The Medical Council of India has revised the MBBS curriculum. The curriculum describes the course content, lays down the minimum requirements of infrastructure and mandates diagnostic and therapeutic procedures required for optimal training. The national ophthalmology undergraduate curriculum for India incorporates the required knowledge and skills for effective and safe practice and takes into account the specific needs of our country. The purpose is to standardize teaching at undergraduate level throughout the country so that there is benefit of achieving uniformity in teaching. This would result in creating competent doctors with appropriate expertise.

This curriculum and examination pattern will be applicable for MBBS course starting from academic year 2019-20 onwards. It has been published in The Gazette of India on 4th November, 2019 as follows: 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”, which will now be called 'Regulations on Graduate Medical Education (Amendment), 2019.

The current undergraduate medical education curriculum focuses on competencies and outcomes and gives emphasis to skill development in all phases. This competency based 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. Competency based learning would include designing and implementing medical education curriculum that focuses on the desired and observable ability in real life situations.

**Broad Outline of training format**

- 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.
- 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.
- Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case based learning.
- Clinical training shall emphasize early clinical exposure, skill acquisition, certification in essential skills; community/primary/secondary care-based learning experiences and emergencies.
- 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.
- Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories.
- 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.
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.

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.

Training period and time distribution

- Every learner shall undergo a period of certified study extending over 4½ 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.
- 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.
- 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.
- 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 period of 4½ years is divided as follows:

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- 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.
- 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.
- 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
  (c) 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 Radiodiagnosis), Obstetrics and Gynecology (including Family Welfare), Pediatrics and AETCOM module.

New teaching/learning elements

1. Foundation Course
   Goal: The goal of the Foundation Course is to prepare a learner to study medicine effectively.
   Objectives: The objectives are to:
   (a) Orient the learner to:
   - the medical profession and the physician's role in society.
   - alternate health systems in the country and history of medicine
   - medical ethics, attitudes and professionalism
   - health care system and its delivery
   - national health programmes and policies
   - patient safety and biohazard safety
   - universal precautions and vaccinations
   - principles of primary care (general and community based care)
   - the academic ambience
   (b) Enable the learner to acquire enhanced skills in:
   - Language
   - Interpersonal relationships
   - Communication
   - Learning including self-directed learning
   - Time management
   - Stress management
   - Use of information technology
   (c) In addition to the above, learners may be enrolled in one of the following programmes which will be run concurrently:
   - Local language programme
   - English language programme
   - First-aid
   - Basic life support
   - Computer skills
   (d) Sports, leisure and extracurricular activities are also integral part of foundation course.

2. Learner-doctor method of clinical training (Clinical Clerkship)
   - The Goals of the Learner Doctor program are to provide students experience with
   a) Longitudinal patient care
   b) Functioning as part of the Health Care team
   c) “Hands on” care of patients in the inpatient and outpatient setting
      - A designated faculty member will coordinate and facilitate the activity of the student
      - The faculty member is (ideally) also responsible for the care of and decisions for the patient.
      - Student will be part of the admission team on the admission day.
      - He/ she will remain with admission team until 6PM on the admission day EXCEPT during designated class hours.
      - Follow and document progress of assigned patient(s) during the course of hospitalization.
      - Participate in procedures surgeries delivery etc of the assigned patient (based on the responsibility).
      - Document patient encounters and learnings appropriate for level of training in a portfolio or annexure to log book
      - Obtain feedback from supervising physician and other members of the health care team.

3. DOAP (Demonstration - Observation - Assistance - Performance) Sessions:
   A practical session that allows the student to observe a demonstration, assists the performer, perform in a simulated environment, perform under supervision or perform independently.

Salient points pertaining to Ophthalmology
The emphasis of the curriculum is on skill based learning. The teachers have been instructed to adopt the following methods for teaching the competencies which already have been specified by the MCI:
1. Theory lectures – 30 hours.
2. Clinical postings (DOAP i.e. Demonstrate-Observe-Assist –Perform sessions)- 4 weeks (5 days a week) in second prof and 4 weeks (6 days a week in 3rd prof part-1)
3. Small group discussion (SGD)/ tutorials- 60 hours
4. Self directed learning (SDL)- 10 hours

Eligibility to appear for Professional examinations
(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
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.
2. An end of posting clinical assessment shall be conducted for each clinical posting in each professional year.
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. 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.
5. 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
- 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.
- 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.
- 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.
- A learner shall not be entitled to graduate after 10 years of his/her joining of the first part of the MBBS course.

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.