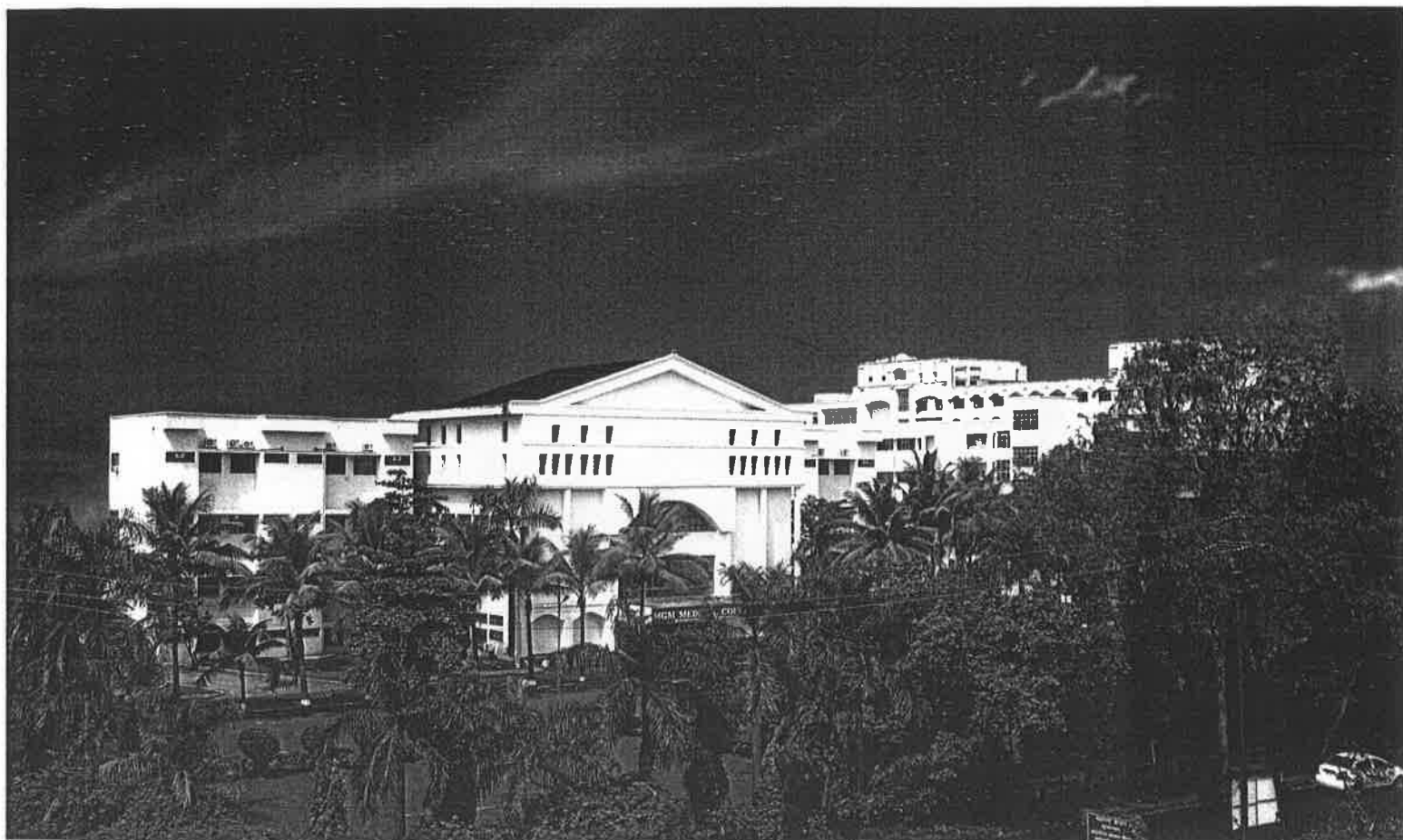


# Curriculum for Diploma Orthopaedics



**IN PURSUIT OF EXCELLENCE**



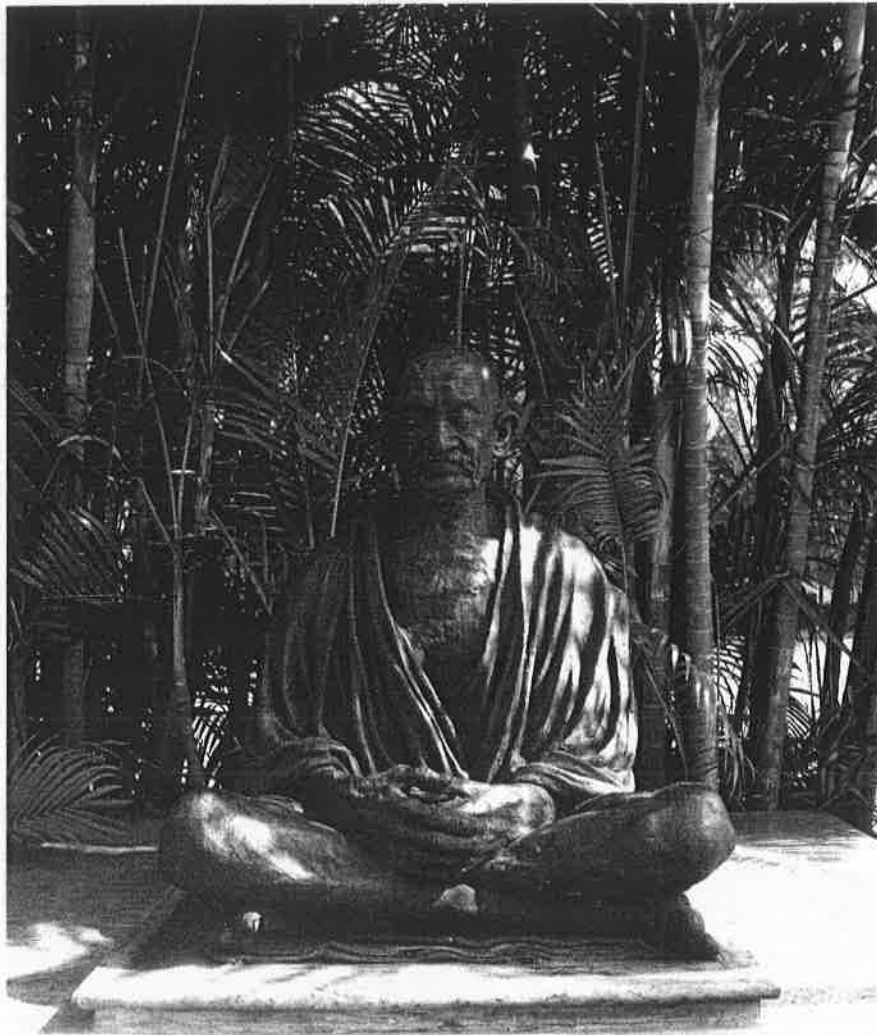
**MGM INSTITUTE OF HEALTH SCIENCES**

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

Navi Mumbai - 410 209

  
[www.mgmuhs.com](http://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 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.

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## Chancellor's Message



It is my pleasure to welcome you to join constituent colleges of Mahatma Gandhi Mission'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 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 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)**

# SYLLABUS FOR DIPLOMA IN ORTHOPAEDICS

## Provisional Syllabus for Diploma in Orthopaedics

### 1) Basic Sciences related to Locomotor System

i) Histology of bone, cartilage, muscles, collagen, Nerves

ii) Physiology of bone, cartilage, muscles, collagen and Nerves

2) Surgical Pathology related to Bones, cartilage, Muscle, collagen and Nerves in various.

Congenital affection, infections, Tumours and tumours conditions a metabolic affection.

### 3) General principles of surgery and Traumatology

i) Wound healing

ii) Fracture healing

iii) Rehabilitation after bone and joint injury

iv) Systemic response to injury

v) Fracture and dislocation in all bones its management including complications.

vi) Injury to chest, abdomen and head

vii) Polytrauma

viii) Fractures in children

### 4) Orthopaedics diseases

i) Metabolic Bone Disease

ii) Bone infections – Acute and chronic

iii) Congenital and development Deformities - upper extremity

- Lower extremity

- Spine

- General defects

iv) Disease of joints -

v) Tumours of Bones

vi) Orthopaedics Neurology – Spina bifida, Polio, Cerebral Palsy

vii) Disease of muscles, nerves, vessels and fibrous tissues

viii) Regional Orthopaedics related to spine, shoulder

ix) Elbow, wrist, hip, knee, ankle and foot.

x) Special Subjects - Orthopaedics Radiology

- Amputation

- Physiotherapy

- ALTS

- First Aid

## **Syllabus for M.S. (Orth.)**

### **Syllabus :**

1) Basic Sciences Related to Locomotor system.

1) Development, histology of bone, cartilage, collagen, muscles and nerve.

2) Physiology of bone, cartilage, muscle & nerve.

2) Surgical pathology related to bones, cartilage, muscle, collagen & nerve in various congenital affections, infections, Tumours and timorous conditions and metabolic affections.

3) Orthopaedic diseases

- Metabolic bone disease

- Bone infections – Acute and Chronic

- Congenital deformities and development conditions of upper extremity, lower extremity, spine general defects.

- Diseases of joints

- Tumours of Bones

- Orthopaedic Neurology including spine bifida, Poliomyelitis and cerebral palsy.

- Diseases of muscle, fibrous tissue and vessels

- Regional orthopaedic conditions related to neck, shoulder, elbow, wrist, hand, hip, knee, ankle, foot, back and pelvis.

- Special subject – Orthopaedic Radiology Amputation and disarticulation physiotherapy and rehabilitation

Recent advances in orthopaedic diseases.

4) General principles of Surgery and Traumatology.

- Wound healing

- Fracture healing

- Rehabilitation after bone and joint injuries

- Systematic response to injury

- Acute trauma care and early management of injured

- Injury to head, face, chest, abdomen, vessels & nerves.

- Polytrauma

- Fracture & dislocations in all bones and joints including diagnosis, classifications, various modalities of investigation and operative nonoperative treatment including complications.

- Fractures in children

- Pathological fractures

- Recent Advance in various fractures and complications management.

5) Exposure to surgical techniques & surgical approaches to various regions to manage common infection, tumor, joint diseases, different type of trauma, congenital, neurological and miscellaneous conditions.

6) Principles of Arthroscopy microsurgery & Arthroplasty.

7) Orthotics & Prosthetics, disability calculation, Bio-mechanics of gait, splints.

8) Thesis – Aim is to train the PG student in research work. Topics should be in experimental, clinical, retrospective analysis or combination such that students

is encouraged to do exhaustive reference work. Topics should be relevant to subject and region of work. Topics should be allotted within first three months of training. The candidate should complete review of literature by end of the first year and submit his completed thesis six months before the final examination. Subject of thesis should be approved by University within first six months.

9) Under Graduate teaching in clinical methods.

10) Seminar presentation on common topics.

11) Journal reading and discussion.

12) Case presentation, ward record maintenance.

13) Adequate experience in closed reduction of various fractures, asisting major operation, independent operative management of common orthopaedic condition.

14) Preparation of paper for presentation in conference.

15) Preparation of article for publication.



**MGM UNIVERSITY OF HEALTH SCIENCES,  
NAVI MUMBAI**

**MARK LIST FOR PRACTICAL AND VIVA-VOCE EXAMINATION**

**Exam Centre:** \_\_\_\_\_

**Date of Examination:** \_\_\_\_\_

**EXAMINATION FOR: DIPLOMA IN ORTHOPAEDICS**

Sr. No.	Heads		Marks
1	Long case - Two		200 Marks
2	Short cases 2	25 Marks each	50 Marks
3	Table viva 1. Instruments 2. X-rays 3. Specimen & bones and splints 4. Ward round 5. Operation	10 Marks 10 Marks 10 Marks 10 Marks 10 Marks	50 Marks
	<b>Total Marks</b>		<b>300 Marks</b>

Seat No	1	2	3	Grand Total
	200 Marks	50 Marks	50 Marks	300 Marks

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



PG COURSES: - DIPLOMA

Sr. No.	Course	Subject Name	Paper No. & Topics
i)	D.C.H.	DIPLOMA IN PAEDIATRIC	<p>I. Basic medical as applied to paediatrics.</p> <p>II. Neonatology, social and preventive Paediatric.</p> <p>III. Systemic disease in Paediatrics Respiratory cardiology, CVS, Neurology, Haematology, Nephrology, Rheumatology, Immunology, Gastroenterology, growth and development. Congenital &amp; acquired disorder of Eye care, Nose, Throat and joints, Endocrine system and miscellaneous diseases.</p>
ii)	D.A.	DIPLOMA IN ANAESTHESIOLOGY	<p>I. Basic Sciences as related to Anaesthesia (History, Anatomy, Physiology, Pharmacology, Pathology, Physics, Instrument &amp; Equipments, etc.)</p> <p>II. Theory &amp; Practice of Anaesthesia</p> <p>III. Clinical Sciences like Medicine &amp; Surgery related to Anaesthesia</p>
iii)	D.G.O.	DIPLOMA IN OBST. & GYNAECOLOGY	<p>I. Obstetrics including the diseases of newborn.</p> <p>II. Gynaecology, Gynaecological Pathology &amp; Operative Gynaecology.</p> <p>III. Medical and surgical diseases complicating obstetrics &amp; Gynaecology, social obstetrics &amp; Gynaecology including M.CH. &amp; F. W.</p>
iv)	D. ORTHO	DIPLOMA IN ORTHOPAEDICS	<p>I. Anatomy, Physiology and Pathology as applicable to Orthopaedics.</p> <p>II. Traumatology and general Surgery.</p> <p>III. General Orthopaedics</p>
v)	D.O.	DIPLOMA IN OPHTHALMOLOGY	<p>I. Anatomy, Physiology and Optics.</p> <p>II. Ophthalmic Medicine and surgery.</p> <p>III. Ophthalmology related to systemic diseases and new innovations and techniques in Ophthalmology.</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**

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. Patilkar College of Comp. Sc. & Tech.
- MGM's Hospital & Research Center
- MGM's College of Agricultural Bio-Technology
- MGM's Dept. of Bio-Technology & Bio-informatics.
- 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-Primary - 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 & Secondary 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

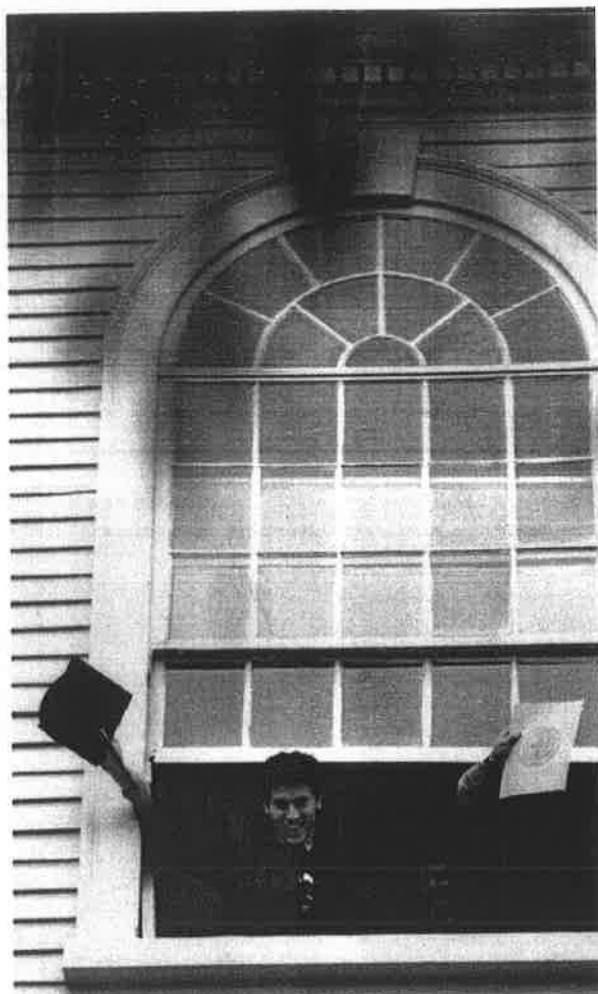
- MGM's College of Engineering
- MGM's College of Fine Arts
- MGM's College of Computer Science
- MGM's College of Journalism & Media Science
- MGM's Centre for Astronomy & Space Tech.
- MGM's College of Library & Information Science

### 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)



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Website: [www.mgmuhs.com](http://www.mgmuhs.com)

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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-XIV]**



**MGM INSTITUTE OF HEALTH SCIENCES**  
Navi Mumbai

**Induction Program for newly admitted Postgraduate students**

Day 1	<ul style="list-style-type: none"> <li>• Address by Dean, Medical Suptd, Director (Academics)</li> <li>• Pre-test</li> <li>• Communication Skills</li> <li>• Universal Safety Precautions</li> <li>• Biomedical Waste Management</li> <li>• Infection Control Policy</li> </ul>
Day 2	<ul style="list-style-type: none"> <li>• Emergency services</li> <li>• Laboratory services</li> <li>• Blood Bank services</li> <li>• Medicolegal issues</li> <li>• Prescription writing</li> <li>• Adverse Drug Reaction</li> <li>• Handling surgical specimens</li> </ul>
Day 3	<ul style="list-style-type: none"> <li>• Principles of Ethics</li> <li>• Professionalism</li> <li>• Research Ethics</li> <li>• Informed Consent</li> <li>• Confidentiality</li> <li>• Doctor-Patient relationship</li> </ul>
Day 4	<ul style="list-style-type: none"> <li>• Research Methodology</li> <li>• Synopsis writing</li> <li>• Dissertation writing</li> <li>• Statistics</li> </ul>
Day 5	
Day 6	
Day 7	<ul style="list-style-type: none"> <li>• ATLS</li> <li>• Post-test</li> </ul>

**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)**

**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

**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.