

Under graduate Courses Of Endosurgical Training

Template for a course curriculum (syllabus)

Prepared by:

Dr. Mostafa Hamad

Course title

“Endoscopy in Medicine”

Rationale

Surgery constitutes a major part of any national health service. In the last few decades, “Endoscopic Surgery” has evolved dramatically to the extent that it is considered now a crucial element of most surgical specialties. This is really the case in general surgery, orthopedic surgery, urology, gynecology, plastic surgery, cardio-thoracic surgery, neurosurgery and ear-nose-throat (ENT). Moreover, some of the medical specialties are performing minor surgical procedures using endoluminal endoscopy, as is the case for gastrointestinal endoscopy, biliary endoscopy, and bronchoscopy.

All these minimally invasive procedures were proved to have the advantages that they produce much less complications and morbidity to the patients than the competing conventional surgical procedures. Consequently, the patients will have less pain, earlier recovery, shorter convalescence and earlier return to work and usual activities. This is advantageous not only to the patients but to the community as well, when we consider the resulting positive economic impact on the society as a whole.

However, all the advantages of minimally invasive surgery can be achieved only if the operating surgeons are specifically well trained on these procedures. On the other hand, untrained surgeons performing endoscopic surgery often cause severe complications, sometimes potentially fatal, with all the related negative impacts on the patients, society and even on the surgical profession.

For this reason, in all the developed countries, surgeons are not allowed to perform endoscopic surgery except after having specific training programs in specialized centers, which are usually recognized and endorsed by the relevant medical bodies as the national medical syndicate and the national society for endoscopic surgery.

Consequently, surgeons who intend to perform laparoscopic surgery should attend a specific training course for “basic laparoscopic surgery” which enables them to take their first steps in their laparoscopic careers in their own working places under guidance from experts in the field with acceptable results namely the least possible complications and the utmost benefits to the patients.

This course is designed to provide undergraduate medical students including, house officers, with the basic knowledge about endoscopic uses in most of the medical fields, namely surgery, gynecology, orthopedics, urology, plastic surgery, ENT, cardiothoracic surgery, gastroenterology and pneumonolgy. Moreover, an overview of the history of medical endoscopy will also be offered. The students will be given general information about endoscopic instrumentations with samples of these instruments being shown to the candidates by the corresponding expert with explanation of the use and mechanism of action of each of them. With the completion of the course, the candidates will be assigned to witness many of these endoscopic procedures in the respective centers in the university hospital performed and explained thoroughly by the experts.

Course goal (s)

The goal of this course is to provide undergraduate medical students a thorough overview about the field of medical endoscopy and their uses in medicine.

Participant learning objectives

By the end of this course, participants should be able to:

1. Know the important milestones in the history of medical endoscopy.
2. Give an overview about laparoscopy in general surgery.
3. Describe the laparoscopic uses in gynecology.
4. Know the main procedures of arthroscopy.
5. List the indications and procedures of endourology.
6. Give an idea about endoscopic procedures in plastic surgery.
7. Enumerate the indications and uses of endoscopy in gastroenterology.
8. Describe the applications of endoscopy in ENT, cardiothoracic surgery, and broncoscopy.
9. Describe the main procedures in endoscopic surgery after attending them live in the hospital.

Course prerequisites

Undergraduate medical students including house officers. The candidates should be in their final clinical years or already house officers.

Course logistics (e.g., location, length and dates of course)

Location

Didactic part will be given in the lecture room in Assiut Medical School Educational development center (AMEDC), main faculty building, and 5th floor, Corridor B.

Orientation about instruments will take place at the skill lab in Assiut University Center for Endoscopic Surgery Training (AUCEST), main faculty building, 5th floor,

Corridor B.

Attending live procedures will take place in the respective endoscopic centers in Assiut University Hospital.

The didactic sessions will take 8 hours divided on the first three days.

Orientation about the instruments and simulated practice for 6 hours divided on the first three days.

Live training in the endoscopic centers in the hospitals will take place According to a specific schedule in the two weeks after the course (10 hours).

Length

Description of teaching/training methods to be used

The didactic part will be in the form of interactive presentations.

The practical part will consist of

Demonstration of instruments

Display the function and mechanism of action of the different instruments and equipments.

Description or list of instructional materials to be used

Didactic: PowerPoint presentations, lecture handouts

Practical skills: videotapes, CDs, endoscopic instruments, laparoscopic abdominal simulator with possible integrated animal organs, learning guides

Live training: live demonstration of procedures according to the learning guide

Description of assignments in summary form

Prior reading of the steps of the procedures that will be performed live is required.

Learner assessment

Knowledge is measured using a pretest/posttest that is in the form of MCQ, true/false, matching and short answer questions

Formative assessment of knowledge about the procedures will be done in the theatre before embarking on the procedure.

Skills will be assessed by direct observation of participant performance using a checklist

Participant attendance criteria

Participants are required to attend all the didactic sessions and simulated practice before being allowed to attend the live training.