

## MGM INSTITUTE OF HEALTH SCIENCES

(Deemed to be University u/s 3 of UGC Act, 1956)

#### Grade 'A' Accredited by NAAC

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## **Curriculum for**

Third M.B.B.S – Part II

Radio-Diagnosis & Radiotherapy

Amended upto BOM 57/2019, Dated 26/04/2019

#### **Amended History**

- 1. Approved as per BOM-04/2007, Item No. 4, Dated 14/12/2007
- 2. Amended upto BOM 43/2015, Resolution No. 4.7; Dated 06/11/2015.
- 3. Amended upto BOM 45/2016, Resolution No. 3.4 (d), Dated 28/04/2016.
- 4. Amended upto BOM 46/2016, Resolution No. 1 (v), Dated 11/08/2016.
- 5. Amended upto BOM 48/2017, Resolution No. 5.9 (b), Dated 24/01/2017.
- 6. Amended upto BOM 51/2017, Resolution No. 1.3.9.7, Resolution No. 1.3.9.9, Resolution No. 1.3.9.10, Resolution No. 1.3.21, Resolution No. 1.37.5; Dated 28/08/2017.
- 7. Amended upto BOM 52/2018, Resolution No. 3.8.5, Resolution No. 3.5.9; Dated 13/01/2018.
- 8. Amended upto BOM 53/2018, Resolution No. 4.3.5 Dated 19/05/2018
- 9. Amended upto BOM 55/2018, Resolution No. 4.13, Dated 27/11/2018.
- 10. Amended upto BOM 57/2019, Resolution No. 3.1.4.2; Dated 26/04/2019.

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#### GENERAL CONSIDERATIONS AND TEACHING APPROACH

- (1) Graduate medical curriculum is oriented towards training students to undertake the responsibilities of a physician of first contact who is capable of looking after the preventive, promotive, curative & rehabilitative aspect of medicine.
- (2) With wide range of career opportunities available today, a graduate has a wide choice of career opportunities. The training, though broad based and flexible should aim to provide an educational experience of the essentials required for health care in our country.

"Training should be able to meet internationally acceptable standards."

- (3) To undertake the responsibilities of service situations which is a changing condition and of various types, it is essential to provide adequate placement training tailored to the needs of such services as to enable the graduates to become effective instruments of implementation of those requirements. To avail of opportunities and be able to conduct professional requirements, the graduate shall endeavour to have acquired basic training in different aspects of medical care.
- (4) The importance of the community aspects of health care and of rural health care services is to be recognized. This aspect of education & training of graduates should be adequately recognized in the prescribed curriculum. Its importance has been systematically upgraded over the past years and adequate exposure to such experiences should be available throughout all the three phases of education & training. This has to be further emphasized and intensified by providing exposure to field practice areas and training during the internship period. The aim of the period of rural training during internship is to enable the fresh graduates to function efficiently under such settings.
- (5) The educational experience should emphasize health and community orientation instead of only disease and hospital orientation or being concentrated on curative aspects. As such all the basic concepts of modern scientific medical education are to be adequately dealt with.
- (6) There must be enough experiences to be provided for self learning. The methods and techniques that would ensure this must become a part of teaching learning process.
- (7) The medical graduate of modern scientific medicine shall endeavour to become capable of functioning independently in both urban and rural environment. He/she shall endeavour to give emphasis on fundamental aspects of the subjects taught and on common problems of health and disease avoiding unnecessary details of specialization.
- (8) The importance of social factors in relation to the problem of health and diseases should receive proper emphasis throughout the course and to achieve this purpose, the

educational process should also be community based than only hospital based. The importance of population control and family welfare planning should be emphasized throughout the period of training with the importance of health and development duly emphasized.

- (9) Adequate emphasis is to be placed on cultivating logical and scientific habits of thought, clarity of expression and independence of judgment, ability to collect and analyze information and to correlate them.
- (10) The educational process should be placed in a historic background as an evolving process and not merely as an acquisition of a large number of disjointed facts without a proper perspective. The history of Medicine with reference to the evolution of medical knowledge both in this country and the rest of the world should form a part of this process.
- (11) Lectures alone are generally not adequate as a method of training and are a poor means of transferring/acquiring information and even less effective at skill development and in generating the appropriate attitudes. Every effort should be made to encourage the use of active methods related to demonstration and on firsthand experience. Students will be encouraged to learn in small groups, through peer interactions so as to gain maximal experience through contacts with patients and the communities in which they live. While the curriculum objectives often refer to areas of knowledge or science, they are best taught in a setting of clinical relevance and hands on experience for students who assimilate and make this knowledge a part of their own working skills.
- (12) The graduate medical education in clinical subjects should be based primarily on outpatient teaching, emergency departments and within the community including peripheral health care institutions. The out-patient departments should be suitably planned to provide training to graduates in small groups.
- (13) Clinics should be organized in small groups of preferably not more than 10 students so that a teacher can give personal attention to each student with a view to improve his skill and competence in handling of the patients.
- (14) Proper records of the work should be maintained which will form the basis for the students' internal assessment and should be available to the inspectors at the time of inspection of the college by the Medical Council of India.
- (15) Maximal efforts have to be made to encourage integrated teaching between traditional subject areas using a problem based learning approach starting with clinical or community cases and exploring the relevance of various preclinical disciplines in both understanding and resolution of the problem. Every attempt be made to de-emphasize compartmentalization of disciplines so as to achieve both horizontal and vertical integration in different phases.

- (16) Every attempt is to be made to encourage students to participate in group discussions and seminars to enable them to develop personality, character, expression and other faculties which are necessary for a medical graduate to function either in solo practice or as a team leader when he begins his independent career. A discussion group should not have more than 20 students.
- (17) Faculty member should avail of modern educational technology while teaching the students and to attain this objective, Medical Education Units/ Departments be established in all medical colleges for faculty development and providing learning resource material to teachers.
- (18) To derive maximum advantage out of this revised curriculum, the vacation period to students in one calendar year should not exceed one month, during the 4 ½ years Bachelor of Medicine and Bachelor of Surgery (MBBS) Course.
- (19) In order to implement the revised curriculum in Toto, State Govts. and Institution Bodies must ensure that adequate financial and technical inputs are provided.
- (20) HISTORY OF MEDICINE –The students will be given an outline on "History of Medicine". This will be taught in an integrated manner by subject specialists and will be coordinated by the Medical Education Unit of the College.
- (21) All medical institutions should have curriculum committee which would plan curricula and instructional method which will be regularly updated.
- (22) Integration of ICT in learning process will be implemented.

#### **OBJECTIVE OF MEDICAL GRADUATE TRAINING PROGRAMME:**

- (1) **NATIONAL GOALS**: At the end of undergraduate program, the medical student 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 fulfill his/her social obligations towards realization of this goal.
- (b) Learn every aspect of National policies on health and devote himself / herself 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 observation of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.
- (2) **INSTITUTIONAL GOALS**: (1) In consonance with the goals each medical institution should evolve institutional goals to define the manpower (or professionals) they intend to produce. The undergraduate students 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 and rehabilitative medicine in respect to the commonly encountered health problems.
  - (c) Appreciate rationale for different therapeutic modalities; be familiar with the administration of the "essential drugs" and their common side 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 Material 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) IPHS standard of health at various level of service delivery, medical waste disposal.
- (vii) Organizational institutional arrangements.
- (g) Acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, General and hospital management, principal 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.

All efforts must be made to equip the medical graduate to acquire the skills as detailed as under:

A comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) Graduate:

#### 1. Clinical Evaluation:

- (a) To be able to take a proper and detailed history.
- (b) To perform a complete and thorough physical examination and elicit clinical signs.
- (c) To be able to properly use the stethoscope, Blood Pressure, Apparatus Auroscope, Thermometer, Nasal Speculum, Tongue Depressor, Weighing Scales, Vaginal Speculum etc.:
- (d) To be able to perform internal examination-Per Rectum (PR), Per Vaginum (PV) etc.
- (e) To arrive at a proper provisional clinical diagnosis.

#### II. Bed side Diagnostic Tests:

- (a) To do and interpret Haemoglobin (HB), Total Count (TC), Erythrocytic Sedimentation Rate (ESR), Blood smear for parasites, Urine examination /albumin /sugar /ketones /microscopic:
- (b) Stool exam for ova and cysts;
- (c) Gram, staining and Siehl-Nielsen staining for AFB;
- (d) To do skin smear for lepra bacilli
- (e) To do and examine a wet film vaginal smear for Trichomonas
- (f) To do a skin scraping and Potassium Hydroxide (KOH) stain for fungus infections;
- (g) To perform and read Montoux Test.

#### III. Ability to Carry Out Procedures:

- (a) To conduct CPR (Cardiopulmonary resuscitation) and First aid in newborns, children and adults.
- (b) To give Subcutaneous (SC) /Intramuscular (IM) /Intravenous (IV) injections and start Intravenous (IV) infusions.
- (c) To pass a Nasogastric tube and give gastric leavage.
- (d) To administer oxygen-by masic/catheter
- (e) To administer enema
- (f) To pass a ruinary catheter-male and female
- (g) To insert flatus tube
- (h) To do pleural tap, Ascitic tap & lumbar puncture
- (i) Insert intercostal tube to relieve tension pneumothorax
- (j) To control external Haemorrhage.

#### IV Anaesthetic Procedure

(a) Administer local anaesthesia and nerve block

(b) Be able to secure airway potency, administer Oxygen by Ambu bag.

Surgical Procedures

- (a) To apply splints, bandages and Plaster of Paris (POP) slabs;
- (b) To do incision and drainage of abscesses;
- (c) To perform the management and suturing of superficial wounds;
- (d) To carry on minor surgical procedures, e.g. excision of small cysts and nodules, circumcision, reduction of paraphimosis, debridement of wounds etc
- (e) To perform vasectomy;
- (f) To manage anal fissures and give injection for piles.

#### VI Mechanical Procedures

- (a) To perform thorough antenatal examination and identify high risk pregnancies.
- (b) To conduct a normal delivery;
- (c) To apply low forceps and perform and suture episiotomies;
- (d) To insert and remove IUD's and to perform tubectomy

#### VII Paediatrics

- (a) To assess new borns and recognize abnormalities and I.U. retardation
- (b) To perform Immunization;
- (c) To teach infant feeding to mothers;
- (d) To monitor growth by the use of 'road to health chart' and to recognize development retardation;
- (e) To assess dehydration and prepare and administer Oral Rehydration Therapy (ORT)
- (f) To recognize ARI clinically;

#### VIII ENT Procedures:

- (a) To be able to remove foreign bodies;
- (b) To perform nasal packing for epistaxis;
- (c) To perform trachesotomy

#### IX Ophthalmic Procedures:

- (a) To invert eye-lids;
- (b) To give Subconjunctival injection;
- (c) To perform appellation of eye-lashes;
- (d) To measure the refractive error and advise correctional glasses;
- (e) To perform nasolacrimal duct syringing for potency

#### X. Dental Procedures:

To perform dental extraction

#### XI Community Healthy:

- (a) To be able to supervise and motivate, community and para-professionals for corporate efforts for the health care;
- (b) To be able to carry on managerial responsibilities, e.g. Management of stores, indenting and stock keeping and accounting
- (c) Planning and management of health camps;
- (d) Implementation of national health programmes;
- (e) To effect proper sanitation measures in the community, e.g. disposal of infected garbage, chlorination of drinking water;
- (f) To identify and institute and institute control measures for epidemics including its proper data collecting and reporting.

#### XII Forensic Medicine Including Toxicology

- (a) To be able to carry on proper medico legal examination and documentation of injury and age reports.
- (b) To be able to conduct examination for sexual offences and intoxication;
- (c) To be able to preserve relevant ancillary material for medico legal examination;
- (d) To be able to identify important post-mortem findings in common un-natural deaths.

#### XIII Management of Emergency

- (a) To manage acute anaphylactic shock;
- (b) To manage peripheral vascular failure and shock;
- (c) To manage acute pulmonary oedema and LVF;
- (d) Emergency management of drowning, poisoning and seizures
- (e) Emergency management of bronchial asthma and status asthmaticus;
- (f) Emergency management of hyperpyrexia;
- (g) Emergency management of comatose patients regarding airways, positioning prevention of aspiration and injuries
- (h) Assess and administer emergency management of burns

# Syllabus for RADIO-DIAGNOSIS AND RADIOTHERAPY

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## BROAD CURRICULUM AS PER MCI GUIDELINES (RADIO-DIAGNOSIS AND RADIOTHERAPY)

#### **RADIODIAGNOSIS & IMAGING:**

#### i) GOAL:

The broad goal of teaching the undergraduate medical students in the field of Radiodiagnosis should be aimed at making the students realise the basic need of various radiodiagnostic tools in medical practice. They should be aware of the techniques required to be undertaken in different situations for the diagnosis of various ailments as well as during prognostic estimations.

#### ii) OBJECTIVES

#### a. KNOWLEDGE:

The student should be able to:

1. Understand basics of X-ray production, its uses and hazards.

2. Appreciate and diagnose changes in bones -like fractures, infections, tumours and metabolic bone diseases.

3. Identify and diagnose various radiological changes in disease conditions of chest and mediastinum, skeletal system, G.I. Tract, Hepatobiliary system and G.U. system.

4. Learn about various imaging techniques, including isotopes C.T., Ultrasound, M.R.I. and D.S.A.

#### b. SKILL

At the end of the course the student should be able to:

1. Use basic protective techniques during various imaging procedures.

2. Interpret common X-ray, radio-diagnostic techniques in various community situations.

3. Advise appropriate diagnostic procedures in specialized circumstances to appropriate specialists.

#### B. RADIOTHERAPY

#### i) GOAL:

The broad goal of teaching the undergraduate medical students in the field of Radiotherapy is to make the students understand the magnitude of the ever-increasing cancer problem in the country. The students must be made aware about steps required for the prevention and possible cure of this dreaded condition.

#### ii) OBJECTIVES

#### a. KNOWLEDGE:

The students should be able to:

- 1. Identify symptoms and signs of various cancers and their steps of investigations and management.
- 2. Explain the effect of radiation therapy on human beings and the basic principles involved in it.
- 3. Know about radio-active isotopes and their physical properties
- 4. Be aware of the advances made in radiotherapy in cancer management and knowledge of various radio therapeutic equipment while treating a patient.

#### b. SKILL:

At the completion of the training programme, the student should be able to:

- 1. Take a detailed clinical history of the case suspected of having a malignant disease.
- 2. Assist various specialists in administration of anticancer drugs and in application and use of various radio therapeutic equipment, while treating a patient.

#### Syllabus of Radiology: Diagnosis & Imaging

#### Goals:

• Realisation of the basic need of various radio-diagnostic tools.

• Radio-diagnostic Techniques to be adopted indifferent clinical situations in diagnosis of ailments.

#### **Objectives:**

Knowledge: -

The student shall be able to

1. Understand basics of X-ray / USG production, its utility and hazards

2. Appreciate and diagnose radiological changes in diseases of Chest, Abdomen, Skeletal system, Gastro-intestinal system, Genito-urinary System & CNS

3. Learn about various Imaging techniques like nuclear medicine, computerised tomography (CT), Ultrasound, magnetic resonance imaging (MRI), conventional & Digital subtraction Angiography (DSA).

#### Skills: -

At the end of the course the student shall be able to

- 1. Interpret various radiological findings and their consequences
- 2. Use basic protective techniques during various Imaging procedures
- 3. Advice appropriate Diagnostic procedures to arrive at an appropriate diagnosis.

#### LEARNING METHODS

Lectures, Tutorials bedside clinics and lecture cum demonstrations Distribution of Teaching hours -

- q Lectures 20 hours
- q Tutorials and revision -
- q Bedside clinics 36 hours, one clinical postings 2 weeks in Radiology

#### I: BONES & JOINTS:

Congenital dislocation of hip, congenital syphilis, Achonodroplasis, Osteogenesis Imperfecta.

Infection: Osteomyelitis, Tuberculosis of Bone & Spine.

Lesions of Joints: Septic / Tuberculous Arthritis, Rheumatoid, Arthritis, Ankylosing Spondylitis, Osteo-Arthritis, Gout.

Bone Tumours: Ewing"s, Osteogenic Sarcoma, Giant Cell Tumour Neurofibroma.

Lymphoreticular system & Haemopoietic Disorders: Thalassaemia, Sickle Cell disease, Lymphomas, Multiple myeloma, plasmacytoma, Haemophilia.

Metabolic & Endocrine Disorders of Bone: Rickets & Osteomalacia, Scurvy, Osteoporosis, Acromegaly, and Hyperparathyroidism.

Skeletal trauma: General Principles.

#### II: Chest:

Methods of examination, Normal X-ray Chest, Bronchopulmonary Segments.

Interpretation of Abnormal Chest X-ray: Silhouette sign, Air Bronchogram,

Interstitial Shadows, Alveolar Shadows, Honeycomb Lung, Cavitations, Calcification, Hilar Shadow, Mediastinum, Pleura.

Bronchography.

Bronchogenic Carcinoma.

Miliary Shadows, Pulmonary Tuberculosis, Solitary Pulmonary Nodule, Bronchiectasis, Primary complex.

## III: CARDIO-VASCULAR SYSTEM

Normal Heart: Methods of examination.

Cardiomegaly, Pericardial Effusion.

Acquired Heart Diseases: Valvular Heart Disease, Ischaemic Heart Disease.

Congenital Heart Disease.

Aortic Aneurysms, Co-arctation of Aorta.

## IV: GASTRO-INTESTINAL TRACT & ABDOMEN:

Barium Examination of GI Tract.

Acute Abdomen.

Oesophagus: Carcinoma, Strictures, Varices, Achalasia, and Hiatus Hernia.

Stomach & Duodenum: Ulcer disease, Malignancy.

Intestine: Intestinal Obstruction, Volvulus, Ulcerative Colitis,

Intussusceptions, Malignancy, Hirschsprung"s Disease, Koch"s Abdomen Diverticular Disease, Polyp"s.

#### V: HEPATO-BILARY SYSTEM, PANCREAS:

Liver: Abscess, Hepatoma, Cirrhosis, Portal Hypertension, and Spenoportography.

Gall-Bladder: Calculus Disease, Malignancy, PTC, ERCP.

Pancreas: Pancreatitis, Malignancy.

#### **VI: URORADIOLOGY:**

Method of Examination: Intravenous Urography (IVP)

Calculus Disease, PUJ Obstruction, PU Valves, Renal Artery Stenosis,

Wilm"s Tumour, Renal Cell Carcinoma, GU Koch"s.

#### **VII: OBSTETRICS & GYNAECOLOGY:**

Hysterosalpingography (HSG), Intra-Uterine Foetal Death, Fibroid, Ovarian Tumours, Ultrasongraphy & Transvaginal US.

#### VII: CENTRAL NERVOUS SYSTEM:

Raised Intracranial Tension, Intracranial Calcification, Head Injury, Cerebrovascular Accident, Rind Enhancing Lesions in Brain, Spinal Neoplasms, Myelograpy.

#### **IX: MISCELLANEOUS:**

Radiation Hazards, Radiation Protection.

**Imaging Modalities:** 

USG, CT, MRI: Principles, Applications, Advantages, Limitations, Developments.

Angiography: Seldinger Technique, Conventional Angiogram, DSA, Carotid, Coronary, Renal Angiograms, Aortogram.

Contrast Media: Barium Sulphate, Water Soluble & Oily Contrast.

Interventional Radiology: Developments, Angioplasty, Embolisation.

Mammography: Principles & Applications.

#### Internal assessment:

Term ending examination at the end of Posting of 50 marks out of Total 450 marks under general surgery.

## UPDATING OF UNDER-GRADUATE SYLLABUS IN RADIOLOGY

Board of management- 14/2010 dated 03.06.2010

Item Nos. 6 and 6.3.4

Resolution No. 6.3.4

#### **UPDATES SUGGESTED AS UNDER**

1. Under II CHEST:- include

a) Imaging findings in Interstitial Lung Disease (ILD) namely in Idiopathic Pulminary Fibrosis (IPF) and Idiopathic Non-Specific Interstitial Pneumonia (NSIP).

- b) Imaging findings in H1N1 (Swine Flu) Pneumonia.
- c) Imaging in HIV positive patient like Opportunistic infections, Kaposis Sarcoma.
- 2. Under Vill. CENTRAL NERVOUS SYSTEM:- include
  - a) Imaging findings in HIV positive patient like primary involvement of Brain and Opportunistic infections.

H. O. D.

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At M.B.B.S. level, Knowledge of Radiodingnosis and Radiotherapy is linked to relevance importance of categorization of clinical conditions (ie Much know, decirable to know) and nice to know).

The contents of syllabus essentially pickeds only those conditions under each system which are form "Much know" category of clinical conditions.

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Approved in Bom -43/2015, Dated 06/11/2015
Resolution No. - 4.7

## Resolution No. 4.7 of BOM-43/2015:

(a) Resolved for UG (MBBS) courses 6 examiners (3 externals and 3 internals) will be invited during practical examination. While 4 (2+2) will take practical's, 2(1+1) will be utilized for evaluation of written papers during the day. They will be rotated by the convener/senior most examiners every day.

#### Resolution passed in BOM – 48/2017, dated 24/01/2017

#### Item No. 5.9: BOS (Surgery and Allied) dated 21.09.2016

#### b) Structured ALS/BLS course

BOM has already adopted following resolution on this matter:

**Resolution No. 3.4(d) of BOM-45/2016 dt. 28/04/2016:** As ALS/BLS is already included in the syllabus of MBBS/PG courses, hence there is no need to have separate structured programme.

**Resolution No. 1(v) of BOM-46/2016 dt. 11/08/2016:** Resolved to include 01 additional page in the Intern's log book indicating that the Students have undergone ALS/BLS training.

After deliberations on both the above resolutions, following resolution is adopted:

Resolution No. 5.9(b): It is resolved that as ALS/BLS is already a part of the syllabus of MBBS/PG courses, it is not necessary to have a separate structured programme for ALS/BLS. However looking at its importance, it becomes essential to retrain UG and PG students, therefore, it is also resolved to certify the interns and PG students during their internship and PG training respectively by incorporating a certificate of completion in the Intern's log book/PG log book indicating that the Students have undergone ALS/BLS training. This training can be imparted by Department of Emergency Medicine/Anaesthesia. This will be effective from the batch of internship during 2017 and PG batch of academic year 2015-16.

#### Resolution No. 1.3.9.7 of BOM-51/2017:

- i) Resolved that authorities must strictly monitor internship and the required skills to be gained must be recorded in the log book properly and based on the scoring, internship completion can be given after deciding the competency of the interns.
- ii) Further Teachers must help students in preparation for NEET PG exam during internship wherever possible.

Resolution No. 1.3.9.9 of BOM-51/2017: Resolved that Clinical posting during MBBS can be modified or shifted in between semesters as per needs abiding MCI norms.

Resolution No. 1.3.9.10 of BOM-51/2017: Resolved that University Examination section must provide hard copy/CD of Syllabus which is categorized in Must Know (60%), Nice to know (30%) and Desirable to know (10%) to all paper setters so that the same can be reflected in the question papers.

Resolution No. 1.3.21 of BOM-51/2017: Resolved to implement the Graduate/Intern Medical Outcome. [Annexure-XLII]



### MGM INSTITUTE OF HEALTH SCIENCES, NAVI MUMBAI

#### **Graduate Attributes**

Graduate attributes are the qualities, skills and understandings a university community agrees its students should develop during their time with the institution. These attributes include but go beyond the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are qualities that also prepare graduates as agents of social good in an unknown future.

(Bowden et al, 2000)

A student graduating from MGM Institute of Health Sciences, Navi Mumbai, should attain the following attributes:

Dynamic professionalism
 Exemplary leadership
 Effective communication skills
 Scholarly attitude
 Element of critical thinking
 Enthusiasm for research
 Social commitment
 Global competencies

#### **Dynamic Professionalism:**

Abide by professional codes of conduct, demonstrate high personal standards of behavior, be considerate, trustworthy and honest, act with integrity. Apply effective strategies to maintain their own physical, psychological, social and spiritual well-being. Should be able to apply profession-specific knowledge, clinical skills and professional attitudes in implementation of evidence-based protocols for optimal outcome.

#### **Exemplary leadership:**

Focuses on the qualities required to effectively manage a career, as a practitioner or academician, work effectively within a system aiming at quality improvement, fostering a spirit of team-building.

#### Effective communication skills:

Communicates effectively and humanely with all stakeholders, their families, colleagues, through a variety of means, gathers and conveys information respectfully, in a culturally acceptable and dignified manner.

#### Scholarly attitude:

Demonstrates a lifelong commitment to reflective learning, strives to maintain professional competence. Committed to learn, disseminate, apply and translate knowledge.

#### Element of critical thinking:

Will develop a habit of inquiry, use the knowledge gained for dealing with complex situations, foster an ambience conducive for effective learning with constructive criticism, exercise critical judgement in evaluating sources of information.

#### Enthusiasm for research:

Develop intellectual curiosity and embark upon opportunities to develop research capabilities. Imbibe the basic principles of research methodology and engage in ethical research.

#### Social commitment:

Inculcate values of self-awareness, empathy, mutual respect. Understand our obligation to society and foster an ability to work in a diverse cultural setting. Understand how ones' actions can enhance the well-being of others.

## Global competencies:

Team-building, communication, self-management, collaborative working, openness and respect for a range of perspectives.

## Competencies for a medical graduate

Sr. No.	Competency		
	General		
1.	Obtaining a written and informed consent		
2.	Hand washing and surgical scrubbing		
3.	Universal safety precautions		
4.	Infection control strategies		
5.	Biomedical waste management		
	Diagnosis		
6.	Measurement of body temperature		
7.	Measurement of pulse and blood pressure		
8.	Venepuncture		
9.	Management of blood samples		
10.	Taking blood cultures		
11.	Measurement of blood glucose		
12.	Managing an ECG monitor and correct interpretation of tracing		
13.	Basic respiratory function tests		
14.	Urine multi dipstick test		
15.	Educating patients regarding collection of mid-stream urine sample		
16.	Taking nose, throat and skin swabs		
17.	Assessment of nutritional status		
18.	Pregnancy testing		
	Treatment		
19.	Administering oxygen		
20.	Securing a peripheral intravenous access, setting up an infusion and use of infusion devices		
21:	Use of drugs for parenteral administration		
22.	Dosage and administration of Insulin and use of sliding scales		
23.	Subcutaneous and intramuscular injections		
24.	Blood transfusion		
25.	Male and female urinary catheterization		
26.	Use of local anaesthetics		
27.	Skin suturing		
28.	Basic wound care and dressings		
29.	Educating patients regarding use of devices for inhaled medications		
30.	Correct methods for safe transfer / handling of patients in context of clinical care		

Prof. Dr. Siddharth P. Dubhashi Director (Academics) Resolution No. 3.8.5 of BOM-52/2018: Resolved to accept the below mentioned topics for integrated teachings in MBBS for Orthopedics, Ophthalmology, Radiology and Anesthesia:

## IV. Radiology:

- 1. OBGY: Follicular study for infertility patients
- 2. Emergency Medicine: Emergencies in Radiology
- 3. Physiotherapy and surgery: Spine care

#### Resolution No. 3.5.9 of BOM-52/2018:

a) BOM reiterated the earlier BOM resolution as mentioned below:

Resolution No. 1.3.7.5 of BOM-51/2017: It was resolved that

- i) In all the subjects of all courses, MCQ weightage (Section A) shall be a maximum of 20% of the total marks in each paper.
- ii) BOS will have to accordingly workout the changes in Section B & C weightage and put up in forthcoming BOS meeting.
- iii) Further University Examination section must validate the MCQ Question Bank by Faculties before giving it to question paper-setter.
- b) To be effective from:
  - (i) Ist MBBS Batch appearing in University August/September 2018 examination onwards.
  - (ii) Ind MBBS Batch appearing in University January 2019 examination onwards.
  - (iii) IIIrd MBBS (Part I) and IIIrd MBBS (Part II) Batch appearing in University January 2019 examination onwards.

**Resolution No. 4.3.5 of BOM-53/2018:** Resolved to add reference book entitled "ESSENTIAL IN RESPIRATORY MEDICINE" by Dr. S.H. Talib in the UG/PG curriculum in medicine and allied subjects

#### Resolution No. 4.13 of BOM-55/2018: Resolved as follows:-

- (i) Slow learners must be re-designated as potential learners.
- (ii) Students scoring less than 35% marks in a particular subjects/course in the 1<sup>st</sup> formative exam are to be listed as potential learners. These learners must be constantly encouraged to perform better with the help of various remedial measures.
- (iii) Students scoring more than 75% marks in a particular subjects/course in the 1<sup>st</sup> formative exam are to be listed as advanced learners. These learners must be constantly encouraged to participate in various scholarly activities.

#### Resolution No. 3.1.4.2 of BOM-57/2019:

- i. Resolved to include "Gender Sensitization" into UG (from new batch 2019-2020) and PG (from existing batches) curricula. [Annexure-21]
- **ii.** Resolved to align the module of "Gender Sensitization" with MCI CBME pattern for MBBS students.
- iii. Resolved that Dr. Swati Shiradkar, Prof., Dept. of OBGY., MGM Medical College, Aurangabad will coordinate this activity at both campuses.

#### **Annexure - 21**

Gender sensitization for UG (2<sup>nd</sup>, 3<sup>rd</sup>, 8<sup>th</sup> semesters) and PG (3 hours)

#### **INCLUSION OF "GENDER SENSATIZATION" IN CURRICULUM**

#### **Introduction:**

The health care provider should have a healthy gender attitude, so that discrimination, stigmatization, bias while providing health care will be avoided. The health care provider should also be aware of certain medico legal issues related with sex & gender.

Society particularly youth & adolescents need medically accurate, culturally & agewise appropriate knowledge about sex, gender & sexuality. So we can train the trainers for the same. It is need of the hour to prevent sexual harassment & abuse .

To fulfill these objectives, some suggestions are there for approval of BOS.

#### **Outline**

- 1)For undergraduates :- Three sessions of two hours each, one in 2<sup>nd</sup> term, one in 3<sup>rd</sup> term & one in 8<sup>th</sup> term.
- 2) For Faculties and postgraduates: One session of two hrs.
- 3) For those want to be trainers or interested for their ownself, value added course, which is optional about sex, gender, sexuality & related issues.

#### Responsibility

ICC of MGM, MCHA , with necessary support from IQAC & respective departments.

#### **Details of undergraduate sessions**

#### 1)First session in 2<sup>nd</sup> term

Aim - To make Students aware about the concept of sexuality & gender.

To check accuracy of knowledge they have,

To make them comfortable with their own gender identify & related issues.

To make them aware about ICC & it is functioning.

**Mode** – Brain storming, Interactive power point presentation experience sharing.

**Duration** – Around two hours

**Evaluation** – Feedback from participants.

## 2)Second session in 3<sup>rd</sup> / 4<sup>th</sup> term

**Aim** – To ensure healthy gender attitude in these students as now they start interacting with patients.

To ensure that the maintain dignity privacy while interacting with patients and relatives, particularly gender related.

To make them aware about importance of confidentiality related with gender issues.

To encourage them to note gender related issues affecting health care & seek solutions.

Mode – focused group discussions on case studies, Role plays & discussion.

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Duration – Around two hours.

Evaluation – Feedback from participants.

Third session in 8<sup>th</sup> term.

**Aim** – To understand effect of gender attitudes on health care in various subjects.

To develop healthy gender attitude while dealing with these issues.

**Mode** – Suggested PBL by departments individually. (In collaboration with ICC till faculty sensitization is complete)

**Evaluation** – Feedback

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#### **FOR POSTGRADUATES**

Session of 2-3 hrs preferably in induction program.

**Aim** – To introduce medically accurate concept of gender, sex, gender role & sex role.

To ensure healthy gender attitude at workplace.

To understand gender associated concepts on health related issues & avoid such bias wile providing health care.

To make them aware about ICC & it's functioning.

**Mode** – Interactive PPT

Role plays & discussion

**Duration** – 2 to 3 hrs

**Evaluation** – Feedback.

#### **FOR FACULTIES**

Session of 2 hours may be during combined activities.

**Aim** – To ensure clarity of concept abut gender & sex.

To discuss effect of these concept on health related issues.

To identify such gender & sex related issues in indivual subject specialties.

To discuss methodology like PBL for under graduate students when whey are in  $7^{\text{th}}$ - $8^{\text{th}}$  semester.

Mode – Role play

Focused group discussion

Case studies

**Evaluation** – Feed back.

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## MGM INSTITUTE OF HEALTH SCIENCES

(Deemed to be University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

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