Obstetrics &Gynaecology[2]	4	4	8 +4	20
Pediatrics	2	4	4	10
Community Medicine	4	6	-	10
Orthopedics - including Trauma[3]	2	4	2	8
Otorhinolaryngology	4	4	-	8
Ophthalmology	4	4	-	8
Respiratory Medicine	2	-	-	2
Psychiatry	2	2	-	4
Radiodiagnosis[4]	2	-	-	2
Dermatology, Venereology & Leprosy	2	2	2	6
Dentistry & Anesthesia	-	2	-	2
Casualty	-	2	-	2
	36	42	48	126

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

Clinical postings may be adjusted within the time framework.

[1] This posting includes Laboratory Medicine (Para-clinical) & Infectious Diseases (Phase III Part I).

[2] This includes maternity training and family welfare (including Family Planning).

[3] This posting includes Physical Medicine and Rehabilitation.

[4] This posting includes Radiotherapy, wherever available.

9. New teaching / learning elements

9.1. Foundation Course

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

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

(a) Orient the learner to:

(i) The medical profession and the physician's role in society

(ii) The MBBS programme

(iii) Alternate health systems in the country and history of medicine

(iv) Medical ethics, attitudes and professionalism

(v) Health care system and its delivery

(vi) National health programmes and policies

(vii) Universal precautions and vaccinations

(viii) Patient safety and biohazard safety

(ix) Principles of primary care (general and community based care)

(x) The academic ambience

(b) Enable the learner 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 learner to provide:

(i) First-aid

(ii) Basic life support

9.1.3 In addition to the above, learners 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.

9.1.4 These sessions must be as interactive as possible.

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

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

9.1.7 Institutions shall develop learning modules and identify the appropriate resource persons for their delivery.

9.1.8 The time committed for the Foundation Course may not be used for any other curricular activity.

9.1.9 The Foundation Course will have compulsory 75% attendance. This will be certified by the Dean of the college.

9.1.10 The Foundation Course will be organized by the Coordinator appointed by the Dean of the college and will be under supervision of the heads of the preclinical departments.

9.1.11 Every college must arrange for a meeting with parents and their wards.

9.2. Early Clinical Exposure

9.2.1 **Objectives:** The objectives of early clinical exposure of the first-year medical learners are to enable the learner to:

(a) Recognize the relevance of basic sciences in diagnosis, patient care and treatment,

(b) Provide a context that will enhance basic science learning,

(c) Relate to experience of patients as a motivation to learn,

(d) Recognize attitude, ethics and professionalism as integral to the doctor-patient relationship,

(e) Understand the socio-cultural context of disease through the study of humanities.

9.2.2 **Elements**

(a) 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).

(b) 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 learners 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 learner 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 examination at end of the third MBBS Part I and before commencement of third MBBS Part II.

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

9.3.4 **Structure**

(a) The learner 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 in 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, and the number of learners 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 learners in the beginning of the academic year.

9.3.7 The learner must submit a learning log book based on both blocks of the elective.

9.3.8 75% attendance in the electives 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.

9.4. Professional Development including Attitude, Ethics and Communication Module (AETCOM)

9.4.1 **Objectives** of the programme: At the end of the programme, the learner must demonstrate ability to:

(a) understand and apply principles of bioethics and law as they apply to medical practice and researcunderstand and apply the principles of clinical reasoning as they apply to the care of the patients,

(b) understand and apply the principles of system based care as they relate to the care of the patient,

(c) understand and apply empathy and other human values to the care of the patient,

(d) communicate effectively with patients, families, colleagues and other health care professionals,

(e) understand the strengths and limitations of alternative systems of medicine,

(f) respond to events and issues in a professional, considerate and humane fashion,

(g) 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.

(c) Attitude, Ethics &Communication Module (AETCOM module) developed by Medical Council of India should be used longitudinally for purposes of instruction.

9.4.3 75% attendance in Professional Development Programme (AETCOM Module) 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 voce.

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 programme.

9.4.6 Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

9.5. Learner-doctor method of clinical training (Clinical Clerkship)

9.5.1 **Goal**: To provide learners 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 second professional shall orient learners to the patient, their roles and the specialty.

(b) The learner-doctor programme will progress as outlined in Table 9.

(c) The learner 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 patients admitted during each admission day for whom he/she will undertake responsibility, 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 assigned patients (according to responsibilities outlined in table 9),

(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 log book / case record.

(d) No learner 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 learner, monitor progress, provide feedback and review the log book/ case record.

(b) The log book/ case record must include the written case record prepared by the learner including relevant investigations, treatment and its rationale, hospital course, family and patient discussions, discharge summary etc.

(c) The log book 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: Learner - Doctor programme (Clinical Clerkship)

Year of Curriculum	Focus of Learner - Doctor programme
Year 1	Introduction to hospital environment, early clinical exposure, understanding perspectives of illness
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

CHAPTER V

COMPETENCY BASED CURRICULUM OF THE INDIAN MEDICAL GRADUATE PROGRAMME

10. Specific Competencies

10.1. Preamble: The salient feature of the revision of the medical curriculum in 2019 is the emphasis on learning which is competency-based, integrated and learner-centered acquisition of skills and ethical & humanistic values.

Each of the competencies described below must be read in conjunction with the goals of the medical education as listed in items 2 to 3.5.5

It is recommended that didactic teaching be restricted to less than one third 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. Learners must be encouraged to take active part in and shared responsibility for their learning.

The global competencies to be achieved by the learner are outlined above in Chapter 1- section 3. Since the MBBS programme assessment will continue to be subject based, subject specific competencies have been outlined. These have to be acquired by the learner in the corresponding professional year. These competencies must be interpreted in the larger context outlined in section 3 and may be considered as "sub competencies" of the global competencies.

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. Pre-clinical Subjects

10.3.1. Human Anatomy

(a) **Competencies**: The undergraduate must demonstrate:

1. Understanding of the gross and microscopic structure and development of human body,
2. Comprehension of the normal regulation and integration of the functions of the organs and systems on basis of the structure and genetic pattern,
3. 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 learner to understand the relationship between structure and function and interpret the anatomical basis of various clinical conditions and procedures.

10.3.2. Physiology

(a) **Competencies:** The undergraduates must demonstrate:

1. Understanding of the normal functioning of the organs and organ systems of the body,
2. Comprehension of the normal structure and organization of the organs and systems on basis of the functions,
3. Understanding of age-related physiological changes in the organ functions that reflect normal growth and development,
4. Understand the physiological basis of diseases.

(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.

10.3.3. Biochemistry

The course will comprise Molecular and Cellular Biochemistry.

(a) **Competencies**: The learner must demonstrate an understanding of:

1. Biochemical and molecular processes involved in health and disease,
2. Importance of nutrition in health and disease,
3. Biochemical basis and rationale of clinical laboratory tests,

and demonstrate ability to interpret these in the clinical context.

(b) **Integration**: The teaching/learning programme should be integrated horizontally and vertically, as much as possible, to enable learners to make clinical correlations and to acquire an understanding of the cellular and molecular basis of health and disease.

10.3.4. Introduction to Community Medicine

(a) **Competencies**: The undergraduate must demonstrate:

1. Understanding of the concept of health and disease,
2. Understanding of demography, population dynamics and disease burden in National and global context,
3. Comprehension of principles of health economics and hospital management,
4. Understanding of interventions to promote health and prevent diseases as envisioned in National and State Health Programmes.

10.4. Second Professional (Para-Clinical)

10.4.1. Pathology

(a) **Competencies**: The undergraduate must demonstrate:

1. Comprehension of the causes, evolution and mechanisms of diseases,
2. Knowledge of alterations in gross and cellular morphology of organs in disease states,
3. Ability to correlate the natural history, 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 management of diseases.

10.4.2. Microbiology

(a) **Competencies:** The undergraduate learner demonstrate:

1. Understanding of role of microbial agents in health and disease,
2. Understanding of the immunological mechanisms in health and disease,
3. Ability to correlate the natural history, mechanisms and clinical manifestations of infectious diseases as they relate to the properties of microbial agents,
4. Knowledge of the principles and application of infection control measures,
5. 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.

10.4.3. Pharmacology

(a) **Competencies:** The undergraduate must demonstrate:

1. Knowledge about essential and commonly used drugs and an understanding of the pharmacologic basis of therapeutics,
2. 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,
3. Knowledge of pharmacovigilance, essential medicine concept and sources of drug information and industry-doctor relationship,
4. 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.

10.4.4. Forensic Medicine and Toxicology

(a) **Competencies**: The learner must demonstrate:

1. Understanding of medico-legal responsibilities of physicians in primary and secondary care settings,
2. Understanding of the rational approach to the investigation of crime, based on scientific and legal principles,
3. Ability to manage medical and legal issues in cases of poisoning / overdose,
4. Understanding the medico-legal framework of medical practice and medical negligence,
5. 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.

10.4.5. Community Medicine – as per 10.3.4

10.5. Third Professional (Part I)

10.5.1. General Medicine

(a) **Competencies**: The student must demonstrate ability to do the following in relation to common medical problems of the adult in the community:

1. Demonstrate understanding of the patho-physiologic basis, epidemiological profile, signs and symptoms of disease and their investigation and management,
2. Competently interview and examine an adult patient and make a clinical diagnosis,
3. Appropriately order and interpret laboratory tests,
4. Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures,
5. Follow up of patients with medical problems and refer whenever required,
6. Communicate effectively, educate and counsel the patient and family,
7. Manage common medical emergencies and refer when required,
8. 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 general medicine into a holistic and comprehensive approach to the care of the patient.

10.5.2. General Surgery

(a) **Competencies**: The student must demonstrate:

1. Understanding of the structural and functional basis, principles of diagnosis and management of common surgical problems in adults and children,
2. Ability to choose, calculate and administer appropriately intravenous fluids, electrolytes, blood and blood products based on the clinical condition,
3. Ability to apply the principles of asepsis, sterilization, disinfection, rational use of prophylaxis, therapeutic utilities of antibiotics and universal precautions in surgical practice,
4. Knowledge of common malignancies in India and their prevention, early detection and therapy,
5. Ability to perform common diagnostic and surgical procedures at the primary care level,
6. Ability to recognize, resuscitate, stabilize and provide Basic & Advanced Life Support to patients following trauma,
7. Ability to administer informed consent and counsel patient prior to surgical procedures,
8. 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.

10.5.3. Obstetrics and Gynaecology

(a) **Competencies in Obstetrics**: The student must demonstrate ability to:

1. Provide peri-conceptional counseling and antenatal care,
2. Identify high-risk pregnancies and refer appropriately,
3. Conduct normal deliveries, using safe delivery practices in the primary and secondary care settings,
4. Prescribe drugs safely and appropriately in pregnancy and lactation,
5. Diagnose complications of labor, institute primary care and refer in a timely manner,
6. Perform early neonatal resuscitation,
7. Provide postnatal care, including education in breast-feeding,
8. Counsel and support couples in the correct choice of contraception,

9. Interpret test results of laboratory and radiological investigations as they apply to the care of the obstetric patient,

10. Apply medico-legal principles as they apply to tubectomy, Medical Termination of Pregnancy (MTP), Pre-conception and Prenatal Diagnostic Techniques (PC PNDT Act) and other related Acts.

Competencies in Gynecology: The student must demonstrate ability to:

1. Elicit a gynecologic history, perform appropriate physical and pelvic examinations and PAP smear in the primary care setting,

2. Recognize, diagnose and manage common reproductive tract infections in the primary care setting,

3. Recognize and diagnose common genital cancers and refer them appropriately.

(b) **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, functions and disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.

10.5.4. Pediatrics

(a) **Competencies:** The student must demonstrate:

1. Ability to assess and promote optimal growth, development and nutrition of children and adolescents and identify deviations from normal,

2. 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,

3. Ability to perform procedures as indicated for children of all ages in the primary care setting,

4. Ability to recognize children with special needs and refer appropriately,

5. Ability to promote health and prevent diseases in children,

6. Ability to participate in National Programmes related to child health and in conformation with the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Strategy,

7. 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.

10.5.5. Orthopaedics (including Trauma)

(a) **Competencies**: The student must demonstrate:

1. Ability to recognize and assess bone injuries, dislocation and poly-trauma and provide first contact care prior to appropriate referral,

2. Knowledge of the medico-legal aspects of trauma,

3. Ability to recognize and manage common infections of bone and joints in the primary care setting,

4. Recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bone diseases and refer appropriately,

5. Ability to perform simple orthopaedic techniques as applicable to a primary care setting,

6. Ability to recommend rehabilitative services for common orthopaedic 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 orthopaedic problems, their management and correlation with function, rehabilitation and quality of life.

10.5.6. Forensic Medicine and Toxicology – as per 10.4.4

10.5.7. Community medicine

(a) **Competencies**: The learner must demonstrate:

1. Understanding of physical, social, psychological, economic and environmental determinants of health and disease,
2. 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,
3. Ability to Implement and monitor National Health Programmes in the primary care setting,
4. Knowledge of maternal and child wellness as they apply to national health care priorities and programmes,
5. Ability to recognize, investigate, report, plan and manage community health problems including malnutrition and emergencies.

(b) **Integration**: The teaching should be aligned and integrated **horizontally** and vertically in order to allow the learner 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.

10.5.8. Dermatology, Venereology & Leprosy

(a) **Competencies**: The undergraduate student must demonstrate:

1. Understanding of the principles of diagnosis of diseases of the skin, hair, nail and mucosa,
2. 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,
3. A syndromic approach to the recognition, diagnosis, prevention, counseling, testing and management of common sexually transmitted diseases including HIV based on national health priorities,
4. 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.

10.5.9. Psychiatry

(a) **Competencies**: The student must demonstrate:

1. Ability to promote mental health and mental hygiene,
2. Knowledge of etiology (bio-psycho-social-environmental interactions), clinical features, diagnosis and management of common psychiatric disorders across all ages,
3. 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,
4. Ability to recognize alcohol/ substance abuse disorders and refer them to appropriate centers,
5. Ability to assess risk for suicide and refer appropriately,
6. Ability to recognize temperamental difficulties and personality disorders,
7. Assess mental disability and rehabilitate appropriately,
8. Understanding of National and State programmes that address mental health and welfare of patients and community.

(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.

10.5.10 Respiratory Medicine

(a) Competencies: The student must demonstrate:

1. Knowledge of common chest diseases, their clinical manifestations, diagnosis and management,
2. Ability to recognize, diagnose and manage pulmonary tuberculosis as contemplated in National Tuberculosis Control programme,
3. 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.

10.5.11 Otorhinolaryngology

(a) Competencies: The learner must demonstrate:

1. Knowledge of the common Otorhinolaryngological (ENT) emergencies and problems,
2. Ability to recognize, diagnose and manage common ENT emergencies and problems in primary care setting,
3. Ability to perform simple ENT procedures as applicable in a primary care setting,
4. 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 learner to understand the structural basis of ENT problems, their management and correlation with function, rehabilitation and quality of life.

10.5.12 Ophthalmology

(a) Competencies: The student must demonstrate:

1. Knowledge of common eye problems in the community
2. Recognize, diagnose and manage common eye problems and identify indications for referral,
3. Ability to recognize visual impairment and blindness in the community and implement National programmes 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.

10.5.13a Radiodiagnosis

(a) Competencies: The student must demonstrate:

1. Understanding of indications for various radiological investigations in common clinical practice,
2. Awareness of the ill effects of radiation and various radiation protective measures to be employed,
3. 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.

10.5.13b Radiotherapy

(a) Competencies: The student must demonstrate understanding of:

1. Clinical presentations of various cancers,
2. Appropriate treatment modalities for various types of malignancies,
3. Principles of radiotherapy and techniques.

(b) **Integration**: Horizontal and vertical integration to enable basic understanding of fundamental principles of radio-therapeutic procedures.

10.5.14 Anaesthesiology

(a) Competencies in Anaesthesiology: The student must demonstrate ability to:

1. Describe and discuss the pre-operative evaluation, assessing fitness for surgery and the modifications in medications in relation to anaesthesia / surgery,
2. Describe and discuss the roles of Anaesthesiologist as a peri-operative physician including pre-medication, endotracheal intubation, general anaesthesia and recovery (including variations in recovery from anaesthesia and anaesthetic complications),
3. Describe and discuss the management of acute and chronic pain, including labour analgesia,
4. Demonstrate awareness about the maintenance of airway in children and adults in various situations,
5. Demonstrate the awareness about the indications, selection of cases and execution of cardio-pulmonary resuscitation in emergencies and in the intensive care and high dependency units,
6. Choose cases for local / regional anaesthesia and demonstrate the ability to administer the same,
7. Discuss the implications and obtain informed consent for various procedures and to maintain the documents.

(b) Integration: The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for patients undergoing various surgeries, in patients with pain, in intensive care and in cardio respiratory emergencies. Integration with the preclinical department of Anatomy, para- clinical department of Pharmacology and horizontal integration with any/all surgical specialities is proposed.

10.6. Third Professional (Part II)

10.6.1. General Medicine – as per 10.5.1

10.6.2. General Surgery – as per 10.5.2

10.6.3. Obstetrics & Gynaecology – as per 10.5.3

10.6.4. Pediatrics – as per 10.5.4

10.6.5. Orthopaedics – as per 10.5.5

CHAPTER VI

ASSESSMENT

11. Assessment

11.1. Eligibility to appear for Professional examinations

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

(a) Attendance

1. Attendance requirements are 75% in theory and 80% in practical /clinical for eligibility to appear for the examinations in that subject. In subjects that are taught in more than one phase – the learner must have 75% attendance in theory and 80% in practical in each phase of instruction in that subject.
2. If an examination comprises more than one subject (for e.g., General Surgery and allied branches), the candidate must have 75% attendance in each subject and 80% attendance in each clinical posting.
3. Learners who do not have at least 75% attendance in the electives will not be eligible for the Third Professional - Part II examination.

(b) **Internal Assessment**: Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners 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.

1. Regular periodic examinations shall be conducted throughout the course. There shall be no less than three internal assessment examinations in each Preclinical / Para-clinical subject and no less than two examinations 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.
2. When subjects are taught in more than one phase, the internal assessment must be done in each phase and must contribute proportionately to final assessment. For example, General Medicine must be assessed in second Professional, third Professional Part I and third Professional Part II, independently.
3. Day to day records and log book (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.
4. The final internal assessment in a broad clinical specialty (e.g., Surgery and allied specialties 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.
5. Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in a particular subject in order to be eligible for appearing at the final University examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
6. The results of internal assessment should be displayed on the notice board within a 1-2 weeks of the test. Universities shall guide the colleges regarding formulating policies for remedial measures for students who are either not able to score qualifying marks or have missed on some assessments due to any reason.
7. Learners must have completed the required certifiable competencies for that phase of training and completed the log book appropriate for that phase of training to be eligible for appearing at the final university examination of that subject.

University Examinations

11.2.1 University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of 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.

11.2.2 Nature of questions will include different types such as structured essays (Long Answer Questions - LAQ), Short Answers Questions (SAQ) and objective type questions (e.g. Multiple Choice Questions - MCQ). Marks for each part should be indicated separately. MCQs shall be accorded a weightage of not more than 20% of the total theory marks. In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass.

11.2.3 Practical/clinical examinations will be conducted in the laboratories and /or hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusion. Clinical cases kept in the examination must be common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders as examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyze the case and develop a management plan.

11.2.4 Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

11.2.5 There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.

11.2.6 A learner shall not be entitled to graduate after 10 years of his/her joining of the first part of the MBBS course.

11.2.7 University Examinations shall be held as under:

(a) First Professional

1. The first Professional examination shall be held at the end of first Professional training (1+12 months), in the subjects of Human Anatomy, Physiology and Biochemistry.
2. A maximum number of four permissible attempts would be available to clear the first Professional University examination, whereby the first Professional course will have to be cleared within 4 years of admission to the said course. Partial attendance at any University examination shall be counted as an availed attempt.

(b) Second Professional

1. The second Professional examination shall be held at the end of second professional training (11 months), in the subjects of Pathology, Microbiology, and Pharmacology.

(c) Third Professional

1. Third Professional Part I shall be held at end of third Professional part 1 of training (12 months) in the subjects of Ophthalmology, Otorhinolaryngology, Community Medicine and Forensic Medicine and Toxicology
2. Third Professional Part II - (Final Professional) examination shall be at the end of training (14 months including 2 months of electives) in the subjects of General Medicine, General Surgery, Obstetrics & Gynecology and Pediatrics. The discipline of Orthopedics, Anesthesiology, Dentistry and Radiodiagnosis will constitute 25% of the total theory marks incorporated as a separate section in paper II of General Surgery.
3. The discipline of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine.

(d) Examination schedule is in Table 1.

(e) Marks distribution is in Table 10.

Table 10 : Marks distribution for various subjects

Phase of Course	Written-Theory – Total	Practicals/ Orals/ Clinicals	Pass Criteria
First Professional			Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations University Examination Mandatory 50% marks separately in theory and practical (practical = practical/ clinical + viva)
Human Anatomy - 2 papers	200	100	
Physiology - 2 papers	200	100	
Biochemistry - 2 papers	200	100	
Second Professional			
Pharmacology - 2 Papers	200	100	
Pathology - 2 papers	200	100	
Microbiology - 2 papers	200	100	
Third Professional Part – I			
Forensic Medicine & Toxicology - 1 paper	100	100	
Ophthalmology – 1 paper	100	100	

Otorhinolaryngology – 1 paper	100	100	
Community Medicine - 2 papers	200	100	
Third Professional Part – II			
General Medicine - 2 papers	200	200	
General Surgery - 2 papers	200	200	
Pediatrics – 1 paper	100	100	
Obstetrics & Gynaecology - 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 programme (AETCOM module); Skills competencies acquired during the Professional Development programme (AETCOM module) must be tested during clinical, practical and viva.

In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

11.2.8 **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.

11.2.9 **Appointment of Examiners**

(a) Person appointed as an examiner in the particular subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college.

(b) For the Practical/ Clinical examinations, there shall be at least four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal 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 (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed.

(c) In case of non-availability of medical teachers, approved teachers without a medical degree (engaged in the teaching of MBBS students as whole-time teachers in a recognized medical college), may be appointed examiners in their concerned subjects provided they possess requisite doctorate qualifications and four years teaching experience (as assistant professors) of MBBS students. Provided further that the 50% of the examiners (Internal & External) are from the medical qualification stream.

(d) External examiners may not be from the same University.

(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.

(f) A University having more than one college shall have separate sets of examiners for each college, with internal examiners from the concerned college.

(g) External examiners shall rotate at an interval of 2 years.

(h) There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.

(i) All eligible examiners with requisite qualifications and experience can be appointed internal examiners by rotation in their subjects.

(j) All theory paper assessment should be done as central assessment program (CAP) of concerned university.

(k) Internal examiners should be appointed from same institution for unitary examination in same institution. For pooled examinations at one centre approved internal examiners from same university may be appointed.

(l) The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption.

CHAPTER VII

INTERNSHIP

12. INTERNSHIP

Internship is a phase of training wherein a graduate will acquire the skills and competencies for practice of medical and health care under supervision so that he/she can be certified for independent medical practice as an Indian Medical Graduate. In order to make trained work force available, it may be considered as a phase of training wherein the graduate is expected to conduct actual practice under the supervision of a trained doctor. The learning methods and modalities have to be done during the MBBS course itself with larger number of hands on session and practice on simulators.

12.1. **Goal**:

The goal of the internship programme is to train medical students to fulfill their roles as doctors of first contact in the community.

12.2 Objectives: At the end of the internship period, the medical graduate will possess all competencies required of an Indian Medical Graduate, namely:

12.2.1 Independently provide preventive, promotive, curative and palliative care with compassion,

12.2.2 Function as leader and member of the health care team and health system,

12.2.3 Communicate effectively with patients, families, colleagues and the community,

12.2.4 Be certified in diagnostic and therapeutic skills in different disciplines of medicine taught in the undergraduate programme,

12.2.5 Be a lifelong learner committed to continuous improvement of skills and knowledge,

12.2.6 Be a professional committed to excellence and is ethical, responsive and accountable to patients, community and profession.

12.3 Time Distribution

Community Medicine (Residential posting)	2 months
General Medicine including 15 days of Psychiatry	2 months
General Surgery including 15 days Anaesthesia	2 months
Obstetrics & Gynaecology including Family Welfare Planning	2 months
Pediatrics	1 month
Orthopaedics including PM & R	1 month
Otorhinolaryngology	15 days
Ophthalmology	15 days
Casualty	15 days
Elective posting (1x15 days)	15 days

Subjects for Elective posting will be as follows:

1. Dermatology, Venereology & Leprosy
2. Respiratory Medicine
3. Radio diagnosis
4. Forensic Medicine & Toxicology
5. Blood Bank
6. Psychiatry

Note: Structure internship with assessment at the end in the college.

12.4 Other details:

12.4.1 The core rotations of the internship shall be done in primary and secondary/ tertiary care institutions in India. In case of any difficulties, the matter may be referred to the Medical Council of India to be considered on individual merit.

12.4.2 Every candidate will be required after passing the final MBBS examination to undergo compulsory rotational internship to the satisfaction of the College authorities and University concerned for a period of 12 months so as to be eligible for the award of the degree of Bachelor of Medicine and Bachelor of Surgery (MBBS) and full registration.

12.4.3 The University shall issue a provisional MBBS pass certificate on passing the final examination.

12.4.4 The State Medical Council will grant provisional registration to the candidate upon production of the provisional MBBS pass certificate. The provisional registration will be for a period of one year. In the event of the shortage or unsatisfactory work, the period of provisional registration and the compulsory rotating internship shall be suitably extended by the appropriate authorities.

12.4.5 The intern shall be entrusted with clinical responsibilities under direct supervision of a designated supervising physician. They shall not work independently.

12.4.6 Interns will not issue medical certificate or death certificate or other medico-legal document under their signature.

12.4.7 Each medical college must ensure that the student gets learning experience in primary/secondary and urban/rural centers in order to provide a diverse learning experience and facilitate the implementation of national health programmes/ priorities. These shall include community and outreach activities, collaboration with rural and urban community health centers, participation in government health missions etc.

12.4.8 One year's approved service in the Armed Forces Medical Services, after passing the final MBBS examination shall be considered as equivalent to the pre-registration training detailed above; such training shall, as far as possible, be at the Base/General Hospital. The training in Community Medicine should fulfill the norms of the MCI as proposed above.

12.4.9 In recognition of the importance of hands-on experience, full responsibility for patient care and skill acquisition, internship should be increasingly scheduled to utilize clinical facilities available in District Hospital, Taluka Hospital, Community Health Centre and Primary Health Centre, in addition to Teaching Hospital. A critical element of internship will be the acquisition of specific experiences and skill as listed in major areas: provided that where an intern is posted to District/Sub Divisional Hospital for training, there shall be a committee consisting of representatives of the college/University, the State Government and the District administration, who shall regulate the training of such trainee. Provided further that, for such trainee a certificate of satisfactory completion of training shall be obtained from the relevant administrative authorities which shall be countersigned by the Principal/Dean of College.

12.5 Assessment of Internship:

12.5.1 The intern shall maintain a record of work in a log book, which is to be verified and certified by the medical officer under whom he/she works. Apart from scrutiny of the record of work, assessment and evaluation of training shall be undertaken by an objective approach using situation tests in knowledge, skills and attitude during and at the end of the training.

12.5.2 Based on the record of work and objective assessment at the end of each posting, the Dean/Principal shall issue cumulative certificate of satisfactory completion of training at the end of internship, following which the University shall award the MBBS degree or declare him eligible for it.

12.5.3 Full registration shall only be given by the State Medical Council/Medical Council of India on the award of the MBBS degree by the University or its declaration that the candidate is eligible for it.

12.5.4 Some guidelines for the implementation of the training programme are given below.

12.6 **INTERNSHIP – DISCIPLINE RELATED:**

12.6.1 COMMUNITY MEDICINE

GOAL:

The aim of teaching the undergraduate student in Community Medicine is to impart such knowledge and skills that may enable him to diagnose and treat common medical illnesses and recognize the importance of community involvement. He/she shall acquire competence to deal effectively with an individual and the community in the context of primary health care. This is to be achieved by hands-on experience in the District Hospital and Primary Health Centre. The details are as under: -

I) District Hospital /Community Health Centre/Attachment to General Practitioner:

A. An intern must be able to do without assistance:

1. An intern must:

   a) Be able to diagnose common ailments and advise primary care;
   b) Demonstrate knowledge on 'Essential drugs' and their usage;
   c) Recognize medical emergencies, resuscitate and institute initial treatment and refer to a suitable institution.

2. An intern must be familiar with all National Health Programmes (e.g. RCH, UIP, CDD, ARI, FP, ANC, Tuberculosis, Leprosy and others), as recommended by the Ministry of Health and Family Welfare.

3. An intern must:

   a) Gain full expertise in immunization against infectious disease;

   b) Participate in programmes related to prevention and control of locally prevalent endemic diseases including nutritional disorders;

   c) Learn skills in family welfare planning procedures;

4. An intern must:

   a) Conduct programmes on health education,

   b) Gain capabilities to use Audiovisual aids,

   c) Acquire capability of utilization of scientific information for promotion of community health

B. An intern must have observed or preferably assisted at the following:

1. An intern should be capable of establishing linkages with other agencies as water supply, food distribution and other environmental/social agencies.

2. An intern should acquire managerial skills including delegation of duties to and monitoring the activities of paramedical staff and other health professionals.

II) Taluka Hospital/ First Referral Unit

A. An intern must be able to do without assistance:

1. An intern shall provide health education to an individual/community on:

   a) tuberculosis,
   b) small family, spacing, use of appropriate contraceptives,
   c) applied nutrition and care of mothers and children,
   d) immunization.

B. An intern must be able to do with supervision:

An intern shall attend at least one school health programme with the medical officer.

III) Primary Health Centre / Urban Health Centre

A. An intern must be able to do without assistance the following:

   a) Participate in family composite health care (birth to death), inventory of events.

   b) Participate in use of the modules on field practice for community health e.g. safe motherhood, nutrition surveillance and rehabilitation, diarrheal disorders etc.

c) Participate in and maintain documents related to immunization and cold chain.

d) Acquire competence in diagnosis and management of common ailments e.g. malaria, tuberculosis, enteric fever, congestive heart failure, hepatitis, meningitis acute renal failure etc.

B. An intern must be able to do under supervision the following:

a) Acquire proficiency in Family Welfare Programmes (antenatal care, normal delivery, contraception etc.).

b) Undergo village attachment of at least one week duration to understand issues of community health along with exposure to village health centres, ASHA Sub Centres.

c) Participate in Infectious Diseases Surveillance and Epidemic Management activities along with the medical officer.

12.6.2 GENERAL MEDICINE

GOAL:

The aim of teaching the undergraduate student in General Medicine is to impart such knowledge and skills that may enable him to diagnose and treat common medical illnesses. He/she shall acquire competence in clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral infections, nutritional disorders, including dehydration and electrolyte disturbances) and various system illnesses.

A. An intern must be able to do without assistance and interpret the results of:

i. the following laboratory investigations:

a) Blood: (Routine haematology smear and blood groups),

b) Urine: (Routine chemical and microscopic examination),

c) Stool: (for ova/cyst and occult blood),

d) Sputum and throat swab for gram stain or acid-fast stain, and

e) Cerebrospinal Fluid (CSF) for smear,

f) Electrocardiogram (ECG),

g) Glucometer recording of blood sugar,

h) routine radiographs of chest, abdomen, skull etc.

ii. Perform independently the following:

a) diagnostic procedures

Proctoscopy,

Ophthalmoscopy/Otoscopy,

Indirect laryngoscopy.

b) Therapeutic procedures;

Urethral catheterization,

Insertion of Ryle's Tube,

Pleural, Ascitic fluid aspiration,

Cerebrospinal Fluid (CSF) aspiration,

Air way tube installation,

Oxygen administration etc.

B. An intern must have observed or preferably assisted at the following operations/ procedures:

a) **Biopsy Procedures**: Liver, Kidney, Skin, Nerve, Lymph node, and muscle biopsy, Bone marrow aspiration, Biopsy of Malignant lesions on surface, nasal/nerve/skin smear for leprosy under supervision.

C. Skills that an intern should be able to perform under supervision:

a) An intern should be familiar with lifesaving procedures, including use of aspirator, respirator and defibrillator, cardiac monitor, blood gas analyser.

b) An intern should be able to advise about management and prognosis of acute & chronic illnesses like viral fever, gastroenteritis, hepatitis, pneumonias, myocardial infarction and angina, TIA and stroke, seizures, diabetes mellitus, hypertension renal and hepatic failure, thyroid disorders and hematological disorders. He should participate in counseling sessions for patients with non-communicable diseases and tuberculosis, HIV patients etc.

c) Intern should be able to confirm death and demonstrate understanding of World Health Organisation cause of death reporting and data quality requirements.

d) Intern should be able to demonstrate understanding of the coordination with local and national epidemic management plans.

e) Intern shall be able to demonstrate prescribing skills and demonstrate awareness of pharmacovigilance, antibiotics policy, prescription audit and concept of essential medicines list.

12.6.3: PEDIATRICS:

GOAL:

The aim of teaching the undergraduate student in Pediatrics is to impart such knowledge and skills that may enable him to diagnose and treat common childhood illnesses including neonatal disorders. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral infections, nutritional disorders, including dehydration and electrolyte disturbances) and various system illnesses.

A. An intern must be able to do without assistance:

An intern shall be able to diagnose and manage common childhood disorders including neonatal disorders and acute emergencies, examining sick child making a record of information.

An intern shall perform:

a) **diagnostic techniques**: blood collection (including from femoral vein and umbilical cord), drainage of abscess, collection of cerebrospinal, pleural and peritoneal fluids, suprapubic aspiration of urine.
b) **techniques related to patient care:** immunization, perfusion techniques, nasogastric tube insertion, feeding procedures, tuberculin testing & breast-feeding counseling.
c) **use of equipments:** vital monitoring, temperature monitoring, resuscitation at birth and care of children receiving intensive care.
d) institute early management of common childhood disorders with special reference to pediatric dosage and oral rehydration therapy.

B. An intern must have observed or preferably assisted at the following operations/ procedures:

a) screening of newborn babies and those with risk factors for any anomalies and steps for prevention in future; detect congenital abnormalities;
b) recognise growth abnormalities; recognise anomalies of psychomotor development;
c) assess nutritional and dietary status of infants and children and organize prevention, detection and follow up of deficiency disorders both at individual and community levels, such as:

- protein-energy malnutrition
- deficiencies of vitamins especially A, B, C and D;
- Iron deficiency

C. Skills that an intern should be able to perform under supervision:

a) An intern should be familiar with life-saving procedures, including use of aspirator, respirator, cardiac monitor, blood gas analyser.

b) An intern should be able to advise about management and prognosis of acute & chronic illnesses like viral fever, gastroenteritis, hepatitis, pneumonias, congenital heart diseases, seizures, renal and hepatic diseases, thyroid disorders and hematological disorders. She/he should participate in counseling sessions with parents including HIV counseling.

12.6.4: GENERAL SURGERY

GOAL:

The aim of teaching the undergraduate student in General Surgery is to impart such knowledge and skills that may enable him to diagnose and treat common surgical ailments. He/she shall have ability to diagnose and suspect with reasonable accuracy all acute and chronic surgical illnesses.

(A) **THERAPEUTIC- An intern must perform or assist in:**

a) venesection or venous access

b) tracheostomy and endotracheal intubation

c) catheterization of patients with acute retention or trocar cystostomy

d) drainage of superficial abscesses

e) basic suturing of wound and wound management (including bandaging)

f) biopsy of surface tumours

g) perform vasectomy

(B) Skill that an intern should be able to perform under supervision:

a) Advise about prognosis of acute & chronic surgical illnesses, head injury, trauma, burns and cancer. Counsel patients regarding the same.

b) Advise about rehabilitation of patients after surgery and assist them for early recovery.

c) Intern should be able to demonstrate understanding of World Health Organisation cause of death reporting and data quality requirements.

d) Intern should be able to demonstrate understanding of the use of national and sub-national cause of death statistics.

(C) An intern must have observed or preferably assisted at the following operations/procedures:

a) Resuscitation of critical patients

b) Basic surgical procedures for major and minor surgical illnesses

c) Wound dressings and application of splints

d) Laparoscopic/ Minimally Invasive surgery

e) Lymph node biopsy

12.6.5: CASUALTY:

GOAL:

The aim of teaching the undergraduate student in casualty is to impart such knowledge and skills that may enable him/her to diagnose and treat common acute surgical /medical ailments. He/she shall have ability to diagnose and suspect, with reasonable accuracy, acute surgical illnesses including emergencies, resuscitate critically injured patient and a severely burned patient, control surface bleeding and manage open wounds and monitor and institute first-line management of patients of head, spine, chest, abdominal and pelvic injury as well as acute abdomen.

(A) **THERAPEUTIC- An intern must perform or assist in:**

a) Identification of acute emergencies in various disciplines of medical practice,

b) Management of acute anaphylactic shock,

c) Management of peripheral-vascular failure and shock,

d) Management of acute pulmonary edema and Left Ventricular Failure (LVF),

e) Emergency management of drowning, poisoning and seizure,

f) Emergency management of bronchial asthma and status asthmaticus,

g) Emergency management of hyperpyrexia,

h) Emergency management of comatose patients regarding airways, positioning, prevention of aspiration and injuries,

i) Assessment and administering emergency management of burns,

j) Assessing and implementing emergency management of various trauma victims,

k) Identification of medico-legal cases and learn filling up of forms as well as complete other medico-legal formalities in cases of injury, poisoning, sexual offenses, intoxication and other unnatural conditions.

(B) Skill that an intern should be able to perform under supervision:

a) Advise about prognosis of acute surgical illnesses, head injury, trauma and burns. Counsel patients regarding the same.

(C) An intern must have observed or preferably assisted at the following operations/ procedures:

a) Resuscitation of critical patients

b) documentation medico legal cases

c) management of bleeding and application of splints;

12.6.6: OBSTETRICS AND GYNAECOLOGY

GOAL:

The aim of teaching the undergraduate student in Obstetrics & Gynaecology is to impart such knowledge and skills that may enable him to diagnose and manage antenatal and post natal follow up; manage labor and detect intrapartum emergencies; diagnose and treat common gynaecologic ailments.

(A) **THERAPEUTIC- An intern must perform or assist in:**

a) Diagnosis of early pregnancy and provision of ante-natal care; antenatal pelvic assessment and detection of cephalopelvic disproportion,
b) Diagnosis of pathology of pregnancy related to:
- abortion
- ectopic pregnancy
- tumours complicating pregnancy
- acute abdomen in early pregnancy
- hyperemesis gravidarum,

c) Detection of high risk pregnancy cases and give suitable advice e.g. PIH, hydramanios, antepartum haemorrhage, multiple pregnancies, abnormal presentations and intra-uterine growth retardation,
d) Induction of labor and amniotomy under supervision,
e) Induction of labor and amniotomy under supervision,
f) Management of normal labor, detection of abnormalities, post-partum hemorrhage and repair of perennial tears,
g) Assist in forceps delivery,
h) Detection and management of abnormalities of lactation,
i) Evaluation and prescription oral contraceptives with counseling,
j) Per speculum, per vaginum and per rectal examination for detection of common congenital, inflammatory, neoplastic and traumatic conditions of vulva, vagina, uterus and ovaries,
k) Medico-legal examination in Gynecology and Obstetrics.

(B) Skills that an intern should be able to perform under supervision:

a) Dilatation and curettage and fractional curettage,

b) Endometrial biopsy,

c) Endometrial aspiration,

d) Pap smear collection,

e) Intra Uterine Contraceptive Device (IUCD) insertion,

f) Minilap ligation,

g) Urethral catheterization,

h) Suture removal in postoperative cases,

i) Cervical punch biopsy.

(C) An intern must have observed or preferably assisted at the following operations/ procedures:

a) Major abdominal and vaginal surgery cases,
b) Second trimester Medical Termination of Pregnancy (MTP) procedures e.g. Emcredyl Prostaglandin instillations, Caesarean section.

12.6.7 OTORHINOLARYNGOLOGY (ENT)

GOAL:

The aim of teaching the undergraduate student in ophthalmology is to impart such knowledge and skills that may enable him to diagnose and treat common otorhinolaryngological conditions such as ear pain, foreign bodies and acquire ability for a comprehensive diagnosis of common Ear, Nose and Throat (ENT) diseases including emergencies and malignant neoplasms of the head and neck.

(A) **THERAPEUTIC- An intern must perform or assist in:**

a) Ear syringing, antrum puncture and packing of the nose for epistaxis,
b) Nasal douching and packing of the external canal,
c) Removing foreign bodies from nose and ear,
d) Observing or assisting in various endoscopic procedures and tracheostomy.

(B) Skill that an intern should be able to perform under supervision:

a) Intern shall have participated as a team member in the diagnosis of various ENT- related diseases and be aware of National programme on prevention of deafness,
b) Intern shall acquire knowledge of various ENT related rehabilitative programmes.

(C) An intern must have observed or preferably assisted at the following operations/ procedures:

a) Intern shall acquire skills in the use of head mirror, otoscope and indirect laryngoscopy and first line of management of common Ear Nose and Throat (ENT) problems.

12.6.8 OPHTHALMOLOGY

GOAL:

The aim of teaching the undergraduate student in ophthalmology is to impart such knowledge and skills that may enable him to diagnose and treat common ophthalmological conditions such as Trauma, Acute conjunctivitis, allergic conjunctivitis, xerosis, entropion, corneal ulcer, iridocyclitis, myopia, hypermetropia, cataract, glaucoma, ocular injury and sudden loss of vision.

(A) **THERAPEUTIC- An intern must perform or assist in:**

a) Subconjunctival injection
b) Ocular bandaging
c) Removal of concretions
d) Epilation and electrolysis
e) Corneal foreign body removal
f) Cauterization of corneal ulcers
g) Chalazion removal
h) Entropion correction
i) Suturing conjunctival tears
j) Lids repair
k) Glaucoma surgery (assisted)
l) Enucleation of eye in cadaver.

(B) Skill that an intern should be able to perform under supervision:

(a) Advise regarding methods for rehabilitation of the blind.

(C) An intern must have observed or preferably assisted at the following operations/ procedures:

a) Assessment of refractive errors and advise its correction,

b) Diagnose ocular changes in common systemic disorders,

c) Perform investigative procedures such as tonometry, syringing, direct ophthalmoscopy, subjective refraction and fluorescin staining of cornea.

12.6.9 ORTHOPAEDICS

GOAL:

The aim of teaching the undergraduate student in Orthopaedics and Physical Medicine and Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common ailments. He/she shall have ability to diagnose and suspect presence of fracture, dislocation, actual osteomyelitis, acute poliomyelitis and common congenital deformities such as congenital talipesequinovarus (CTEV) and dislocation of hip (CDH).

(A) **THERAPEUTIC- An intern must assist in:**

a) Splinting (plaster slab) for the purpose of emergency splintage, definitive splintage and post-operative splintage and application of Thomas splint,

b) Manual reduction of common fractures – phalangeal, metacarpal, metatarsal and Colles' fracture,

c) Manual reduction of common dislocations – interphalangeal, metacarpophalangeal, elbow and shoulder dislocations,

d) Plaster cast application for undisplaced fractures of arm, fore arm, leg and ankle,

e) Emergency care of a multiple injury patient,

f) Transport and bed care of spinal cord injury patients.

(B) Skill that an intern should be able to perform under supervision:

a) Advise about prognosis of poliomyelitis, cerebral palsy, CTEV and CDH,

b) Advise about rehabilitation of amputees and mutilating traumatic and leprosy deformities of hand.

(C) An intern must have observed or preferably assisted at the following operations:

a) Drainage for acute osteomyelitis,

b) Sequestrectomy in chronic osteomyelitis,

c) Application of external fixation,

d) Internal fixation of fractures of long bones.

12.6.10 DERMATOLOGY VENEREOLOGY & LEPROSY

GOAL:

The aim of teaching the undergraduate student in Dermatology Venereology & Leprosy is to impart such knowledge and skills that may enable him to diagnose and treat common dermatological infections and leprosy. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral infections, and cutaneous manifestations of systemic illnesses.

A. THERAPEUTIC- At the end of internship an intern must be able to:

a) Conduct proper clinical examination; elicit and interpret physical findings, and diagnose common disorders and emergencies,

b) Perform simple, routine investigative procedures for making bedside diagnosis, specially the examination of scraping for fungus, preparation of slit smears and staining for AFB for leprosy patient and for STD cases,

c) Manage common diseases recognizing the need for referral for specialized care in case of inappropriateness of therapeutic response.

B. An intern must have observed or preferably assisted at the following operations/ procedures:

a) Skin biopsy for diagnostic purpose

12.6.11 PSYCHIATRY

GOAL:

The aim of teaching the undergraduate student in Psychiatry is to impart such knowledge and skills that may enable him to diagnose and treat common psychiatric illnesses. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management. He/she should also be able to recognize the behavioural manifestations of systemic illnesses.

A. THERAPEUTIC- An intern must perform or assist in:

a) Diagnose and manage common psychiatric disorders,

b) Identify and manage psychological reactions,

c) Diagnose and manage behavioural disorders in medical and surgical patients.

B. An intern must have observed or preferably assisted at the following operations/ procedures:

a) ECT administration,
b) Therapeutic counseling and follow-up.

12.6.12 RESPIRATORY MEDICINE

GOAL:

The aim of teaching the undergraduate student in Respiratory Medicine is to impart such knowledge and skills that may enable him to diagnose and treat common respiratory illnesses. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management.

A. THERAPEUTIC - An intern must perform or assist in:

a) diagnosing and managing common respiratory disorders and emergencies,

b) simple, routine investigative procedures required for making bed side diagnosis, especially sputum collection, examination for etiological organism like AFB, interpretation of chest X-rays and respiratory function tests,

c) interpreting and managing various blood gases and pH abnormalities in various illnesses.

B. An intern must have observed or preferably assisted at the following operations/ procedures:

a) Laryngoscopy,
b) Pleural aspiration, respiratory physiotherapy, laryngeal intubation and pneumo-thoracic drainage aspiration,
c) Therapeutic counseling and follow up.

12.6.13 ANAESTHESIOLOGY

GOAL:

The aim of teaching the undergraduate student in anaesthesia is to impart such knowledge and skills that may enable him to understand principles of anaesthesia and recognize risk and complications of anaesthesia. At the end of internship, graduate should be able to perform cardio-pulmonary resuscitation correctly, including recognition of cardiac arrest.

(A) **THERAPEUTIC-** An intern must perform or assist in:

a) Pre-anaesthetic checkup and prescribe pre-anaesthetic medications,

b) Venepuncture and set up intravenous drip,
c) Laryngoscopy and endotracheal intubation,
d) Lumbar puncture, spinal anaesthesia and simple nerve blocks,
e) Simple general anaesthetic procedures under supervision,
f) Monitor patients during anaesthesia and in the post-operative period,
g) Maintain anaesthetic records,
h) Perform cardio-pulmonary resuscitation correctly, including recognition of cardiac arrest.

(B) Skill that an intern should be able to perform under supervision:

a) Counseling and advise regarding various methods of anaesthesia,
b) Recognise and manage problems associated with emergency anaesthesia,
c) Recognise and treat complications in the post-operative period.

(C) An intern must have observed or preferably assisted at the following operations/ procedures:

a) Anaesthesia for major and minor surgical and other procedures;

12.6.14 RADIODIAGNOSIS

GOAL:

The aim of teaching the undergraduate student in radiodiagnosis is to impart such knowledge and skills that may enable him to understand principles of imageology and recognize risk and complications of radiologic procedures and the need for protective techniques. At the end of internship, graduate should be able to counsel and prepare patients for various radiologic procedures.

An intern must acquire competency in:

a) Identifying and diagnosing acute abdominal conditions clinically and choose appropriate imaging modality for diagnosis,
b) Identifying and diagnosing acute traumatic conditions in bones and skull using X rays / CT Scans with emphasis on fractures and head injuries,
c) Recognising basic hazards and precautions in radio-diagnostic practices specially related to pregnancy,
d) Demonstrating awareness of the various laws like PC PNDT Act.

12.6.15 PHYSICAL MEDICINE AND REHABILITATION

GOAL:

The aim of teaching the undergraduate student in Physical Medicine & Rehabilitation is to impart such knowledge and skills that may enable him to diagnose and treat common rheumatologic, orthopedic and neurologic illnesses requiring physical treatment. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management.

A. THERAPEUTIC- An intern must perform or assist in:

a) Diagnosing and managing with competence clinical diagnosis and management based on detailed history and assessment of common disabling conditions like poliomyelitis, cerebral palsy, hemiplegia, paraplegia, amputations etc.

b) Participation as a team member in total rehabilitation including appropriate follow up of common disabling conditions,

c) Procedures of fabrication and repair of artificial limbs and appliances.

B. An intern must have observed or preferably assisted at the following operations/ procedures:

a) use of self-help devices and splints and mobility aids
b) accessibility problems and home making for disabled
c) simple exercise therapy in common conditions like prevention of deformity in polio, stump exercise in an amputee etc.
d) Therapeutic counselling and follow up

12.6.16 FORENSIC MEDICINE AND TOXICOLOGY

GOAL:

The aim of teaching the undergraduate student in Forensic Medicine is to impart such knowledge and skills that may enable him to manage common medico-legal problems in day to day practice. He/she shall acquire competence for post mortem diagnosis based on history, physical examination and relevant observations during autopsy.

A. An intern must perform or assist in:

a) Identifying and documenting medico-legal problems in a hospital and general practice,

b) Identifying the medico-legal responsibilities of a medical man in various hospital situations,

c) Diagnosing and managing with competence basic poisoning conditions in the community,

d) Diagnosing and managing with competence and documentation in cases of sexual assault,

e) Preparing medico-legal reports in various medico legal situations.

B. An intern must have observed or preferably assisted at the following operations/ procedures, as given in Table 11:

a) Various medico legal / post-mortem procedures and formalities during their performance by police.

Table 11: Certifiable Procedural Skills:

A Comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) – Indian Medical Graduate

Specialty	Procedure
General Medicine	• Venipuncture (I) • Intramuscular injection(I) • Intradermal injection (D) • Subcutaneous injection(I) • Intra Venous (IV) injection (I) • Setting up IV infusion and calculating drip rate (I) • Blood transfusion (O) • Urinary catheterization (D) • Basic life support (D) • Oxygen therapy (I) • Aerosol therapy / nebulization (I) • Ryle's tube insertion (D) • Lumbar puncture (O) • Pleural and ascitic aspiration (O) • Cardiac resuscitation (D) • Peripheral blood smear interpretation (I) • Bedside urine analysis (D)
General Surgery	• Basic suturing (I) • Basic wound care (I)

	• Basic bandaging (I) • Incision and drainage of superficial abscess (I) • Early management of trauma (I) and trauma life support (D)
Orthopedics	• Application of basic splints and slings (I) • Basic fracture and dislocation management (O) • Compression bandage (I)
Gynecology	• Per Speculum (PS) and Per Vaginal (PV) examination (I) • Visual Inspection of Cervix with Acetic Acid (VIA) (O) • Pap Smear sample collection & interpretation (I) • Intra- Uterine Contraceptive Device (IUCD) insertion & removal (I)
Obstetrics	• Obstetric examination (I) • Episiotomy (I) • Normal labor and delivery (including partogram) (I)
Pediatrics	• Neonatal resuscitation (D) • Setting up Pediatric IV infusion and calculating drip rate (I) • Setting up Pediatric Intraosseous line (O)
Forensic Medicine	• Documentation and certification of trauma (I) • Diagnosis and certification of death (D) • Legal documentation related to emergency cases (D) • Certification of medical-legal cases e.g. Age estimation, sexual assault etc. (D) • Establishing communication in medico-legal cases with police, public health authorities, other concerned departments, etc (D)
Otorhinolaryngology	• Anterior nasal packing (D) • Otoscopy (I)
Ophthalmology	• Visual acuity testing (I) • Digital tonometry (D) • Indirect ophthalmoscopy (O) • Epilation (O) • Eye irrigation (I) • Instillation of eye medication (I) • Ocular bandaging (I)
Dermatology	• Slit skin smear for leprosy (O) • Skin biopsy (O) • Gram's stained smear interpretation(I) • KOH examination of scrapings for fungus (D) • Dark ground illumination (O) • Tissue smear (O) • Cautery - Chemical and electrical (O)

I- Independently performed on patients,

O- Observed in patients or on simulations,

D- Demonstration on patients or simulations and performance under supervision in patients

Certification of Skills: Any faculty member of concerned department can certify skills. For common procedures, the certifying faculty may be decided locally.

[ADVT.-III/4/Exty./277/19]

Dr. R. K. VATS, Secy. General

Foot Note: The Principal Regulations namely, "Graduate Medical Education Regulations, 1997"were published in Part – III, Section (4)of the Gazette of India vide Medical Council of India notification dated 4th March, 1997, and amended vide MCI notifications dated 29/05/1999, 02/07/2002, 30/09/2003, 16/10/2003, 01/03/2004, 20/10/2008, 15/12/2008, 22/12/2008, 25/03/2009, 19/04/2010, 07/10/2010, 21/12/2010, 15/02/2012, 29/12/2015, 05/08/2016, 21/09/2016, 10/03/2017, 04/07/2017, 23/01/2018, 06/02/2018, 21/05/2018, 05/02/2019 & 14/05/2019.

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