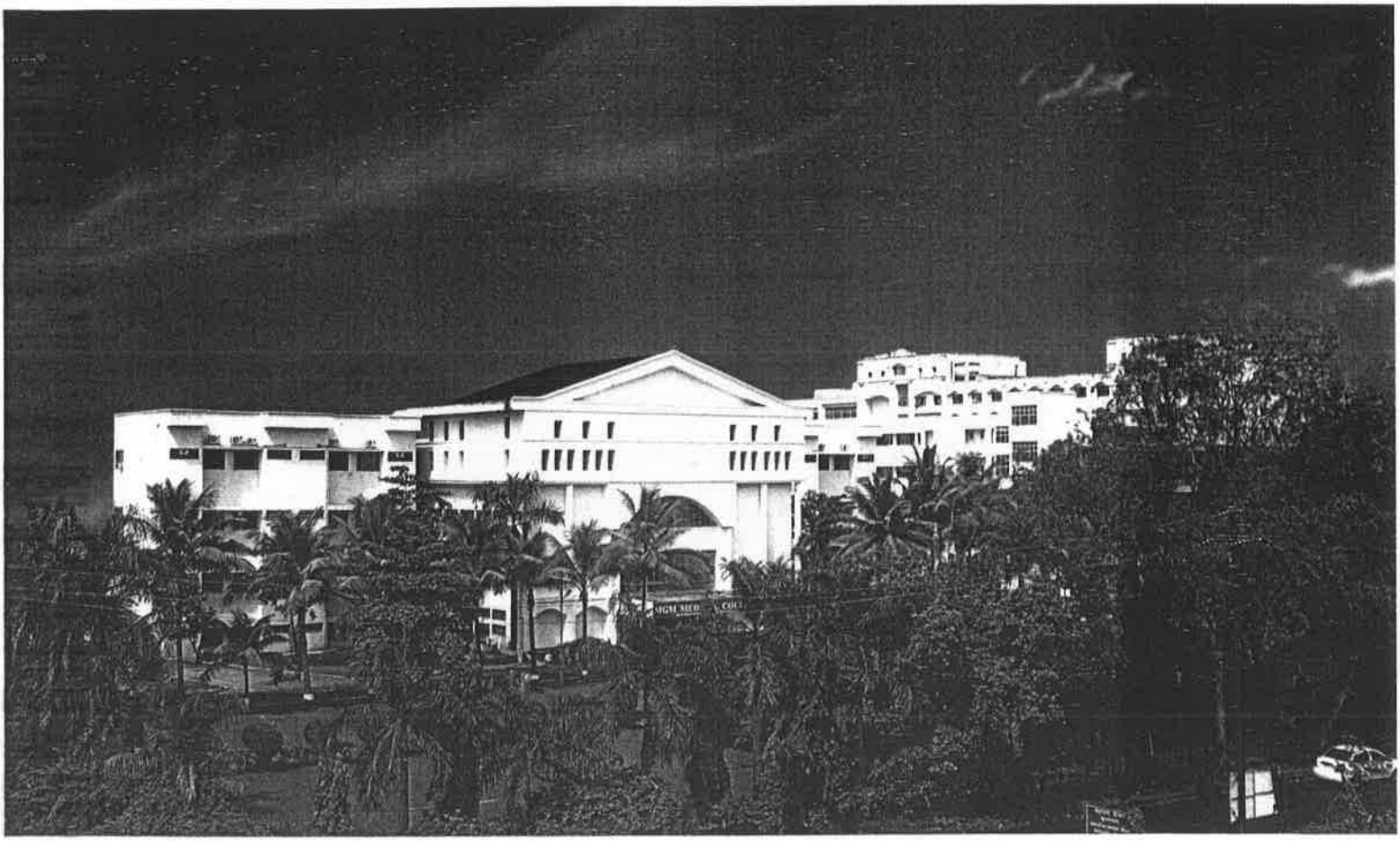
Curriculum for

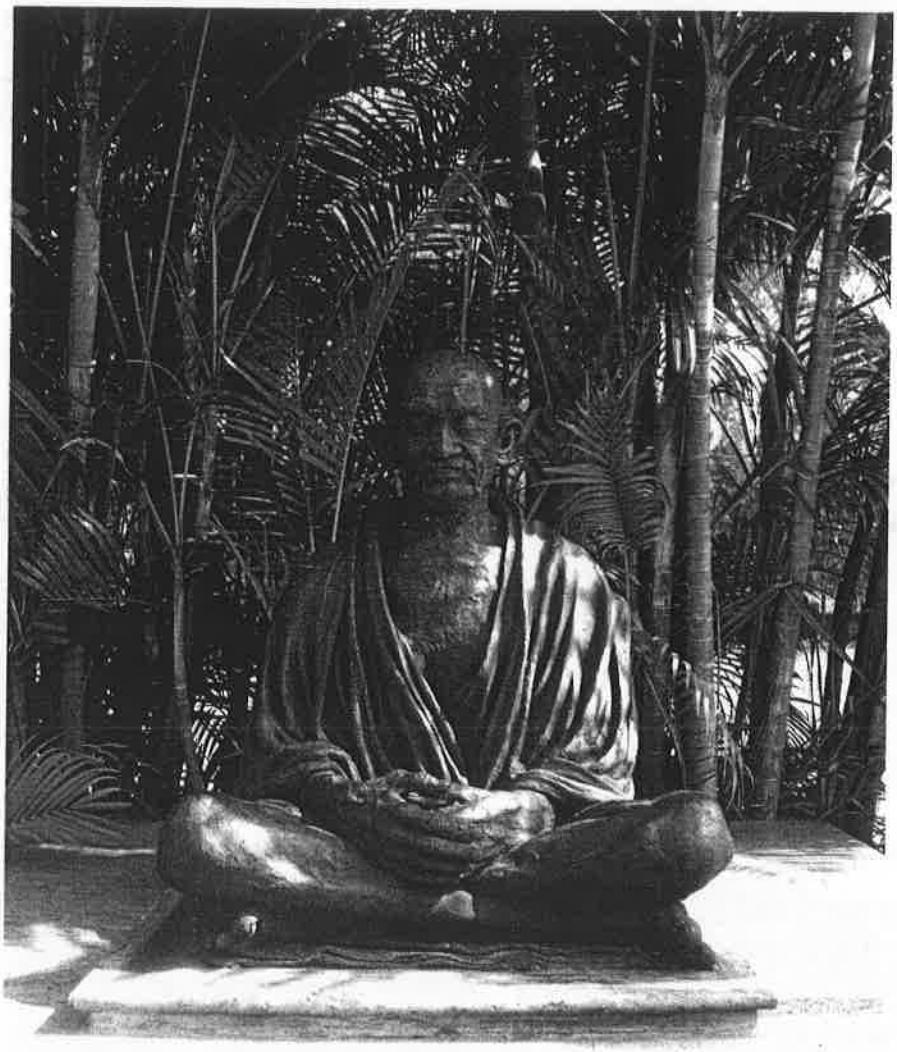
MD Degree in Anaesthesiology



IN PURSUIT OF EXCELLENCE

MGM INSTITUTE OF HEALTH SCIENCES
(Deemed University Established u/s 3 of UGC Act, 1956)
Navi Mumbai - 410 209
www. mgmuhs.com

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 21st 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.

hancellor's Message

s my pleasure to welcome you to join nstituent colleges of Mahatma ndhi Misson's (MGM) University of alth Sciences, Navi Mumbai. I wish avail this opportunity to apprise you d your parents about the academic cellence of the deemed university.

e MGM University of Health Sciences s established u/s 3 of UGC Act, 1956 e HRD Notification No.F.9-21/2005-3(A) dated 30-8-2006. The MGM iversity is an outcome of untiring forts of our educationists, fessionals, social activists, chnocrat, students and parents. The ahatma Gandhi Mission Trust that anages the University of Health iences and over 40 institutions in avi Mumbai, Aurangabad, Nanded, d Noida has the vision to empower e masses with the availability of ate-of-the-art education. Most of our stitutions have ISO certifications that rther endorse our commitment to ringent quality standards. I am proud state that we have succeeded in ese accomplishments during our urney of the past 25 years.

recollect the memories of struggle nd determination when the MGM ust established its two medical lleges, one each at Navi Mumbai and urangabad some twenty years ago. th the medical colleges have grown institutions imparting both dergraduate and postgraduate urses, and delivering quality health e to communities in their respective as. While both colleges are engaged heir primary functions of teaching, ient 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 state-of-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 path-breaking 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 N.N.Kadam
Director (Examination)

Dr Ajit shroff
Dean (Aurangabad Campus)

Dr Z.G. Badade
Registrar

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

M.D. ANAESTHESIA – CURRICULUM.

At the end of three years of training as residents in anaesthesia, the candidates should be fully conversant with theory and practical aspects of:

1.Human Anatomy and Physiology

Human anatomy and physiology of various organ systems and cellular components in relation to
Anaesthesia including muscles, neuromuscular junction, nerve plexuses, cardiovascular, respiratory, neurological, hepatobiliary, renal, endocrine and temperature homeostasis, theories of mechanism of production of anaesthesia, changes during pregnancy, various tests/investigations to evaluate the functional status of organ systems as applied to Anaesthesia Management, Intensive Care Practice and Pain Relief

2. Pharmacology

Pharmacology as applied to Anaesthesia, Intensive Care Practice and Pain Relief including General Pharmacological Principles, Pharmacokinetics and Pharmacodynamics of Anaesthetic Drugs
(including Uptake and Distribution of Inhaled Anaesthesia agents and All the Adjuncts used in anaesthesia, Drugs used for treatment of various Diseases and drug Interaction

3. Pathophysiology

Pathophysiology of various diseases including disorders of cardiovascular, respiratory,
neurological, hepatobiliary, renal, endocrine and immune systems, various tests/investigations to
grade/measure the disease process of various organ systems as applied to anaesthesia management,
intensive care practice and pain relief.

4. Medicine

Medicine as applied to the practice of Anaesthesia including diagnosis and management of
Diabetes, Hypertension, Bronchial Asthma, Chronic Obstructive Pulmonary Diseases, Respiratory
Failure, ARDS, Myocardial Ischemia / Infarction, Arrhythmia, Shock, Congestive Heart Failure,
Acute / Chronic Renal Failure, Head Injury, Unconscious patients, Status Epilepticus / Asthmaticus,
Endocrine Disorders, Diseases related to Dysfunction of Hepatobiliary, Muscular, Connective
Tissues and Immune system, Management of Perioperative Infection,
Neuromuscular Disorders,

Poisoning etc. and interpretation of ECG / Blood Gases / Other Biochemical Values and Function
Tests

5. Physics

Physics as applied to Anaesthetic gases, vapours, anaesthesia machine, breathing systems, monitors,
ventilators, therapeutic devises & other relevant equipment including physical principles involved in their construction and functioning.

6. Perioperative Anaesthesia management

Perioperative anaesthesia management including pre-operative evaluation, intra-operative
management as well as post-operative care, monitoring (invasive as well as non-invasive) as applied to various surgical specialities and age groups.

7. Theory and practice of various techniques.

Theory and practice of various techniques / aspects of Routine & Emergency cases of General anaesthesia (e.g., Intravenous / Inhalational, Endotracheal / Mask / LMA / COPA, spontaneous/Controlled mode of ventilation, induced hypotension / hypothermia etc.), Regional blocks (Spinal, Epidural & Peripheral Nerve block) and Local Anaesthesia, including various postures required for anaesthetic/surgical procedures, their effects and Recent Advances for most minor to supra major surgeries in the field of:

- **General surgery:** e.g. minor cases like haemorrhoidectomy to supra major cases like Liver transplant
- **Gynaecology and Obstetrics**
- **ENT and Head & Neck**
- **Orthopaedics**
- **Ophthalmology**
- **Pediatric & Neonate**: Differences between adult and pediatric Anatomy, Physiology,Pharmacology, Anaesthesia principles, pediatric/neonatal emergencies, postoperative care, fluid & ventilator management etc
- **Cardiac, Vascular & Thoracic:** Conduct of closed heart as well as open heart surgeries (Valvular, Ischemic, Congenital -Cyanotic & Acyanotic), CABG (including off pump), Pulmonary Cases (Insertion of Double Lumen Tube, one lung anaesthesia), Thymus and Vascular surgeries etc. Ability to go on *Cardiopulmonary bypass and disconnect from bypass, ability to take, manage* and interpret Arterial, Central Venous and P.A. Lines, postoperative care, management of re-explorations etc.
- **Neurosurgery**: Ability to monitor ICP, Management of head injuries, bleeds, tumours, etc with
raised ICT. Ability to safely manage cases in sitting, prone, lateral, jack-knife positions and anaesthetic management for neuro-radiology procedures
- **Urology**: Management of endoscopic surgeries like TURP/TURBT etc, Problems related to

TURP, extracorporeal shock wave lithotripsy, percutaneous placement of nephrostomy etc.,
anaesthetic management of patients with acute and chronic renal failure, anaesthetic management of renal transplant cases of donor as well as recipient.

- **Plastic**: Management of burns contractures, congenital faciomaxillary abnormalities like cleft

lip and palate, faciomaxillary injuries like fracture mandible, maxilla, zygoma, panfacial fractures, difficult intubations, microvascular surgeries, reconstructive surgeries, aesthetic surgeries etc

- **Dental**: Monitored Anaesthesia Care, Anaesthetic management of pedodontia patients, maxillofacial surgeries including TMJ Ankylosis, Awake, Retrograde & Fibreoptic intubations
- **Endoscopies / laparoscopies**: Anaesthetic management, specific requirement and complications

of various endoscopies like cystoscopy, ureteroscopy, PCNL, hysteroscopy, thoracoscopy, mediastinoscopy etc. and Lap. assisted/laparoscopic surgery like hysterectomy, tube ligation, appendicectomy, cholecystectomy etc.

- Anaesthesia for various **diagnostic, therapeutic and Specialized** procedures
- Anaesthesia for **Geriatric patients**
- Anaesthesia for surgery using **LASER**
- **Anaesthesia / Sedation techniques out side operating room:**

Electroconvulsive shock therapy
(ECT), Electrophysiologic tests, Radiofrequency ablation, Cardioversion, Cardiac catheterization, Special anaesthetic considerations in radiology and interventional radiology related to Dye allergies, Embolization, Monitoring / Equipment options in the MRI suite.

8. History of Anaesthesia

9. Airway Management

Assessment of difficult airway, Awake, Retrograde, Use of intubating LMA's, Intubating Stylets, Various laryngoscopes designated for difficult airway, Insertion of combitube, Ability to perform Cricothyrotomy and use of Venturi, Minitrach & Fibreoptic intubations etc.

10. BLS & ACLS

Basic & Advanced Cardiopulmonary & Cerebral Resuscitation (CPCR) for all age group of patients under different situations e.g., neonates, pregnant females, poisoning cases, trauma victims
etc.

11. Acid base & Fluid management

Including knowledge of use of Crystalloids, Colloids, blood & blood products

12.Arterila, Peripheral and Central Venous Cannulation

Arterial, Central Venous and P.A. Lines: Establishment, management and interpretation

13. Pharmacology of drugs used in perioperative care.

Anaesthetic drugs used in perioperative care

14. Equipments

Minor to advanced monitoring – their use, maintenance, sterilisation and care

15. Medical gases

- Knowledge of Manufacturing
- Storage
- Central pipeline Systems

16. Day Care / Outpatient Anaesthesia.

- Criteria of patient selection.
- Concept of fast channeling.
- PADS scoring system.
-

17. Remote Location Anaesthesia

Anaesthetic practice during **disasters** and for large turnover surgeries in **camps / mass casualties**.

18. Monitored Anaesthesia Care.

- Indications for monitored anaesthesia care.
- Equipments used for monitoring.
- Concept of awake consciousness.

19. Emergency Anaesthesia

20. Labour Analgesia.

- Physiology of labour.
- Nerve roots involved in different stages of labour.
- Drugs and adjuvants used for labour analgesia.
-

21. Pain relief

- Acute pain management.
- Chronic pain management.

22. Management of critically ill patients.

- Including oxygen therapy.
- Respiratory therapy,
- Ventilatory support,
- Haemodynamic monitoring,
- Prevention and management of multi organ failure,
- Care of patients with brain damage or brain dead patients For organ transplant.

23. Advanced Trauma Life Support (ATLS)

24. Occupational Hazards

25. Safety in Anaesthesia

26. Complications in Anaesthesia.

Complications of Anaesthetic procedures, its prevention, detection and management

27. Contemporary aspects in anaesthesia.

- Record keeping in Anaesthesia
- Medical Audit
- Quality Assurance
- Anaesthesia standards: e.g., Minimum monitoring standard
- Medico legal aspects in Anaesthesia
- Ethics in Anaesthesia
- Principles of Evidence Based Medicine
- Basic Research Methodology and Clinical Trials
- Bio-statistics
- **Computers:** Utility, computer assisted learning and data storage, Computerised anaesthesia records
- **Skills:** for planning of operation theater, pain clinic, recovery room, intensive care etc. including selection and purchase of equipments

TRAINING PROGRAMME

A. ADMINISTRATION OF ANAESTHESIA & PERIOPERATIVE PATIENT CARE

I Year Residents:–

Assisting during minor & major anaesthesia procedures and managing patients in recovery or intensive care areas (all Under Supervision)
The first month of the first year will be spent in orientation in the operating rooms and attending lectures
covering the basics of the discipline. After that the first year of training will be spent in learning the
fundamentals of anesthesiology with emphasis on checking of anaesthesia equipment including anaesthesia
machine, airway equipment and appropriate monitors, preparation of appropriate dosages of various drugs
required at specific point of time, mastering clinical skills regarding selection and implementation of an
appropriate anesthesia plan, placement of lines, induction of anaesthesia, intubation, maintenance of
anaesthesia, and the successful reversal of anesthetic agents. Emphasis will also be placed on learning
regional anaesthesia and Cardiopulmonary resuscitation. Also the candidates will be assigned guides for
thesis-so as to help them prepare protocols.
To start with the first year residents will observe and then slowly become independent in giving general
anaesthesia and Regional anaesthesia to patients belonging to ASA grade I & II for minor and major
surgery, under graded supervision. They will be posted in rotation to the following specialties during the
first year: Preoperative assessment area, General Surgery, Gynecology, Obstetrics, Orthopedic, ENT, and
Recovery Room. They will be assigned to cases in the Operating Room at the hospitals attached to medical
teaching institutes affiliated to the University under which they have registered and will gain experience
under the direction and supervision of respective academic faculty.

II Year Residents:–

Assisting during minor & major procedures under anaesthesia, managing patients in recovery or intensive care areas and Independently conducting minor procedures under anaesthesia (GA/RA) for ASA grade I or II patients (excluding expected difficult airway cases and cases with expected major body fluid shift)

The second year of training will be devoted to the subspecialties/superspecialities of anesthesia at the hospitals affiliated to medical teaching institute and the university under the supervision of a faculty member with an aim to concentrate on mastering the knowledge and technical skills associated with providing anesthesia to subspecialty/superspeciality patients. Residents will be rotated in Pediatric anesthesia, Neuroanesthesia, Cardiovascular and Thoracic anesthesia, Ambulatory anesthesia, Obstetrics, Dental Surgery, Ophthalmology, Pain Clinic / Pain Management, Peripheral Theatres, Anaesthesia Outside Operating Rooms, Trauma care, Transplant Surgeries etc. They will be taught to give general anaesthesia and regional anesthesia (Extradural Block - EDB, Spinal Block, and Peripheral Nerve Blocks) to ASA grade I, II, III & IV patients under supervision for superspeciality theaters. They should be able to give GA/RA to other ASA grade I & II patients independently. Rotations in critical care areas e.g., Trauma Ward, Post Anesthesia Care Unit / ICU / Emergency Medical Service will also be part of the second year training curriculum. They should learn pediatric and trauma life support and maintain skills for basic and advanced cardiac life support. The student should be able to analyze and present scientific data and write a thesis.

III Year Residents:–

Assisting during minor & major procedures under anaesthesia, managing patients in recovery or intensive care areas and Independently conducting both minor and major procedures under anaesthesia (GA/RA) for ASA grade I or II patients (excluding expected difficult airway cases and cases with expected major body fluid shift)

The third (final) year of training will be devoted to management of most complex cases available at the
institute under the supervision of a faculty member. The residents will be trained to exercise independent judgment, to take responsibility while caring for such patients, and to take part in research projects under
the supervision of a faculty member. The student should be able to plan and administer anaesthesia to all patients under graded supervision including patients for Cardiac, Neurosurgery, Pediatric surgery and for all major surgery of subspeciality branches. The aim at the end is to be competent and independent soon after the third year of residency in providing anaesthesia to elective and emergency cases belonging to all specialities. The resident should be able to manage critically ill patients and treat intractable pain. They should also know how to organize mass casualty.

THESIS

• The aim of thesis should be to make the student able to demonstrate capability in research by planning and conducting systematic scientific inquiry & data analysis and deriving conclusion.

• Thesis protocol should be submitted at the end of six months after admission in the course to the Research Committee of the Institute. The protocol must be presented in the department of Anaesthesiology before being forwarded. The research committee appointed by the Dean/Principal to scrutinize in references to its feasibility, statistical validity, ethical aspects, etc would approve the Protocol.

• Protocol in essence should consist of:

a) Introduction and objectives of the research project.
b) Brief review of literature.
c) Suggested materials and methods, and (scheme of work)
d) Statistician should be consulted at the time of selection of groups, number of cases and method of study. He should also be consulted during the study.
e) Bibliography

• Chief guide for thesis will be from the department of Anaesthesiology and co-guide(s), if needed, will be from the department of Anaesthesiology or from other disciplines related to the thesis.

• The thesis shall relate to the candidate's own work on a specific research problem or a series of clinical case studies in accordance with the approved plan.
• The thesis shall be written in English, printed or typed on white A4 size bond paper bearing the matter on one side of paper only and bound with cloth/rexine, with the title, author's name and the name of the college printed on the front cover.

• The thesis shall contain:
Introduction, review of literature, material and methods, observations, discussions, conclusion and summary and reference as per index medicus.

• Each candidate shall submit to the Dean four copies of thesis, through their respective Heads of the departments, not later than six months prior to the date of commencement of theory examination in the subject.

ACADEM IC ACTIVITIES

Participation by way of attendance / presentation in Didactic lectures, Symposia, Group discussions, Workshops, Morbidity & Mortality meet, Panel Discussion etc. Each Student should actively participated in at least 6 academic sessions per year during the total training period of three total 18).

LOG BOOK

Maintenance of all the clinical and academic work done by the student in his/her tenure of three years.

Minimum Procedures/Cases required to be done and entered in the log book,

Regional Block

Spinal = 30 to do
Epidural = 30 to do
Combined Spinal Epidural = 20 to do
Caudal = 10 to do
Bier Block (IVRA) = 5 to do
Sciatic/Femoral = 5 + 5 (to observe or do)
Ankle Block = 5 (to observe or do)
Stellate Ganglion Block = 3 (to observe or do)
Brachial Plexus = 5 to observe & 10 to do
Sympathetic Block = 3 (to observe or do)
Trigger Point injection = 3 (observe)
Other peripheral N. Block = 3 to do
Ophthalmic Blocks = 5 (to observe)
Field Block = 3 (to observe or to do)

Anaesthesia for:

General Surgery = 50 (to do)
Gynecology = 50 (to do)
Obstetrics = 20 (to do)
ENT = 20 (to do)
Orthopedics = 20 (to do)
Ophthalmology = 5 (to do)
Plastic Surgery = 5 (to do)
Endoscopy / Laparoscopy = 5 (to do)
Urology = 5 (to do)
Open Heart = 5 (to observe)
Closed Heart = 5 (to observe)
Pediatric Surgery = 5 (to observe)
Craniotomy = 5 (to observe)

Spinal Surgery = 5 (to observe)
Joint Replacement = 5 (to observe)
Anesthesia for organ transplant = 5 (to observe - desirable)
ECT = 10 (to do)
Radiology / CT Scan = 5 (to do) Anaesthesia/sedation

Procedures
Internal Jugular Cannulation = 5 + 5 (to observe or do)
External Jugular Cannulation = 5 to do
Subclavian Vein Cannulation = 5 + 5 (to observe or do)
Peripheral Central Line = 15 to do
Arterial Line Cannulation = 10 to do
Endotracheal Intubation = 250 to do
LMA insertion = 30 to do
Difficult Airway Management = 5 to do

Conduct of Cases
ASA I = 300 to do
ASA II = 200 to do
ASA III = 50 (to observe)
ASA IV = 30 (to observe)
Labour Analgesia = 5 (to observe or do)

ASSESSMENT

At the end of I year:

Internal Assessment so as to allow the candidate to do minor surgical procedures under GA/RA for ASA grade I or II patients (excluding difficult airway cases and cases with expected major body fluid shift) independently in second year.

A. Theory

- **Paper I -** Basic Sciences related to Anaesthesia (History, Anatomy, Physiology, Pharmacology,
Pathology, Physics, Instrument & Equipments, etc)
- **Paper II -** Theory & Practice of Anaesthesia

B. Practical

- **Clinical cases** including 1 long case and 2 short cases
- **Viva Voce** on equipments, drugs, investigations, laboratory findings etc.,

At the end of II year:

Internal Assessment at Institute level so as to allow the candidate to do minor and major surgical procedures under GA/RA for ASA grade I or II patients (excluding difficult
airway cases and cases with expected major body fluid shift) independently in third year

A. Theory

- **Paper I -** Basic Sciences related to Anaesthesia (History, Anatomy, Physiology, Pharmacology,
Pathology, Physics, Instrument & Equipments, etc)
- **Paper II -** Theory & Practice of Anaesthesia
- **Paper III** - Clinical sciences like Medicine & Surgery related to Anaesthesia

B. Practical

- **Clinical cases** including 1 long case and 2 short cases.
- **Viva Voce** on equipments, drugs, investigations, laboratory findings etc.

At the end of III year:

Final Assessment (By University)

A. Thesis:

- The thesis shall be referred by the University for evaluation to the Examiners appointed by the University.
- The examiners will report independently to the Controller of Examinations and recommend whether the thesis is-

A. Approved

B. Returned for improvements as suggested or

C. Rejected

- The thesis shall be deemed to have been accepted when it has been approved by at least two external examiners and if the thesis is rejected by one of the external examiners it shall be referred to another external examiner (other than the one appointed for initial evaluation) whose judgement shall be final for purposes of acceptance or otherwise of the thesis.
- Where improvements have been suggested by two or more of the examiners, the candidate shall be required to re-submit the thesis, after making the requisite improvements, for evaluation.
- When a thesis is rejected by the examiners, it shall be returned to the candidate who shall have to write it again. The second thesis, as and when submitted shall be treated as a fresh thesis and processed.
- Acceptance of thesis submitted by the candidate shall be a pre-condition for his/her admission to the written, oral and practical/clinical part of the examination.
- Provided that under special circumstances if the report from one or more examiners is not received by the time, the Post-graduate examination is due, the candidate may be permitted provisionally to sit for the examination but the result be kept with held till the receipt of the report subject to the condition that if the thesis is rejected then the candidate in addition to writing a fresh thesis, shall have to appear in the entire examination again.
- A candidate whose thesis stands approved by the examiners but fails in the examination, shall not be required to submit a fresh one if he/she appears in the examination in the same branch on a subsequent occasion.

MGM INSTITUTE OF HEALTH SCIENCES, NAVI MUMBAI

MARKLIST FOR PRACTICAL AND VIVA-VOCE EXAMINATION

EXAM CENTRE:_____ **COURSE / EXAM : PG –**

DATE OF EXAMINATION:_____ **EXAMINATION FOR: M.D. (ANAESTHESIAOLOGY)**

Seat No.	1			2			3								Grand Total Practical Total =400 Marks (1+2+3)
	Long Cases			2 Short Cases			Viva								
	1 Case	2 Case	Total			Total	I			II			Dissertation Viva		
	100 marks	100 marks	200 marks	50 marks	50 marks	100	25	10	10	25	10	10	10	100 Marks	

NAME OF EXAMINER	COLLEGE	SIGNATURE WITH DATE
1.		
2.		
3.		
4.		

Paper wise Distribution of Topic

v)	M.D.	PAEDIATRICS	I.	Basic Medical Sciences as applied paediatrics
			II.	Neonatology, Community and preventive Paediatrics
			III.	Systemic diseases in Paediatrics: - Respiratory Cardiology, C.V.S., Neurology, Haematology, Nephrology, Rheumatology, Immunology, Metabolic, Liver Gastroenterology, Growth and Development, Congenital and acquired disorders Endocrine System and Miscellaneous diseases.
			IV.	Recent advances in Paediatrics
vi)	M.D.	PHYSIOLOGY	I.	General physiology, Cellular physiology, Applied Biochemistry, Biophysics and Biostatistics, History of Physiology, Comparative Physiology
			II.	Nerve muscle, Blood, Cardiovascular system, Respiratory System, Gastrointestinal system, Renal Physiology.
			III.	Endocrine, special senses, Nervous system, Reproductive system
			IV.	Exercise Physiology, Nutrition, recent advances, Medical education technology, stress relaxation, medical ethics & applied physiology.
vii)	M.D.	ANAESTHESIOLOGY	I.	Basic Sciences related to Anaesthesia (History, Anatomy, Physiology, Pharmacology, Pathology, Physics, Instrument & Equipments, etc.)
			II.	Theory & Practice of Anaesthesia
			III.	Clinical sciences like Medicine & Surgery Related to Anaesthesia
			IV.	Recent Advances in Anaesthesia.

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

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

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

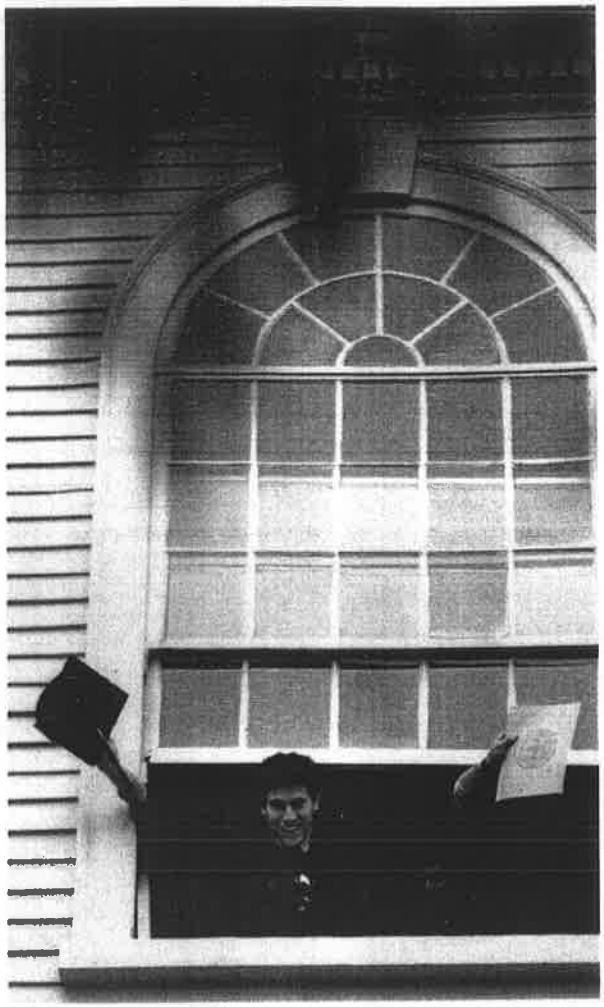
- MGM's College of Engineering
- MGM's College of Fine Arts
- MGM's College of Computer Science
- MGM's College of Journalism & Media Science
- MGM's Centre for Astronomy & Space Tech.
- MGM's College of Library & Information Science

PARBHANI

- MGM's College of Computer Science

NOIDA (U.P.)

- MGM's College of Engineering & Technology



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,
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All PG.
30 copies

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

MGM INSTITUTE OF HEALTH SCIENCES
Navi Mumbai

Induction Program for newly admitted Postgraduate students

Day 1	• Address by Dean, Medical Suptd, Director (Academics) • Pre-test • Communication Skills • Universal Safety Precautions • Biomedical Waste Management • Infection Control Policy
Day 2	• Emergency services • Laboratory services • Blood Bank services • Medicolegal issues • Prescription writing • Adverse Drug Reaction • Handling surgical specimens
Day 3	• Principles of Ethics • Professionalism • Research Ethics • Informed Consent • Confidentiality • Doctor-Patient relationship
Day 4 Day 5 Day 6	• Research Methodology • Synopsis writing • Dissertation writing • Statistics
Day 7	• ATLS • 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)

MD Anaesthesia, Syllabus

Resolution No. 1.3.10.5 of BOM-51/2017: Resolved to approve the Change in MD Anesthesia practical exam pattern as given below:

400 marks will be divided as follows:

1 long case: 100 marks

2 short cases :100 marks (50 marks each)

Table viva with ECG, Drugs, CPCR and Anesthesia Machine: 200 marks (50 marks each).To be implemented from May-June 2018 examinations onwards.

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

MD Anaesthesia

Resolution No. 3.8.2 of BOM-52/2018: It was resolved to have the following Allied posting for PG students:

f) Anesthesia:

Mandatory postings:

I.	CVTS	30 days
II.	SICU	30 days
III.	Emergency medicine	30 days

Elective postings (if desired by HOD):

I.	CVTS	30 days
II.	SICU	30 days
III.	Emergency medicine	30 days

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 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]**

ANNEXURE - XVII

MGM
Mahatma Gandhi Mission

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): _____

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

_____

_____

_____

_____

_____

PART D

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

1. **Case Presentations**

Sr. No.	Topic	Date	Guide	Marks

2. **Microteaching**

Sr. No.	Topic	Date	Guide	Marks

3. **Recent Advances**

Sr. No.	Topic	Date	Guide	Marks

4. Seminars

Sr. No.	Topic	Date	Guide	Marks

5. Journal Clubs

Sr. No.	Journal	Title of Paper	Date	Guide	Marks

6. Marks obtained in tests

Sr. No.	Date	Theory / Practical	Marks obtained

7. Any other academic activity conducted:

_____

_____

_____

_____

_____

PART E

1. Papers presented

Sr. No.	Title of Paper	Authors	Event	Date

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)

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

Certificate by the PG Guide

This is to certify that Dr._____, has an attendance of _____% , during the period _____to_____.
His /Her performance during the said period has been **satisfactory/ average / unsatisfactory.**

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) **Dean**

Date:

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.