



# MGM INSTITUTE OF HEALTH SCIENCES

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

**Grade 'A' Accredited by NAAC**

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## Syllabus for MBBS – (Third Year) Part II

Approved as per BOM. 04/2007, dated 14.12.2007, item 4 & amended up to BOM.

43/2015 dated 14.11.2015

Syllabus have been categorized as '**Must know**' (70%), '**Desirable to Know**' (30%) and '**Nice to Know**' (10%) topics.

Inside this booklet, '**Desirable to know**' & '**Nice to Know**' topics are stamped and remaining all unstamped topics belong to '**Must Know**' area.

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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 out-patient 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.

**V 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 Health:**

- (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  
GENERAL MEDICINE**

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## **BROAD CURRICULUM AS PER MCI GUIDELINES (GENERAL MEDICINE)**

### **i) GOAL:**

The broad goal of the teaching of undergraduate students in Medicine is to have the knowledge, skills and behavioral attributes to function effectively as the first contact physician.

### **ii) OBJECTIVES**

#### **(a) KNOWLEDGE**

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

- (1) Diagnose common clinical disorders with special reference to infectious diseases, nutritional disorders, tropical and environmental diseases.
- (2) Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications.
- (3) Propose diagnostic and investigative procedures and ability to interpret them.
- (4) Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required.
- (5) Recognize geriatric disorders and their management.

#### **a. SKILLS:**

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

1. Develop clinical skills (history taking, clinical examination and other instruments of examination) to diagnose various common medical disorders and emergencies.
2. Refer a patient to secondary and/or tertiary level of health care after having instituted primary care.
3. Perform simple routine investigations like haemogram, stool, urine, sputum and biological fluid examinations.
4. Assist the common bedside investigative procedures like pleural tap, lumbar puncture, bone marrow aspiration/biopsy and liver biopsy.

#### **(c) INTEGRATION:**

- (1) With community medicine and physical medicine and rehabilitation to have the knowledge and be able to manage important current national health programs, also to be able to view the patient in his/her total physical, social and economic milieu
- (2) With other relevant academic inputs which provide scientific basis of clinical medicine e.g. anatomy, physiology, biochemistry, microbiology, pathology and pharmacology.

## **SUBJECT : MEDICINE**

Theory Lectures : to begin in IV semester and continue till IX semester.

Syllabus (Theory) :

### **(i) GOAL :**

The broad goal of the teaching of undergraduate students in Medicine is to have the knowledge, skills and behavioral attributes to function effectively as the first contact physician.

### **(ii) OBJECTIVES :**

#### **(a) KNOWLEDGE :**

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- (2) Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications;
- (3) Propose diagnostic and investigative procedures and ability to interpret them;
- (4) Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required;
- (5) Recognize geriatric disorders and their management.

### **(iii) SKILLS :**

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

- (1) develop clinical skills (history taking, clinical examination and other instruments of examination to diagnose various common medical disorders and emergencies;
- (2) refer a patient to secondary and/or tertiary level of health care after having instituted primary care;

(3) perform simple routine investigations like hemogram, stool, urine, sputum and biological fluid examinations;

(4) Observe the common bedside investigative procedures like pleural tap, lumbar puncture, bone marrow aspiration/ biopsy and liver biopsy.

iv) **Attitude :**

- a. The teaching and training in clinical medicine must aim at developing the attitude in students to apply the knowledge & skills he/she acquires for benefit and welfare of the patients.
- b. It is necessary to develop in students a sense of responsibility towards holistic patient care & prognostic outcomes.
- c. Students should develop behavioural skills and humanitarian approach while communicating with patients, as individuals, relatives, society at large & the co- professionals.

Curriculum for Theory Lecture series & Tutorials  
TERM DAY TIME LECTURES TOPIC

Term	Day	Time	Hrs/Lectures	Topic
4 <sup>th</sup>	Mon	8-9	23	Introduction to Medicine , Diseases of respiratory system & tuberculosis
5 <sup>th</sup>	Mon	8-9	23	Infectious Diseases / Tropical disease
6 <sup>th</sup>	Mon	8-9	23	Cardiovascular system
	Wed	8-9	23	Gastroenterology, Hepatobiliary system and pancreas
7 <sup>th</sup>	Mon	8-9	15	Genetics, Nutrition, Emergency Medicine
8 <sup>th</sup>	Mon	1 to 2	20	Hematology
	Tue	8-9		Endocrinology
	Thur	1-2	40	Neurology
	Mon& Thu.	2-4	40	Tutorial
9 <sup>th</sup>	Mon	8-9	15	Connective tissue disorder, Immunology
	Thu	8-9	30	Nephrology

The above timetable is general outline to guide the planning of curriculum. However, flexibility may be exercised to the extent that there may be minor re-scheduling of course contents day-wise or term-wise. It must be ascertained that the course contents are covered fully and total hours allotted for the subjects are effectively implemented.

### CLINICAL POSTINGS

Clinical posting in major subjects in their III, IV, VI, VIII & IX Semester with total duration of posting in each subject according to MCI guidelines.

### PROPOSED POSTING- In weeks

Sub	III sem	IV sem	V sem	VI sem	VII sem	VIII sem	IX sem	Total
Gen Med	6	4	-	4	-	6	6	26
Paediatrics	-	2	-	2	-	4	2	10
TB & Chest	-	2	-	-	-	-	-	02
Skin & VD	-	2	2	-	2	-	-	06
Psychiatry	-	-	2	-	-	-	-	02
Radiology	-	-	2	-	-	-	-	02
Gen Surgery	6	4	-	4	-	6	6	26
Orthopaedics	-	-	4	-	-	4	2	10
Ophthalmology	-	4	-	-	6	-	-	10
ENT	-	4	-	-	4	-	-	08
Obst & Gynaec	6	4	-	4	-	4	6	24
Comm Med	4	4	-	2	2	-	-	12
Casualty	-	-	-	-	2	-	-	02
Dentistry	-	-	2	-	-	-	-	02
Total	22	32	12	16	16	24	22	142



(3) perform simple routine investigations like hemogram, stool, urine, sputum and biological fluid examinations;

(4) Observe the common bedside investigative procedures like pleural tap, lumbar puncture, bone marrow aspiration/ biopsy and liver biopsy.

**iv) Attitude :**

- a. The teaching and training in clinical medicine must aim at developing the attitude in students to apply the knowledge & skills he/she acquires for benefit and welfare of the patients.
- b. It is necessary to develop in students a sense of responsibility towards holistic patient care & prognostic outcomes.
- c. Students should develop behavioural skills and humanitarian approach while communicating with patients, as individuals, relatives, society at large & the co- professionals.

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Gen Med	6	-	4	-	4	6	6	26
Paediatrics	-	2	-	2	2	4	-	10
TB & Chest	-	2	-	-	-	-	-	02
Skin & VD	-	2	-	2	-	2	-	06
Psychiatry	-	-	2	-	-	-	-	02
Radiology	-	-	-	-	2	-	-	02
Gen Surgery	6	-	4	-	4	6	6	26
Orthopaedics	-	-	4	4	-	-	2	10
Ophthalmology	-	4	-	4	2	-	-	10
ENT	-	4	-	4	-	-	-	08
Obst & Gynaec	2	4	-	4	4	4	6	24
Comm Med	4	4	-	4	-	-	-	12
Casualty	-	-	-	2	-	-	-	02
Dentistry	-	-	-	-	2	-	-	02
Total	18	22	14	26	20	22	20	142

# SYLLABUS

(General Instruction:)

1) The Lectures Stated below shall cover knowledge about applied aspects of basic & allied sciences, practical approaches in the management of patients in the outdoor & indoor settings as well as their management in the community. Special emphasis shall be placed on preventive aspects, National Health Programs & dietetics & nutrition.)

2) During practical teaching & training in wards, OPD & field works proper emphasis should be given to common health problems in addition to other diseases.

Emphasis should be given to learning of tacit knowledge & skills in diagnosis & interpretation of finding & Lab. data.

4<sup>th</sup> Semester

Topic:- Introduction to Medicine  
Respiratory system.

1 : History of Medicine.

2. Concept & objectives of history taking. Diagnosis, Provisional Diagnosis, Differential diagnosis.

3. Applied Anatomy and physiology of R.S.

4. P.F.T. ( Pulmonary Function Testing)

5. Resp. Infection- Pneumonias.-

6. Chronic bronchitis and emphysema

7. Bronchiectasis and lung abscess.

8. Bronchial asthma -

9. Malignancies - *Desirable To Know*

10. Mediastinum and its disorders. *Desirable To Know*

11. Pleural disease - Emphasis on pneumothorax

12. Pleural effusion.

13. Occupational lung disease. Its concept and short review *Desirable To Know*

14. Fungal & Parasitic diseases *Nice To Know*

15. Respiratory emergencies & Introduction to mechanical ventilators *Nice To Know*

## TUBERCULOSIS

History and introduction

Pathogenesis and pathology

Role of host related factors

Microbiology of AFB

Clinical features of pulmonary tuberculosis and its investigations  
Anti – Tubercular drugs  
Pharmacology & Schedules of treatment.

Resistant tuberculosis - DOTS  
Prophylaxis - Drugs /BCG/ Tuberculin test.  
HIV & TB.

Extra - pulmonary tuberculosis  
Plural effusion  
Empyema  
Others

**5<sup>th</sup> Semester**

### **INFECTIOUS DISEASES:**

Introduction.

Infections – types, Modes of Infection transmission, Incubation period

Host defenses, Immunity & Immunization & Management including

Prevention -

Viral hepatitis.

Tetanus/ Diphtheria –

Malaria

Rabies

Typhoid fever

Gastroenteritis

Plague / Dengue *Desirable To Know*

( HIV ) Infection & AIDs

Leptospirosis

PUO

Kala azar *Nice To Know*

Approach to fever with Rash

## VI Semester ( 23 hours)

### CARDIOVASCULAR SYSTEM :

#### Introduction

Functions / anatomy / physiology and its applications

Various terminologies used

#### Methods of evaluation

Non - invasive

Invasive

#### Arrhythmias *Desirable To Know*

Concept & Classification

Presentation

Diagnosis

Pharmacotherapy in short

Cardiac arrest.

#### C.C.F.

Types

Presentations

Pathophysiology

Management

#### C.H.D. *Desirable to Know*

Aetiology and classification

CHD in adults & its importance

#### Rheumatic fever

Presentation and haemodynamics of various Valvular lesions including investigations, Diagnosis, D/D treatment & Prevention.

Infective endocarditis

: C.A.D, (Coronary artery disease)

Pericardial diseases cardiomyopathy *Desirable To Know*

Hypertension

## VI Semester

### GASTROENTEROLOGY, HEPATOBILIARY SYSTEM & PANCREAS :

23 hours

#### Introduction to GIT

Oral Cavity

Ulcers

Bleeding

Pigmentation

Oral manifestation of systemic diseases

#### Oesophagus

Inflammation, Dysphagia

Stomach

Peptic ulcers  
Aetiopathogenesis  
Clinical features  
Investigations  
D/D and management  
Acute and Chronic gastritis  
Small and large intestine diseases  
Secretions & functions  
MAS Mal –absorption-syndrome **Desirable To Know**  
Tuberculosis of Abdomen  
Ulcerative colitis & Crohn's disease

Liver.

Introduction  
LFT & their interpretation  
Hepatitis - Acute & Chronic  
Cirrhosis of liver  
Gall bladder diseases **Desirable To Know**  
Pancreas  
Functions  
Investigations  
Acute and Chronic pancreatitis  
Manifestation and D/D & treatment.  
Liver transplat **Nice To Know**

## **VII SEMESTER**

### **Genetics**

Introduction  
Common genetic disorders  
Application of Genetic Engineering in Medicine

### **NUTRITION :**

Concepts of carbohydrate, proteins, fats, vitamins and minerals. Balanced diet.  
Protein energy malnutrition.  
Vitamin deficiency state  
Scurvy / Beriberi / Pellagra / Vit.A  
Obesity / Asthenia  
Diagnosis  
Complications and management

## VIII Semester

### NEUROLOGY

Introduction

Applied anatomy & physiology

History taking in neurology

Investigations

CVD ( Cerebro Vasular Disease)

Types & its differential diagnosis

Predisposing factors

Diagnosis and management

S.O.L. (Space Occupying Lesions) *Nice To Know*

Encephalitis and meningitis

Epilepsy

Cerebellar syndrome *Desirable To Know*

Parkinsonism

Muscle disorders in brief *Desirable To Know*

Spinal cord disorders

CSF

Formation and absorption

Status in various disorders

Neuropathy *Desirable To Know* *Nice To Know*

Imaging & its role in CNS *Nice To Know*

### HEMATOLOGY :

Introduction

Cell line of hemopoiesis

Stimulating factors

Physiology and Anatomy of RBCs.

Anemias

Introduction

Classification

Symptoms & signs in general

Basic investigations & its interpretation

Microcytic hypochromic anaemias

Fe Kinetics

C/F, investigations of Fe deficiency.

Treatment of Fe deficiency.

D/D - Sideroblastic / thalassemic.

Macrocytic anaemias

Kinetics of B-12 and Folic acid

C/F, investigations and management of B-12 / FA deficiency.  
Hemolytic anaemias

- Hemoglobinopathies
- Hypoplastic / Aplastic anemia
- Definition
- Classification
- Diagnosis and management

Introduction to WBCs.

Agranulocytosis - Aetiology & its significance **Desirable To Know**

Leukemias ( AML, ALL, CML, CLL)

- Management of leukemia, Lymphomas

Hodgkin's disease / NHL (Non-Hodgkin's lymphoma) **Desirable To Know**

Approach to a patient with bleeding disorders **Nice To Know**

- Recognition
- Investigations
- Physiology of Platelets
- Therapy

:Blood groups & Blood Transfusion & Component Therapy

## ENDOCRINOLOGY

Introduction - Hormones

- Concept
- Types
- Action

Endocrine system

- General
- Control

Pituitary

- Anatomy
- Regulation

Disorders of Ant. Pituitary

Acromegaly

- A.G. Syndrome

Disorders of Post. Pituitary **Desirable To Know**

- Hypopituitarism

Thyroid

- Anatomy
- Regulation
- Goiter

Hypothyroid state & hyperthyroid state

- Classifications
- Management

Adrenal gland

- Anatomy



Regulation  
Addison's & Cushing syndrome  
Recognition  
Investigations  
Management  
Pheochromocytoma **Desirable To Know**  
Vit. D. Metabolism. **Nice To Know**  
Ca. Metabolism and its relations to parathyroid **Nice To Know**  
Diagnosis & management of related disorders.  
Diabetes Mellitus  
Management  
Multiple endocrine-syndrome and paraneoplastic syndrome Overview. **Nice To Know**  
Diabetes incipidus. **Nice To Know**

## **IX Semester**

### **NEPHROLOGY, NUTRITION :**

Anatomy & Physiology of Urinary system  
R.F.T. ( Renal Function Tests)  
Acute Glomerulonephritis  
Chronic Glomerulonephritis  
Infections of urinary system.  
Nephrotic syndrome  
Approach towards common problem  
i. Proteinuria  
ii. Hematuria  
iii. Renal colics  
Acute & Chronic renal failure  
Dialysis - Diet - Drugs. In renal failure **Desirable To Know**

### **Connective tissue disorder & immunology**

SLE **Desirable To Know**  
Rheumatoid arthritis **Desirable To Know**  
Allergy **Nice To Know**

### **Miscellaneous**

Poisoning  
Suicidal / Homicidal / Accidental  
Chemical / Biological / Corrosives / Drugs

Concepts of management  
Optimum Barbiturate  
DDT  
Organophosphorus  
Hyperpyrexia and Heat exhaustion  
Aetiology  
Pathophysiology  
C / F. Types  
Management  
Preventive measures  
Electrical injury **Desirable To Know**  
Types  
Manifestations  
Management  
Lightening  
Shock  
Types  
Pathophysiology / Complications  
Management  
“Brain Death and Organ Donation” **Desirable To Know**

Recommended Books :

1. Hutchinson's Clinical Methods by Hunter and Bomford,
2. The Principles and practise of Medicine - Sir Stanley Davidson
3. Text book of Medical Treatment - Dunlop and Alstead.
4. Savill's system of Clinical Medicine - E. C. Warner.
5. Principles of internal Medicine - Harrison.

Approved in Bom - 40/2015, Dated 13/05/2015

Resolution No. - 3.3 (a)

**3.3: MEDICINE & ALLIED :**

Resolution No. 3.3(a): Resolved to have rotation of Post Graduate Students of Dept. of Medicine to Various Sub Specialties, since as per MCI, 6 months of Allied posting can be given as per HOD's mutual agreement.

### Internal Assessment Scheme

#### Theory

Total 30 Marks – Internal Examinations

VI Sem.	VIII Sem.	Prelim	Total	Marks out of 30
60	60	120	240	240/8=30

#### Practicals

Total 30 Marks

Internal Examinations – at the end of each clinical posting

III Sem.	V Sem.	VII Sem.	VIII Sem.	Chest	Psych	Skin & VD	Prelim	Total	Marks out of
60	60	60	60	30	30	30	90	420/14=30	420/14=30

Candidates have to secure minimum 35% marks in internal assessment to be eligible to appear in University Exam.

THIRD MBBS (PART-II) UNIVERSITY EXAMINATIONS PATTERN

University (Final) Exam:

General Medicine

Paper I (60 Marks) Time 3 hours.

**Section A – Marks 15**

MCQs – 30 Items each of ½ mark Time 30 minutes

(Shall cover whole course syllabus stated in Section B and C of Paper I below)

**Section B – (Total Marks 25)**

Two long questions

Each of 8 marks &

3 Short Answer Questions of 3 marks each. (3 out of 5 SAQs by choice. On course contents of - Cardiovascular System, Gastrointestinal System, Hepatobiliary System & Pancreas, Haematology, Haematooncology & Genetics)

**Section C – (Total Marks 20)**

One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, Miscellaneous

Paper II (60 Marks) Time 3 hours.

**Section A – Marks 15**

MCQs 30 Items each of ½ marks Maximum time 30 minutes

(Shall cover whole course syllabus stated in Section B and C of Paper I below)

**Section B – (Total Marks 25)**

*Two long Questions each of 8 marks and*

3 short answer questions (out of 5 SAQs) on course contents of Neurology, Psychiatry, Dermatology, Veneroleprology & Collagen Disorders

**Section C – (Total Marks 20)**

One long question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents on Respiratory Diseases, Tuberculosis & Clinical Nutrition and Nephrology.

MCQ Section A shall be given to the candidates in the beginning of examination.

After 30 min. section A will be collected following which B & C shall be given. The time given Section B & C together is two and half hours. This applies to paper I & II.

UNIVERSITY EXAM  
SUB: MEDICINE  
SCHEME OF PRACTICAL EXAM

	Description	Marks	Preparation time	Assessment time
Long Case	1 One	50	45 min.	10 min
Short Case	2 Two	50 25 x 2 = 50 (25 marks each)	40 min (20 min each)	10 min (5 min each)
Total marks in clinical exam = 100				
Viva	Two Tables			
	Table 1 Interpretation of investigation (ECG, X-rays, Lab. Report, Instruments)	10		5 min
	Table 2 Drugs & Medical Emergencies	10		5 min

- Minimum passing marks - 50 % in Case vivas (All 3 cases together).
- Marks obtained in table viva are incorporated in theory.

**Scheme of Internal Assessment – Medicine & Allied**

**To be implemented for batch of students joining III sem in  
Aug 2016**

**Internal Assessment - Medicine & Allied**

**Theory**

Total Marks - 30

Assessment at the end of semester in term end exam - 20

Day to day assessment- 10

**Theory – 30**

**Practical – 30**

**Theory**

IV sem	VI sem	VIII sem	Prelim	Total	Marks out of
60	60	60	120	300/15	20

**Details of marks distribution :-**

IV sem , VI sem & VIII sem .

Syllabus – Course content and topics covered in theory lectures of respective semester

One paper – Section A – MCQs = 15 marks – 15 questions of one mark each  
Section B – 2 LAQs – 8 marks each  
3 SAQs – 3 marks each  
Total = 25 marks  
Section C – 1 LAQ – 8 marks

**MGM Institute Of Health Sciences**

**INWARD NO.** 2917

**DATE:** 11/5/16

**REG:** DZPA17

ARC Admin) to speak  
(P.T.O)

Present on 12/05/16

4 SAQs – 3 marks each  
Total = 20 marks

**Prelim :-**

Two papers – 60 marks each

Syllabus

**SYLLABUS FOR PRELIM EXAM**

<b>Paper I (60 Marks) Time 3 hours</b>	<b>Paper II (60 Marks) Time 3 hours</b>
<p><b>Section A – Marks 15</b> MCQs -30 items each of ½ marks Time – 30 minutes (shall cover whole course syllabus stated in Section B and C of Paper I below)</p>	<p><b>Section A – Marks 15</b> MCQs -30 items each of ½ marks Maximum Time – 30 minutes (shall cover whole course syllabus stated in Section B and C of Paper II below)</p>
<p><b>Section B – (Total Marks 25)</b> Two long questions Each of 8 marks &amp; 3 Short Answer Questions of 3 marks each. (3 out of 5 SAQs by choice. On course contents of Cardiovascular System, Gastrointestinal System, Hepatobiliary System &amp; Pancreas, Haematology, Haemato-oncology &amp; Genetics.</p>	<p><b>Section B – (Total Marks 25)</b> Two long questions each of 8 marks and 3 short answer questions of 3 marks each (out of 5 SAQs) on course contents of Neurology, Psychiatry, Dermatology, Veneroleprology &amp; Collagen Disorders</p>
<p><b>Section C – (Total Marks 20)</b> One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, Miscellaneous.</p>	<p><b>Section C – (Total Marks 20)</b> One long question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents on Respiratory Diseases, Tuberculosis &amp; Clinical Nutrition and Nephrology.</p>
<p>The Max. time for Section B &amp; C shall be of 2 hours + 30 minutes</p>	<p>The Max. time for Section B &amp; C shall be of 2 hours + 30 minutes</p>

**Day to Day assessment-**

MCQ/short answer question/problem based questions at end of each topic in every semester – Marks obtained will be converted to 10



**PRACTICALS**  
**Total Marks- 30**  
**Marks of term end exam- 20**  
**Day to day assessment- 10**

**Term end exams**

III sem	V sem	VII sem	VIII sem	Prelim	Total	Skin VD	Chest TB	Psychiatry	Total	Grand Total	Marks out of
30	30	30	30	60	180	20	20	20	60	240/12	20

**Day to day assesment**

1. III Sem :- 5 marks –Assignment during clinical posting

Assignment – Preparation of charts , diagram, flow charts on topic of basic sciences related to medicine.

2. V sem :- 5 marks – portfolio (small group activity in group of 5)

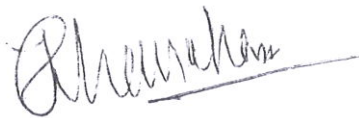
3. VII sem :- 5 marks – Presentation of seminar

4. VIII sem :- 5 marks – History writing journals,  
No. of cases to be written -20

5. Prelim :- Case Viva – 40 marks  
Table Viva – 20 marks  
Two tables – 10 marks each

Marks obtained in the day to day assessment will be converted to 10

**Eligibility to appear for university exam- Minimum 35% marks in internal assessment**  
**Minimum attendance should be 75% to appear in term end exam in respective term .**



Dr Jaishree Ghanekar

Approved in Bom 43/2015, Dated 08/11/2015

Resolution No. - 3.3(e)

**Resolution No. 3.3(e):** Resolved to accept the proposed pattern of redistribution of the marks in Dermatology and Psychiatry subjects in theory papers of Medicine subject at MBBS level for the batch of Students entering into 3<sup>rd</sup> MBBS (Part-II) from February 2016 onwards, as given below:

The change in Paper 2 section C should be as under:

Section C (Marks 10)

C2 Dermatology Section (Marks 10)

Question 1 – long question (Marks 4)

Question 2 – Short answer question attempt any 2 (Marks 6)

- a.
- b.
- c.

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.**

Approved in Bom 45/2016, Dated 28<sup>th</sup>, April, 2016

Resolution No. - 3.3 (c)

**Resolution No. 3.3(c):** Resolved to accept revised method to calculate internal assessment marks for following subjects:

**General Medicine:** for the batch starting their IV semester in Feb 2017.

Theory:

	Medicine
IV <sup>th</sup> /VI <sup>th</sup> /VIII <sup>th</sup> Sem. & Prelim Exam.	20
Day to day assessment as per MCI norms	10
Total marks	30

Practical:

	Medicine
III <sup>rd</sup> /V <sup>th</sup> /VII <sup>th</sup> /VIII <sup>th</sup> Sem. & Prelim Exam.	20
Day to day assessment as per MCI norms	10
Total marks	30

**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. 1.3.9.3 of BOM-51/2017:** Resolved to retain split markings in long case in practical examinations of 3rd MBBS subject "Medicine". But there should be no split markings in short case in practical examinations of 3rd MBBS subject "Medicine", to be implemented with immediate effect.

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- (ii) Resolved to approve the below mentioned proposed MBBS Theory exam pattern in Medicine, with effect from batch appearing in University January 2019 examination onwards:

Revised Syllabus for Prelim & University Exam

<b>Paper I (60 Marks) Time 3 hours</b>	<b>Paper II (60 Marks) Time 3 hours</b>
<b>Section A – Marks 10</b>	<b>Section A – Marks 10</b>
MCQs -20 items each of ½ marks Time – 20 minutes (shall cover whole course syllabus stated in Section B and C of Paper I below)	MCQs -20 items each of ½ marks Maximum Time – 20 minutes (shall cover whole course syllabus stated in Section B and C of Paper II below)
<b>Section B – (Total Marks 30)</b>	<b>Section B – (Total Marks 30)</b>
Two long questions Each of 7 marks & 4 Short Answer Questions of 4 marks each. (4 out of 6 SAQs by choice. On course contents of Cardiovascular System, Gastrointestinal System, Hepatobiliary System & Pancreas, & Genetics.	Two long questions Each of 7 marks & 4 Short Answer Questions of 4 marks each. (4 out of 6 SAQs by choice. on course contents of Neurology, Haematology, Haemato-oncology, Respiratory Diseases, Tuberculosis, Collagen Disorders
<b>Section C – (Total Marks 20)</b>	<b>Section C – (Total Marks 20)</b>
One long Question of 8 marks and 4 (out of six) SAQs of 3 marks each on course contents of Endocrinology, infectious diseases/Tropical Disease, &, Nephrology, Clinical Nutrition , Miscellaneous.	<b>Section – C (Total Marks 20)</b> Psychiatry, Dermatology, Veneroleprology <b>C1- Psychiatry section (Marks 10)</b> short answer question any 2 out of 3 (5 marks each) <b>C2 – Dermatology section (Marks 10)</b> short answer question any 2 out of 3 (5 marks each)
The Max. time for Section B & C shall be of 2 hours + 30 minutes	The Max. time for Section B & C shall be of 2 hours + 30 minutes

**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.

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**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.

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**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.



Received by Statutory Department (Ms. Sasmita)  
on 10<sup>th</sup> Dec, 18 at 2:20 pm

General Medicine  
MBBS Third Year Part II



**MGM INSTITUTE OF HEALTH SCIENCES**

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

**Grade 'A' Accredited by NAAC**

Sector-I, Kamothe, Navi Mumbai - 410209

Tel. No. 022-27432471, 022-27432994, Fax No. 022 - 27431094

E-mail : registrar@mgmuh.com ; Website : www.mgmuh.com

MGM/01/A-8/2018/280

Date : 10.02.2018

To

✓ Academic Section, MGMIHS

Ref. : Resolution passed in BOM-51/2017 dated 28/08/2017

This is with reference to Resolution No. 1.3.9.10 of BOM-51/2017 sent earlier. The same resolution is reproduced below for your quick reference:

**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.(Annexure)

Now, please find annexure enclosed herewith for the above resolution.

Registrar  
Dr. Rajesh B. Goel  
Registrar

MGM Institute of Health Sciences  
(Deemed University u/s 3 of UGC Act, 1956)  
Navi Mumbai- 410 209

*Malini*  
10/12/2018

SYLLABUS

Topic

Introduction to Medicine

Must know

- History of Medicine.
- Concept & objectives of history taking. Diagnosis, Provisional Diagnosis, Differential diagnosis. –

Respiratory system.

Must know

- . Applied Anatomy and physiology of R.S.
- . P.F.T. ( Pulmonary Function Testing)
- . Resp. Infection- Pneumonias.-
- . Chronic bronchitis and emphysema
- . Bronchiectasis and lung abscess
- . Bronchial asthma

Pleural disease - Emphasis on pneumothorax

Pleural effusion

Desirable to know

- Malignancies

- Mediastinum and its disorders. -
- Occupational lung disease. Its concept and short review –

#### Nice to know

- Fungal & Parasitic diseases
- Respiratory emergencies & Introduction to mechanical ventilators

#### **TUBERCULOSIS** - Must know

History and introduction

Pathogenesis and pathology

Role of host related factors

Microbiology of AFB

Clinical features of pulmonary tuberculosis and its investigations

Anti – Tubercular drugs

Pharmacology & Schedules of treatment.

Resistant tuberculosis - DOTS

Prophylaxis - Drugs /BCG/ Tuberculin test.

HIV & TB.

Extra - pulmonary tuberculosis

## INFECTIOUS DISEASES

### Must know

- Introduction.
- Infections – types, Modes of Infection transmission, Incubation period-
- Host defenses, Immunity & Immunization & Management including-

### Prevention

- Tetanus
- Malaria
- Rabies
- Dengue
- Typhoid fever
- Gastroenteritis
- ( HIV ) Infection & AIDs
- Leptospirosis
- PUO

### Desirable to know

- Kala azar
- Approach to fever with Rash

### Nice to know

- .Plague
- .Diphtheria

## CARDIOVASCULAR SYSTEM :

### Must know

- Introduction
- Functions / anatomy / physiology and its applications
- Various terminologies used
- Methods of evaluation
- Non – invasive
- Invasive-
- Cardiac arrest.
- C.C.F.
- Rheumatic fever
- Presentation and haemodynamics of various Valvular lesions including
- investigations, Diagnosis, D/D treatment & Prevention.
- Infective endocarditis
- C.A.D, (Coronary artery disease)
- Hypertension

### - Desirable to know

- Pericardial diseases and cardiomyopathy

- Arrhythmias

Concept & Classification

Presentation

Diagnosis

Pharmacotherapy in short

Types

Presentations

Pathophysiology

Management

- C.H.D.

Aetiology and classification

CHD in adults & its importance

## GASTROENTEROLOGY, HEPATOBILIARY SYSTEM & PANCREAS :

23 hours

### Must know

- Introduction to GIT
- Oral Cavity

Ulcers

Bleeding

Pigmentation

- Oral manifestation of systemic diseases

- Oesophagus- Dysphagia, Achalsia cardia,
- Stomach

Peptic ulcers

Aetiopathogenesis

Clinical features

Investigations

D/D and management

- Acute and Chronic gastritis
- Small and large intestine diseases

Secretions & functions

Tuberculosis of Abdomen

- Ulcerative colitis & Crohn's disease
- Liver.

Introduction

LFT & their interpretation

- Hepatitis - Acute & Chronic
- Cirrhosis of liver
- Pancreas-

Functions

Investigations

Acute and Chronic pancreatitis

Manifestation and D/D & treatment.

Desirable to know

- MAS Mal-absorption-syndrome
- Gall bladder diseases

#### Nice to know

- Liver transplant

#### Genetics . Must know

- Introduction
- Common genetic disorders
- Application of Genetic Engineering in Medicine

#### NUTRITION :

##### Must know

- Concepts of carbohydrate, proteins, fats, vitamins and minerals. Balanced
- diet
- Protein energy malnutrition.
- Vitamin deficiency state
- Scurvy / Beriberi / Pellagra / Vit.A

##### - Desirable to know

- Obesity / Asthenia



Diagnosis

Complications and management

## NEUROLOGY

Must know

- Introduction
- Applied anatomy & physiology
- History taking in neurology
- Investigations
- CVD ( Cerebro Vasular Disease)

Types & its differential diagnosis

Predisposing factors

Diagnosis and management

- Encephalitis and meningitis
- Epilepsy
- Spinal cord disorders
- CSF

Formation and absorption

Status in various disorders

Desirable to know

- Cerebellar syndrome
- Parkinsonism

- Muscle disorders in brief
- Neuropathy
- Myasthenia gravis

#### Nice to know

- S.O.L. (Space Occupying Lesions)
- Imaging & its role in CNS

### HEMATOLOGY :

#### Must know

- Introduction

Cell line of hemopoiesis

Stimulating factors

Physiology and Anatomy of RBCs.

- Anemias

Introduction

Classification

Symptoms & signs in general

Basic investigations & its interpretation

- Microcytic hypochromic anaemias

Fe Kinetics

C/F, investigations of Fe deficiency.

Treatment of Fe deficiency.

D/D - Sideroblastic / thalassemic.

- Macrocytic anaemias

Kinetics of B-12 and Folic acid

C/F, investigations and management of B-12 / FA deficiency.

- Hemolytic anaemias
- Hemoglobinopathies
- Hypoplastic / Aplastic anemia

Definition

Classification

Diagnosis and management

- Introduction to WBCs.
- :Blood groups & Blood Transfusion & Component Therapy

#### Desirable to know

- Agranulocytosis - Aetiology & its significance
- Leukemias ( AML, ALL, CML, CLL)
- Management of leukemia, Lymphomas
  
- Hodgkin's disease / NHL (Non-Hodgkin's lymphoma)
- Approach to a patient with bleeding disorders

Recognition

Investigations

Physiology of Platelets

Therapy

## ENDOCRINOLOGY

### Must know

- Introduction –

Hormones

Concept

Types

Action

- Endocrine system

General

Control

- Pituitary

Anatomy

Regulation

- Disorders of Ant. Pituitary

Acromegaly

- Disorders of Post. Pituitary
- Hypopituitarism
- Thyroid

Anatomy

Regulation

Goiter

- Hypothyroid state & hyperthyroid state

Classifications

Management

- Adrenal gland

Anatomy

Regulation

Addison's & Cushing syndrome

Recognition

Investigations

Management

- Diabetes Mellitus

**Desirable to know**

- Pheochromocytoma

**Nice to know**

- Vit. D. Metabolism.
- Ca. Metabolism and its relations to parathyroid

Diagnosis & management of related disorders.

Management

- Multiple endocrine-syndrome and paraneoplastic syndrome Overview.
- Diabetes insipidus.

## NEPHROLOGY, NUTRITION :

### Must know

- Anatomy & Physiology of Urinary system
- R.F.T. ( Renal Function Tests)
- Acute Glomerulonephropathy
- Chronic Glomerulonephropathy
- Infections of urinary system.
- Nephrotic syndrome
- Approach towards common problem

i. Proteinuria

ii. Hematuria

iii. Renal colics

Acute & Chronic renal failure

### - Desirable to know

- Dialysis –
- Diet , Drugs. In renal failure

Connective tissue disorder & immunology

### Desirable to know

- SLE
- Rheumatoid arthritis

### Nice to know

- Allergy

### Miscellaneous

### Must know

- Poisoning
- Suicidal / Homicidal / Accidental
- Chemical / Biological / Corrosives / Drugs
- Concepts of management
- Optimum Barbiturate
- Organophosphorus
- Shock
- BITES & STINGS
- Brain Death and Organ Donation

### Desirable to know

- Hyperpyrexia and Heat exhaustion

### Aetiology

Pathophysiology

C / F. Types

Management

Preventive measures

- Electrical injury

Types

Manifestations

Management

Lightening

Types

Pathophysiology / Complications

Management



**Resolution No. 13.21 of BOM-51/2017:** Resolved to implement the Graduate/Intern Medical Outcome **Annexure XLI**



## 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:

- 1 • **Dynamic professionalism**
- 2 • **Exemplary leadership**
- 3 • **Effective communication skills**
- 4 • **Scholarly attitude**
- 5 • **Element of critical thinking**
- 6 • **Enthusiasm for research**
- 7 • **Social commitment**
- 8 • **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
	<b>General</b>
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
	<b>Diagnosis</b>
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
	<b>Treatment</b>
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. 3.5.9 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) IInd 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. 4.5.3.1 of BOM-55/2018:** Resolved to include the following Geriatric topics in the syllabus of Medicine for MBBS students as part of Medicine subject in VI th & VII th semester. This is to be effective from batch entering VI semester in February 2019 onwards:

1. How elderly patients are different?
2. Geriatric syndromes
3. Sarcopenia
4. Fraility
5. Cognitive impairment & Dementia in elderly
6. Falls & Fragility fractures
7. Urinary incontinence in elderly
8. Physiology of aging
9. Magnitude of problems of aging
10. Neurological problems in elderly



**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. 3.1.3.2 of BOM-57/2019:** It was resolved to approve the following change in pattern of section B of question papers (paper 1 & paper 2) for III MBBS Part II exam in Medicine subject, to be applicable from batch appearing in III MBBS Part II university examination in January 2020 onwards:

Q 1- Give reasons - 4 out of 6 questions of 1 mark each = Marks: 4

Q 2- A. One Structured long answer question = Marks: 7

B. One Problem based question = Marks: 7

Q 3- Write in short- 4 out of 6, 3 marks each = Marks: 12

Total = Marks: 30

**Resolution No. 3.1.3.10 of BOM-57/2019:** It was resolved to approve the Topics of integrated teaching in Dept of Emergency medicine for UG (from batch entering into 2<sup>nd</sup> MBBS from August 2019) & PG (from batch admitted in 2019-20). [**Annexure-18**]

## **Annexure - 18**

### **Emergency Medicine**

#### **Integrated Teaching:**

##### **A) Undergraduate topics**

1. History, Clinical Examination, Documentation and Critical difference in Emergency Medicine. ( Dept of Medicine)
2. High risk Emergency Medicine. ( Dept of Medicine)
3. Avoiding common medical error. ( Dept of Forensic Medicine)
4. Risk reduction to enhance patient safety.
5. Resuscitation. (Dept of Anesthesia)
6. ECG. (Dept of Medicine)
7. Basics of Ultrasound. ( Dept of Radiology)
8. Common X-ray, CT scan and MRI Images. ( Dept of Radiology)
9. Approach to chest pain, Shortness of breath, Altered sensorium. (Dept of Medicine)
10. Management of pain anywhere in the body. ( Dept of Anesthesia)
11. Medco-legal issues with respect to emergency patient. ( Dept of Forensic Medicine)
12. Dermatological manifestation in Emergency Medicine. ( Dept of Dermatology)
13. Approach to poisonings. ( Dept of Medicine)

##### **B) Postgraduate topics**

###### **Respiratory Medicine:**

1. Respiratory Distress /URTI / Acute Bronchitis
2. Hemoptysis / Tuberculosis
3. CAP aspiration pneumonia, Noninfections Pulmonary infiltrates
4. Spontaneous / iatrogenic pneumothorax
5. Empyema & lung abscess
6. Asthma / COPD

### **Orthopedics:**

1. Trauma in adults, Paediatric geriatric & pregnant patients
2. Trauma to face, neck, spine & spinal cord, abdominal cardiac, pulmonary, genitourinary & penetrating trauma
3. Wound ballistics and forensics
4. Initial evaluation and management of orthopedics injuries
5. Compartment syndromes
6. Orthopaedics devices and reconstruction.

### **Cardiology with Medicine:**

1. Evaluation of chest pain and management
2. Acute coronary syndrome
3. Cardiogenic shock
4. Syncope, CHF
5. Valvular Emergencies
6. Cardiomyopathies and pericardial effusion
7. Dissection of aorta and Aneurysms
8. Acid Base Disorder, Blood gases, cardiac rhythm disturbances, fluid and blood resuscitation.

### **Anaesthesia**

1. Noninvasive Airway , Paediatric airway management , Surgical airway management
2. Tracheal Intubation & Mechanical Ventilation
3. Neonatal & Paediatric , intraosseous & Central Venous access
4. Venous & intraosseous access in Adults
5. Acute pain management in Adults & in infants & Children
6. Local & Regional Anesthesia.
7. Procedural sedation & Analgesia
8. Adults With Chronic pain

## **Radiology**

- 1) Fast Scan
- 2) MRI
- 3) C T Scan
- 4) X-Rays
- 5) Non-Invasive Myocardial Imaging

## **Topics For Forensic Medicine**

1. Examination female rape victim
2. Legal Issues in Emergency Department
3. Child /Abuse / Elderly Abuse
4. Domestic Violence
5. Labour Act
6. EMTALA Obligation ( Emergency Medical Transfer in Active Labour Act)
7. Issues in the ED Cases of Minor
8. Emergency Physicians and Death Certificate
9. Newborns Left at the ED

## **Case Based Learning:**

i-CBL ( Integrated Case Based Learning) has been included in our routine schedule. We have been conducting the sessions every 3 months.

**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 while providing health care.

To make them aware about ICC & its 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 about gender & sex.

To discuss effect of these concepts on health-related issues.

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

To discuss methodology like PBL for undergraduate students when they are in 7<sup>th</sup>-8<sup>th</sup> semester.

**Mode** – Role play

    Focused group discussion

    Case studies

**Evaluation** – Feedback.

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Sdp-Pimple/joshi-obgy