Cairo University
Faculty of Medicine
Department of General Surgery

Course title: General Surgery
(Code): SUR-516

- Departments offering the course: General Surgery
- Fifth academic year of M.B.B.Ch. program
- Date of specification approval: 2016

A) Basic Information:
- Allocated marks: 60
- Course duration: 6 weeks
- Teaching hours: 28 hours
  Theoretical and tutorials: 20 hours
  Practical: 8 hours

B) Professional Information:

1- Overall Aim of the Course:
- To provide the student with the knowledge, and skills, which enable him/her to identify, analyze, manage and/or refer clinical surgical problems in order to provide efficient, cost effective and humane patient care.
- To provide the student with an appropriate background covering the common and/or important surgical emergencies.
- To enable the student to detect cancer at an early stage.
- To enable the development and application of appropriate professional attitudes, ethical principles and communication skills.

2- Intended Learning Outcomes (ILOs):
a- Knowledge and understanding.
On successful completion of the course, the student should be able to:
1. Recognize basics of surgical ethics. (a.14)
2. Describe the anatomy of surgically important structures, organs and regions. (a.1)
3. Describe the histology of surgically important tissues. (a.1)
4. Describe the physiology of surgically important organs and systems. (a.1, 2)
5. Describe the principles of molecular biology and wound healing. (a.2)
6. Describe the microbiology and Parasitology of surgically important pathogens and their treatment. (a.6, 7)
7. Describe the first aid and definitive management of surgical emergencies. (a.7)
8. Describe the principles of surgical nutrition. (a.7)
9. Describe the principles of organ transplantation. (a.7)
10. Describe the epidemiology, etiology, pathophysiology, pathology, complications and prognosis of the various common and important surgical diseases and disorders. (a.5, 6)
11. Describe the clinical picture, investigations and differential diagnosis of the various common and important surgical diseases and disorders. (c.6)
12. Identify the principles of early detection of cancer. (a.10)
13. Describe the prophylaxis and treatment of the various common and important surgical diseases and disorders. (a.7)
14. Describe the pharmacological basis of surgically important medications. (a.7)
15. Describe prevention of HCV and HIV transmission, sterilization of metal and non-metal instruments, handling and preservation of specimens, and management of disposables. (a.15)
16. Describe the procedures and minimally-invasive techniques used in the treatment of surgical diseases. (a.7)
17. Describe the principles of operative intervention including indications for intervention, preoperative preparation, principles of general and local anesthesia, principles of the operations, and postoperative care and complications. (a.7)
18. Describe palliative care for untreatable surgical conditions. (a.7)
19. Describe the theoretical basis of evidence based medicine (EBM). (a.8)
20. Define principles of clinical audit. (a.16)
21. Describe the principles of clinical trials and statistics. (a.5)

Professional skills: (b,c,d, and e)
b. Practical and Clinical Skills

On successful completion of the course, the student should be able to:
22. Provide first aid measures for injured and critically-ill patients. (b.7)
23. Perform an emergency-directed examination for patients with common surgical emergencies. (b.3)
24. Compose an initial plan of management for stabilization of injured and critically-ill patients. (b.6)
25. Take and record a structured patient-centered history in acute and chronic conditions. (b.2)
26. Perform full physical examination appropriate to age and gender in acute and chronic clinical conditions. (b.3)
27. Construct appropriate management plan for patients with common and important surgical diseases. (b.5)
28. Write safe prescriptions of different types of drugs. (b.9)
29. Order appropriate investigations. (b.5)

**Procedures and technical skills acquired during undergraduate training**

By the end of the program, the graduate will acquire the model-based skills (using manikin and simulators) required to:

30. Perform venepuncture and collect blood samples. (b.11)
31. Insert a cannula into peripheral veins. (b.12)
32. Practice enteral, parenteral, inhalational and topical methods for drug administration. (b.13)
33. Perform suturing of superficial wounds. (b.14)
34. Demonstrate competency in cardiopulmonary resuscitation and basic life-support. (b.15)
35. Administer basic oxygen therapy. (b.19)
36. Insert a nasogastric tube. (b.20)
37. Perform bladder catheterization. (b.21)
38. Perform and interpret basic bedside laboratory tests. (b.23)
39. Adopt suitable measures for safety and infection control. (b.25)

c. **Professional Attitude and Behavioral Skills**

By the end of the program, the graduates will acquire the skills required to:

40. Adopt an empathic and holistic approach to patients and their problems, taking into consideration beliefs values, goals and concerns. (c.1)
41. Respect the patient's right to know and share in decision making as well as dignity, privacy, information confidentiality and autonomy. (c.2)
42. Understand and respect the different cultural beliefs and values regardless of their disabilities in the community they serve. (c.3)
43. Recognize the important role played by other health care professions in patients' management, respecting their contributions in patient's management regardless of degree or occupation. (c.4)
44. Apply the national code of ethics issued by the Egyptian Medical Syndicate. (c.5)
45. Respect and follow the institutional code of conduct. (c.6)
46. Counsel patients suffering from different conditions as well as their families. (c.7)
47. Recognize one's own limitations of knowledge and skills referring patients to appropriate health facility at the appropriate stage. (c.8)

d. **Communication Skills:**

By the end of the program, the graduate will be able to:

48. Communicate clearly, sensitively and effectively with patients and their relatives and colleagues from a variety of health and social care professions. (d.1)
49. Communicate effectively with individuals regardless of their social, cultural, ethnic backgrounds, or their disabilities. (d.2)
50. Cope with situations where communication is difficult including breaking bad news. (d.3)
51. Show compassion to patients and their relatives in situations of stress and grief. (d.4)
52. Honor and respect patients and their relatives, superiors, colleagues and any other member of the health profession. (d.5)

e. Intellectual Skills
By the end of the program, the graduate will acquire the skills required to:
53. Recognize patients with life/organ-threatening surgical conditions and perform appropriate initial therapy. (e.2)
54. Determine the different strategies for risk management of disease and injury. (e.6)
55. Identify surgically important structures and organs. (e.1)
56. Identify surgical pathology specimens. (e.1)
57. Integrate basic anatomical, physiological and pathological facts with clinical data. (e.1)
58. Integrate the results obtained from history, clinical examination and investigational data into meaningful diagnostic formulation. (e.2)
59. Combine clinical and investigational data with evidence based knowledge and skill of deductive reasoning for clinical problem solving. (e.3)
60. Identify problems, prioritize them, and generate a list of differential diagnosis for each problem. (e.4)
61. Select the most appropriate and cost-effective diagnostic and therapeutic procedure for each problem. (e.5)
62. Use the results of all the tests ordered to modify the problem list and the differential diagnosis accordingly. (e.5)
63. Identify and outline management of patients with surgical emergencies and common surgical diseases requiring long-term follow-up, rehabilitation and pain relief. (e.5)
64. Recognize and cope with uncertainty by accepting and reacting to uncertain situations through proper counseling, consultation and referral. (e.8)

f. General and Transferable Skills
By the end of the program, the graduate will acquire the skills required to:
65. Adopt the principles of lifelong learning needs of the medical profession. (f.1)
66. Use computers efficiently in reaching biomedical information to remain current with advances in knowledge and practice. (f.2)
67. Present information clearly in verbal, written, and electronic forms. (f.3)
68. Communicate ideas and arguments effectively. (f.4)
69. Work effectively within a multidisciplinary team. (f.5)
70. Manage time and resources effectively and set priorities. (f.6)
71. Apply simple statistical methods. (f.7)
72. Apply English language as needed for appropriate learning and communication in relation to medicine. (f.8)

3- Course contents:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures (hrs)</th>
<th>Practical (hrs)</th>
<th>Total (hrs)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- General skills</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>7.14</td>
</tr>
<tr>
<td>2- Thyroid</td>
<td>8</td>
<td>2</td>
<td>10</td>
<td>35.7</td>
</tr>
<tr>
<td>3- Breast</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>21.4</td>
</tr>
<tr>
<td>4- Hernias</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>28.57</td>
</tr>
<tr>
<td>5- Surgical ethics</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>7.14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>8</strong></td>
<td><strong>28</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

4- Teaching and learning methods:

METHODS USED:
1. Tutorials and Seminars
2. Clinical classes
3. Lectures(Illustrated lectures)
4. Staff rounds

TEACHING PLAN:
Lectures: Students are divided into two groups, and lectures are given on Sundays and Mondays from 2:00-4:00 pm
Practical classes: Divided into 12 groups and provided from 10:00-12:00am.

<table>
<thead>
<tr>
<th>5th year</th>
<th>Hours / week</th>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Lectures</td>
<td>4/week</td>
<td>20</td>
</tr>
<tr>
<td>2- Practical</td>
<td>1.5 /week</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

5- Students Assessment methods:

5a: Attendance criteria: Faculty bylaws
5b: Assessment Tools:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Purpose (ILO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written examination</td>
<td>1-22, 71, 72</td>
</tr>
<tr>
<td>Practical examination</td>
<td>22-52, 72</td>
</tr>
</tbody>
</table>

5c: Time schedule: Faculty bylaws

<table>
<thead>
<tr>
<th>5th year</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- First half</td>
<td>Mid September</td>
</tr>
<tr>
<td>2- Clinical exam</td>
<td>At the end of the rotation</td>
</tr>
<tr>
<td>3- MCQ exam</td>
<td>1st week after the end of the rotation</td>
</tr>
<tr>
<td>4- Second half</td>
<td>Mid March</td>
</tr>
<tr>
<td>5- Clinical exam</td>
<td>At the end of the rotation</td>
</tr>
<tr>
<td>6- MCQ exam</td>
<td>1st week after the end of the rotation</td>
</tr>
</tbody>
</table>

5d: Grading system:

<table>
<thead>
<tr>
<th>Examination</th>
<th>Marks allocated</th>
<th>% of total marks (60)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical</td>
<td>30</td>
<td>50%</td>
</tr>
<tr>
<td>MCQ</td>
<td>30</td>
<td>50%</td>
</tr>
</tbody>
</table>

FORMATIVE ASSESSMENT:
Students know their marks in the trial exams for OSCE which is done at least twice in each surgical rotation.

5e: Examination description:

<table>
<thead>
<tr>
<th>Examination</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical exam</td>
<td>OSCE and long case</td>
</tr>
<tr>
<td>Theoretical exam</td>
<td>MCQ</td>
</tr>
</tbody>
</table>

6- List of references:
6.1: Basic materials: Department book:

6.2: Essential books (textbooks): Current Surgical therapy, Bailey and Love's Short textbook of surgery, and Norman Browse clinical surgery

6.3: Recommended books: Schwartz textbook of surgery


7- Facilities required for teaching and learning:
Facilities used for teaching this course include:

- Lecture halls:
- Small group classes
- Information technology / AV aids
- Library
- Wards
Course coordinators: Prof. Dr. Hafez Mohammed Hafez

Head of Department: Prof. Dr. Ahmed Farag