

**Accreditation Standards  
for  
MBBS (Bachelor of Medicine and Bachelor  
of Surgery) 2024**



**Medical Education Commission (MEC)  
Nepal**

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**Section A: MBBS**

# **Accreditation Standards for Bachelor of Medicine and Bachelor of Surgery (MBBS)**

## **1. The competencies of the MBBS Graduate**

Standards are built upon a competency-driven approach to education, enabling students to attain the requisite. Standards in medical education are professional attitudes, ethics and statements about knowledge and clinical skills, graduates should have and be able to demonstrate. Competency encompasses a multifaceted array of capabilities, encompassing knowledge, practical experience, critical thinking, adept problem-solving, professionalism, personal integrity, and procedural expertise that are indispensable prerequisites for initiating self-reliant and unsupervised careers in both general medicine and general surgery.

A graduate should demonstrate the ability to consistently execute clinical skills at an acceptable level, in accordance with prevailing standards. They should also be proficient in recognizing when cases warrant referral to higher-tier medical centers or specialized practitioners. Achieving this level of performance necessitates a balance between speed and accuracy, always prioritizing patient well-being. Furthermore, it demands an acute awareness of what constitutes acceptable performance, even amidst evolving circumstances, and a strong commitment to self-improvement. The hallmark of clinical competence is evidenced through the quality of patient care delivered and an unwavering dedication to upholding the highest professional standards

Upon completion of the MBBS program, including one year of compulsory rotatory internship, the Medical Graduate, must be competent to:

- Take relevant medical history and conduct clinical examination appropriately;
- Demonstrate understanding of the principles and practices of modern medicine with sound knowledge of structure and functions of human body in health and disease;
- Communicate with patients and their families/visitors, colleagues and other members of health care team with respect, politeness and compassion;
- Carry out professional responsibilities related to the individual, family, community and society at large with concern and care;
- Manage medical emergencies;

- Manage common medical problems appropriately;
- Manage and recognize drug interactions;
- Recognize clinical conditions of initial treatment and refer to appropriate health care institutions as per necessity and availability of the services;
- Recognize the biological and the social determinants of health of an individual as well as the population;
- Plan and manage preventive, promotive, curative and rehabilitative health programs;
- Function as a member of the health care team;
- Identify and carry out necessary medico-legal procedures;
- Practice the principles of medical ethics; develop professional attitude and behavioral studies including human values;
- Acquire new knowledge and skills through continuous professional development;
- Appraise published scientific literature critically and engage in research work;
- Use medical informatics effectively;
- Work independently at small health care institutions.
- Acquire adequate knowledge on patient safety;
- Guide junior health care professionals periodically and as per need of the working community;
- Lead, communicate, collaborate and health-advocate as a health sector leader of the community.

## **2. Quality assurance of the MBBS Graduate**

MEC is committed to implement a transparent quality assurance system consistent with relevant regulatory requirements and authorities, which address all the stages and aspects of planning and implementation of the course and apply necessary actions where problems are found.

We ensure that the quality assurance system addresses:

- Implementation of appropriate standards for interactive didactic and distance learning,
- Consistency with regulatory requirements,
- Students' experiences and achievements,

- Academic and clinical teachers' experiences of implementing interactive didactic and distance learning,
- Effects on students' transition to the next stage of training or practice,
- Tailor necessary action where problem are found.

This accreditation standard prioritizes all the mandatory framework to accredit sufficient level of quality in medical education, thereby following global standards of basic medical education. These local standards shall address the design, delivery, management, and quality assurance of education and training, via various provisions.

- Define the criteria for accreditation of undergraduate medical education program (MBBS);
- Prepare a written document that sets the quality assurance system;
- Execute periodic onsite/online inspection of the medical colleges to ensure that the defined criteria laid down are adequately met and assess the quality of the program being implemented;
- Enroll Continuous Professional Development (CPD) programs regularly to upgrade the existing knowledge, skills and attitude of the graduates;
- Establish a method to promote an environment conducive to change, innovation, and continuous improvement in medical educational programs.

### **3. Overview of the MBBS Program**

- The MBBS program consists of a minimum of four-and-a-half-year academic course followed by one year of compulsory rotatory internship.
- The core curriculum for the MBBS program shall be composed of following pre-clinical and clinical departments (Human Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Community Medicine, Forensic Medicine, Internal Medicine, General Surgery, Obstetrics and Gynecology, Pediatrics, Orthopedics, Psychiatry, Dermatology, Ophthalmology, Otorhinolaryngology-Head and Neck Surgery, Anesthesiology, Radiology, General Practice and Emergency Medicine, Dental Surgery, non-credit and soft skill courses such as health care management, medical ethics and professionalism, communications skills, etc. ,

- The Compulsory Rotatory Internship (CRI) shall be of one calendar year as per the NMC guidelines.

#### **4. The Core Curriculum**

The aim of the core curriculum is to provide a broader framework for universities and academia's to develop their own curriculum, defining specific learning objectives together with teaching hours (credit hours) in each discipline. The curriculum should be student-centered, organ system based, integrated within and between basic medical sciences and clinical subjects preferably with the use of community-based, self-directed, computer assisted and problem-based learning methods aspiring notion of compassionate care.

Considering the innovations, the increased number of students, limited access to patients, and increasing awareness of patients in recent days, learning in Lab, Computer assisted learning platform and Simulation based learning should be planned where it is applicable.

The horizontal integration of basic medical science subjects should be achieved by the concurrent integrated teaching/learning of human anatomy, physiology, biochemistry, pathology, microbiology, pharmacology and community medicine/community health sciences. Vertical integration of basic medical science subjects should be acquired through early clinical exposure.

The curriculum should encompass the following components (interdisciplinary in orientation) that represent the broad categories or professional activities and concerns that occur in the general practice of medicine.

##### **I. Scientific foundation of medicine**

The medical graduate must demonstrate knowledge and understanding of:

- The normal structure and functions of the human body;
- Abnormalities in body structures and functions which occur in diseases;
- Regulation of body functions, homeostasis and biochemical aspects;
- The human life cycle and effects of growth, development and aging upon the individual, family, and community;
- The etiology and natural history of acute illnesses and chronic diseases;
- Laboratory or other investigations that facilitate the ability to make accurate quantitative observations of biomedical phenomena and critical analysis of data;



- Symptoms and signs of diseases, investigations, diagnoses, differential diagnoses; non-pharmacological and pharmacological management of diseases;
- Management of emergencies;
- Therapeutics, adverse reactions of therapy, curative and palliative therapy;
- Disability, handicap and rehabilitation;
- Record keeping and death audit;
- Behavioral science and relationship to medical anthropology, sociology and basic psychology and spirituality;
- Educational principles underlying learning and continuing medical education;
- Ethics and legal aspects in relation to practice of medicine;
- Principles of communication and counselling.
- Role of family and interrelationship and interaction with society;
- Cultural and ethnic differences about perceptions and response to illness.

## **II. Comprehensive, Patient-Centered Care**

This standard reconfirms and emphasizes the importance of educational processes and goals for comprehensive patient care and encourages patient-centered approaches in teaching and health care delivery. The faculty, staff and students are expected to develop and implement definitions, practices, operations and evaluation methods so that patient-centered comprehensive care is the norm.

Institutional definitions and operations that support patient-centered care can have the following characteristics or practices:

1. Ensure that patients' preferences and their social, economic, emotional, physical and cognitive circumstances are sensitively considered;
2. Teamwork and cost-effective use of well-trained allies are emphasized;
3. Evaluations of practice patterns and improvement of both the quality and efficiency of care delivery are emphasized and
4. Faculties serve as role models for students to help them learn appropriate therapeutic strategies and learn how to refer patients who need advanced therapies beyond the scope of general practices.

5. Ensure that patient care is evidenced-based, integrating the best research evidence and patient values.

### **III. Clinical Skills**

The medical graduate must be able to:

- Take relevant history from patients, their relatives or accompanying persons;
- Perform systemic physical examinations;
- Identify problems and formulate differential diagnoses on the basis of history and clinical examination;
- Advise specific investigations and interpret results;
- Make clinical decisions based on evidence;
- Plan patient management and acquire adequate knowledge on patients' safety;
- Carry out required practical and technical procedures;
- Institute advanced life support measures;
- Demonstrate other core skills and competencies as required by the national health policies, e.g., for Skilled Birth Attendant.

### **IV. Communication Skills:**

The medical graduate should acquire core communication skills including those required in special circumstances and must be able to:

- Listen attentively to patients, their relatives or other accompanying persons;
- Explain medical concepts and conditions in simple and plain language easily understood by the lay persons, and convey information about the health problems and their management plan;
- Take consent of patients and their relatives or responsible persons whenever necessary;
- Handle complaints appropriately;
- Listen to other members of the health care team;
- Deal with bereavement and grief sympathetically;

- Be polite, kind and compassionate with patients, their relatives and others; and handle special situations such as breaking bad news etc.

## **V. Leadership skills**

The medical graduate should acquire basic leadership skills including those required in special circumstances and must be able to:

- Lead the community to identify the existing health problems of the community;
- Identify the community leaders and collaborate with them to solve existing health problems of the community;
- Advocate the health issues of the community and address them on right time and to the right place;
- Appropriately manage mass casualties and casualties during natural calamities and disasters, utilizing the locally available resources.

## **VI. Population Health and Health Systems**

The medical graduate must understand her/his role in protecting and promoting the health of the whole population and be able to take appropriate action. Graduates should understand the principles of health systems organization and their economic and legislative foundations of those systems. Graduates should also have a basic understanding of the efficient and effective management of healthcare systems.

The medical graduate should be able to demonstrate:

- Knowledge of important genetic, demographic, environmental, lifestyle, social, economic, psychological, and cultural determinants of health and illness of a population as a whole;
- Knowledge of her/his role and ability to take appropriate action in disease, injury and accident prevention and protection, and maintain and promote the health of individuals, families and community;
- Knowledge of global health and international health status, global trends in morbidity and mortality of chronic diseases of social significance, the impact of migration, trade, and environmental factors on health, and the role of international health organizations;

- Acceptance of the roles and responsibilities of other health and health-related personnel in providing healthcare to individuals, populations and communities;
- An understanding of the need for collective responsibility for health-promoting interventions which require partnerships with the population served, and a multidisciplinary approach including healthcare professions as well as intersect oral collaborations;
- An understanding of the basics of health systems including policies, organization, financing, cost-containment measures of rising healthcare costs, and principles of effective management of healthcare delivery;
- An understanding of the mechanisms that determine equity in access to healthcare, effectiveness, and quality of care;
- Use of national, regional and local surveillance data, as well as demography and epidemiology in health decisions; and
- Willingness to accept leadership when needed and as appropriate in health issues.
- Ability to understand and apply demography, vital statistics, basic and applied epidemiology, basic statistics as applied to medicine, epidemiological methods, health education, environmental health, community health, needs assessment, health care planning, health care management and health economics, organizations of curative and preventive health services, health care provisions and disaster management and international health.

## **VII. Information Management**

The medical graduate must be able to:

- Acquire basic knowledge of computer and internet;
- Search, collect, organize and interpret health and biomedical information from different data base and sources;
- Retrieve patient –specific information from clinical data system;
- Use information and communication technology to assist in diagnostic, therapeutic and preventive measures and for surveillance and monitoring health status;
- Understand the applications and limitations of information technology; and

- Maintain records of patients under her/his care for future use and medico-legal purposes.
- Be able to learn in self-directed manner with the help of computer assisted teaching learning material.

### **VIII. Critical Thinking and Research**

Critical thinking is foundational to teaching and deep learning in any subject. The components of critical thinking are:

- The application of logic and accepted intellectual standards to reasoning;
- The ability to access and evaluate evidence;
- The application of knowledge in clinical reasoning;
- A disposition for inquiry that includes openness, self-assessment, curiosity, skepticism, and dialogue.

In professional practice, critical thinking enables to recognize pertinent information, make appropriate decisions based on a deliberate and open-minded review of the available options, evaluate outcomes of diagnostic and therapeutic decisions, and assess his or her own performance. Accordingly, medical educational program must develop students who are able to:

1. Identify problems and formulate questions clearly and precisely;
2. Gather and assess relevant information, weighing it against the extent of knowledge and ideas, to interpret information accurately and arrive at well-reasoned conclusions;
3. Test emerging hypotheses against evidence, criteria, and standards;
4. Show intellectual breadth by thinking with an open mind, recognizing and evaluating assumptions, implications, and consequences;
5. Communicate effectively with others while reasoning through problems.

The medical graduate must be able to:

- Possess the ability to critically evaluate information and use reasoning and personal judgment;

- Understand scientific research methods and their limitations and critical review of the published literature.
- Cope with uncertainty and error in decision making.

#### **IX. Professional values, attitudes, behavior and ethics:**

The medical graduate must:

- Possess essential elements of the medical profession including moral and ethical principles and legal responsibilities underlying the profession;
- Possess professional values, responsibilities, compassion, empathy, accountability, honesty, integrity and human values;
- Recognize good medical practice, doctor- patient relationship, patients' welfare, and respect for colleagues and other health care professionals;
- Recognize the moral obligation to provide end-of- life care, including palliation of symptoms.
- Recognize ethical and medical issues in patient documentation, confidentiality and ownership of intellectual property;
- Have the ability to plan effectively and manage efficiently one's own time and activities to cope with uncertainty and have the ability to adapt to change; and
- Take personal responsibility for the care of individual patients.

#### **X. Teaching-Learning Methodology**

While seeking assurance of the quality of medical graduates without interfering with the academic autonomy of the individual universities/academies/institutions, MEC expects the university and academia to implement innovative teaching-learning methodology replacing the traditional teacher-centered with student-centered teaching-learning including but not limited to:

- Self- directed-learning to inculcate the habit of life-long learning;
- Problem-Based-Learning;
- Distance learning
- e-learning

- Virtual learning
- Flexible learning
- Structured Interactive Sessions (SIS) or didactic lectures;
- Computer based Teaching Learning
- Simulation based T/L
- Ensuring defined clinical exposure.
- Ambulatory teaching in the Outpatients' departments for better exposure and understanding of commonly encountered clinical problems;
- Experiential training in communication skills and medical ethics;
- Acquiring clinical examination and procedural skills in a skill laboratory under supervision;
- Maintaining log books to document the competencies acquired during practical, clinical placements and community exposures;
- Community Based Learning
- Organ-System based integrated teaching learning and early clinical and community exposures;
- Periodic review of basic medical sciences in relation to relevance to common and important clinical problems.
- Practical classes: preclinical classes
- Small group discussion
- Simulated practical exercises in class room

The explosion of scientific knowledge makes it impossible for students to comprehend and retain all the information necessary for a lifetime of practice. Faculty must serve as role models demonstrating that they understand and value scientific discovery and life-long learning in their daily interactions with students, patients and colleagues. Educational programs must depart from teacher-centered and discipline-focused pedagogy to enable and support the student's evolution as independent learners actively engaged in their curricula using strategies that foster integrated approaches to learning. Curricula must be contemporary, appropriately complex and must encourage students to

take responsibility for their learning by helping them learn how to learn. The MEC has an overall policy on provision of personalized, specific, and timely feedback on learning, as well as a policy on the provision of feedback within each element of the course.

- *In order to make students learn better, there must be a provision for periodic teacher/faculty trainings on innovations and newer techniques like computer assisted, simulation-based learning techniques in medical education trainings and monitoring and assessment of teaching/learning activities under the guidance of a medical education unit/department.*
- *Annual/Semester Academic calendar of operation must be developed and followed strictly.*

## **5. Assessment of Students**

Assessment assures, encourages, guides, and optimizes learning while providing feedback. It must have a centralized system for ensuring that the policy is realized through multiple, coordinated assessments that are aligned with its curriculum outcomes. All the academia should have mechanisms in place to assure the quality of its assessment program. Assessment data should use to improve the performance of academic staff, courses, and the institution.

- The number and nature of the assessments should be sufficient;
- Academia should develop blueprint for examination;
- Prior standards should be set on summative assessments;
- Valid measures to be taken to ensure test security of distributed and centralized examinations;
- Prior information to the students should be provided concerning the content, pattern, style and quality of assessment;
- Evaluation process should be open to scrutinizing by external experts (MEC) and devoid of conflict of interest;
- Assessment methods should be used to determine student progression between the successive stage of the course.

The assessment scheme for the MBBS program must match with the methods of instruction.



- The learning objectives related to the knowledge, skills, attitude, behavior and professional ethics prescribed in the MBBS curriculum, need to be assessed using appropriate methods of assessment;
- The specific modalities and number of formative and summative assessments including numbers of examiners shall be determined by the concerned Universities/Academies/Institutions;
- The maximum number of candidates to be examined in Final Clinical/Practical and Oral examination on any day shall be as per University/Institution/Academy regulation. However, the maximum number of candidates to be examined in clinical/practical/oral, on any day shall not exceed twenty for any undergraduate program.
- Assurance of acquiring must know skills should be reflected during assessment.

Various forms of evaluation systems are to be followed for assessment purposes:

- a) Formative assessment
  - b) Simulation based assessment
  - c) e-Logbook assessment
  - d) Summative assessment
  - e) Peer-student evaluation
- Formative theory and practical assessments are done through series of tests and examinations conducted periodically by the institutions.
  - Summative evaluation is done by the university through examination conducted at the end of the specified course.

### **5.1 Methods of evaluation**

Written tests, practical's, clinical examination and structured viva voce.

(OSCE, OSPE, SCOT, e-examination, real and simulated patients)

In view of the students appearing for university clinical examinations, University/Academia/ Medical schools should have sufficient real or simulated patients pool for examination purpose. It's the responsibility of the institute to plan and execute

the evaluation process without hindering or troubling the appearing candidates beyond their capacities.

## 6. Criteria for admission to the MBBS Program

### 6.1 Eligibility Criteria

To be considered eligible for selection to the MBBS program, a candidate:

- Must have passed 10 + 2 or equivalent qualifications recognized by universities/boards in single attempt with physics, chemistry, and biology (PCB) securing a minimum of 50% in each subject.
- Higher Secondary Education (Science); 10+2 (Science);
- Cambridge University 'A' level with Biology, Physics, and Chemistry securing a minimum of 50% (equivalent) in each subject.

Or equivalent Science education with Biology, Physics, and Chemistry.

- Must have passed in the Bachelor level common Entrance Examination conducted by Medical Education Commission.

Students going to foreign countries to study medical course must get the eligibility certificate from MEC and must have passed the bachelor level Medical Entrance Examinations.

### 6.2 Selection of students: (As per MEC)

- a. For Nepalese students:** Eligible candidates desirous of pursuing MBBS program must take and qualify the specific Bachelor level Medical Entrance Examination, conducted by the MEC. Test should qualify by fulfilling its enrollment criteria.
- b. For International students:** Eligible candidates desirous of pursuing MBBS program must take and qualify the specific Bachelor level common entrance examination conducted by the MEC and other enrollment criteria laid down by MEC

- Candidates should present valid document of passing recent years National Medical Entrance Test of their country of origin acquiring minimum of 50% score, SAT/GRE or equivalent exam of their country or letter from licensing authority of their country of origin.
- However, the international candidate must have passed 10 + 2 or equivalent qualifications recognized by universities/boards with physics, chemistry, and biology (PCB) securing a minimum of 50% in aggregate. The validity of these national board exams is for two academic years only.
- First priority will be given to the candidates passing MEC Entrance Examination.

## **7. Commencement of the Undergraduate programs**

Medical education commission strongly recommends to all University/Institution /Academy that the academic sessions of all Undergraduate programs and Specialty/Subspecialty Postgraduate programs shall start as per the academic calendar developed by MEC.

## **8. Faculty Requirement for different departments:**

The roles and responsibilities of faculty in running the MBBS program is considered to be of utmost importance. The numbers of faculty required in different departments have been determined in a composite way on the basis of the following criteria:

- The total number of teaching hours in each of the subjects contained in the existing MBBS curricula.
- The total number of student admission per session.
- The number of hospital beds and units in each clinical department will depend on the need of academic programs and hospital services;
- Since the discipline of Community Medicine/Community Health Sciences consists of various components (Biostatistics, Sociology/Behavioral Sciences, Environmental Health, Health Education, Epidemiology, Demography and Family Health) the faculty of Community Medicine/Community Health Sciences must comprise of individuals with adequate expertise in the areas mentioned above.

- Tutor/Demonstrator/Instructor with MBBS or equivalent degree may be appointed as required in each of the basic science departments to assist faculty members in practical/demonstrations. However, they will not be counted as the faculty.

A unit of a major clinical department shall be composed of the following:

- a) Professor- one,
- b) Associate Professor - One
- c) Assistant Professor - One

or

- a) Professor/Associate Professor– one and
- b) Assistant Professor– two.

- Senior Resident/Registrar/Teaching Assistant/ Clinical Tutor/House Officer as required.
- Though the Senior Consultant/Consultant/Senior Registrar/Registrars are hospital positions for providing clinical services in the hospital, they may be accepted for clinical teaching of undergraduate medical students. But they will not be counted as teaching faculty for allocation of seat.
- All faculties must be approved and renewed annually by the concerned University/Academy/Institution authorities and registered with the Nepal Medical Council or with other professional council, wherever applicable.
- All the heads of the departments should be a professor/ or an associate professor.
- Faculty Verification should be done quarterly basis in each institute.

### **8.1 Eligibility criteria for faculty**

All faculty appointments must be according to the rules of the concerned University/Academy/Institution. All affiliated institutions must have the teaching faculty approved by the parent University/Academy/Institutions as well as by Medical Education Commission.

## **Medical Education Commission approves faculties under two broader headings:**

- I. With MD/MS/MDS or equivalent degrees after MBBS or BDS
- II. With Master degree/PhD in Clinical or Medical or Human Sciences.
  - All MBBS/BDS personnel must possess a basic university postgraduate degree (MD/MS/MDS) or equivalent qualifications in the relevant discipline in order to be eligible to become a faculty member. They should also have specialty registration with the Nepal Medical Council, prior to joining the faculty position.
  - All Personnel with other than MBBS/BDS or equivalent degrees must possess a Master degree/PhD in Clinical / Medical / Human sciences for the enrolment of initial faculty position. But to become Associate Professor/Reader, it is mandatory to possess Ph.D. in the appropriate discipline.
  - All faculties are allowed to do their academic and hospital-based practice within the premises of Teaching hospital, affiliated centers, satellite centers of allocated universities. They are not allowed to do private practice neither in any other medical institute or in hospitals.
  - All faculties should be fulltime and will not be allowed any assignment or practice outside their parent institute as per MEC Act/Regulation.
  - Foreign faculties must be registered with Nepal Medical Council and their registration status renewed up-to-date.

### **8.2 Designation of the faculty and their criteria: (As per MEC)**

The nomenclatures of the designation for faculty positions are:

- Professor
- Associate Professor
- Assistant Professor

***NB: Medical Education Commission strongly recommends that the designation/nomenclature of the faculties should be uniform among all the Universities/Academies/Institutions throughout the country as early as possible.***

### 8.3 Basic requirement of undergraduate faculty:

All affiliated institutions must have the teaching faculty appointment approved by the parent University/Institution/Academy. Similarly, the academic qualifications required for faculty position will be according to the rules and regulations of the University/Institutions/Academy.

Visiting faculties are not counted for the allocation of seat in any undergraduate program. They may be appointed for the upliftment of overall academic standard and betterment of the training institution.

Basic requirements and broad principles for appointment of faculties with medical qualifications to different levels are as follows: (as per MEC guidelines of faculty)

#### A. Professor

1. Should have DM/MCh or clinical Doctorate or Postgraduate Master degree (MD/MS) or equivalent qualification in the respective subject or specialty from University/Institution/Academy, recognized and registered by the Nepal Medical Council, together with teaching/working experience of minimum **five** years as Associate Professor or equivalent post. But the total duration of service counted under different faculty appointments held should not ***be less than ten years*** for becoming eligible for the post of Professor **and**
2. Should have minimum of two research/original articles as main author and four other publications in national/international indexed/peer reviewed scientific journal as main/co-author at the level of Associate Professor.

#### B. Associate Professor

1. Should have DM/MCh or clinical Doctorate or Postgraduate Master degree (MD/MS) or equivalent qualification in the respective subject or specialty from University/Institution/Academy, recognized and registered by the Nepal Medical Council, together with teaching/working experience of minimum five years as Assistant Professor.
2. Should have minimum of two research/original researches as main author and two other publications in national/international indexed/peer reviewed scientific journal as main/ co-author at the level of Assistant Professor

### C. Assistant Professor

Should have Postgraduate Master Degree (MD/MS) or equivalent qualification in the respective subject or specialty, from University/ Institution/ Academy recognized and registered by the Nepal Medical Council.

**Note:**

- 1) Research and publications already considered for the previous post shall not be taken into consideration.
- 2) Case reports, case series and book review are not counted as a research article.
- 3) For the entry faculty position, requirement of publication is not mandatory.

### 8.4 Criteria for Visiting Faculty

- The posts of Professor Emeritus and Visiting Faculty may be conferred upon the teaching faculties holding posts in another University/Institutions/Academy.
- The same criteria which are applicable for appointment of regular Undergraduate faculties will be also applicable to the visiting faculties.
- The Visiting Faculty title may be awarded to a teacher involved in teaching/training of the Undergraduate program run by the University/Institution/Academy provided the candidate fulfills the following criteria:
  1. Requirement of academic qualifications, teaching/working experiences and publications: as per regular faculty position, recognized by Medical Education Commission.
  2. The appointment should be institution specific for a minimum of six months and time limited.
  3. In case, the Visiting Faculty is no longer involved in the teaching/training program of the institution or is transferred to another institution, this title should be automatically cancelled.
  4. *Visiting faculties are not counted for the allocation of seat in undergraduate program, i.e. enrolment of undergraduate students.* They may be appointed for the upliftment of overall academic standard and betterment of the training institution.

**Note:** Faculties having DM/MCh degree or PhD will get one time 2 years as grace for promotion of Associate Professor or Professor.

## 8.5 Minimum Faculty requirements

Minimum Faculty requirements in Basic Medical Sciences and Clinical Sciences for Intake of 50, 75, 100, 150 Students per session for MBBS program in all Universities/Academies/ Institutions of Nepal

### A) Basic Sciences

Subject	Max. no of student intake	Professor	Associate Professor	Assistant Professor	Total
<b>ANATOMY</b>	150		1+1	3	5
	100		1	3	4
	75		1	2	3
	50		1	2	3
Maximum one third of faculty can have MSc Clinical/Human/Medical Anatomy or equivalent degree. Rest of the faculties needs to Have MD/MS Anatomy or equivalent degree.					
<b>PHYSIOLOGY</b>	150		1+1	3	5
	100		1	2	3
	75		1	2	3
	50		1	2	3
Maximum of one third of faculty can have MSc Clinical/Human/Medical physiology or equivalent degree. Rest of the faculties needs to Have MD physiology or equivalent degree.					
<b>BIOCHEMISTRY</b>	150		1+1	3	5
	100		1	3	4
	75		1	2	3



<b>Subject</b>	<b>Max. no of student intake</b>	<b>Professor</b>	<b>Associate Professor</b>	<b>Assistant Professor</b>	<b>Total</b>
	50		1	2	3
Maximum of one third of faculty can have MSc Clinical/Human/Medical Biochemistry or equivalent degree. Rest of the faculties needs to Have MD Biochemistry or equivalent degree.					
<b>MICROBIOLOGY</b>	150		1+1	3	5
	100		1	3	4
	75		1	2	3
	50		1	2	3
Maximum of one third of faculty can have MSc Clinical/Human/Medical Microbiology or equivalent degree. Rest of the faculties needs to Have MD Microbiology or equivalent degree.					
<b>PATHOLOGY</b>	150		1+1	5	7
	100		1+1	3	5
	75		1	3	4
	50		1	2	3
<b>PHARMACOLOGY</b>	150		1+1	3	5
	100		1	3	4
	75		1	2	3
	50		1	2	3
Maximum of one third faculty can have MSc Clinical/Human/Medical pharmacology or equivalent degree. Rest of the faculties needs to Have MD pharmacology or equivalent degree.					

<b>Subject</b>	<b>Max. no of student intake</b>	<b>Professor</b>	<b>Associate Professor</b>	<b>Assistant Professor</b>	<b>Total</b>

<b>COMMUNITY MEDICINE</b>	150		1+1	4	6
	100		1	3	4
	75		1	2	3
	50		1	2	3

Maximum of one third faculty can have Masters in Public Health or equivalent degree. Rest of the faculties need to have MD Community Medicine or equivalent degree.

<b>FORENSIC MEDICINE</b>	150		1	2	3
	100		1	2	3
	75		1+1		2
	50		1+1		2

\*All basic sciences should have adequate number of technical staffs (tutor/demonstrator and lab assistant) for providing support to the practical labs to enable efficient T/L activities.

All laboratories should be equipped with the latest technologies desired for intended learning outcomes for a particular session

Adequate space, clean and healthy environment, proper record of the academic activities, safety measures, and student feedback mechanism must be mandatorily followed.

All Basic science Subjects should have computer-based learning, if medical colleges have computer-

based learning facilities then number of required faculties in basic science can be considered to allocate the seats per intake.

**B) Clinical Sciences**

<b>Subject</b>	<b>Max. no of student intake</b>	<b>Professor</b>	<b>Associate Professor/Reader</b>	<b>Asst. Prof. /Lecturer</b>	<b>Total</b>
<b>MEDICINE</b>	150	1	2	5	8
	100	1	1	5	7
	75	1	1	4	6
	50	2		3	5
<b>SURGERY</b>	150	1	2	5	8
	100	1	1	5	7
	75	1	1	4	6
	50	2		3	5
<b>OBSTETRICS AND GYNECOLOGY</b>	150	1	2	5	8
	100	1	2	4	7
	75	2		3	5
	50	1		3	4
<b>PEDIATRICS</b>	150	1	2	4	7
	100	1	1	4	6
	75	2		2	4
	50	1		3	4

<b>ORTHOPEDICS</b>	150	1	2	4	7
	100	1	1	4	6
	75	2		3	5
	50	1		3	4
<b>ENT-HEAD &amp; NECK SURGERY</b>	150	1+1		3	5
	100	1		3	4
	75	1		2	3
	50	1		2	3
<b>OPHTHALMOLOGY</b>	150	1+1		3	5
	100	1		3	4
	75	1		2	3
	50	1		2	3
<b>RADIOLOGY</b>	150	1	2	3	6
	100	1	1	3	5
	75	2		2	4
	50	1		2	3
<b>ANAESTHESIOLOGY</b>	150	1	1	4	6
	100	1	1	3	5
	75	2		2	4

	50	1	2	3
<b>DERMATOLOGY</b>	150	1+1	3	5
	100	1+1	2	4
	75	1	2	3
	50	1	2	3
<b>PSYCHIATRY</b>	150	1+1	3	5
	100	1+1	2	4
	75	1	2	3
	50	1	2	3
<b>GENERAL PRACTICE AND EMERGENCY MEDICINE</b>	150	1+1	3	5
	100	1+1	2	4
	75	1	2	3
	50	1	2	3
<b>DENTAL</b>	150	1+1	3	5
	100	1+1	2	4
	75	1	2	3
	50	1	1	2
<b>Medical Education</b>	<ol style="list-style-type: none"> <li>1. Coordinator/HOD: Should be headed by expert in medical education.</li> <li>2. Members: Faculty that may belong to other departments having interest and adequate exposure in medical education.</li> </ol>			

**Note: Professor should be only appointed as HOD. In the absence of professor in the department Associate Professor can be appointed as HOD. There is no provision of in charge.**

**9. Requirement of Bed Occupancy and Number of patients in Out Patient Department**

**I. Average 6 patients per day per student in OPD (In Annual Average)**

<b>No of student intake</b>	<b>Bed Occupancy (Minimum Average %)</b>	<b>OPD Patient (Minimum Average %)</b>
150	60	750
100	60	600
75	60	400
50	60	300

**9.1 Distribution of beds for intake of 150, 100, 75 and 50 MBBS admission:**

	<b>Subjects</b>	<b>150 Admission</b>	<b>100 Admission</b>	<b>75 Admission</b>	<b>50 Admission</b>
1	Internal Medicine (Including Sub-specialties) & Dermatology	Total: 140 beds  General: 80 + ICU/CCU/HDU: 55+ 5 beds for Dermatology	Total: 100 beds  General: 60 + ICU/CCU/H DU: 35 + 5 beds for Dermatology	Total: 90 beds  General: 60 beds+ ICU/ CCU/HDU: 25 beds & 5 beds for Dermatology	Total: 80 beds  General: 60 beds + ICU /CCU/HDU: 15 & 5 beds for Dermatology
2	General Surgery (Including Sub-specialties)	Total: 90 beds  General beds: 90 including Dental Surgery	Total: 70 beds  General beds: 70 including Dental Surgery	Total: 60 beds  General beds: 50 beds including Dental Surgery	Total: 50 beds  General:50 beds including Dental Surgery
3	Obstetrics and Gynecology	Total: 60 beds  30 OBG + 30 Gynae	Total: 60 beds  30 OBG + 30 Gynae	Total: 50  25 OBG + 25 Gynae	Total: 40 beds  25 OBG + 15 Gynae
4	Pediatrics	Total: 50 beds  General Paed: 30 + NICU/PICU:20	Total: 40 beds  General Paed: 30 + NICU/PICU: 10	Total: 30 beds  General Paed: 20 + NICU/PICU: 10	Total: 30 beds  General Paed: 20 + NICU/PICU: 10
5	Orthopedics	60	50	40	40



**9.1 Distribution of beds for intake of 150, 100, 75 and 50 MBBS admission:**

	<b>Subjects</b>	<b>150 Admission</b>	<b>100 Admission</b>	<b>75 Admission</b>	<b>50 Admission</b>
6	ENT-H & NS and Ophthalmology	20	20	10	10
7	Psychiatry	10	10	10	10
8	Dermatology	With Int Med	With Int Med	With Int Med	With Int Med
9	General Practice & Emergency	30	20	20	20
10	Dental Surgery/OMFS	With Gen Surg	With Gen Surg	With Gen Surg	With Gen Surg
11	SICU/Post Op. *	20+20=40	10+20=30	10+10=20	10 + 10 = 20
	<b>Total</b>	<b>500</b>	<b>400</b>	<b>330</b>	<b>300</b>

\* SICU + Post Operative beds are counted in General Surgery and other Surgical Specialties

- Any Department having more than 30 beds should comprise and function with separate Units/Division with at least 20 beds in each Unit/Division.
- Number of patients in Medical Colleges in Hilly region can be considered if they have 50% of above-mentioned number in Inpatients and Outpatients.
- There should be 4 subspecialty services: two Medical and two Surgical subspecialties (In Medical Subspecialties: Cardiology, Gastroenterology, Pulmonology, Nephrology, Neurology, Endocrinology etc. and in Surgical Subspecialties: Gastroenterology, Urology, Neurosurgery, Cardiothoracic and Vascular Surgery, Plastic Surgery etc. in the hospital for the medical college admitting 150 students.

*NB: The beds of the medical colleges 'own Satellite Centers or Community Training Centers/Hospitals can be counted up to 10% in the total number of beds required as per the MEC Accreditation. The total area of the Satellite Centre or Community Training Center/ Hospital up to 10% can be counted as a part of the total land requirement, necessary for the medical college, provided the land must be owned by the college. Community training center should be mandatory as residential facilities and training; however, hospital may or may not be there.*

#### **10. Criteria for opening New Medical College**

Newly established medical colleges should fulfill all the criteria like having their own infrastructure, hospital (approval from Ministry of Health, Govt of Nepal), faculty, hostel etc. as per the MEC accreditation standard from the first day of starting the program. Infrastructure developments should be as per the standard norms prevailing in the country.

#### **11. The Medical College**

In addition to fulfilling the requirement for the MEC accreditation to run the MBBS program, the medical college must maintain a good environment for imparting quality medical education in Nepal.

The medical college must have the required number of departments, sections, together with an adequate number of faculty and staff, both administrative and technical.

The head of the college may be designated the Principal/Campus Chief, as per the nomenclature adopted by the respective universities to which the college/campus is affiliated to, and must be a senior faculty of medical/dental background and meet the appointment criteria outlined by the affiliating University.

Ideally, all the activities related to the academic program other than community training should be located at the same site. However, for those colleges which have physical infrastructure at geographically separated locations, or have already made arrangement to send students to different hospitals or health institutions for acquiring clinical/ community experiences, care should be taken to ensure that the students are not physically exhausted by commuting. Appropriate accommodation must be arranged for students during teaching- learning activities.

All the medical college should also have a own residential community training center, computer assisted and e-learning/ teaching learning facilities (platforms), skills laboratory and ambulatory teaching learning facilities in clinical departments.

**11.1 At the start all medical college should have the following requirements fulfilled:**

- Minimum 300 bedded functional general hospital which is continuously in operation for three years with approval from Ministry of Health and Population Government of Nepal as teaching hospital.
- Basic science laboratories with adequate facilities.
- Community Training Centre (CTC) with adequate facilities.
- Computer -assisted teaching- learning and e-learning facilities(platforms)
- Well-equipped skill laboratory (minimum content of skill lab is given in Anex: 1)
- Simulation based learning facility
- Classrooms for problem-based learning, one for 20 to 25 students.
- Ambulatory teaching learning facilities in each clinical department.

**11.2 Criteria for upgrading of existing MBBS intake for a Medical College:**

- All criteria laid down by MEC for allocated seats must be fulfilled.
- Must abide by Rules and regulations of MEC/University and academy
- Well maintained yearly academic calendar.
- All dues/taxes of MEC University/Academy and Nepal government paid on time.
- All infrastructures for upgraded number of seats must be well established as per MEC guidelines on top of provided seats.
- Adequate number of faculties for increment number of seats must be recruited in advance as per MEC guidelines.

**11.3 For running the MBBS program the following departments are required:**

1. Human Anatomy
2. Physiology
3. Biochemistry

4. Pathology
5. Microbiology
6. Pharmacology
7. Community Medicine
8. Forensic Medicine
9. Internal Medicine
10. General Surgery
11. Obstetrics and Gynecology
12. Pediatrics
13. Orthopedics
14. Ophthalmology
15. Otorhinolaryngology-Head and Neck Surgery
16. Psychiatry
17. Dermatology
18. Dental Surgery
19. Radiology
20. Anesthesiology
21. General Practice and Emergency
22. Medical Education
23. Department of Humanities

**11.4 The administrative structure of the Medical College/Campus should comprise the following sections:**

1. General and Personnel Administration
2. Finance
3. Planning and Evaluation
4. Academic and Examination
5. Procurement and Store
6. Learning Resources including Audio-visual and Medical Illustration
7. Students' Welfare including Hostel and Extra- curricular activities
8. Property, Security, Transport and Repair and Maintenance
9. Research and Publication
10. IT department with competent human resource
11. Waste Management

**11.5 General and Personnel Administration section:**

All matters related to general and personnel administration of the college/campus should be looked after by this section.

**11.6 Fiscal and Internal Audit Section:**

The fiscal section should be responsible for the financial planning and management of the medical college/campus. A strong financial commitment must be ensured for the sustainability of the institution. An internal audit section must check and report on the budget, procurement, and store inventory according to the financial rules and regulations pertaining to the colleges/campus.

**11.7 Planning and Evaluation Section:**

This section should conduct annual planning, budgeting and annual program evaluation.

**11.8 Academic/Examination Section:**

The academic and examination section should look after the academic programs and prepare the academic calendar. An annual/semester academic calendar of operation

for all years / semesters must be prepared by the college/school/institute/campus specifying the details of teaching schedules of theory, practical/clinical teaching/learning activities.

This section should also ensure that the examinations are held effectively, efficiently and confidentially and the results of the examinations are published in a timely manner and feedback given to individual students.

## **11.9 Procurement and Store Section:**

All matters related to the procurement and store is carried out by this section.

## **11.10 Learning Resources Section**

### **11.10.1 Library**

- A Central library with good ventilation and lighting must provide sufficient space with comfortable sitting arrangements for allowing double the number of admissions of students to sit and study at any given point in time.
- For the core text books recommended by the curriculum there must be at least one book for every ten students in the class. In addition, there must also be adequate numbers of reference books (1 recommended text book for every 30 students) which are to be placed in the reference section and/or departmental libraries or students should have access to e library to text books and reference books. Softcopy of books should be available.
- A good number of national/international medical journals related to all subjects either in paper or in digital form must be available.
- Medical Colleges/Campuses must provide free e-library/e-learning and internet services to the faculty and students. The Central library should remain open preferably 16 hours a day, to provide the opportunity to learn during any hour of the day or night.
- The Central Library must have an adequate number of personnel with relevant skills and expertise to provide library services are provided as mentioned above.

#### **11.10.2 Computer Assisted Learning Platform:**

- Provision of computer assisted teaching learning classes with required facilities and human resources.
- **There should be adequate computers for E-learning facility of Students. College should maintain atleast 20-25 computers in smooth running condition in with dedicated e-learning area.**
- The institution musts create an academic management office with responsibility for oversight and records of all functional aspects of design, production, presentation and implementation of the course, its elements, students, and staff.

#### **11.10.3 Audio-visual and Medical Illustration Section:**

An Audio-visual and Medical Illustration Section must be established to provide sufficient numbers of overhead projectors, multimedia, laptop, television and artist facilities for helping teachers to teach effectively and students to learn better. The colleges/campuses are encouraged to continuously adapt to new and innovative technologies for fostering effective teaching /learning activities.

#### **11.10.4 Lecture Rooms:(ANNEXE)**

**Adequate number of lecture halls with comfortable sitting arrangements together with good ventilation, lighting, acoustic system, cctv coverage and audio-visual aids should be made available for carrying out teaching/learning activities effectively. Tutorial Room for 1:10-15 students.**

#### **11.10.5 Examinations Hall:**

The academic/examination section must ensure that all examinations are held properly by maintaining the examination norms of the respective University. Sitting arrangements may be made in a separate examination hall or in classrooms with adequate invigilation. The examination halls should be mandatorily equipped with cctv for monitoring and record purposes by concerned authorities.

#### **11.10.6 Auditorium:**

Medical college/campus/school must have an auditorium of at least 250 seating capacity for holding scientific and other activities.

#### **11.10.7 Students' Welfare including Hostel and Extra-curricular section:**

- The students' Welfare Section should look after the welfare of the students including providing hostels and extracurricular activities. Students' hostel for both female and male must provide adequate accommodation of adequate standard. (Hostel facility for at least 50% students).
- Hostels should be on the campus or in close vicinity for maximum use of library and participation in clinical learning activities, including off time hospital exposure for patient care and management.

#### **11.11 Property, Security and Transport & Repair and Maintenance Section:**

- The safety of the college/campus physical property and students, faculty and staff must be ensured by the property section by providing adequate security. The transport of staff and students is to be organized through the transport section. All matters related to the repair and maintenance of all infrastructures, electrical and sanitary and all others are looked after by the section.

#### **11.12 Research and Publication:**

- A Medical College/Campus must establish a Research, Ethical and Publication Unit/section/department and must show evidences of research and publication by the faculty.
- Medical education programs must provide opportunities, encourage, and support student participation in research and other scholarly activities mentored by faculty.
- To facilitate the research activities of the universities and to facilitate statistical part of thesis of the postgraduate residents, employment of a biostatistician is mandatory for every medical college and number of biostatisticians should be determine by number of program and work load.



### **11.13 The Teaching Hospital:**

- The teaching hospital of a medical college/ campus/ school should run under a medical director who should be faculty of the medical college.
- In order to widen the clinical and community field experiences, the medical colleges are encouraged to adequately expose their medical students to other hospitals and rural community settings in addition to clinical placements at the institutions' own teaching hospital. However, the beds of those hospitals other than the own community centers hospitals which are adopted by the colleges will not be counted towards fulfillment of the MEC requirements.
- In the case of those medical colleges/campus/schools/institutions/ either constituent or affiliated to a university, which have already been granted permission by Nepal Government to use government hospitals for running the MBBS program, a memorandum of understanding (MOU) must be signed between the Medical School/Institute/College/Campus and the management of the concerned Government Hospital. Appropriate faculty positions for the Senior Consultants, Consultants and Registrars working in those hospitals should be awarded as per university faculty norms. The commitment of such faculty must be obtained in writing for their involvement in and contribution to the clinical teaching learning activities of the medical students throughout the MBBS program. The MOU and the undertaking signed by the individual faculty members must be produced before MEC to ensure the environment and spirit of collaboration and cooperation between the Medical School/Institute/College and the Government hospitals for academic activities. The academic calendar and other related documentation should be in place.
- The most important aspect of clinical teaching is to identify the learning objectives for different semesters/years by the concerned departments and their strict implementation of those objectives through fixed clinical placements schedules. In addition to acquiring basic insight into the disease manifestation and response to therapy, hands on skill development either on peers, mannequins or real patients under adequate supervision of the faculty/Senior Residents must be the core activity during the clinical rotations. It is also crucial to provide the students with timely feedback on their learning and performance. This will, among other things, provide the students an opportunity to realize their deficiencies and sharpen their clinical skills.

- A fixed time table together with the clinical topics allocated for daily teaching either in wards or OPD must be clearly written in the attendance register of clinical teaching in every department.
- Ambulatory teaching at OPD is to be scheduled in teaching-learning activities as ample common clinical materials are available in the OPD. Hence a separate OPD teaching/demonstration room is required for all departments of the teaching hospitals.

#### **11.14 Human Resources:**

Following are the list of sections desirable to run the academic program and hospital services of the medical campus/school/college/institute and teaching hospital.

1. Principal/Dean/Campus Chief's office
2. Hospital Directors Office
3. Academic/Examination Section
4. Administration Section/Admission Section
5. Fiscal Section
6. Public Relation Office
7. Transportation Section
8. Library
9. Centre for Medical Informatics
10. Medical Record Unit
11. Property Section
12. House Keeping Section
13. Security Section
14. Pantry
15. Accommodation/Hostel Section
16. Medical Illustration Section
17. Bio-Medical Engineering Section
18. Planning and Evaluation Section

19. Audit Section
20. Medical Education Department/Unit
21. Community Health Satellite Centre
22. Research Unit
23. Procurement Section

For the effective management of the academic activities and the clinical services, the management of the academic side and the service side may be looked after by separate administrations of the college/campus/school teaching hospital or may be amalgamated into one, as per the decision of the individual college/campus/institute. Likewise, staff recruitments in different positions shall be as per the needs of individual college/campus/school/institute and the teaching hospital.

#### **11.15 Student support services.**

It should include student representatives, academic and clinical staff, student counsellors, and other support providers on the committee.

- Develop a clear idea of the academic and social characteristics of students, their living and studying circumstances, and their access to technology and other resources.
- Identify the disabilities that students might have and consider making appropriate reasonable adjustments to the course.
- Given the range of academic, personal, and social characteristic of students, identify what support services might be needed.
- Set out the structure, range, and purposes of student support services.
- Design a student support system that is integral to the course process.
- Consider a survey, conducted on a regular basis with students and staff to find out what issues they are facing, what support works well and where the challenges are to ensure that student support is fit for purpose

## 11.16 Continuous Professional Development Unit

Continuing professional development (CPD) is the way in which registrants continue to learn and develop throughout their careers so they keep their skills and knowledge up to date and are able to practice safely and effectively.

CPD involves capacity strengthening after completion of basic medical education and postgraduate training, thereafter extending throughout each health care professional working life.

Continuous professional development (CPD) replaces the term “CME” to reflect the wider context in which this phase of medical education takes place and signifies that the responsibility to conduct CPD rests with the profession and individual doctor – WFME 2003

Motivation for CPD:

- Professional drive to provide optimal care for the patient
- Obligations to honor the societal demands
- Need to preserve job satisfaction and prevent ‘burn out’
- Forms of knowledge required to practice: factual, procedural and intuitive and practical wisdom derived from their combination.

All HCWs should mandatorily enroll into CPD system through their respective council. Respective Council should train their members with collaboration with concerned institutions.

There should be a mandatory CPD unit in all health care institutions. An initiative should be made in organizing and finalizing the module applicable for various streams of health care with mutual objectives and coordination. Respective council should keep a record of all the CPD activities.

CPD unit should comprise of:

- A) CPD Coordinator
- B) CPD Administrative staffs
- C) Trained Master trainers

Continuing Professional Development (CPD) is a combination of approaches, ideas and techniques that will help to manage own learning and growth. Establishment of such system in an

academic institution will implant the basics of learning and continuous education desire throughout the professional life.

### **Licensing Examination:**

There is a provision of licensing examination by the respective council after acquiring the academic degree.

### **11.17 Humanistic Environment**

Humanistic environment is of utmost need to facilitate enabling teaching learning environment. A humanistic pedagogy inculcates respect, tolerance, understanding, and concern for others and is fostered by mentoring, advising and small group interaction. A medical college environment should be characterized by respectful professional relationships between and among faculty and students that establishes a context for the development of interpersonal skills necessary for learning, for patient care, and for making meaningful contributions to the profession

## **12. TECHNICAL SUPPORT**

The institution should ensure that students have appropriate technology and access, and provides orientation to technology and ongoing technical support for students.

- Ensure that all students have technical access to the course (computer, mobile telephone, and Wi-Fi). Where this is not so, the institution develops a policy and provides practical support.
- Provide an introduction to using the technology and navigating technology-based course elements.
- Provide guidance on access to e-library services.
- Plan how students can record and track their study, and the resources they have accessed.
- Map available platforms for characteristics such as: accessibility, cost, organisational requirements, one way communication, two-way communication, asynchronous, synchronous, one-to-one, and one-to-many communication.
- Determine the reliability of connectivity and offer a back-up plan in the case of failure.
- Provide a named contact or accessible helpdesk from whom technical advice can be obtained.
- Intranet facilities for students and faculties.

### **13. ASSURING TEACHERS' SKILLS**

Teachers should be prepared and supported to provide the distance learning.

Teachers should be trained and supported in:

- The process and principles of distributed and distance learning,
- educational design,
- writing and producing course elements,
- assessment,
- using information technology, media, and methods for DDL including social media,
- communication style at a distance, including conveying personal presence,
- teaching in small groups, large groups and individually both at a distance and faceto-face,
- providing feedback in a variety of ways, using different methods and media,
- supporting students,
- problem-solving with students and colleagues,
- working in teams and implementation,
- identifying and helping students in difficulties,
- working with the course management office,
- Trained for monitoring and evaluation,

### **14. ASSURING TEACHERS' TIME**

Teachers need to have sufficient time in their job plan to undertake the development and presentation of distributed and distance learning without threatening their research and other academic and clinical duties.

- Undertake a study of the time required of teachers to develop and then implement DDL elements and processes. Time required will be different for each stage.

- Organize each teacher's job plan to ensure that there is sufficient time for both DDL and other academic, research, and clinical duties during course development and course presentation.

## **15. Application of Technology**

Technology enables medical education programs to improve patient care, and to revolutionize all aspects of the curriculum, from didactic courses to clinical instruction. Contemporary medical education programs regularly assess their use of technology and explore new applications of technological advances to enhance student learning and to assist faculty as facilitators of learning and designers of learning environments. Use of technology must include systems and processes to safeguard the quality of patient care and ensure the integrity of student performance.

Technology has the potential to reduce expenses for teaching and learning and help to alleviate increasing demands on faculty and student time. Use of technology in medical education programs can support learning in different ways, including self-directed, distance and asynchronous learning.

## **16. Collaboration with other Health Care Professionals**

Access to health care and changing demographics is driving a new vision of the health care workforce. Medical curricula can change to develop a new type of graduates, providing opportunities early in their educational experiences to engage allied colleagues and other health care professionals. Patient care by all team members will emphasize evidence-based practice, quality improvement approaches, the application of technology and emerging information, and outcomes assessment. Medical education programs are designed to seek and take advantage of opportunities to educate medical school graduates who will assume new roles in safeguarding, promoting, and caring the health care needs of the public.

## **Annex-1**

### **List of content of Skill Laboratory**

**(A) Skill lab of all medical colleges must have all necessary equipment's/contents from which following competencies/skills must be achieved:**

1. Demonstrate and review the use of gowns, gloves, and eye protection when the risk of exposure to body fluids.
2. Demonstrate and review hand hygiene, and surgical hand scrub technique. Nosocomial infections: magnitude and prevention of these infections.
3. Emergency Assessment of Vital Signs.
4. Basic and advanced Life Support (BLS).
5. Cardiac Monitor and Pulse Oximeter.
6. Cervical Spine Immobilization, Hemorrhage Control and Splinting Extremities.
7. Simple Suture.
8. Emergency Assessment.
9. Demonstrate and review proper technique for cardiac exam. Assessment of basic (S1 and S2) sounds and murmurs (systolic, diastolic, S3 and S4) Identify the anatomy of the heart in the transthoracic apical view.
10. Demonstrate and review proper technique for respiratory examination. Assessment and appreciation of normal and abnormal lung sounds.
11. GU (Foley) Catheterization/Pelvic/Rectal/Breast/Testicular Examinations.
12. IV/ Venipuncture.
13. Local Anesthesia/Digital Block.
14. Lumbar Puncture.
15. Oral/Nasogastric Tube/Oral/Nasal Airway (Intubation)/O2 Delivery Devices.
16. Abnormal ECG Interpretation and Treatment.
17. Basic Trauma Life Support and Trauma Resuscitation.
18. Prostate Examination.
19. Breast Examination.
20. Ear Examination.
21. Ophthalmoscopy.
22. Delivery conduction.
23. Communication Skills, Professionalism: Simulated Patient based.



## **(B) Assessment Guidelines**

### **External Examiners**

- External examiners should be from different universities and academic institutions.
- Same external examiner should not be allowed to conduct exams in different college of same university for the academic session.
- Subject expert should be always appointed as external examiners. No Clubbing for external should be entertained.
- Universities should appoint external examiners on their credentials and not on their preference.
- Blind spot bias should be considered before appointing examiners.
- Universities should never appoint same external and internal or vice versa in their corresponding affiliating colleges.
- Professor emeritus/ Retired Professor/Professor could be entertained as external examiners as per their credentials.
- Verified Professor with academic acumen involved in institutional practice (Government/Public/ INGO/NGO ) can be used for university examinations.
- No repetition of same external examiner in the same institute and the same candidate should be allowed for consecutive examinations.
- All details of External and Internal examiners should be submitted to MEC prior conducting university examinations.

### **Internal Examiners**

- All details of internal examiners should be submitted to MEC prior conducting university examinations.
- Internal examiners of a particular subject should not be rotated as internal in other colleges of the same university.
- No Clubbing for internal examiners should be entertained. Subject expert with faculty verification and associated professor and above only should be appointed as internal examiner.
- Detailed report of university examination should be submitted to MEC after the conduction of examinations.

## Annexe-2

### Teacher Evaluation

1= Rarely, 2= Once in a while, 3=Sometimes YES/NO

#### A. Teaching Techniques

1. Utilizes notebook and/or other guides effectively. \_\_\_\_\_
2. Demonstrates his mastery of the content. \_\_\_\_\_
3. Makes effective use of a variety of available materials. \_\_\_\_\_
4. Makes clear, practical demonstrations. \_\_\_\_\_
5. Provides for student participation. \_\_\_\_\_
6. Uses logical, purposeful and thought-provoking questions. \_\_\_\_\_
7. Provides interesting and adequate reinforcement. \_\_\_\_\_
8. Varies procedures in working with pupils of varying abilities. \_\_\_\_\_
9. Provides motivation. \_\_\_\_\_
10. Motivates for self-directed learning \_\_\_\_\_
11. Uses recent technology and e-learning facilities \_\_\_\_\_
12. Teacher is prepared for class \_\_\_\_\_

#### B. Effective Planning

1. Displays evidence of teacher preparation. \_\_\_\_\_
2. Directions to students are clearly thought out and well stated. \_\_\_\_\_
3. Materials for class are organized and available. \_\_\_\_\_
4. Provides enrichment and/or remediation where needed. \_\_\_\_\_
5. Is aware of adequate pacing. \_\_\_\_\_
6. Carefully plans student assignments. \_\_\_\_\_

#### C. Student/Teacher Relationships

1. Maintains student interest and attention. \_\_\_\_\_

2. Works constructively with individual or group. \_\_\_\_\_
3. Manages routine so as to avoid confusion. \_\_\_\_\_
4. Exhibits poise, voice control, and tact. \_\_\_\_\_
5. Graciously accepts less than "right" response with slow students. \_\_\_\_\_
6. Uses positive statements to students. \_\_\_\_\_
7. Makes supportive statements to students. \_\_\_\_\_
8. Maintains a friendly and respectful teacher-student relationship. \_\_\_\_\_
9. Involved in unethical and personal relationships with the students \_\_\_\_\_
10. Ask for personal favors \_\_\_\_\_