



MGM INSTITUTE OF HEALTH SCIENCES

Accredited by NAAC with 'A' Grade

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

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Curriculum for Fellowship in Basic Gastrointestinal Endoscopy and Laparoscopic Surgery (w.e.f. Academic Year 2018-19)

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**MGM University of Health Sciences,
Navi Mumbai**

SYLLABUS

**“Fellowship Course in Basic Endoscopy &
Laparoscopy”**

Objectives :

The GI Endoscopy and Laparoscopy fellowship is designed to:

- a) Provide comprehensive training and acquisition of skills in diagnostic and therapeutic endoscopy procedures
- b) To provide training basic in laparoscopic procedure
- c) Help in integration of endoscopy in diagnosis and management of gastrointestinal and hepatobiliary disorders
- d) Training in research
- e) Inculcate appreciation of humanistic (cost conscious, caring) and ethical (accountability, integrity) aspects of medicine.
- f) Develop ability to work as part of a multidisciplinary team

A. Name of the course : Fellowship Course in Basic Endoscopy & Laparoscopy

B. Duration of the course : 1 year

C. Course fee : As per University rules

D. Eligibility criteria admission: MD/DNB (Medicine) & MS/DNB (Surgery)

E. Number of seats : 2

F. Selection process :

A total of 2 candidates per year will be selected for course.

There will be entrance exam comprising of :

- MCQ'S - 50 marks
- Publication - 10 marks
- Interview - 40 marks

G. Complete curriculum of the course

A. General Topics :

1. Understanding basic physics and principles of endoscopy
2. Understand the features of various types of endoscopes and accessories
 - a. Reprocessing and maintenance of endoscopes and accessories
 - b. Understanding the principles, techniques and complications of conscious sedation /analgesia as well as patient monitoring during and after endoscopy
3. Obtain familiarity with informed consent and medical ethics, and explaining risk of endoscopy to patients
4. Cognitive understanding of diagnostic /therapeutic procedures interpreting the findings and understanding the clinical indications / contraindications as well as complications.
5. Integrate endoscopic Knowledge with patient care
6. Motility studies – Esophageal & anorectal 24 hr pH study

B. Endoscopy :

1. Acquire technical skills in performing the following diagnostic / therapeutic procedures, interpreting findings, recognizing and treating complications :
2. Management of gastrointestinal bleed : lesion identification and appropriate
 - a. therapy – adrenaline injection, APC, variceal sclerotherapy , variceal Band
 - b. ligation and cyanoacrylate injection of fundal varices
3. Luminal dilatation (strictures, achalasia cardia ,webs): Savary Guillard, pneumatic, CRE
4. Stent placement – esophageal, small bowel, colonic
5. Percutaneous endoscopic gastrostomy tube placement and exchange
6. Nasogastric and nasojejunal tube placement
7. Foreign body removal
8. Polypectomy

Laparoscopy :

A) General Topics :

1. Basic Principles & Optics used in Lap. Surgery
2. Basic Introduction of the Instrumentation and the Ergonomic their uses in the Laparoscopic
3. Operations Comparison with the open instruments Advantages & disadvantages of the open surgery vs MAS
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4. Selection criteria of the Patient for open or Laparoscopy surgery
5. Caring, Cleaning, disinfecting & Sterilization of the Laparoscopic Instruments
6. Role of the Hands eye coordination in the Laparoscopic operation
7. Anesthesia complications due to laparoscopic operations.
8. Laparoscopic complications, avoidances & troubleshooting
9. Surgical site infection in Laparoscopic Surgery

B. Tissue Approximation Techniques in M.A.S.

1. Laproscopic Knotting & Suturing.
2. 2 Layer anastomosis—Laparoscopically perform an intact and patent handsewn layer anastomosis

C. Laparoscopic Management of :

1. Laparoscopic Cholecystectomy
2. Laparoscopic CBD Exploration
3. Laparoscopic Cystogastrostomy
4. Laparoscopic Appendectomy
5. Laparoscopic Adhesiolysis
6. Diagnostic Laparoscopy

D. Laparoscopic Henia Repair M.A.S.

- a) Ventral Hernia IPOM b) Groin Hernia TAPP /TEP c) Lap. Fundoplication

- E. **MAS Solid Organ Surgery**
 - a) Liver Biopsy b) Splenectomy
- F. **MAS Urological Surgery**
 - a) Lap. Nephrectomy b) Lap Adrenalectomy c) Lap Pyloplasty
- G. **VATS**
 - a) VATS Oesophageal Dissection b) VATS Wedge Pulmonary Resection & Lobectomy
- H. **MAS Colorectal Surgery**
 - a) Low Anterior Resection b)Hemicolectomy
- I. Night call on rotation for observing / assisting /performing emergency Endoscopies
- J. See consultations for endoscopy procedures and follow up patients after the Procedures
- K. Regular discussion with radiologists, pathologists
- L. Regular presentation of journal articles and seminars in the departmental Weekly academic meetings.
- M. Integrate endoscopic and laparoscopic knowledge with patient care
- N. Research presentation at national conferences
- O. Clinical research in endoscopy and laparoscopy and evidence based practice. Regular meeting will be held between fellows and faculty members to design and Conduct research. The fellows are required to complete a minimum of one Research project in either endoscopy or laparoscopy during the one year training under the supervising of faculty members. The project proposal should be submitted within a month of joining the fellowship to institute review board for obtaining ethical clearance and funding if required.

Suggested reading :

Books :

- 1) Practical gastrointestinal endoscopy :The Fundamentals -6th edition , P .B. Cotton, C. Williams
- 2) Endoscopy related topics from Sleisenger and Fordtran' s Gastrointestinal and liver disease. 7th edition,
- 3) Robert H, Hawes : Endosonography (Elsevier , Saunder)
- 4) Sugano K Double balloon endoscopy – Therapy and practice (Springer)
- 5) M . Classon. Gastroenterological endoscopy (Thieme)
- 6) Tytgat GWK. Practice of therapeutic endoscopy W.W.Saunders)
- 7) Sivak Gastroenterologic endoscopy (W.B. Saunders)
- 8) J. H. Siegal . Endoscopic Retrograde Cholangio pancreatography
- 9) Barkin . Advanced therapeutic endoscopy (Raven press)
- 10)Van Dam , Sivak . GI Endosonography (w. B. Saunders)
- 11) Wilcox . Atlas Of Clinical G.I. Endoscopy (Saunders)
- 12) Keeffe E.B. Atlas of G.I. Endoscopy (Current Med. Ins)
- 13) Klaus . Atlas of G.I. Endoscopy and pathology (Blackwell)
- 14) Kenchel .Atlas of video capsule endoscopy (Springer)
- 15) Messmann H. Atlas of colonoscopy (Thieme)
- 16)Advanced therapy in gastrointestinal and liver disease .
- 17)Sohendre . Colour atlas of prerative techniques – Therapeutic endoscopy (Thieme)

P. Journals :

1. Endoscopy
2. G. I Endoscopy

Q. Evaluation process:

1. The performance of the fellow will be monitored carefully during the course of training
2. Formal evaluation by the faculty members on a regular basis. This includes planning/ performance of appropriate therapy. These will be recorded in the log book maintained by the candidate.

Procedure	Number done	Documentation of competence by the faculty member

iii) At the end of the course there will be :

a) Written exam

b) Practical test : Skill assessment in performing endoscopies,

c) Orals : Radiology/ instruments, clinical reasoning and selection of endoscopic procedures in different case scenarios . The candidate should secure a minimum of 50% marks each in written and practical tests to pass the examination .

d) Evaluation of research project

J) To successfully complete the fellowship

a. The candidate should pass the exit exam with at least 50%marks

b. The research project should be complete and approved by external Faculty

c. The log book containing documented competence in endoscopic procedures should be approved by the external faculty.

K) Faculty :

Professor

Associate Professor

Assistant Professor

L) Selection

Selection will be based on performance at interview.

M) Pattern of Exam

Each year an examination coordination committee (ECC) consisting of three teachers running Fellowship / certificate courses will be nominated by the director of the Institute. Both theory and practical Examinations will be concluded within 15 days of the end of the course. Examination will be conducted in individual colleges. Each examination will have one internal and one external (approved by the ECC.)

Theory :

100 marks 10 short of marks each to be attempted from 12 questions. Passing marks 50%. All theory examinations will be held on a single day for all courses of similar lengths.

Practicals :

Each candidate will be examined by both examiners simultaneously for between 60 and 90 mins. This will cover a viva – voce and practical. Details will be dependent on the subspeciality – please write this. Passing marks 50% Candidates have to pass individually in both and practical

Announcement of results :

Results will be announced on the Website and Notice board within one week of the conclusion of the examination. The result will be only "Fellowship granted / denied and marks will not be displayed. Repeats will be at the end of or earlier than 3 -6 months depending on the length of the course.

Award of Fellowship

Certificates will be awarded by the MGMUHS after the results will be sent to the MGMUHS. The University (with signature of the Registrar) will award the certificate

Note :

The decision of the Examination Co- ordination Committee will be binding on all matters pertaining to the examinations.