

surgery vs MAS

4. Advantages & disadvantages and limitations/contraindications of the Laparoscopic surgery
5. Selection criteria of the Patient for open or Laparoscopy surgery
6. Caring, Cleaning, disinfecting & Sterilization of the Laparoscopic Instruments & optics
7. Role of the Hands eye coordination in the Laparoscopic operation
8. Anesthesia complications due to laparoscopic operations.
9. Laparoscopic complications, avoidances & troubleshooting
10. Complications of Minimally invasive surgery Laparoscopic Cholecystectomy operation
11. Introduction advantages disadvantages, complications ,selection of patients etc. With the help of video session
12. Introduction & orientation for the appendectomy operation
13. Introduction & Demonstration of the various knots by the faculty & its uses
14. Introduction & basic principles of suturing techniques /needle selection /selection of suture as per the surgical requirements
15. Surgical site Infection in Laparoscopic Surgery

C) Sessions in Imaging Clinics (15 credit points)
(Please specify the subjects in chronological order required for the course and breakup of the credits allotted according to importance of the subject)

Learning of Ultrasound, CT scan, MRI & Various Procedures required

D) OPERATIVE SESSIONS CREDITS (TOTAL 150)

Operative Credits: A Candidate is expected to maintain certified Log book indicating number of cases assisted or individually operated under the guidance of faculty for each Module.

(Please specify the subjects and surgeries/modules in importance order required for the

course and breakup of the credits allotted according to importance of the subject)

Each of the modules attract certain credits -
This Include

		<p>1) GI Laparoscopic surgeries (50 credits)</p> <p>a) Trocar Entry and Diagnostic Laparoscopy (5 credits) A fellow should learn safe abdominal entry and closure of trocar ports and diagnostic laparoscopy in minimum 10 cases</p> <p>b) Laparoscopic Cholecystectomy (10 credits) Since the first demonstration of laparoscopic surgery was for Calculus Cholecystitis in 1989, it has become Gold standard for Gall stones disease. It also has become the most important and maximally performed laparoscopic surgery throughout the world. A Fellow is expected to safely assist the completion of laparoscopic cholecystectomy as approved by faculty in a minimum of 10 cases. This includes Lap chole for Acute Cholecystitis, Calculus cholecystitis, operative demonstration for cholangiography.</p> <p>c) Laparoscopic appendectomy (10 credits) Appendectomy is another commonly conducted surgery in the world. A fellow is expected to perform safely under faculty guidance laparoscopic appendectomy in a minimum of 10 cases. This includes acute and interval appendectomies</p> <p>d) Laparoscopic Ventral Hernia Repair (10 credits) Safely assist the completion of laparoscopic ventral hernia as approved by faculty in a minimum of 10 cases</p> <p>e) Laparoscopic Inguinal Hernia Repair (10 credits) Safely assist the completion of laparoscopic inguinal hernia as approved by faculty in a minimum of 10 cases</p> <p>f) Laparoscopic fundoplication (5 credits) Safely assist performance of fundoplication in minimum of 2 and maximum of 5 cases</p> <p>1) Solid Organ Surgery like lap splenectomy, pancreatic surgery (Total Credits 30)</p> <p>a) Laparoscopic Splenectomy. (10 credits) Safely assist performance of Laparoscopic splenectomy in minimum of 2 and maximum of 5 cases</p> <p>b) Laparoscopic pancreatic surgery (10 credits) Safely assist performance of pancreatic surgeries in minimum of 2 cases and maximum of 5 cases. Surgeries like cystogastrostomy, distal pancreatectomy, excision of small nodule etc.</p>
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- a) Laparoscopic Knotting & Suturing. Laparoscopically place a suture into foam with marked points 2 cm apart and tie down 3 consecutive knots in less than 1 minute with the camera in a standard position.
- b) 2 Layer anastomosis — laparoscopically perform an intact and patent handsewn 2 layer anastomosis of 1.5 cm in diameter in less than 35 minutes.
- c) Laparoscopic Mechanical Wound closures
- d) Wet model tissue approximation

2) LAP MENTOR (Virtual Reality) (3 Credit Points)

- a) Cholecystectomy (3 levels) b) Ventral Hernia c) Bariatric module

3) FOLLOWING MODULES CAN BE COMPLETED ON CADAVERS, REAL SIZE MODELS (14 Credits)

Each of 7 Modules has credit point

1. Laparoscopic Hernia Repair M.A.S.

- a) Ventral Hernia IPOM b) Groin Hernia TAPP /TEP

2. MAS fundoplication

- a) Revision of Tissue Approximation techniques b) Wet model Fundoplication

3. MAS Solid Organ Surgery

- a) Liver Biopsy (optional) b) Splenectomy

4. MAS Urological Surgery

- a) Lap Nephrectomy b) Lap Adrenalectomy b) Lap Pyeloplasty

5. VATS

- a) VATS Oesophageal Dissection b) VATS Wedge Pulmonary Resection & Lobectomy

6. MAS Colorectal Surgery

- a) Low Anterior Resection, b) Hemicolectomy

7. Bariatric Surgery

- a) Vertical Sleeve Gastrectomy b) Mini Gastric Bypass c) Diversions

B) Didactic Credits (25 Credits)

Didactic on various topics as per syllabus spread over one Hour lecture. Total 10-20 Lectures

(Please specify the subjects in chronological order required for the course and breakup of the credits allotted according to importance of the subject)

1. Basic Principles & Optics used in Lap. Surgery
2. Basic Introduction of the Instrumentation and the Ergonomic their uses in the Laparoscopic Operations Comparison with the open instruments
3. Advantages & disadvantages of the open

King George's Medical University UP India
Department of Surgery (General)

Certificate Course in Minimal Access Surgery - (C²MAS)

S. No.	Head	Comment
•	Name of Course	Certificate Course in Minimal Access Surgery - (C ² MAS)
•	Convenor of Course	Head of Department of Surgery KGMU
•	Similar courses in other universities / colleges: • Specify new course	It is a new course in KGMU.
•	Duration in months	12 months
•	Maximum no. Of seats offered: per course	Two (02)
•	Frequency of course: (annual/6 monthly)	Annual
•	Eligibility criteria for candidates:	Candidate should have completed MS/DNB in General Surgery
•	Mode of selection: (Advertisement to enrolment)	Combined merit - based on MCQ based Entrance examination (80%) and viva (20% marks) Examination committee (for viva) • Dean Faculty of Medicine or nominee • Head of Department or nominee • Hon'ble Vice Chancellor nominee • External Expert (from reputed Govt/Private Institution) as decided by Board of Studies of Department of General Surgery KGMU
•	Fees for course including fee structure:	As per University rules
•	Course Syllabus/ Curriculum	A) SOFT SKILL DEVELOPMENT MODULE/ Laboratory Module (25 Credits) (Please specify the subjects in chronological order required for the course and breakup of the credits allotted according to importance of the subject) 1) Hand skills development (7 credits points) Basic Minimal Access Techniques: a) Laparoscopic Stack, Pneumoperitoneum, Safe introduction of Trocars, Manipulation of Angled Scopes, Accessory port placement Hand eye coordination (Basic to advanced) b) Laparoscopic Cholecystectomy on Wet model (if possible) Tissue Approximation Techniques in M.A.S.

Access Surgery (Laparoscopic surgery). There will be a very strong emphasis on research, scholarly activity and teaching experience.

This course will enable candidates to have a strong foundation to receive the Certificate Award from the KGMU and consequently have a successful career in clinical practice.

Candidate will be evaluated by credit points system:

Most Fellows confuse credit based system with a different evaluation system in medical education. The credit based system is rather a scientifically accepted system which allows different weightage to different courses in a program based on its utility in the overall program structure. Over a period of time it has been identified that every program must have some learning objective defined to it. It is also accepted fact that only a flexible credit based structure can provide the best training and learning where the student can learn at his own pace and can learn what he perceives that would help him in his professional career.

The Advantages of credit based evaluation system are

- (1) Skilled fellows can always go for the maximum credits
- (2) Students can learn at their own pace

Students can finish the operative modules any time within a stipulated time and in any order. Only the Soft skill development in skills laboratory setup has to be finished first (3) Students get the freedom to choose and identify (4)

Fellows can translate their innate capabilities to credits and get the know-how of more than one discipline increasing their horizons

Since the entire course is Credit System based, for each Module, the candidates will be assigned credits for their work by respective Faculty/Unit.

The candidates may finish their modules and earn credits in Operative sessions within a certain stipulated time (maximum 3 years and minimum 1 year) in any order depending upon their availability of time and convenience.

The basic credits for any system as stipulated by faculty of a particular course, however, will have to be finished first. The fellows may be rotated with different expert faculties / Units / Departments of a specific module so as to learn maximum from the respective experts in their actual operative module.

Infrastructure for Clinical, Operative Sessions and Soft skill Development

This Centre has

- 1) Operating rooms fully equipped with laparoscopic/basic set up with 4 working stations.
- 2) Dedicated room for dry labs which is well equipped with simulators for individual participants for developing hands eye coordination or any additional required practice.
- 3) Conference room facility, Polycom facility for Audio visual
- 4) Library (BOOKS, JOURNALS & VIDEO)
- 5) Live relay OT facility (available on demand)

USP of this department -

1. 240 bedded department
2. Independent Department with dedicated Faculties/Teachers
3. Dedicated Operating room fully equipped with Basic infrastructure and Instruments required for the particular course set up e.g. laparoscopic set up
4. For example in laparoscopic surgery, a Laparoscopic set fully equipped with various telescopes, camera, light source, Monitor, CO2 insufflators, suction irrigation, Bipolar, Monopolar, Harmonic & Ligasure or Enseal like devices
5. Independent Pathology facilities
6. Imaging devices like Ultrasound, CT Scan, MRI
7. Conference room facility for Audio visual
8. Library (BOOKS, JOURNALS).

		<p>c) Laparoscopic Nephrectomy (10 credits). In minimum of 2 cases like total or partial nephrectomies</p> <p>2) Bariatric Surgery (Sleeve Gastrectomy) (15 credits): Assist the completion of laparoscopic gastric bypass as approved by faculty in a maximum of 5 cases</p> <p>3) Urological Surgery (15 credits) safely assist the faculty in performing other urological surgeries like Boari flap, Lap. Uretrolithotomy, Lap Pyelolithotomy, Pyeloplasty in minimum of 3 cases.</p> <p>4) Colo-rectal (10 credits) Assist the completion of laparoscopic Right or Left hemicolectomy as approved by faculty in a maximum of 5 cases. Assist the completion of laparoscopic rectal surgeries like Pull through or APR in minimum of 2 cases (10 credits)</p> <p>5) Thoracoscopy (10 credits). Assist the completion of VATS and various Thoracoscopic Surgeries as approved by and under guidance of a faculty in a maximum of 3 cases</p> <p>6) Robotics (5 credits). Observing 5 robotic cases in operation Theatre performed by a faculty member on a Da Vinci Robot.</p> <p>7) Malignancy in laparoscopy (15 credits) Assist the completion of laparoscopic GI malignancy surgery (diagnosis, mapping, definitive surgeries like excision of a mass) as approved by and under guidance of a faculty in a minimum of 5 cases.</p> <p>E) Other Fellowship Examination (50 Credits) The examination for a particular course may be conducted according to the requirement of a course. The examination should be of MCQ type for judging overall proficiency of a Fellow.</p>
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Objective:

This is a one year fellowship program that is available for candidates desiring additional training in Minimal Access Surgery (Laparoscopic surgery). The goal of this programme is to provide Surgeons with comprehensive academic, research and clinical training in Minimal Access Surgery (Laparoscopic surgery). This will include learning on the pathophysiology, evaluation, diagnosis and current Standard Management in all pathologies that lead them to certificate course in Minimal

9. Lines of responsibility for general surgery residents and other residents and fellows will be defined clearly. Fellows will serve as teaching assistants for residents and will work in accordance with the senior resident in the unit.

Program Director – HOD Surgery (Gen.)

Program Faculty –

1. Departmental faculty
2. Outside Faculty

Responsibilities of the program director

It is the responsibility of the program director to support the fellowship program by devoting his or her efforts to its management and administration.

1. Selection of fellows for the program in accordance with institutional policies and procedures.
2. Selection and supervision of the teaching staff and other program personnel at each unit/department participating in the program.
3. Supervision of fellows through explicit written descriptions of supervisory lines of responsibility for the care of patients. Such guidelines must be communicated to all members of the fellowship program staff.
4. Organization and supervision of the research activities of fellows.
5. Organization and supervision of fellows' participation in conferences and other educational activities, and oversight of implementation of the fellowship curriculum.
6. Implementation of fair procedures, as established by the sponsoring institution, regarding academic discipline complaints and grievances.
7. Oversight of accurate tabulation and recording of operative logs by surgical fellows in the Fellowship case log system.
8. Notification in writing to Accreditation Committees of KGMU if there is change in the faculty complement for the fellowship.

SCHEME OF EVALUATION

General Guidelines for allotment of Credits

Total Credits: - 300

Minimum Number of Credits for successful completion of programme:-240 credits (80%)

Breakup of credits

Should be based on following Modules

A) SOFT SKILL DEVELOPMENT MODULE (25 credits points)

This include Working at Department Basic Skill Lab, Knotting and suturing Techniques, Basic knowledge of instrumentation and Energy Sources. A candidate may have to take additional Basic course pertaining to any special operative techniques.

B) Didactic Credits (25 credit points)

Didactic on various topics as per syllabus spread over one Hour lecture. Total 10-20 Lectures depending upon specified course material and depth of theory.

Topics of Didactic lectures will depend upon the particular course/Module offered.

C) Presentation, Publications & Project Work (25 credit point)

Under faculty guidance, presentations for Local, Regional & national conferences.

D) Video Learning, Grand Rounds, Faculty Discussions (10 credit Points)

Review of Recorded Surgical Procedures with Faculty Input. Specific/specialized Surgery Grand Round/Clinical Case Conference. Disease/Journal Club, Round Table Discussions.

E) Sessions in Imaging Clinics (15 credit points)

Learning of Ultrasound, CT scan, MRI & Various Procedures required for the particular course/module (e.g. Doppler study etc.)

F) OPERATIVE SESSIONS CREDITS (TOTAL 150)

Operative Credits: A Candidate is expected to maintain certified Log book indicating number of cases assisted or individually operated under the guidance of faculty for each Module.

G) Certificate Examination 50 Credit Points (Terminal Exam by MCQs)

The examination for a particular course may be conducted according to the requirement of a course.

Rotation:

A Fellow during his tenure of One year will be rotated through various units/faculties in the institute (outside the institute if required for duration of maximum 8 weeks) for total exposure to various aspects and skill in Specific/specialized Surgery. Rotations to other faculties within the course are important part of the skills curriculum. Rotations are agreed upon by the faculty and optional rotations are available upon request of the fellow and approval by the faculty program director. Upcoming interesting cases by faculty should be broadcast to all fellows through the monthly didactic meetings so freely available fellows can travel to the sites to participate or see these unusual cases.

Evaluations of the fellows by the faculty and of the faculty by the fellows will be performed of all teaching sites every quarter during the year and upon the completion of each away rotation.

Clinical Responsibilities

The fellow will attend and work under the faculty in the institute on the assigned modules. He/ She will participate in the preoperative assessment and planning as well as the postoperative follow-up of their assigned patients under the faculty guidance.

Research Training:

All Fellows are expected to be intimately involved with the program's research activities, to publish at least 3 case reports per year and present their work at local, regional and National meetings and conferences. Most of the research will focus on the current techniques and outcomes evaluations of Procedures. These will involve both clinical and laboratory based work.

The Programme recognizes the necessity that its Fellows have a basic knowledge in specified Surgery. Didactics, round table meets and seminars will routinely update the academic content of the programme. This will be supplemented with Clinical Learning, through outpatient clinics, ward rounds and presentations and operative experience in the form of assisting and being proctored over surgical procedures

Expectations include: All Fellows

- Demonstrate manual dexterity appropriate for their training level.
- Critically evaluate and demonstrate knowledge of pertinent scientific information.
- Practice-based learning and improvement that involve investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
- All Fellows will present and review current literature at Journal Clubs.
- All Fellows will be expected to actively participate at local, regional and National seminars and conferences.
- Maintain high standards of ethical behaviour.

- Demonstrate sensitivity to age, race, gender, and culture of patients and other health care professionals
- Practice high-quality, cost-effective patient care.
- Demonstrate knowledge of risk-benefit analysis.

These academic activities will be constantly be reviewed by a Senior Faculty.

Portfolio Management:

All Fellows will maintain a Course PORTFOLIO.

Two monthly review of following topics by faculty via internet /in person this will include:

Research/Project

Log Book

Presentations

On-going Publications

Number of hours spent on hands on practice

Summaries of case discussions and presentations.

Synopsis of publications.

Maintaining accurate case logs is critical to each fellow. These numbers are vital for hospital privileging. It is mandatory that case logs are entered by each fellow into the Specified Surgery/Course Fellowship Case Log. Case logs need to be printed and brought to the monthly didactic meetings for review. Failure to do so results in the curtailing of operative privileges. Log book, presentation & Dissertation will be signed & evaluated on a time to time basis by respective faculties.



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