# Timetable of Laparoscopic Training F.MAS + D.MAS in India

EFFECTIVE DAYS OF TRAINING IS ONLY 18 DAYS AS THERE ARE THREE SUNDAYS WHICH IS HOLIDAY IN THIS THREE WEEKS FELLOSHIP AND DIPLOMA INTEGRATED COURSE. SO THIS TIME TABLE IS SHOWING MINUTE TO MINUTE TIME TABLE OF 18 DAYS.

Surgeons and Gynecologists will be taken to operation theatre to see and assist in Live real operative cases in the operation theatre. The timing of that procedure is not mentioned in this timetable as it varies according to surgery time and availability of cases.

## DAY 1

08:30 am - 10:30 am: Registration of Participants

10:30 am - 10:45 am: Coffee Break

10:45 am - 12:00 pm: Lecture/PPT/Video Presentation

Introduction of Minimal Access Surgery (Presentation of past, present and future of minimal access surgery and introduction to Robotics, HALS, NOTES, TEM and SILS)

12:00 pm - 01:30 pm: Lab. Demonstration

Discussion of the importance of Ergonomics, Task Analysis & Engineering in Laparoscopy Surgery Lab. Demonstration of Instruments; (Part I). Access instruments, dissecting instruments, various graspers, and various scissors. Instruments used for closed and open laparoscopic access techniques, including Hasson's technique, Visiport, and safety trocars. How to access inside the abdominal cavity during laparoscopic surgery for general surgeons, pediatric surgeons, gynecologists, and urologists.

01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 05:00 p.m: Hands-On Practical

Laparoscopic hands-on training and exercises to increase depth perception by doing Terrible Triangle Drill and techniques of identifying various pathologies using laparoscope according to the guidelines of SAGES, EAES and WALS.

## DAY 2

08:30 a.m.- 10:30 a.m: Practical

Top Gun Drill laparoscopic hands-on exercises to learn bimanual hand & eye coordination, ambidexterity and depth perception using instruments in both hands. Exercises will be Cobra rope drill as per the guidelines of WALS and SAGES.

10:30 am - 10:45 am: Coffee Break

#### 10:45 am - 01:30 pm: Lecture/PPT/Video Presentation

Advantages and Disadvantages of Minimal Access Surgery. How to make case selection in minimal access surgery. Effect of pneumoperitoneum on the hemodynamics of the patient and how to manage those complications.

01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 05:00 p.m: Practical

Laparoscopic hands-on training and exercises to increase depth perception by doing Packing the Pole Drill.

## DAY3

08:30 a.m.- 10:30 a.m: Practical

Laparoscopic hands-on training and exercises to increase depth perception by doing Cobra Rope Drill, Tin Cup Drill, and Terrible Triangle Drill. The practice of diagnostic laparoscopy and hand-eye coordination for gynecologists, surgeons, and urologists for various minimal access surgeries in the laparoscopic lab with all set laparoscopic instruments (hands-on training) — techniques of identifying various pathologies using laparoscope according to the guidelines of SAGES, EAES and WALS.

10:30 am - 10:45 am: Coffee Break

#### 10:45 a.m.- 01:30 p.m: Lecture/PPT/Video Presentation

Demonstration and discussion on all types of telescopes and stereoscope used in minimal access surgery, Principles of the camera, including three-chip 4K cameras. Different types of light sources entailing differences in functionality between Xenon and LED light sources and demonstration of types of light cables (fiber-optic and gel cables). Laparoscopic Insufflator & Quadro - manometric Principles of Microprocessor - Controlled Digital Insufflator.

01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 05:00 p.m: Practical

Lecture on laparoscopic suturing and knotting techniques followed by practice of extracorporeal Roeder's, Meltzer's & Mishra's knots for free structures, followed

by the practice of laparoscopic extracorporeal knot for continuous structure over appendix and fallopian tube.

## DAY 4

08:30 a.m.- 10:30 a.m: Practical

The practice of extracorporeal Roeder's, Meltzer's & Mishra's knots for continuous structures followed by practice of laparoscopic Extracorporeal Square knot and demonstration of surgeon's knot for myoma, fundoplication, Burch suspension, partial nephrectomy, rectal prolapse and vault closure in total laparoscopic hysterectomy.

10:30 am - 10:45 am: Coffee Break

#### 10:45 a.m.- 01:30 p.m: Lecture/PPT/Video Presentation

Lecture and PowerPoint video presentation of various laparoscopic access techniques for surgeons, gynecologists, and urologists, including Veress Needle, Hasson's method, Scandinavian method, and Fielding method of access. Use of Visiport® and optical needle. Complications of access technique and how to manage those complications. Baseball Diamond Principle of Laparoscopic Secondary Ports Positioning, video presentation of exact points where one should put the ports during various laparoscopic procedures to achieve the best ergonomics for comfortable task performance.

1:30 p.m.- 2:30 p.m: Lunch

02:30 p.m.- 05:00 p.m: Practical

Hands-on practice of laparoscopic Extracorporeal Square Knot used for tissue under tension, like vault closure, partial neprectomy, fundoplication, gastric plication and myomectomy (hands-on training on tissues in operation theatre environment). Demonstration of Surgeons Knot.

## DAY5

08:30 a.m.- 10:30 a.m: Practical

The practice of laparoscopic Surgeons knot used for tuboplasty, bowel anastomosis, vault closure, enterotomy repair, bladder injury and pyeloplasty, Burch suspension, partial nephrectomy (hands-on training on tissues in operation theatre environment).

10:30 am - 10:45 am: Coffee Break

10:45 a.m.- 01:30 p.m: Lecture/PPT/Video Presentation

Laparoscopic Dissection Techniques (Presentation and discussion of principles behind monopolar, bipolar, harmonic scalpel, Ligasure, Plasma-Sect, and Argon beamer and Laser for gynecological, surgical and urological procedures. Various Complications of energy sources, including insulation failure, direct and capacitative coupling, and how to prevent them. Practical demonstration of working of all types of energy sources, including entailing principles of Active Electrode Monitoring System (AEMS).

01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 5:00 p.m: Practical

Hands-on practice of laparoscopic Surgeon and Tumble Square knot and laparoscopic Intracorporeal Surgeon's knot used for bowel anastomosis on harvested tissue.

## DAY6

08:30 a.m.- 10:30 a.m: Practical

Laparoscopic hands-on exercises with energy sources on tissues in operation theatre setup over harmonic, Ligasure, Enseal, Thunderbeat, etc.

10:30 am - 10:45 am: Coffee Break

10:45 a.m.- 01:30 p.m: Lecture/PPT/Video Presentation

FOR SURGEONS: Lecture and a video demonstration of laparoscopic appendicectomy technique (Presentation of various ways of performing laparoscopic appendicectomy including two-port appendicectomy, stapler appendicectomy, and retrocecal appendicectomy).

FOR GYNAECOLOGISTS: Lecture and a video demonstration of Laparoscopic Tubal Surgery including tubal recanalization, ectopic pregnancy, salpingectomy, and salpingo-oophorectomy.

01:30 p.m.- 02:30 p.m: Lunch

2:30 p.m.- 5:00 p.m: Practical

Hands-on training on Intracorporeal Surgeons and Tumble Square knot with Choreographic movements without swording of instruments. Demonstration of Dundee Jamming Knot.

## DAY7

08:30 a.m.- 10:30 a.m: Practical

Hands-on practice of laparoscopic Dundee Jamming knot, Aberdeen Termination and laparoscopic Intracorporeal Continuos Suturing on harvested tissue.

10:30 am - 10:45 am: Coffee Break

#### 10:45 a.m.- 01:30 p.m: Lecture/PPT/Video Presentation

FOR SURGEONS: Lecture and video demonstration on laparoscopic cholecystectomy technique (Presentation of various ways of performing laparoscopic cholecystectomy including two-port cholecystectomy & SILS cholecystectomy.

FOR GYNAECOLOGISTS: PowerPoint presentation and video demonstration and Discussion of principles of Laparoscopic Ovarian Surgery (Presentation of laparoscopic oophorectomy, Ovarian Cystectomy including laparoscopic resection of Endometrioma).

01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 05:00 p.m: Practical

Hands-on practice of continuous suturing side to side and end to end bowel anastomosis and fallopian tube anastomosis. Baseball suturing and reverse suturing.

#### DAY8

08:30 a.m.- 10:30 a.m: Practical

Hands-on practice of laparoscopic Dundee Jamming knot, Aberdeen Termination and laparoscopic Intracorporeal Continuos Suturing on harvested tissue.

10:30 am - 10:45 am: Coffee Break

10:45 a.m.- 01:30 p.m: ecture/PPT/Video Presentation

FOR SURGEONS: PowerPoint Presentation and video demonstration of Trans Abdominal Peritoneal (TAPP) repair of inguinal hernia. PowerPoint presentation of various ways of performing Inguinal Hernia Repair including hernia surgery with and without tackers and staplers using various suturing techniques

FOR UROLOGISTS: PowerPoint presentation and video demonstration of various ways of performing varicocelectomy and Orchiopexy.

FOR GYNAECOLOGISTS: PowerPoint presentation and video demonstration of various ways of performing laparoscopic Assisted Vaginal hysterectomy including vaginal part of LAVH using suturing technique and using Ligasure and harmonic waves.

01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 05:00 p.m: Practical

Practical: Hands-on practice of laparoscopic Surgeons Knot, Tumble Square knot and laparoscopic Intracorporeal Dundee Jamming knot used for tuboplasty, bowel anastomosis, vault closure, enterotomy repair, bladder injury and pyeloplasty

(hands-on training on tissues in operation theatre environment).

## DAY9

#### Wet Lab Day

- During the Lecture of Gynecologists, Surgeons, will perform Surgery in Laparoscopic Skill Lab on live tissue
- During the Lecture of Surgeons, Gynecologists, will perform Hands On surgery in Laparoscopic Skill Lab on live tissue

#### No Coffee Break During Animal Dissection

#### For Surgeon Live Animal Surgery of:

Laparoscopic Diagnostic Laparoscopy

Laparoscopic Cholecystectomy

Laparoscopic Appendicectomy

Laparoscopic Hernia Repair

Laparoscopic Nephrectomy

Laparoscopic Varicocelectomy

Laparoscopic Duodenal Perforation

#### For Gynecologist Live Animal Surgery of:

Laparoscopic Diagnosis

Laparoscopic Salpingectomy

Laparoscopic Oophorectomy

Laparoscopic Hysterectomy

Laparoscopic Tubal Sterilization

Laparoscopic Tubal Recanalization

#### 11:00 a.m.- 01:00 p.m: Lecture/PPT/Video Presentation

FOR SURGEONS: PowerPoint Presentation and video demonstration of Totally Extra Peritoneal (TEP) repair of inguinal hernia. PowerPoint presentation of various ways of performing Inguinal Hernia Repair including hernia surgery with and without tackers and staplers using various suturing techniques

FOR UROLOGISTS: PowerPoint presentation and video demonstration of various ways of performing varicocelectomy.

01:30 p.m.- 02:30 p.m: Lunch

02:30 pm - 05:00 pm: Lecture/PPT/Video Presentation

FOR GYNAECOLOGISTS: PowerPoint presentation and video demonstration of various ways of performing Total Laparoscopic Hysterectomy and Supracervical Hysterectomy.

## **DAY 10**

#### Wet Lab Day

- During the Lecture of Gynecologists, Surgeons, will perform Surgery in Laparoscopic Skill Lab on live tissue
- During the Lecture of Surgeons, Gynecologists, will perform Hands On surgery in Laparoscopic Skill Lab on live tissue

#### **No Coffee Break During Animal Dissection**

#### Hands-On Practice for the surgeon on Live Anesthetized Animal

Laparoscopic Diagnostic Laparoscopy

Laparoscopic Cholecystectomy

Laparoscopic Appendicectomy

Laparoscopic Hernia Repair

Laparoscopic Nephrectomy

Laparoscopic Varicocelectomy

Laparoscopic Duodenal Perforation

#### Practical Hands-on surgery for gynecologist anesthetized animal

Laparoscopic Tubal Sterilization

Laparoscopic Tubal Recanalisation

Laparoscopic Salpingostomy

Laparoscopic Salpingo-oophorectomy

Laparoscopic Ovarian Drilling

Laparoscopic Total Hysterectomy

Laparoscopic Pelvic Lymphadenectomy

#### 11:30 a.m – 01:30 pm: Lecture/PPT/Video Presentation

For Surgeons: Repair of Ventral Hernia Surgery (PowerPoint presentation)

For urologist: Retroperitoneoscopy (PowerPoint presentation on various ways of performing retroperitoneoscopic surgery for nephrectomy and retroperitoneoscopic ureterolithotomy).

#### 01:30 p.m.- 02:30 p.m: Lunch

02:30 p.m.- 05:00 pm: Lecture/PPT/Video Presentation

For Gynaecologists: PowerPoint presentation and video demonstration on Performing Laparoscopic Myomectomy, Its complications, and Management

## **DAY 11**

#### Wet Lab Day

- During the Lecture of Gynecologists, Surgeons, will perform Surgery in Laparoscopic Skill Lab on live tissue
- During the Lecture of Surgeons, Gynecologists, will perform Hands On surgery in Laparoscopic Skill Lab on live tissue

#### **No Coffee Break During Animal Dissection**

#### Hands-On Practice for the surgeon on Live Anesthetized Animal

Laparoscopic Diagnostic Laparoscopy

Laparoscopic Cholecystectomy

Laparoscopic Appendicectomy

Laparoscopic Hernia Repair

Laparoscopic Nephrectomy

Laparoscopic Varicocelectomy

Laparoscopic Duodenal Perforation

#### Practical Hands-on surgery for gynecologist anesthetized animal

Laparoscopic Tubal Sterilization

Laparoscopic Tubal Recanalisation

Laparoscopic Salpingostomy

Laparoscopic Salpingo-oophorectomy

Laparoscopic Ovarian Drilling

Laparoscopic Total Hysterectomy

Laparoscopic Pelvic Lymphadenectomy

#### 11:30 a.m - 01:30 pm: Lecture/PPT/Video Presentation

For Surgeons: Repair of Duodenal Perforation Surgery (PowerPoint presentation)

#### 01:30 p.m.- 02:30 p.m: Lunch

#### 02:30 p.m.- 04:00 pm: Lecture/PPT/Video Presentation

For Gynaecologists: PowerPoint presentation and video demonstration on Hysteroscopy.

#### 04:00 pm to 05:00 pm.

Exam of Fellowship (Multiple Choice question)

## **DAY 12**

Last Day of Fellowship 08:30 a.m. 10:30 a.m.

Discussion of F.MAS qualifying mid-session & final examination papers Completion of the LOGBOOK and doubts resolving session.

10:30 am - 10:45 am: Coffee Break

#### 10:45 a.m.- 01:00 pm: Lecture/PPT/Video Presentation

Mistakes and Errors in Minimal Access Surgery (Presentation of commonly encountered laparoscopic complications in minimal access surgery and various ways of dealing with these problems)

Practical of Diagnostic Hysteroscopy for Gynecologist and Ventral Hernia repair for Surgeon

#### 01:30 p.m. - 05:00 pm: Lecture/PPT/Video Presentation

Certification ceremony and farewell lunch for the Fellowship Batch (All the fellowship and diploma course trainee doctors to attend). A shuttle bus will be arranged for the participants to go to a nearby hotel. Candidates will be awarded mementos and fellowship certificates in Minimal Access Surgery. Trophies will be given to the toppers amongst the surgeons and the gynecologists in the written exam conducted by the WALS for the award of F. MAS.

## The gala lunch will follow the certification ceremony.

## **DAY 13**

#### **DIPLOMA START**

08:30 a.m.- 10:30 a.m.

PRACTICAL: Laparoscopic Hands-On Intra-corporeal Suturing With Ipsilateral port position and Hands-on on Laparoscopic Bowel Anastomosis.

10:30 am - 10:45 am: Coffee Break

#### 10:45am - 01:30pm: Lecture/PPT/Video Presentation

For Surgeons: PowerPoint presentation and video demonstration and Discussion of principles of Laparoscopic Fundoplication Hellers Myotomy and Repair of Hiatus Hernia, Including Linx procedure and TIF.

For Gynaecologists: PowerPoint presentation and video demonstration and Discussion of Laparoscopic Burch Suspension and cervical cerclage.

01:30 p.m.- 02:30 p.m: Lunch

02:30pm - 05:00pm: PRACTICAL

Hand-on training on extracorporeal Weston knot, and Tayside Knot.

## **DAY 14**

Upper GI endoscopy and Operative Hysteroscopy Day

08:30 a.m.- 10:30 a.m: Practical

Hands-on training of Upper GI endoscopy: Overview of Upper and Lower GI endoscopy. Demonstration of Instrument design and practice of GI endoscopy in the wet lab on the anesthetized animal.

10:30 am - 10:45 am: Coffee Break

10:45am - 01:30pm: Lecture/PPT/Video Presentation

For Gynecologists

PowerPoint presentation and video demonstration and Discussion of principles of Laparoscopic Sacrocolpopexy.

For Surgeons

Laparoscopic Bariatric Surgery including laparoscopic Mini Gastric Bypass and Sleeve Gastrectomy and Gastric Banding

01:30 p.m.- 02:30 p.m: Lunch

#### 02:30pm - 05:00pm: PRACTICAL

For Surgeons: Hands-on training of Upper GI endoscopy: Overview of Upper and Lower GI endoscopy. Demonstration of Instrument design and practice of GI endoscopy in the wet lab on the anesthetized animal.

For Gynecologist: Hands-On Practice of Operative Hysteroscopy, which included the use of a resectoscope to perform submucous myomectomy in the tissue model.

## **DAY 15**

**Robotic Surgery Day** 

08:30 a.m.- 10:30 a.m: Practical

Practical: Hands-on practice of Laparoscopic Tissue retrieval techniques including, use of endobag, morcellator and hand ports in various Surgical, Gynecological and Urological minimal access surgical procedures. Hands-on practice of Port Closure Technique done at the end of laparoscopic surgery. Demonstration of Fibrin Glue and Its application in Minimal access Surgery.

10:30 am - 10:45 am: Coffee Break

#### 10:45 a.m.- 01:30 p.m: Lecture/PPT/Video Presentation

For Surgeon, Urologist, and Gynaecologist: An overview of Robotic Surgery. Demonstration of Robotic Instruments., working principles of Patient Cart, Vision Cart, and Master console. Docking Principles of Robotic cannula with Robotic Arm.

01:30 p.m.- 02:30 p.m: Lunch

#### 02:30pm - 05:00pm: Practical

Explanation of Patient Cart, Vision Cart and Master Console, Instrument designing and Working Principles of da Vinci Surgical System optical 3D HD designing and Working Principles of Robotic Remote Sensor Technology, and Docking.

#### Wet Lab Day

- During the Lecture of Gynecologists, Surgeons, will perform Surgery in Laparoscopic Skill Lab on live tissue
- During the Lecture of Surgeons, Gynecologists, will perform Hands On surgery in Laparoscopic Skill Lab on live tissue

#### **No Coffee Break During Animal Dissection**

#### For Surgeon Hands-On Practice on Live Anesthetized Animal

Laparoscopic Fundoplication

Laparoscopic Repair of Duodenal Perforation

Laparoscopic Nephrectomy

Laparoscopic Splenectomy

Laparoscopic Sympathectomy

Laparoscopic Heller's Myotomy

Laparoscopic inguinal hernia

Laparoscopic umbilical hernia

#### For Gynecologist Hands-On Practice on Live Anesthetized Animal

Laparoscopic Burch suspension

Laparoscopic Pelvic Lymphadenectomy

Laparoscopic Sacrohysteropexy

Laparoscopic Supracervical Hysterectomy

Laparoscopic Sacrocolpopexy

Laparoscopic Plication of Ovarian ligament in Ovarian Torsion Caser

Laparoscopic Hysterectomy

Laparoscopic Salphingoophorectomy

11:30 a.m - 01:30 pm: Lecture/PPT/Video Presentation

For Surgeons: PowerPoint presentation and video demonstration of Laparoscopic Splenectomy and Nephrectomy

#### 01:30 p.m.- 02:30 p.m: Lunch

#### 02:30 p.m.- 05:00 pm: Lecture/PPT/Video Presentation

For Gynaecologists: PowerPoint presentation and video demonstration on Radical Laparoscopic Hysterectomy.

## **DAY 17**

#### Wet Lab Day

- During the Lecture of Gynecologists, Surgeons, will perform Surgery in Laparoscopic Skill Lab on live tissue
- During the Lecture of Surgeons, Gynecologists, will perform Hands On surgery in Laparoscopic Skill Lab on live tissue

#### **No Coffee Break During Animal Dissection**

#### For Surgeon Hands-On Practice on Live Anesthetized Animal

Laparoscopic Fundoplication

Laparoscopic Repair of Duodenal Perforation

Laparoscopic Nephrectomy

Laparoscopic Splenectomy

Laparoscopic Sympathectomy

Laparoscopic Heller's Myotomy

Laparoscopic inguinal hernia

Thoracoscopic Procedures

#### For Gynecologist Hands-On Practice on Live Anesthetized Animal

Laparoscopic Burch suspension

Laparoscopic Pelvic Lymphadenectomy

Laparoscopic Sacrohysteropexy

Laparoscopic Supracervical Hysterectomy

Laparoscopic Sacrocolpopexy

Laparoscopic Plication of Ovarian ligament in Ovarian Torsion Caser

Laparoscopic Hysterectomy

Radical Hysterectomy and Lymphadenectomy

#### 11:30 a.m – 01:30 pm: Lecture/PPT/Video Presentation

For Surgeons: PowerPoint presentation and video demonstration of Laparoscopic Colorectal Procedures

#### 01:30 p.m.- 02:30 p.m: Lunch

#### 02:30 p.m.- 05:00 pm: Lecture/PPT/Video Presentation

For Gynaecologists: PowerPoint presentation and video demonstration on Radical Laparoscopic Hysterectomy.

## **DAY 18**

08:30 a.m.- 10:30 a.m: Practical

**OSCE Exam** 

Objective Skills Clinical Examinations for Surgeon & Gynaecologist

For Surgeon, Urologist & Gynaecologist:

10:30 am - 10:45 am: Coffee Brea

10:45 a.m – 01:30 pm: Lecture/PPT/Video Presentation

All the remaining lectures will be taken like TVT, TOT, PPH stapler, CBD Exploration, and Adrenalectomy, etc..

## 01:30pm - 04:30pm: CONVOCATION & CERTIFICATION CEREMONY WITH GALA LUNCH:

Shuttle Bus will be arranged for the participants to go to a nearby HOTEL from World Laparoscopy Hospital for Certification Ceremony. The candidate will be awarded Diploma Certificates in Minimal Access Surgery. The Diploma Candidates will also be given a Certificate of da Vinci Robotic Surgery training. The GALA LUNCH will follow the Certification Ceremony.