

# **MGM INSTITUTE OF HEALTH SCIENCES**

(Deemed to be University u/s 3 of UGC Act, 1956) Grade 'A' Accredited by NAAC Sector-01, Kamothe, Navi Mumbai -410 209 Tel 022-27432471, 022-27432994, Fax 022 -27431094 E-mail: registrar@mgmuhs.com; Website :www.mgmuhs.com

**Curriculum for Doctor of Medicine Pathology** Amended upto BOM- 59/2019, Dated 11/11/2019

### **Amended History**

- 1. Approved as per BOM-04/2007, Item 12.1, Dated 14/12/2007.
- 2. Amended as per BOM- 32/2013, [Resolution No. 5.2.4]; Dated 29/10/2013.
- 3. Amended as per BOM- 40/2015, [Resolution No. 3.2 (a)]; Dated 13/03/2015.
- 4. Amended as per BOM- 48/2017, [Resolution No. 5.25]; Dated 24/01/2017.
- 5. Amended as per BOM-51/2017, [Resolution No. 1.3.8.5], [Resolution No.1.3.8.11], [Resolution No.1.3.7.11], [Resolution No. 1.3.23]; Dated 28/08/2017.
- 6. Amended as per BOM-52/2018, [Resolution No. 3.6.6]; Dated 13/01/2018.
- 7. Amended as per BOM-55/2018, [Resolution No. 4.13], [Resolution No. 4.5.4.2], Dated 27/11/2018.
- 8. Amended as per BOM-57/2019, [Resolution No. 3.1.2.4], [Resolution No. 3.1.4.2], Dated 26/04/2019.
- 9. Amended as per BOM-59/2019, [Resolution No. 3.1.2.7]; Dated 11/11/2019.

# **INSPIRING MINDS**



## Mission

To improve quality of the life for individuals and community by promoting health, preventing and curing disease, advancing biomedical and clinical research and educating tomorrow's Physicians and Scientists.

### Vision

By 2020 the MGM University of Health Sciences will rank one of the top private Medical Institution. This will be achieved through ground breaking **discoveries in basic sciences and clinical research** targeted to prevent and relieve human suffering, **excellence in Medical Education** of the next generation of academic clinicians and intrinsic scientists.

MGM University of Health Sciences will transform the Education of tomorrow's Physicians and Scientists conducting Medical **Research** to advance health and improving lives by providing world-class patient care.

Many see the 21<sup>st</sup> Century as the golden age of biomedical research. The MGM University of Health Sciences will position for leadership at the horizon of this new era to promote and stabilise stand human health with a standard of excellence.



# Chancellor's Message

It is my pleasure to welcome you to join constituent colleges of Mahatma Gandhi Misson's (MGM) University of Health Sciences, Navi Mumbai. I wish to avail this opportunity to apprise you and your parents about the academic excellence of the deemed university.

The MGM University of Health Sciences was established u/s 3 of UGC Act, 1956 vide HRD Notification No.F.9-21/2005-U.3(A) dated 30-8-2006. The MGM University is an outcome of untiring efforts of our educationists, professionals, social activists, technocrat, students and parents. The Mahatma Gandhi Mission Trust that manages the University of Health Sciences and over 40 institutions in Navi Mumbai, Aurangabad, Nanded, and Noida has the vision to empower the masses with the availability of state-of-the-art education. Most of our institutions have ISO certifications that further endorse our commitment to stringent quality standards. I am proud to state that we have succeeded in these accomplishments during our journey of the past 25 years.

I recollect the memories of struggle and determination when the MGM Trust established its two medical colleges, one each at Navi Mumbai and Aurangabad some twenty years ago. Both the medical colleges have grown into institutions imparting both undergraduate and postgraduate courses, and delivering quality health care to communities in their respective areas. While both colleges are engaged in their primary functions of teaching, patient care and research, they have also excelled in their pursuit for advancement of science and in taking health services to communities through extension programmes. A shining example is the establishment of the Department of Infectious Diseases in 1993 in collaboration with the University of Texas-Houston, USA. This department has established the stateof-the-art clinical services and laboratories for research and care of infectious diseases and received the acclaim of Director General of ICMR when he stated "MGM is the first medical college in India to establish a separate department of infectious diseases. This is the need of the hour." The department has undertaken pathbreaking research and shaped the course of our national control programmes on HIV/AIDS and tuberculosis. The original research of the constituent colleges has been acclaimed among the scientific world globally.

In an era of economic liberalization and the competition among varsities, both in and out of India, the task of grooming professionals who will compete with the best in the world , is tough. To aid our efforts to excel, MGM University of Health Sciences has the latest research facilities, a dedicated research faculty, as well as an array of distinguished visiting faculty members. The quiet ambience of our campuses, the well filled library with subscriptions to international and national journals, and the lush-green gardens add to our accomplishments.

Considering the manpower needs of

educational, industrial agricultural, and health sector to maintain their steady growth, several fresh M.Sc. courses have courses have been launched. M.Sc. courses introduced at the

University from the current academic year shall provide knowledge, skills and subsequent employability that are at par with the counterparts in India and abroad. The curricula of the courses have been designed by experts and peer-reviewed with an emphasis on the job requirements of educational institutions, industries, health care, and research institutions. These courses will empower the students to choose a career in a classroom, a research laboratory or an industry. I am happy that the university is ticking towards the pinnacle with the introduction of these value-added postgraduate courses in medical biotechnology. medical genetics and other basic sciences.

Finally, I wish to place on record my gratitude to the founder members, stake-holders, faculty, staff, students and their parents for providing the MGM Trust with your advice and support.

Once again, it is my pleasure to welcome you to join constituent colleges of MGM University of Health Sciences' at Navi Mumbai and Aurangabad.

Kamal Kishore Kadam Chancellor



Dr R.D.Bapat Vice Chancellor



Dr S.N.Kadam Pro Vice Chancellor





Dr Ajit shroff Dean (Aurangabad Campus)



Dr Z.G. Badade Registrar



Dr G.S.Narshetty Dean (Navi Mumbai Campus)

Dr N.N.Kadam Director (Examination)

To The Registrar MGM University Kamothe Navi Mumbai

Please final herewith the approval scheme of examination & passing heads for the postgraduate degree course in pathology will be as follows:-

University has conduct examination at the end of three academic years. University shall conduct two examinations in a year with the interval not less than six months between the two examinations. Examination shall consist of thesis, theory papers & practical / oral examination.

# Passing head & standard of passing

There will be two heads of passing

- 1) Four papers of theory form one head of passing
- 2) Practical & oral taken together shall form second head of passing. A
  - candidate must pass in both the heads at one & same attempt. A candidate passing in one head & failing in other head will be declared fail & shall not be entitled to any exemption in the subsequent attempt. Criteria of passing-
    - 1. Fifty percent of the total marks in theory examination
    - 2. Fifty percent of the total marks in oral & practical taken together
    - In any of the paper in theory he must not obtain less than 40% marks to be declared pass ( Total of all papers however must of 50% of the total marks of theory)

Scheme of theory examination

1. There shall be four papers at MD exam of 100 marks each.

- 2. Each paper shall be of 3 hours duration.
- 3. Pattern of question paper will be as follows: -

4.

Current Pattern of Examination dated May 2011

Total No. of paper 4, 100 marks, each of 3 hrs duration

\* Each paper - has 2 sections i.e. section A & B

Section A -Attempt any five SAQ out of Six

5x10 = 502x25 = 50

- Attempt Two long answer questions - Section B

# Paperwise distribution of topics is as given

# I - General pathology including general Neoplasia. Immunopathology & cytopathology.

Cellular responses to stress and noxious stimuli, adaptations of cellular growth and differentiation like hypertrophy, hyperplasia, atrophy metaplasia. Overview of cell injury and cell death, causes of cell injury, morphologic alterations in cell injury, mechanisms of cell injury, clinico-pathologic correlations, apoptosis, autophagy, intracellular accumulations, pathologic calcifications, cellular aging. Overview of inflammation, acute inflammation, outcome of acute inflammation, chronic inflammation, mediators of inflammation, systemic effects of inflammation, consequences of defective or excessive inflammation. Control of normal cell proliferation and tissue growth, cell cycle and the regulation of cell replication, mechanism of tissue and organ regeneration, extracellular matrix and cell matrix interactions, healing by repair, scar formation and fibrosis. Oedema, hyperemia and congestion, hemorrhage, hemostasis and thrombosis, embolism, infarction, shock. Human genetic architecture, genes and human diseases, mendelian disorders, complex multigenic disorders, chromosomal disorders, single-gene disorders with nonclassic inheritance, molecular diagnosis of genetic diseases. The normal immune response, hypersensitivity and autoimmune disorders, rejection of tissue transplants, immunodeficiency syndromes, amyloidosis. Neoplasia-nomenclature, characteristics of benign and malignant neoplasms, epidemiology, molecular basis of cancer, molecular basis of multistep carcinogenesis, carcinogenic agents and their cellular interactions, host defense against tumors - tumor immunity.

# II – Systemic pathology including systemic Neoplasia.

Blood vessels – structure and function various pathologies, heart, diseases of white blood cells, lymph nodes, spleen,thymus. Red blood cells & bleeding disorders, the lung, head & neck, gastrointestinal tract, liver & biliary tract, the pancreas, the kidney, the lower urinary tract & male genital system, the female genital tract, the breast, the endocrine system, the skin, bones joints & soft tissue tumors, peripheral nerve & skeletal muscle, the central nervous system, the eye.

# III – Hematology, transfusion medicine, Immunohematology including recent advance.

Normal hematopoiesis, deficiency anaemias, hemolytic anemias, bone marrow failure syndromes and iron overload disorders, non-neoplastic disorders of white cells, acute leukemias, myelodysplastic syndromes, myeloproliferative neoplasms, lymphoproliferative disorders, multiple myeloma and waldenstorm macroglobulinemia, disorders of mononuclear phagocytic system, infections diagnosed in blood and bone marrow, bone marrow in non-hemopoietic diseases, disorders of hemostasis. Storage and issue of blood, donor screening, donor room procedures, adverse donor reactions, serology laboratory-blood bank routine laboratory, component laboratory, management of transfusion reactions/ SHOT, rational use of blood, apheresis, autologous blood transfusion. General principles of microbial pathogenesis, viral infections, bacterial infections, fungal infections, parasitic infections.

# IV – Clinical pathology, chemical pathology, pathology of infection diseases including recent advance.

Clininal pathology of cancer, evaluation of renal function, water, electrolytes and acid base balance, biochemical markers of bone metabolism, carbohydrates, lipids and dyslipoproteinemia, evaluation of cardiac injury and function, specific proteins, clinical enzymology, evaluation of liver function, laboratory diagnosis of gastrointestinal and pancreatic disorders, toxicology and therapeutic drug monitoring, evaluation of endocrine function, reproductive function and pregnancy, vitamins and trace elements, urine and other body fluids, general principles of microbial pathogenesis, viral infections, bacterial infections, fungal infections, parasitic infections, introduction to molecular pathology, molecular diagnostics: Basic principles and techniques, polymerase chain reaction and other chain reaction amplification technology, hybridization array technologies, applications of cytogenetics in modern pathology, establishing a molecular diagnostics laboratory,

# Duration of examination may vary depending upon the number of candidates. Day - 1

Clinical case will includes	
Urine Examination - 15 marks	
Biochemical test - 15 marks	
Hemogram - 15 marks	
Special hemat test - 15 marks	
Case discussion - 15 marks	
Autopsy/reconstructed autopsy - 20 marks	
Gross/ morbid anatomy - 35 marks	
Hematology & cytology slides 15x5 - 75 marks	
<sup>^</sup> Five minutes for each slide	
Total marks - 205 marks	

Day -2

i) Histopathology slides – 25 in numbers - 125 marks

(Candidate should be assesseal is exudates performance in identifying common as well as rare lesions 5 minutes for each slides).

ii) Serology techniques including blood bank technique - 15 marksiii) Histopathology techniques

,	mstopathologj tooning	
	block cutting & H& E staining	- 10 marks
	Special stain -1	- 05 marks-

iv) Viva –voice - includes

- 40 marks.

Student examined by all the 4 examiners

Together for subjects knowledge, analytical approach expression and interpretation of data and discussion related to dissertation.

**Total Marks** 

Scheme of practical Examination :

- 1) Practical examination for the subject in pathology shall be conducted to test the knowledge and competence of the candidate for marking valid and relevant observations based on
- Laboratory/experimental studies and his ability to perform such studies relevant to his subjects.
- 2) All the 4 examiners will sit together to examine the candidate. At least one internal and one external would assess the candidate for exercises like histopathology slides, clinical case, hematology and cytology slide, grossing, autopsy, histotechniques and serology.
- 3) All four examiner will conduct viva-voice

Distribution of marks for the practical exercises :

Sr. No.	Exercises	Maximum marks
1.	Histopathology slides	125
	(25 slides, 5 marks each)	
2.	Clinical case	75
3.	Hematology& cytology	75
	Slides 10 & 5 respectively	
	(5 marks each )	
4.	Grossing	35

5.	Histotechniques	15	
6.	Autopsy	° 20	
7.	Serology	45	
8.	Viva –voice	40	
0.	Total marks	400	

Proposed academic calendar for post graduate course in MD Pathology - at MGM Medical college Kamothe, Navi Mumbai.

Duration & course – 3 years.

Course curriculum includes -

Postings : Each student has to work by rotation in various sections of pathology as shown below.

Post graduate activities – Each PG student has to attend & participate in weekly programme & accordingly assessment is maintained.

Log book - Each student has to maintain log book to be certified by section in charge monthly & finally by head of the department.

Examination : First year  $1^{st}$  may to  $31^{st}$  may  $1^{st}$  Internal exam – 15 to 31 may.

Second year-  $1^{st}$  june to  $31^{st}$  june,  $2^{nd}$  internal exam –  $15^{th}$  to  $31^{st}$  may.

Third year – 1<sup>st</sup> June to 30<sup>th</sup> April Submission of thesis – October 31<sup>st</sup>

Preliminary exam – March

Preparation leave – April

University exam - May -

Year wise posting of the PG students First year – Central lab – 5 months (Hemat + clinical path + Biochem) Cytology – 3 months Histopathology – 3 months.

Second year – Central lab – 3 months. Cytology – 2 months Histopath – 6months Clin Autopsy – 1 month Third year – Central lab – 1 month Cytology – 2 months Histopath – 5 months Microbiology + Blood bank – 1 month Clin. Autopsy – 1 month External posting – Tata Hospital – 1 month. (Tumor pathology)

## HOD

# MGM's Medical College Kamothe, Navi Mumbai

#### BOARD OF MANAGEMENT - 40 / 2015 DATED 13.03.2015

Item No. 3: To consider and take appropriate resolutions on the recommendations and decisions taken by the Academic Council (AC-20/2015) in its meeting held on Wednesday, 15<sup>th</sup> April 2015.

#### 3.2: PARA-CLINICAL :

Resolution No. 3.2(a): Resolved that M.D. students in Pathology should have 15 day

nd 1e posting in Biotechnology since as per MCI, 6 months of Allied posting can be given as per HOD's mutual agreement.

Bom 32/2013, Daved 29/10/2013 Approved in

Resolution 210. - 5.2.4.

5.2.4 Introduction of "Quality control in Laboratory" in MD Pathology

Resolution No. 5.2.4 : Resolved to add topic "Quality control in Laboratory" in MD Pathology theory syllabus.

# MGM INSTITUTE OF HEALTH SCIENCES, NAVI MUMBAI

#### MARKLIST FOR PRACTICAL AND VIVA-VOCE EXAMINATION

# EXAM CENTRE:

## DATE OF EXAMINATION: \_\_\_\_\_\_\_EXAMINATION FOR: M.D. (PATHOLOGY)

\_ COURSE / EXAM : PG -

	Clinical / Practical Examination							Viva V			
Histopathology 25-slides	Clinical case	Haematology & Cytology 15-slides	Grossing	Autopsy	Histotechniques	Serology	Total	Viva Voce	Dissertation Viva	Total	Grant Total 400
125 marks	75 marks	75 marks	35 marks	20 marks	15 marks	15 marks	360	36	4	40 Marks	Marks
							-				
	25-slides	25-slidescase125 marks75	Histopathology         Clinical         Haematology           25-slides         case         & Cytology           125 marks         75         75 marks	Histopathology         Clinical case         Haematology         Grossing           25-slides         case         & Cytology         15-slides         125 marks         75         75 marks         35	Histopathology 25-slidesClinical caseHaematology & Cytology 15-slidesGrossing AutopsyAutopsy125 marks7575 marks3520	Histopathology 25-slides     Clinical case     Haematology & Cytology 15-slides     Grossing     Autopsy     Histotechniques       125 marks     75     75 marks     35     20     15 marks	Histopathology 25-slidesClinical caseHaematology & Cytology 15-slidesGrossing AutopsyAutopsyHistotechniquesSerology125 marks7575 marks352015 marks15	Histopathology 25-slidesClinical caseHaematology & Cytology 15-slidesGrossing AutopsyAutopsy HistotechniquesSerology SerologyTotal125 marks7575 marks352015 marks15360	Histopathology 25-slidesClinical caseHaematology & Cytology 15-slidesGrossing and anticesAutopsyHistotechniquesSerologyTotalViva Voce125 marks7575 marks352015 marks1536036	Histopathology 25-slidesClinical caseHaematology & Cytology 15-slidesGrossing AutopsyAutopsy HistotechniquesHistotechniques SerologyTotalViva VoceDissertation Viva125 marks7575 marks352015 marks15360364	Histopathology 25-slidesClinical caseHaematology & Cytology 15-slidesGrossing AutopsyAutopsyHistotechniques hereSerology SerologyTotalViva VoceDissertation VivaTotal125 marks7575 marks352015 marks1536036440

NAME OF EXAMINER	COLLEGE	SIGNATURE WITH DATE
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Page 13

ii) M.D.	PATHOLOGY	<ol> <li>General Pathology including General Neoplasia, Immunopathology and cytopathology.</li> </ol>
		II. Systemic Pathology including Systemic Neoplasia.
		III. Haematology, Transfusion medicine, Immunohaematology including Recent Advances.
		IV. Clinical Pathology, Chemical Pathology, Pathology of infectious diseases, Recent Advances.

#### **AURANGABAD**

- MGM's Jawaharlal Nehru Engineering College
- MGM's Institute of Management
- · MGM's Mother Teresa College of Nursing
- MGM's Mother Teresa Institute of Nursing Education MGM's College of Journalism & Media Science
- · MGM's Medical Center & Research Institute
- MGM's College of Fine Arts
- MGM's Dr. D. Y. Pathrikar College of Comp. Sc. & Tech.
- · MGM's Hospital & Research Center
- MGM's College of Agricultural Bio-Technology · MGM's Dept. of Bio-Technology & Bio-informaties.
- MGM's Inst. of Hotel Management & Catering Tech.
- MGM's Institute of Indian & foreign Languages & Comm.
- MGM's College of Physiotherapy
- MGM's Hospital, Ajabnagar
- MGM's Sangeet Academy (Mahagami)
- · MGM's Institute Naturopathy & Yoga
- MGM's Sports Club & Stadium
- · MGM's Institute of Vocational Courses
- MGM's Horticulture
- · MGM's Health Care Management
- MGM's Junior College of Education (Eng. & Mar.)
- MGM's Sanskar Vidyalaya (Pri. & Sec. Mar.)
- MGM's Clover Dale School (Pri. & Sec. Eng.)
- MGM's First Steps School (Pre-Primary English)
- MGM's Sanskar Vidyalaya (Pre-Priamary Marathi)
- MGM's School of Biomedical Sciences

#### **NAVI MUMBAI**

- · MGM's College of Engineering & Technology
- MGM's Institute of Management Studies & Research
- MGM's Dental College & Hospital
- MGM's College of Physiotherapy
- MGM's College of Media Science
- MGM's Institute of Research
- MGM's New Bombay Hospital, Vashi
- MGM's Hospital, CBD · MGM's Hospital, Kamothe
- MGM's Hospital, Kalamboli MGM's Infotech & Research Centre
- MGM's Pre-Primary School (English & Marathi)
- MGM's Primary & Secondatry School (Eng. & Mar.)
- MGM's Junior College Science
- MGM's Junior College of Vocational Courses .
- MGM's Florence Nightingale Inst. Nursing Edu.
- MGM's College of Nursing
- MGM's College of Law

#### NANDED

- MGM's College of Engineering
- MGM's College of Fine Arts
- MGM's College of Computer Science
- MGM's College of Journalism & Media Science
- MGM's Centre for Astronomy & Space Tech.
- MGM's College of Library & Information Science

#### PARBHANI

MGM's College of Computer Science

#### NOIDA (U.P.)



# IN PURSUIT OF **EXCELLENCE**

#### MGM DEEMED UNIVERSITY **OF HEALTH SCIENCES**

Constituent Colleges

-

#### Navi Mumbai

M.G.M. Medical College M.G.M School of Biomedical Science M.G.M School of Physiotherapy M.G.M New Bombay College of Nursing M.G.M College of Nursing

#### Aurangabad 0

M.G.M. Medical College M.G.M School of Biomedical Science M.G.M School of Physiotherapy M.G.M College of Nursing



MAHATMA GANDHI MISSION 6



MGM University of Health Sciences (Education - Health Services - Research) A Mission started, nurtured and Managed by Professional Doctors, Scientists Engineers...



MGM INSTITUTE OF HEALTH SCIENCES (Deemed University u/s 3 of UGC Act, 1956) Post Box -6, MGM Educational Complex, Sector-18, Kamothe, Navi Mumbai – 410209 Ph : - 022-27422471, 65168127, 65138121 Fax : 022-27420320

E-mail : mgmuniversity@mgmuhs.com Website: www.mgmuhs.com

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

**Resolution No. 5.25:** Resolved to institute 6 monthly progress Report for PG Students of all Courses from the batches admitted in 2016-17. [Annexure-XVII of BOM-48/2017]

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# Mahatma Gandhi Mission's Medical College and Hospital Navi Mumbai

# Six monthly Progress Report for Postgraduate Students

	PART A	
Name of the PG student:		
Department:		
Admitted in (Month and Year):		6
Name of the PG guide:		
Report for the period:	to	

Attendance: \_\_\_\_\_days (\_\_\_\_%)

#### PART B

# Grading as per performance

Grade	Percentage
A	80% and above
B	65% to 79%
C	50% to 64%
D	Below 50%

- 1. OPD work:
- 2. Ward work:
- 3. Lab work:
- 4. OT work:
- 5. ICU work:
- 6. Teaching assignments:

PART C

# Progress of Thesis

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## <u>PART D</u>

Activities from serial No. 1 to 5 should be rated on a scale of 0 to 10.

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## 2. Microteaching

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## 3. Recent Advances

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## PART E

# 1. Papers presented

Sr. No.	Title of Paper	Authors	Event	Date

# 2. Posters presented

Sr. No.	Title of Poster	Authors	Event	Date	
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# 3. Publications

(Note: Mention only those publications that are published or are accepted for publication during the said period only)

Sr. No	Title of Paper	Authors	Journal	Year/Vol/ Issue	Page Nos	Indexed/ Non- Indexed	Status
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4. Seminars

Sr. No	),	Topic	Date	Guide	Marks	
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#### 5. Journal Clubs

Sr. No.	Journal	 Title of Paper	Date	Guide	Marks
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#### 6. Marks obtained in tests

Sr.	Date	Theory / Practical	Marks obtained
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# 7. Any other academic activity conducted:

## <u>PART E</u>

# 1. Papers presented

Sr. No.	Title of Paper		Authors	Event	Date
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# 2. Posters presented

Sr. No.	Title of Poster	Authors	Event	Date	

# 3. Publications

(Note: Mention only those publications that are published or are accepted for publication during the said period only)

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Certificate by the PG Guide

This is to certify that Dr. has an attendance of \_\_\_\_\_\_%, during the period to \_\_\_\_\_\_to \_\_\_\_to \_\_\_\_\_to \_\_\_\_to \_\_\_\_\_to \_\_\_\_to \_\_\_to \_\_\_\_to \_\_\_to \_\_\_\_to \_\_\_\_to \_\_\_\_to \_\_\_\_to \_\_\_\_to \_\_\_\_to \_\_\_to \_\_\_\_to \_\_\_to \_\_\_\_to \_\_\_to \_\_\_to \_\_\_to \_\_\_\_to \_\_\_to \_\_to \_\_\_to \_\_to \_\_to \_\_to \_\_to \_\_\_tot \_\_to \_\_tot \_\_to \_\_\_to \_\_to \_\_to \_\_tot \_\_tot \_\_tot \_\_to \_\_to

Overall Grading:

Date:

Name and Signature of PG guide:

# Certificate by the Head of Department

This is to certify that the performance of Dr\_\_\_\_\_\_, during the period \_\_\_\_\_\_to \_\_\_\_\_, has been satisfactory/ average / unsatisfactory.

Overall Grading:

Date:

Name and Signature of HOD:

Final Remarks

Satisfactory / Average / Unsatisfactory

Director	(Academics)
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Dean

e.

Date:

PG, Sathology

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**Resolution No. 1.3.8.5 of BOM-51/2017:** Resolved to approve subject wise topics for PG teaching (Microbiology, Pathology, Pharmacology, FMT). [Annexure-V]

## Annexant

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3	Brease Prognostic Markers
4	Ciant Cell Tumors of Bone
5	Small Round Cell Tumors of Childhood
6	IHC of Soft Tissue Tumors
7	Prostate Carcinoma grading and staging
8	Ovarian Tumors
9	Pathology & Pathogenesis & Complications of Diabetes Mellitus
10	Lab Investigation of Diabetes Mellitus
11	Testicular Biopsies in male Infertility
12	Recent Advances in Tuberculosis
13	Viral Hepatitis Markers
4	Solitary Thyroid Nodules
15	Multiple Endocrine Neoplasia
16	Fungal Infection of Skin
17	Immunofluorescencent study of Vesicobullous lesion of Skin
18	Congenital dyscrythropoeitic anemia
19	Classification and lab diagnosis of haemolytic anemias
20	Haemoglobinopathies with relevant lab investigations
2.1	Sideroblastic anemia
22	Eosinophils in Health and disease
23	Plasma cell dyserasias
24	Monocyte-Macrophage system in Health and disease

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25	Stem cell transplantation	
26	Hematological changes in AIDS	
27	Investigations in case of increased ibrombotic risk	
28	Preparation of blood components and the importance in blood transfusion	
29	Quality control and quality assurance hematology laboratory	
30	Purpuras	
31	Paraproteinaemias	
32	Evaluation of erythron function in man	
33	Automated cell counters	
34	Role of urine examination in case of jaundice	
35	Urinary deposits	
36	Diagnostic application of microscopic examination of urine	
37	Amniocentesis	
38	Clinical significance of examination of CSF in disease	
39	Electrophoresis	
40	Enzymes in health and disease	
41	Disposal of biomedical solid waste	
42	Renal function tests	
43	Role of bronchial brushings, bronchial washings, bronchial biopsy and BAL fluid examination in diagnosis of pulmonary diseases	
44	Serological tests available for the diagnosis of various malignancies	
45	Semen analysis	
46	Flow cytometry	
47	Liver function tests and their value in diagnosis of liver diseases	
48	Disposal of biomedical solid waste	
49	Renal function tests	
50	Laboratory investigation in male infertility	

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MD Pathology

**Resolution No. 1.3.8.11 of BOM-51/2017:** Resolved to approve the topics to be included under Bioethics in UG. [Annexure-IX]

# **Bioethics Topics for UG/PG**

**Topics for MD Pathology Syllabus** 

- 1. Blood Transfusion
- 2. Integrity
- 3. Ownership of investigative material
- 4. Dichotomy

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**Resolution No. 1.3.7.11 (i) of BOM-51/2017:** Resolved that the following Bioethics topics in PG Curriculum are to be included for PG students of all specialization and a sensitization of these topics can be done during PG Induction programme:

- Concept of Autonomy
- Informed Consent
- Confidentiality
- Communication Skills
- Patient rights
- Withholding / Withdrawing life-saving treatment
- Palliative Care
- Issues related to Organ Transplantation
- Surgical Research and Surgical Innovation
- Hospital Ethics Committee
- Doctor-Patient relationship

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Resolution No. 1.3.23 of BOM-51/2017: Resolved to implement a Structured induction programme (07 days) for PG students. [Annexure XIIIV]

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### MGM INSTITUTE OF HEAL TH SCIENCES Navi Mumbai

# Induction Program for newly admitted Postgraduate students

Day 1	<ul> <li>Address by Dean, Medical Suptd, Di</li> <li>Pre-test</li> </ul>	irector (Academics)
	Communication Skills	
	Universal Safety Precautions	
	<ul> <li>Biomedical Waste Management</li> </ul>	
Dava	<ul> <li>Infection Control Policy</li> </ul>	and the second
Day 2	<ul> <li>Emergency services</li> </ul>	•
	<ul> <li>Laboratory services</li> </ul>	
	<ul> <li>Blood Bank services</li> </ul>	
	<ul> <li>Medicolegal issues</li> </ul>	
	<ul> <li>Prescription writing</li> </ul>	
	<ul> <li>Adverse Drug Reaction</li> </ul>	
	<ul> <li>Handling surgical specimens</li> </ul>	
Day 3	<ul> <li>Principles of Ethics</li> </ul>	
	<ul> <li>Professionalism</li> </ul>	
	<ul> <li>Research Ethics</li> </ul>	
	Informed Consent	
	<ul> <li>Confidentiality</li> </ul>	
	<ul> <li>Doctor-Patient relationship</li> </ul>	
Day 4	Research Methodology	·····································
Day 5	<ul> <li>Synopsis writing</li> </ul>	
Day J	<ul> <li>Dissertation writing</li> </ul>	
Day 6	Statistics	
Day 7	+ ATES	
	Post-test	

The Induction Program will be conducted in the first week of June. Timing: 9.30 am to 3.30 pm

(Prof. Dr. Siddharth P. Dubhashi) Director (Academics) Alexan

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Resolution No. 3.6.6 of BOM-52/2018: Resolved to accept posting schedule of MD students in allied department [Annexure-VII]

# Schedule of Allied Posting for Post graduates

# **Pathology**

Sr no.	Mandatory Postings	Duration	
1.	Transfusion Medicine	1 Month	
2.	Microbiology	1 Month	
3.	Biochemistry	1 Month	
	Elective Postings		
1.	Cytogenetics	15 days	
2.	Central Research Laboratory	15 days	
3.	Biotechnology	1 Month	

**Resolution No. 4.5.4.2 of BOM-55/2018:** Resolved to have 10 short notes out of 11 (10 marks each) in all the papers in university examination for PG courses including superspeciality. To be implemented from batch appearing in April/May 2019 examination onwards for MD/MS/Diploma and August/September 2019 examination onwards for superspeciality.

#### 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. 3.1.2.4 of BOM-57/2019:** It was resolved to approve the proposed topics for third & fourth Paper in MD Pathology University Examination from batch appearing in April 2020 University examination:

	Existing Portion (Paperwise)	Proposed Portion (Paperwise)	
Paper 3		Haematology, Transfusion Medicine (Blood banking), Laboratory medicine (Clinical Pathology, Chemical Pathology and infectious diseases	
Paper 4	Clinical Pathology, Chemical Pathology, Pathology and infectious diseases and recent advances		

#### 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.

### <u>Outline</u>

1)For undergraduates :- Three sessions of two hours each, one in  $2^{nd}$  term, one in  $3^{rd}$  term & one in  $8^{th}$  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.

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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.

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#### 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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**Resolution No.3.1.2.7 of BOM-59/2019:** The revised distribution for mandatory allied posting for MD Pathology training which is in accordance with MCI Guidelines is approved. This is to be effective from Academic Year 2019-20 onwards. **[Annexure-10]** 

#### Annexure Item 10

# Annexure-10

# 1. Item 10: Change in Mandatory allied posting schedule for MD Pathology

Sr	Existing	Proposed
no.		
1.	Transfusion Medicine	Blood Bank/ IHBT
	1 Month	2 Months
		1 month in 1st year and 1 month in final year
2.	Microbiology	Microbiology
	1 Month	15 days (Final Year)
3.	Biochemistry	Biochemistry
	1 Month	15 days (Final Year)
4	Cytogenetics	Cytogenetics
	15 days	15 days (Final Year)
5	Central Research Laboratory	Molecular Pathology
	15 days	15 days (Final Year)
6	Biotechnology	
	1 Month	
	Total Duration	Total Duration
	5 months	4 months
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# MGM INSTITUTE OF HEALTH SCIENCES

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