Master degree (M.Sc.) Program and Courses Specifications for General Surgery

(According to currently applied Credit points)

General Surgery Department

Faculty of Medicine

Aswan University

2020

A. Basic information:

- Program Title: Master degree of General surgery.
- Nature of the program: Single.
- Responsible Department: Department of General Surgery- Faculty of Medicine- Aswan University.
- Total number of courses: 4 courses
  - First part: 3 courses
  - Second part: 1 course
- Duration of program: 3-5 years
- Structure of the program:
  - Total number of credit point: 180 (20 out of them for thesis) Didactic 40 (22.2 %), practical 120(66.7 %), thesis 20 (11.1%), total 180
  - First part: Didactic14 (35 %), practical 24 (60 %), elective course 2 CP (5%), total 40
  - Second part: Didactic 24, (20%) practical 96 (80 %) total 120 According the currently applied

	Credit Points	% from total
Basic science courses	24	13.3%
Humanity and social courses	2	1.1%
Speciality courses	134	74.5%
Others Computer,		
Field training	120	66.7%
Thesis	20	11.1%

- Program is divided into:
  - Part 1: (One year)
- Program-related basic science courses and ILOs
- Students are allowed to sit the exams of these courses after 12 months from applying to the MSc degree.
- One elective course can be set during either the 1st or 2nd parts.

- Thesis: For the M.Sc. thesis:

- Subject should be officially registered within 6 months from application to the MSc degree,
- Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;
- It should be discussed and accepted before passing the second part of exam

- Part 2 (2 years)

- Program related specialty courses and ILOs
- Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.
- The students pass if they get 50% from the written exams and 60% from oral and clinical/practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course
- Total 1900 marks, 700 marks for first part 1200 for second part written exam 40% - 70%, clinical/practical and oral exams 30% - 60%.

Examination system:

- First part:

• Written exam 2 hours in surgical anatomy and pharmacology + Oral exam

• Written exam 3 hours in surgical pathologyand Microbiology + Oral exam.

•Written exam 3 hours in General Surgery 1 + Oral exam+ Clinical exam.

- Second part:

• Written exam 4 papers 3 hours for each in General Surgery 2 + Oral exam+ Clinical/practical exam.

- Elective courses

• Written exam one paper 1 hour in Elective course + Oral & Practical exam

B. Professional information:

(1) program aim:

- Enable candidates to Acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of General Surgery and enabling the candidates of making appropriate referrals to a sub-specialist.

- Provide candidates with fundamental knowledge and skills of dealing with critically ill patients, with General Surgery diseases.

- Introduce candidates to the basics of scientific medical research.

- Enable candidates to start professional careers as specialists in Egypt but recognized abroad.

- Enable candidates to understand and get the best of published scientific research and do their own.

(2) Intended learning outcomes (ILOs):

- Knowledge and understanding:

A. Explain the essential facts and principles of relevant basic sciences including, Surgical Anatomy, Surgical Pathology, Microbiology, Pharmacology related to General Surgery.

B. Mention essential facts of clinically supportive sciences related to General Surgery.

C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of common diseases and situations related to General Surgery.

D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to General Surgery.

E. Mention the basic ethical and medicolegal principles relevant to the General Surgery.

F. Mention the basics of quality assurance to ensure good clinical care in the field of practice.

G. Mention the ethical and scientific principles of medical research.

H. State the impact of common health problems in the field of General Surgery on the society.

- Intellectual outcomes

A. Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the General Surgery.

B. Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to General Surgery.

C. Design and present case for common problem related to General Surgery.

D. Formulate management plans and alternative decisions in different situations in the field General Surgery.

- Skills

1. Practical skills (Patient Care)

A. Obtain proper history and examine patients in caring and respectful behaviors.

B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to General Surgery.

C. Carry out patient management plans for common conditions related General Surgery.

D. Use information technology to support patient care decisions and patient education in common clinical situations related to General Surgery.

E. Perform competently noninvasive and invasive procedures considered essential for General Surgery.

F. Provide health care services aimed at preventing health problems related to General Surgery.

G. Provide patient-focused care in common conditions related to General Surgery, while working with health care professionals, including those from other disciplines

H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).

2. General skills Including:

Practice-based Learning and Improvement Interpersonal and Communication Skills Professionalism

3. Practice-Based Learning and Improvement

A. Perform practice-based improvement activities using a systematic methodology (share in audits and use logbooks).

B. Appraises evidence from scientific studies.

C. Conduct epidemiological Studies and surveys.

D. Perform data management including data entry and analysis.

E. Facilitate learning of students and other health care professionals.

4. Interpersonal and Communication Skills

A. Maintain therapeutic and ethically sound relationship with patients.

B. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.

C. Provide information using effective nonverbal, explanatory, questioning, and writing skills.

D. Work effectively with others as a member of a health care team or other professional group.

5. Professionalism

A. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society

B. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices

C. culture, age, gender, and disabilities systems-based practice

D. Work effectively in relevant health care delivery settings and systems.

E. Practice cost-effective health care and resource allocation that does not compromise quality of care.

F. Assist patients in dealing with system complexities.

(3) Curriculum Structure: (Courses\Units\Rotations):

Year 1

The first year of the fellowship is primarily for basic science related medical knowledge (studied in specialized courses over 6-12 months in collaboration with basic sciences departments of Aswan Faculty of Medicine).

Throughout the year, emphasis is placed on developing: 1) an understanding of basics of General Surgery, preoperative postoperative care. 2) The ability to efficiently formulate clinical assessments and therapeutic plan for different General Surgical diseases. 3) The ability to critically analyze the relevant medical literature; and 4) skills in communicating with nursing and medical staff as well as house staff.

The first year fellow spends the year rotating among four different services:

1) General Surgery department;

2) Operative Theater unit for General Surgery;

3) Outpatient clinic of General Surgery.

Years 2

The primary focus of the second and third year is the development of skills and experience in research, senior fellows continue to participate in clinical activities and certain procedures.

Approximately by the end of the first year, fellows are expected to identify a research area in which the subsequent two years will be focused. Together, the trainee and supervisors develop a project for investigation that is of interest to the trainee and within the expertise of the faculty member; in certain instances, joint mentorship provided by two faculty members within the division, or by one divisional faculty member and a collaborator from another unit, is appropriate.

By the beginning of the second year, the fellow presents a conference in which he/she synthesizes existing knowledge, presents the problem for investigation, and describes the proposed plan of investigation.

During the second and third years, the trainee carries out the proposed work in the clinical research facilities of the faculty mentor(s). The trainee also benefits from interactions with other trainees, technicians, and collaborating investigators. The trainee also participates in laboratory meetings and journal clubs specific to individual research groups. Presenting research findings at regional and national meetings and submitting work for publication are both important aspects of the investigative endeavor.

The trainee will receive guidance and specific assistance in learning to prepare data for oral and written presentation, to prepare graphics, and to organize talks and prepare slides. Throughout the two- year research training period, it is anticipated that the fellow will assume increasing intellectual responsibility and technical independence.

Research Pathway

Selection of a research project and supervisors is subject to the approval of the General Surgery Department council approval and vice-Dean of post graduate studies of the faculty as officially regulated. Fellows may elect either clinically or epidemiologically -based research training pathways. For all Master degree students, a research advisory committee will be selected by the fellow based on the

approved regulatory rules of the faculty council. This committee will monitor the progress of research fellows and provide advice regarding research training and career development

Program courses:

First part

Course and work load list course	Course load	Credit points	total
Basic science courses (8CP) 1. Course 1 Unit {Module) 1 (Surgical Pathology) Unit {Module) 2 (Microbiology) 2. Course 2 Unit {Module) 1(Surgical Anatomy) Unit {Module) 2(Pharmacology)	SUR 211A# SUR211B#	2 2 2 2	4 4
General clinical compulsory courses (6 points) Course 3: General Surgery (I)	SUR211C	6	6
Elective courses: Clinical training and scientific activities: Clinical training in General Clinical compulsory courses General Surgery Clinical training and scientific activities in Specialty course		10 14	10 14

Second part

	Specialty courses 24 CP Specialty Clinical Work 96 CP		
Specialty courses **Course 4 General surgery (II)**	**SUR211 D**	24	
Training and practical activities in specialty	**SUR211 D**	96	
Total of the second part			**120**
Thesis	**20 CP**		
Total of the degree	**180**		

- Elective courses can be taken during either the 1st or 2nd parts
  - Medical statistics.
  - Evidence based medicine.
  - Medicolegal aspects and ethics in medical practice and scientific Research
  - Quality assurance of medical education
  - Quality assurance of clinical practice.
  - Hospital management

General Surgery (II) Course:

1) Module 1 "GIT Surgery"
2) Module 2 "Breast and Endocrine Surgery"
3) Module 3 "Maxillofacial and neck Surgery
4) Module 4 "Abdominal wall, hernias, Testis and Scrotal Surgery"
5) Module 5 "cardiothoracic Surgery"
6) Module 6 "Vascular Surgery".
7) Module 7 "Plastic Surgery".

First part

Course (1) Surgical Pathology and Microbiology

Module (1) Surgucal Pathology

- Unit Title: Surgical Pathology Specialty is General Surgery
- Number of CPs : Didactic 2, (100%) practical 0 (%) total 2CP.
- Department: Pathology in conjunction with General Surgery
- Coordinator (s): Staff members of Pathology Department in conjunction with General Surgery Department as annually approved by both departments' councils

- The student should acquire the pathological facts necessary for clinical management of conditions related to General Surgery:

Knowledge and understanding:

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Mention Principles of General Pathology of: - Cell Injury, Cell Death - Acute and Chronic Inflammation. - Tissue Repair: Regeneration, Healing, - and Fibrosis - Immunity & hypersensitivity. - Bacterial infection. - Disturbance of growth - Pathology of tumors	-Lectures	-Written and oral examination - Log book

B. Pathologic Details of: - GIT Pathology. - The Liver, Gallbladder, and Billiary Tract The Blood Vessels - The Oral Cavity. - Breast endocrinal pathology		

Intellectual outcomes:

ILOs	**Methods of teaching/ Learning**	**Methods of Evaluation**
A. Correlates the facts of Pathology with clinical reasoning, diagnosis and management of common diseases related to General Surgery	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

General skills:

ILOs	**Methods of teaching/ Learning**	**Methods of Evaluation**
A-Use information technology to manage information, access on-line medical information; and support their own Education	-Observation and supervision -Written and oral Communication	Oral Exam Logbook

Interpersonal and communications skills:

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in commo n condition mentioned in A.A,A.B	-Observation and supervision -Written and oral communication	Oral Exam Logbook Check list

Contents:

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
- Principles of General Pathology	**A**	**-**	**-**	
- Cell Injury, Cell Death	**A**	**A**	**-**	**A-D**
- Acute and Chronic Inflammation.	**A**	**A**	**-**	**A-D**
- Tissue Repair,Regeneration, Healing, and Fibrosis	**A**	**A**	**-**	**A-D**
- Immunity &hypersensitivity.	**A**	**A**	**-**	**A-D**
- Bacterial infection.	**A**			
- Disturbance of growth	**A**	**A**	**-**	**A-E**
- Pathology of tumors	**A**	**A**	**-**	**A-E**
Pathologic Details of:		**A**	**-**	**A-E**
- GIT Pathology.	**B**	**A**	**-**	**A-E**
- The Liver, Gallbladder, and Biliary Tract	**B**	**A**	**-**	**A-E**
- The Blood Vessels	**B**	**A**	**-**	**A-D**
- The Oral Cavity.	**B**	**A**	**-**	**A-D**
.-Breast endocrinal pathology	**B**	**A**	**-**	**A-D**

Course methods:

- Didactic (lectures, seminars, tutorial) Laboratory work
- Observation and supervision

Course methods for students with poor achievement:

1.Extra Didactic (lectures, seminars, tutorial) according to their needs

2.Extra Laboratory work according to their needs

Assessment tools:

- Written and oral examination
- Log book

Time schedule: At the end of the first part

Marks:100

Module (2) Microbiology

- Unit Title: microbiology specialty in General Surgery
- Number of CPs : Didactic 2, (100%) practical 0 (%) total 2CP.
- Department: Microbiology in conjunction with General Surgery
- Coordinator (s): Staff members of Microbiology Department in conjunction with General Surgery Department as annually approved by both departments' councils

- The student should acquire the facts of microbiology necessary for General Surgery in practice:

Knowledge and understanding:

ILOs	Methods of teaching/ Learning	*Methods of Evaluation*
A. Describe Principles of Microbiology of: General bacteriology - Antimicrobial agents - Pathogenecity of microorganism - Diagnostic microbiology Microorganism encountered in soft tissue infection and surgical infection Staph, strept, pseudomonas and E-coli Immunology - Basic immunology - Immunologic diagnostic test and serology - Tumor immunology - Immunogenetics and transplantation immunology - Sterilization	-Lectures -Laboratory work	-Written and oral examination -Assessment of practical skills - Log book

Intellectual outcomes:

ILOs	Methods of **teaching/** learning	Methods of **Evaluation**
A. Correlates the facts of microbiology with clinical reasoning, diagnosis and management of common diseases related to General Surgery	Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book

General skills:

Practice based learning and improvement:

ILOs	**Method of teaching/ Learning**	**Methods of Evaluation**
A-Use information technology to manage information, access on-line medical information; and support their own Education	-Observation and supervision -Written and oral communication	Oral Exam Logbook

Contents:

Principles of microbiology of:

- General bacteriology
- Immunology
- Sterilization

Course methods:

- Didactic (lectures, seminars, tutorial) Laboratory work
- Observation and supervision

Course methods for students with poor achievement:

1.Extra Didactic (lectures, seminars, tutorial) according to their needs

2.Extra Laboratory work according to their needs

Assessment tools:

- Written and oral examination
- Log book

Time schedule: At the end of the first part

Marks:100

Course (2) Surgical Anatomy and Pharmacology
Module (1) Surgucal Anatomy

- Unit Title: surgical anatomy
- Number of CPs : Didactic 2, (100%) practical 0 (%) total 2CP.
- Department: Anatomy in conjunction with General Surgery
- Coordinator (s): Staff members of Anatomy Department in conjunction with General Surgery Department

- The student should acquire the facts of anatomy and embryology necessary for General Surgery in practice:

Knowledge and understanding:

ILOs	Methods of **teaching/ learning**	*Methods* o/ ***Evaluation***
A. Describe anatomy Principles of: - Head and neck - Thyroid. - The surface anatomy of the neck, - The facial compartments of the neck, - The thyroid gland, - The parathyroid glands, - The palate, - The tongue and floor of the mouth, - The tongue, - The floor of the mouth - The salivary glands, - The parotid gland, - The submandibular gland,	-Lectures	-Written and oral examination -Assessment of practical skills - Log book

- The internal jugular vein,
- The subclavian vein,
- The lymph nodes of the neck,
- The cervical sympathetic trunk,
- The branchial system and its derivatives,
- Branchial cyst and fistula,
- The surface anatomy and surface markings of the head,
- The scalp
- The mandible and
- The temporomandibular joint.
- The Abdomen and Pelvis
- Surface anatomy and surface markings,
- Vertebral levels,
- Surface markings,
- The fasciae and muscles of the abdominal wall,
- Fasciae of the abdominal wall,
- The muscles of the anterior abdominal wall,
- The anatomy of abdominal incisions,
- The inguinal canal,
- Peritoneal cavity,
- Intraperitoneal fossae,
- The subphrenic spaces,
- The gastrointestinal tract,
- The Oesophagus,
- The stomach, The duodenum,
- Small intestine,
- Large intestine,
- The appendix,
- The rectum,
- Arterial supply of the intestine,
- The portal system of veins,
- Lymph drainage of the intestine,
- The structure of the alimentary canal,
- The development of the intestine and its

- The sublingual gland, - The major arteries of the head and neck, - The common carotid arteries, - The external carotid artery, - The internal carotid artery, - The subclavian arteries, - The veins of the head and neck,		

congenital abnormalities, - The gastrointestinal adnexae: liver, gall-bladder and its ducts, pancreas and spleen, - The liver, - The biliary system, - The gall-bladder, - The pancreas, - The spleen *The Thorax Surface markings of the more important thoracic contents, The thoracic cage, The lungs, The mediastinum, The thoracic duct,		

Unit contents:

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Head neck anatomy				
The surface anatomy of the neck,	A	A	-	A, B
The thyroid gland,	A	A	-	A, B
The parathyroid glands,				
The palate,	A	A	-	A, B
The tongue and floor of the mouth,	A	A	-	A, B
The tongue,	A	A	-	A, B
The floor of the mouth	A	A	-	A, B
The salivary glands,	A	A	-	A, B
The parotid gland,	A	A	-	A, B
The submandibular gland,	A	A	-	A, B
The sublingual gland,	A	A	-	A, B
The major arteries of the head and neck,	A	A	-	A, B
The common carotid arteries,	A	A	-	A, B
The external carotid artery,	A	A	-	A, B
The internal carotid artery,	A	A	-	A,

trunk,				

				B
The subclavian arteries,	A	A	-	A, B
The veins of the head and neck,	A	A	-	A, B
The internal jugular vein,	A	A	-	A, B
The subclavian vein,	A	A	-	A, B
The lymph nodes of the neck,	A	A	-	A, B
The cervical sympathetic	A	A	-	A, B

The branchial system and its derivatives,	A	A	-	A,B
Branchial cyst and fistula,	A	A	-	A,B
The surface anatomy and surface markings of the head,	A	A	-	A,B
The scalp	A	A	-	A,B
The mandible and	A	A	-	A,B
The temporomandibular joint.	A	A	-	A,B
The Abdomen and Pelvis	A	A	-	A,B
Surface anatomy and surface markings,	A	A	-	A,B
Vertebral levels,	A	A	-	A,B
Surface markings,	A	A	-	A,B
The fasciae and muscles of the abdominal wall,	A	A	-	A,B
Fasciae of the abdominal wall,	A	A	-	A,B
The muscles of the anterior abdominal wall,	A	A	-	A,B
The anatomy of abdominal incisions,	A	A	-	A,B
The inguinal canal,	A	A	-	A,B
Peritoneal cavity,	A	A	-	A,B
Intraperitoneal fossae,	A	A	-	A,B
The subphrenic spaces,	A	A	-	A,B
The gastrointestinal tract,	A	A	-	A,B
The Oesophagus,	A	A	-	A,B
The stomach, The duodenum,	A	A	-	A,B
Small intestine,	A	A	-	A,B
Large intestine,	A	A	-	A,B
The appendix,	A	A	-	A,B

The rectum,	A	A	-	A, B
Arterial supply of the intestine,	A	A	-	A, B
The portal system of veins,	A	A	-	A, B
Lymph drainage of the intestine,	A	A	-	A, B
The structure of the alimentary canal,	A	A	-	A, B
The development of the intestine and its congenital abnormalities,	A	A	-	A, B
The gastrointestinal adnexae: liver, gall-bladder and its ducts, pancreas and spleen,	A	A	-	A, B
The liver,	A	A	-	A, B
The biliary system,	A	A	-	A, B
The gall-bladder,	A	A	-	A, B
The pancreas,	A	A	-	A, B
The spleen	A	A	-	A, B
The Thorax	A	A	-	A, B
Surface markings of the more important thoracic contents,	A	A	-	A, B
The thoracic cage,	A	A	-	A, B
The lungs,	A	A	-	A, B
The mediastinum,	A	A	-	A, B

The thoracic duct,	A	A	-	A, B

Course methods:

- Didactic (lectures, seminars, tutorial) Laboratory work
- Observation and supervision

Course methods for students with poor achievement:

1.Extra Didactic (lectures, seminars, tutorial) according to their needs

2.Extra Laboratory work according to their needs

Assessment tools:

- Written and oral examination
- Log book

Time schedule: At the end of the first part

Marks:100

Module (2) Pharmacology

- Unit Title: Pharmacology
- Number of CPs : Didactic 2, (100%) practical 0 (%) total 2CP.
- Department: pharmacology in conjunction with General Surgery
- Coordinator (s): Staff members of pharmacology Department in conjunction with General Surgery Department

Course contents:

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
- Pain control Drugs	B	A	-	A-D
- Chemotherapy	B	A	-	A-D
- Antibiotics	B	A	-	A-D
- Cancer chemotherapy	B	A	-	A-D
- Anticoagulants	B	A	-	A-B
- Corticosteroids	B	A	-	A-D
Hormonal Therapy	B	A	-	A-D

Course methods:

- Didactic (lectures, seminars, tutorial) Laboratory work
- Observation and supervision

Course methods for students with poor achievement:

1.Extra Didactic (lectures, seminars, tutorial) according to their needs

2.Extra Laboratory work according to their needs

Assessment tools:

- Written and oral examination
- Log book

Time schedule: At the end of the first part

Marks:100

Course (3) General surgery (I)

- Unit Title: General surgery (I)
- Number of CPs : Didactic 6, (37.5%) practical 10 (62.5%) total 16 CP.
- Department: General Surgery
- Coordinator (s): Staff members of General Surgery Department

- To enable candidates to acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of General Surgery

Knowledge and understanding:

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***

A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1. Types of wounds 2. Factor affecting wound healing 3. Management of multiple injury patients 4. causes of mortality due to trauma 5. Fluid and electrolyte imbalance 6. Acid base disequilibrium 7. Planning of fluid and electrolyte therapy 8. Classification of hemorrhage 9. Management of blood transfusion 10. Complication of blood transfusion 11. Defects of haemostasis 12. Abnormal bleeding during surgery or in postoperative period 13. Types of shock 14. Management of shock 15. Complication of surgical infections 16. Management of surgical infections 17. Burns and reconstructive surgery 18. Causes, diagnosis of malnutrition in the surgical patients 19. Nutritional support to surgical patients 20. Etiology, diagnosis and treatment of tumors	Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - MCQ examination at the second year -Oral and written exam

21. Indication, technical consideration, complications and results of renal, hepatic pancreatic cardiac and bone marrow transplantation 22. Terminal care in surgical patient		

B- Outline the updated principles of Antibiotics *Antiseptics* *Antparasitic* *Chemotherapy TB* *chemotherapy* *Cancer chemotherapy Corticosteroids* *Antiviral*		
C. Memorize the basic and clinically supportive sciences which are appropriate to the conditions mentioned above.		

Topic	**Covered ILOs**			
	Knowledge A	**Intellectual B**	**Practical skill C**	**General Skills D**
Unit 1 Principle in general surgery 1				
Types of wounds	A,C	A-D	A-G	A-R
Factor affecting wound healing	A,C	A-D	A-G	A-R
Management of multiple injury Patients	A,C	A-D	A-G	A-R
causes of mortality due to trauma	A,C	A-D	A-G	A-R
Fluid and electrolyte imbalance	A,C	A	A-G	A-R

		- D		
Acid base disequilibrium	A,C	A - D	A-G	A-R
Planning of fluid and electrolyte Therapy	A,C	A - D	A-G	A-R
Classification of hemorrhage	A,C	A - D	A-G	A-R
Management of blood Transfusion	A,C	A - D	A-G	A-R
Complication of blood Transfusion	A,C	A - D	A-G	A-R
Defects of haemostasis	A,C	A - D	A-G	A-R
Abnormal bleeding during surgery or in postoperative period	A,C	A - D	A-G	A-R
Types of shock	A,C	A - D	A-G	A-R
Management of shock	A,C	A - D	A-G	A-R
Complication of surgical Infections	A,C	A - D	A-G	A-R
Management of surgical infections	A,C	A - D	A-G	A-R

Burns and reconstructive surgery	A,C	A - D	A-G	A-R
Causes, diagnosis of malnutrition in the surgical patients	A,C	A - D	A-G	A-R

Nutritional support to surgical Patients	A,C	A-D	A-G	A-R
Etiology, diagnosis and treatment of tumors	A,C	A-D	A-G	A-R
Indication, technical consideration,	A,C	A-D	A-G	A-R
complications and results of renal, hepatic pancreatic cardiac and bone marrow transplantation	A,C	A-D	A-G	A-R
Terminal care in surgical patient.	A,C	A-D	A-G	A-R

Course methods:

1. Didactic (lectures, seminars, tutorial)
2. Outpatient
3. Inpatient
4. Case presentation
5. Direct observation
6. journal club
7. Critically appraised topic.
8. Educational prescription
9. Clinical rounds
10. Clinical rotation
11. Senior staff experience
12. Case log
13. Observation and supervision
14. Written & oral communications

15. Simulation
16. Hand on work shop
17. Service teaching
18. Perform under supervision of senior staff
19. Postgraduate teaching

Course Methods of teaching/learning: for students with poor achievements:

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

Assessment tools:

1. Oral examination
2. Clinical examination
3. Written examination
4. Objective structure clinical examination (OSCE)
5. Procedure/case Log book and Portfolios
6. Simulation
7. Record review (report)
8. Patient survey
9. 360 global rating
10. Check list evaluation of live or recorded performance
11. MCQ Exam

Time schedule: At the end of first part
Marks: 300

Second part

Course (4) General surgery (II)

- Unit Title: General Surgery (II)
- Number of CPs : Didactic 24 (17.9%) practical 110 (82.1%) total 134CP.
- Department: General Surgery
- Coordinator (s): Staff members of General Surgery Department \
- This course consists of 7 Units (Modules):

1. Unit (Module) GIT Surgery
2. Unit (Module) Breast and Endocrine Surgery3
3. Unit (Module) Maxillofacial and neck Surgery
4. Unit (Module) Abdominal wall, hernias, Testis and Scrotal Surgery
5. Unit (Module) cardiothoracic Surgery
6. Unit (Module) Vascular Surgery
7. Unit (Module) Plastic Surgery

Course aim:

1.To enable candidates to acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of General Surgery 2 and enabling the candidates of making appropriate referrals to a sub-specialist.

2.Provide candidates with fundamental knowledge and skills of dealing with critically ill patients, with General Surgery diseases.

3-To demonstrate the ability to provide patient-centered care that is appropriate, compassionate, and effective for treatment of General Surgical health problems and the promotion of health.

4-To give opportunities to evaluate and manage a broad variety of General Surgery diseases.

5-To learn candidates to develop skills for using diagnostic tools (as paracentesis , abdominal US, Breast biopsy, etc---).

Unit (1) GIT

A-Knowledge and understanding:

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: **Section 1: Esophagus:** 1. Congenital anomalies of the esophagus 2. Congenital diaphragmatic hernia 3. Esophageal injuries 4. Neuromuscular abnormalities 5. Esophageal hiatus hernia 6. Esophageal carcinoma 7. Dysphagia **Section 2: stomach and duodenum** 1. Congenital hypertrophic pyloric stenosis 2. Acute gastric dilatation 3. Peptic ulcer 4. Complication f gastric operations 5. Neoplasms of the stomach 6. Gastrectomy **Section 3 : liver** 1. Liver trauma 2. Infection of the liver 3. Portal hypertension 4. Liver tumors **Section 4 : Biliary System:** 1. Congenital anomalies of gall bladder and bile duct 2. Gall stones	Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - MCQ examination -Oral and written exam

3. Stricture of the biliary tract 4. Carcinoma of the gall bladder		
5. Jaundice Section 5 : Pan crease 1. Congenital anomalies of the pancreas 2. Pancreatic neoplasm Section 6 : Spleen: 1. Congenital anomalies 2. Rupture of spleen 3. Infections of spleen 4. Cyst of spleen 5. Tumors the spleen 6. Splenomegaly 7. Hemolytic anemia 8. Hypersplenism 9. spleenectomy Section 7 : Peritoneum mesentery and omentum : 1. Peritonitis 2. Interapertoneal abscess 3. Peritoneal tumors 4. Ascites 5. Torsion of omentum 6. Mesenteric cyst 7. Mesenteric lymphadenitis 8. Retropertoneal tumors Section 8 : small and large intestine : 1. Principles of Colonic Surgery 2. Intestinal stoma 3. Congenital anomalies 4. Intestinal trauma 5. Intestinal fistula		

6. Intestinal diverticulae 7. Inflammatory bowel disease 8. Intestinal ischemia 9. Intestinal tumors 10. Intestinal obstruction 11. Rectal prolapse		

Section 9 : Vermiform Appendix 1. Appendicitis 2. Neoplasm of the appendix **Section 10 : Anal Canal** 1. Pilonidal sinus 2. Anal fissure 3. Hemorrhoids 4. Anorectal abscess 5. anal fistula 6. fecal incontinence 7. anal canal and anal verge tumors		

B. Outline the principles of : Common conditions related to - Gastrointestinal bleeding -Vomiting -Dysphagia -Abdominal pain Constipati on Less common -Caustic injury foreign body -Motility disorder -parasitic infestation as hydatid disease of the liver, amoebic liver abscess -Intestinal ischemia -Vascular malformation of the GIT -Gastrointestinal polyposis -Drug induced damage of the Gastrointestinal tract -Perforated peptic ulcers -Management of GIT bleeding -Endoscopy in Gastrointestinal tract. -Radiology in Gastrointestinal tract.		
C. State update and evidence based Knowledge of -Guidelines in management of Acute Abdomen. -Guidelines in management of Gastrointestinal Bleeding.		

- Guidelines in management of intestinal obstruction - Guidelines in management of Peptic ulcer. -Guidelines in management of inflammatory bowel diseases(Crohn's disease -Management of acute and chronic pancreatitis		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to GIT Surgery.		

E. Mention the basic ethical and medicolegal principles relevant to GIT Surgery.		
F. Mention the basics of quality assurance to ensure good clinical care in GIT Surgery..		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of GIT Surgery on the society.		

Intellectual outcomes for all units:

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to General Surgery (II)	Clinical rounds Senior staff experience	Procedure/case presentation Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to General Surgery (II).		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the General Surgery (II).		

Practical skills:

ILOs	Methods of teaching/ learning	Methods of Evaluation

A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic;lectures - Clinical rounds -Seminars -Clinical rotations (service teaching)	OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. Order the following noninvasive &invasive diagnostic procedures -Routine Appropriate Lab investigations related to conditions mentioned above - -Barium swallow - Barim meal - Plain X-ray to abdomen showing the diaphragmatic copulae - Liver function - Abdominal sonar - Cholangiography - HIDA Scan - Serum Amylase - Bone marrow examination - Blood picture - Barium enema	Clinical round with senior staff Observation Post graduate teaching Hand on workshops	-Procedure presentation - Log book - Chick list

- Mesenteric angiography - CT abdomen - Upper and lower endoscopy. - Diagnostic Laparoscopy.		
C. Interpret the following noninvasive &invasive diagnostic procedures - X ray abdomen. - Abdominal Ultrasonography. - Diagnostic Laparoscopy. - Upper Endoscopy - Lower Endoscopy - ERCP	Clinical round with senior staff	Procedure presentation - Log book - Chick list
D. Perform the following noninvasive/invasive Diagnostic and therapeutic procedures. - Blood sugar testing. - Ryle's tube insertion Application of urinary catheter. Application of Intravenous cannula. Appendicectomy Haemorrhoidectomy - Fissurectomy and internal sphenctrotomy - Fistulectomy and fistulotomy	Clinical round with senior staff -Perform under supervision of senior staff	Procedure presentation - Log book - Chick list
E. Carry out patient management plans for the following problems List... Trachestomy Gastrostomy Jejunostomy Iliostomy Colostomy Other conditions related toGIT Surgery	Clinical round with senior staff Clinical round with senior staff	- Procedure presentation - Log book - Chick list

F. Use information technology to support patient care decisions and patient education in common clinical situations related to GIT Surgery.		

G- Provide health care services aimed at preventing infection eg. Hepatiti s AIDS Wound infection		
H- Work with health care professionals, including those from other disciplines, to provide patient- focused care for the following: Colostomy care Tacheostomy tube care Disinfection Caring wounds		
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills for the speciality course in General surgery 2 (units 1-7):

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Perform practice-based improvement activities using a systematic methodology in one of this course surgical problems.	-Case log -Observation and	Procedure/case presentation -Log book

	supervision -Written & oral communication	and Portfolios
B. Appraises evidence from scientific studies(journal club)	-Journal clubs - Discussions in seminars and clinical rounds	

C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	Clinical rounds Senior staff experience	

Unit (2) Breast and endocrine surgery

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: **-**Goiter - Hyperparathyroidism - Hypoparathyroidism . Adrenal tumors - Congenital anomalies of the breast - Inflammation of the breast - Fibrocystic diseases of the breast - Cyst of the breast - Nipple discharge - Breast neoplasm	Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - MCQ examination at the second year -Oral and written exam
- Diseases of male Breast.		
B. Illustrate the Physiologic Principles of the following Thyroid gland Parathyroid gland Adrenal gland Breast		
C. State update and evidence based knowledge of -Topics mentioned in AA		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Surgery.		

E. Mention the basic ethical and medicolegal principles relevant to Surgery.		

Practical skills:

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical Rounds -Seminars -Clinical rotations (service teaching)	OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. Order the following non invasive& invasive diagnostic procedures - Vocal cord examination - Thyroid function test - Fine needle Aspiration - Tru cut biopsy - Thyroid scan - Parathormone assay - Serum calcium level - Ultra sonography - CT scan - Plasma catecholamine - Plasma cortisol, ACTH	Clinical round with senior staff Observation Post graduate teaching Hand on workshops	-Procedure presentation - Log book - Chick list

C. Interpret the following non invasive& invasive diagnostic procedures -Routine appropriate Lab investigations related to conditions mentioned in A.A - -Vocal cord examination - Thyroid function test - Fine needle Aspiration - Trucut biopsy - Thyroid scan - Parathormone assay - Serum calcium level - Ultra sonography - CT scan - Plasma catecholamine - Plasma cortisol, ACTH	Clinical round with senior staff	-Procedure presentation - Log book - Chick list
D. carry out patient management plans for the following problems: Differential Diagnosis of Solitary Thyroid nodule Diagnosis of hyperparathyroidism Surgical hypertension Early detection of breast cancer	Clinical round with senior staff -Perform under supervision ofsenior staff	-Procedure presentation - Log book - Chick list

E. Counsel and educate patients and their family about some disease which should be detected early like cretinism and cancer breast	Clinical round with senior staff	- Procedure presentation - Log book - Chick list
F. Work with health care professionals, including those from other disciplines, to provide patient-focused care	Clinical round with senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to General Surgery.		
H-Provide health care services aimed at preventing health problems related to conditions mentioned in AA		

I-Provide patient-focused care in common conditions related to Breast and Endocrine Surgery, while working with health care professionals,including those from other disciplines like: Conditions mentioned above.		

Unit (3) Maxillofacial and Neck Surgery

Knowledge and understanding:

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: Congenital anomalies of the face and tongue 2- Maxillofacial injuries 3- Infections of the face and tongue 4- Neoplasms of the tongue and jaws 5-Diseases of the salivary glands 6-Differential diagnosis of neck masses and their treatment	Didactic; Lectures Clinical rounds	-log book - one MCQ examination at the second year -Oral and written exam
B. Outline the principles of:- - Deglutition - salivary gland		
C. State update and evidence based Knowledge of Diseases of Maxillofacial an neck mentioned in A		
D. Memorize the facts and principles of the relevant basic supportive sciences related to Maxillary and neck Surgery.		

E. Mention the basic ethical and medicolegal principles relevant to Maxillary and neck Surgery.		
F. Mention the basics of quality assurance to ensure good clinical care in Maxillary and neck Surgery		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of Maxillary and neck Surgery on the society.		

Practical skills (Patient Care)

ILOs	**Methods of teaching/ Learning**	**Methods of Evaluation**
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-log book - One MCQ examination at the second half of the second year
B. Order the following noninvasive& invasive diagnostic procedures -X-ray - CT scan head and neck - Sialography - True- Cut needle biopsy	-Clinical round with senior staff Observation Post graduate teaching	- Log book - Chick list

C -interpret noninvasive& invasive diagnostic procedures mentioned in C.B		
D. carry out patient management plans for the following problems: - Surgical correction of cleft lip and palate -Fixation of bones in maxillofacial injuries - Surgical excision of tumor of tongue - Condylectomy - Parotidectomy	Clinical round with senior staff	-Procedure presentation - Log book - Chick list
-Submandibular sialadenectomy		
E-Counsel and educate patients and their family about Care of the eye of Radical treatment of Parotid.	Clinical round with senior staff -Perform under supervision of senior staff	-Procedure presentation - Log book - Chick list
F. Provide health care services aimed at preventing the following conditions: Complication and disfigurement after surgery	Clinical round with senior staff	- Procedure presentation - Log book - Chick list
G-. Work with health care professionals, including those from other disciplines,	Clinical round with senior staff	

to provide patient- focused care.		
H . Use information technology to support patient care decisions and patient education		
I -Provide health care services aimed at preventing health problems related to maxillofacial surgery like: Maxillofacial injuries		
J-Provide patient-focused care in common conditions related to Maxillofacial, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.		

Unit (4) Abdominal Wall, Hernias, Testis and Scrotal Surgery

Knowledge and understanding:

ILOs	**Methods of teaching/ Learning**	***Methods of Evaluation***

A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: Disease of abdominal wall - Inguinal Hernia - Femoral Hernia - Umbilical Hernia - Epigastric Hernia - Other rare types of Hernias - Congenital anomalies of the testis - Inflammatory, conditions of testis and spermatic cord - Neoplasm of the testis - Varicocele - Hydrocele - Fournier's gangrene - Carcinoma of the Pines	Didactic; Lectures Clinical rounds	-log book - one MCQ examination at the second year -Oral and written exam
B- Illustrate the principles of surgical anatomy & pathology of the following Abdominal wall scrotum. Abdominal incisions.		
C. State update and evidence based Knowledge of Testis and scrotum disease		
D. Memorize the facts and principles of the relevant basic supportive sciences related to abdominal surgery &scrotum.		

E. Mention the basic ethical and medicolegal principles relevant to Disease of abdominal wall& scrotum,		
F. demonstrate -Principles surgical pathology of -Diseases mentioned above		
G. Mention the basics of quality assurance to ensure good clinical care		
H. Mention the ethical and scientific principles of medical research.		
I. State the impact of common health problems in the field of abdominal surgery on the society.		

Practical skills (Patient Care):

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-log book - One MCQ examination at the second half of the second year
B. Order the following noninvasive& invasive diagnostic procedures	-Clinical round with senior	- Log book - Chick list

-Scrotal sonar -Doppler sonar - Diagnostic Laparoscopy	staff Observation Post graduate teaching	
C- Interpretate the following noninvasive& invasive diagnostic procedures -Scrotal sonar -Doppler sonar - Diagnostic Laparoscopy	-Clinical round with senior staff Observation Post graduate teaching	- Log book - Chick list
D. Prescribe the following noninvasive/invasive therapeutic procedures : e.g. Aspiration from the Scrotum	Clinical round with senior staff	-Procedure presentation - Log book - Chick list
E-Perform the following noninvasive/invasive therapeutic procedures : Aspiration from the Scrotum		
F. Carry out patient management plans for the following problems as mentioned above	Clinical round with senior staff -Perform under supervision of senior staff	-Procedure presentation - Log book - Chick list
G . Counsel and educate patients and their family about problems mentioned above.	Clinical round with senior staff	- Procedure presentation - Log book - Chick list
H. Provide health care services aimed at preventing the infectious diseases of the testis.	Clinical round with senior staff	
I. Work with health care professionals, including		

those from other disciplines, to provide patient-focused care for the following: -Cardiac diseases -Pre operative assessments -Rehabilitation		
J- Use information technology to support patient care decisions and patient education for the above mentioned		
K-Provide patient-focused care in common conditions related to Nutrition, while working with health care professionals, including those from other disciplines like: Conditions mentioned in above.		

Unit (5) Cardiothoracic surgery

Knowledge and understanding:

ILOs	**Methods of teaching/ Learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: -Chest injuries - chest wall and pleural infections - tumors of Ribs, lung and pleura - Post-operative Atalectasis - Lung Abscess - Bronchiectasis- Pulmonary TB - Actinomycosis- Cysts - Pulmonary embolism - Postoperative Complications - Thymus Gland - Mediastinum - Cardiac injuries - Cardiac arrest - Pediatric - Congenital heart Disease - Acquired heart disease Cardiac operation	Didactic; Lectures Clinical rounds	-log book - one MCQ examination at the second year -Oral and written exam
B. Demonstrate surgical anatomy & pathology Principles& details of Thorax, bronchopulmonary segmentation and mediastinum		

C. State update and evidence based Knowledge of local anesthesia, bronchodilators, Atropine & hemostatic drugs		
D. Memorize the facts and principles of the relevant basic supportive science related to cardiothoracic surgery.		

E. Mention the basic ethical and medicolegal principles relevant to cardiothoracic surgery		
F. Mention the basics of quality assurance to ensure good clinical care in cardiothoracic surgery.		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of cardiothoracic surgery on the society.		

Practical skills (Patient Care):

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-log book - One MCQ examination at the second half of the second year
B.Order the following noninvasive & invasive diagnostic procedures Chest X-ray CT chest Pleural aspiration Bronchoscopy ECG, Echocardiography	-Clinical round with senior staff Observation Post graduate teaching	- Log book - Chick list
C- Interpret the following noninvasive & invasive diagnostic procedures mentioned IN B		
D-Perform the following noninvasive& invasive diagnostic procedures: -Pleural aspiration		
E. Prescribethe following noninvasive &invasive therapeutic procedures : Fibro-optic Bronchoscopy Rigid bronchoscopy Transbronchial needle aspiration Autofuorescence bronchoscopy Endobronchial ultrasound Laser bronchoscopy	Clinical round with senior staff	-Procedure presentation - Log book - Chick list

Endobronchial electrosurgery and argon-plasma Coagulation Endobronchial cryotherapy Airway stents Endobronchial brachytherapy Photodynamic therapy		
F. carry out patient follow up plans for the following problems 1-endobronchial tumors either benign or malignant 2-Mediastinal space occupying lesions 3-Follow up of inserted stents	Clinical round with senior staff -Perform under supervision of senior staff	-Procedure presentation - Log book - Chick list
G. Counsel and educate patients and their family about 5 years survival of bronchogenic carcinoma and end-of-life care	Clinical round with senior staff	- Procedure presentation - Log book - Chick list
H Provide health care services aimed at preventing the following conditions: Bronchogenic carcinoma by carrying out smoking cessation programs and prevention of air pollution	Clinical round with senior staff	
I. Work with health care professionals, including those from other disciplines, to provide patient- focused care for the following: Nutrition and end of life care		
J- Use information technology to support patient care decisions and patient education for the above mentioned conditions: Design internet homepages and follow up patients for smoking cessation and fighting air pollution.		

K- perform practice-based improvement activities using a systematic methodology in one of this module's problems: Multimodality approach for lung cancer management		

Unit (6) Vascular Surgery

Knowledge and understanding:

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: - Acute ischemia of the limbs - Chronic ischemia of the limbs - Arterial aneurysms - Diabetic foot - Gangrene - Venous thrombosis - Varicose veins of lower limbs	Didactic; Lectures Clinical rounds Tutorial	-log book - one MCQ examination at the second year -Oral and written exam
B. Outline principle of surgical pathology and pathophysiology of conditions mentioned in AA .		
C. State update and evidence based Knowledge of Pharmacological treatment and surgical management of conditions mentioned in AA.		
D . Memorize the facts and principles of the relevant basic supportive sciences related to vascular surgery..		

E. Mention the basic ethical and medicolegal principles relevant to vascular surgery.		
F. Mention the basics of quality assurance to ensure good clinical care in vascular surgery		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of vascular surgery on the society.		

Practical skills (Patient Care):

ILOs	**Methods of teaching/ learning**	**Methods of Evaluation**
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-log book - One MCQ examination at the second half of the second year
B. Order the following non invasive&invasive diagnostic procedures -Routine appropriate Laboratory investigations related to conditions Duplex.	-Clinical round with senior staff Observation Post graduate teaching	- Log book - Chick list
C. Interpret the following non invasive &invasive diagnostic procedures -Routine appropriate Lab investigations related to conditions mentioned in A.A	Clinical round with senior staff	-Procedure presentation - Log book - Chick list

D. Perform the following noninvasive& invasive diagnostic and therapeutic procedures. - Duplex, - Embolectomy, - Amputations.	Clinical round with senior staff -Perform under supervision of senior staff	-Procedure presentation - Log book - Chick list
E. Prescribe the followingnon invasive/invasive therapeutic procedures: -Prescribe proper treatment for conditions mentioned in A.A	Clinical round with senior staff	- Procedure presentation - Log book - Chick list

Unit (7) Plastic Surgery

Knowledge and understanding:

ILOs	**Methods of teaching/ learning**	***Methods of Evaluation***
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions **1-** Malignant neoplasm of skin **2-** Haemangiomas **3-** Skin Defects and flaps **4-** Raw area and Grafts **5-** Reduction plastic surgery **6-** Augmentation plastic surgery **7-** Correction of congenital anomalies.	Didactic; Lectures Clinical Rounds Tutorial	-log book - one MCQ examination at the second year -Oral and written exam
B. Illustrate Anatomic Principles of the following-		

and Related surgical pathology: -Skin and Subcutaneous tissue -Breast -Nose.		
C. State update and evidence based Knowledge of - Skin tumors & - burns. Haemangiomas		
D. Memorize the facts and principles of the relevant basic supportive sciences related to Plastic surgery.		
E. Mention the basic ethical and medicolegal principles relevant to Plastic surgery.		
F. Mention the basics of quality assurance to ensure good clinical care in Plastic surgery		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of Plastic surgery on the society.		

Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-log book - One MCQ examination at the second half of the second year
B. Order the following non invasive& invasive diagnostic procedures -Biopsy -CT Scan	-Clinical round with senior staff Observation Post graduate teaching	- Log book - Chick list
c- Interpretate the following non invasive& invasive diagnostic procedures -Biopsy -CT Scan		
D. Carry out patient management plans for the problems above mentioned in AA	Clinical round with senior staff	-Procedure presentation - Log book - Chick list
E. Counsel and educate patients and their family about above mentioned problems.	Clinical round with senior staff -Perform under supervision of senior staff	-Procedure presentation - Log book - Chick list

F. Provide health care services aimed at preventing some of the congenital anomalies and neoplasms of the skin	Clinical round with senior staff	- Procedure presentation - Log book - Chick list
G. Work with health care professionals, including those from other disciplines, to provide patient-focused care.	Clinical round with senior staff	
H. Use information technology to support patient care decisions and patient education for the above mentioned conditions.		
I-Provide health care services aimed at preventing health problems related to plastic surgery like		
J-Provide patient-focused care in common conditions related to plastic surgery, while working with health care professionals, including those from other disciplines like Conditions mentioned Above		

Unit contents (topics/modules/rotation Unit Matrix)

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Unit 1 GIT Surgery				
Congenital anomalies of the esophagus	A ,D,F-H	A-D	A-I	A-R

Congenital diaphragmatic Hernia	A,D,F-H	A-D	A-I	A-R
Esophageal injuries	A,D,F-H	A-D	A-I	A-R
Neuromuscular abnormalities	A-H	A-D	A-I	A-R
Esophageal hiatus hernia	D,F-H,A,C	A-D-	A-I	A-R
Esophageal carcinoma	A,D,F-H	A-D-	A-I	A-R
Dysphagia	B,D-H	A-D	A-I	A-R-
Congenital hypertrophic pyloric stenosis	A,D-H	A-D	A-I	A-R
Acute gastric dilatation	B-H	A -D	A-I	A-R
Peptic ulcer	B-H	A-D	A-I	A-R
Complication gastric operations	B-H	A-D	A-I	A-R
Neoplasms of the stomach	A,D-H	A-D	A-I	A-R
Gastrectomy	A-H	A-D	A-I	A-R
Liver trauma	A,C,	A-D	A-I	A-R
Infection of the liver	A,C	A-D	A-I	A-R
Portal hypertension	B	A-D	A-I	A-R
Liver tumors	C	A-D	A-I	A-R
Congenital anomalies of gall bladder and bile duct	A,C	A-D	A-I	A-R
Gall stones	A,D-H	A-D	A-I	A-R
Stricture of the biliary tract	A,D-H	A-D	A-I	A-R
Carcinoma of the gall bladder	A,D-H	A-D	A-I	A-R
Jaundice	A,D-H	A-D	A-I	A-R

Congenital anomalies of the pancreas	A,E	A-D	A-I	A-R
Pancreatic neoplasm	A,C,D,E	A-D	A-I	A-R
Congenital anomalies	A	A-D	A-I	A-R
Rupture of spleen	A,D	A-D	A-I	A-R
Infections of spleen	A	A-D	A-I	A-R
Cyst of spleen	A	A-D	A-I	A-R
Tumors the spleen	A	A-D	A-I	A-R
Splenomegaly	A,B	A-D	A-I	A-R
Hemolytic anemia	B	A-D	A-I	A-R
Hypersplenism	B	A-D	A-I	A-R
splenictomy	A,D-H	A-D	A-I	A-R
Peritonitis	A-H	A-D	A-I	A-R
Interapertoneal abscess	A,H	A-D	A-I	A-R
Peritoneal tumors	A	A-D	A-I	A-R
Ascites	B	A-D	A-I	A-R
Torsion of omentum	A	A-D	A-I	A-R
Mesenteric cyst	A	A-D	A-I	A-R
Mesenteric lymphadenitis	A	A-D	A-I	A-R
Retropertoneal tumors	A	A-D	A-I	A-R
Principles of Colonic Surgery	B,D	A-D	A-I	A-R
Intestinal stoma	A,D	A-D	A-I	A-R
Congenital anomalies	A,D	A-D	A-I	A-R
Intestinal trauma	A,C,D	A-D	A-I	A-R
Intestinal fistula	A	A-D	A-G	A-R
Intestinal diverticulae	A	A-D	A-	A-R

			F	
Inflammatory bowel disease	A,F-H	A-D	A-F	A-R
Intestinal ischemia	A,F-H	A-D	A-E	A-R
Intestinal tumors	A,F-H	A-D	A-E	A-R
Intestinal obstruction	A,C-H	A-D	A-D	A-R
Rectal prolapse	A,C-H	A-D	A-D	A-R
Appendicitis	A,C-H	A-D	A-E	A-R

Neoplasm of the appendix	A,E-H	A-D	A-E	A-R
Pilonidal sinus	A,E	A-D	A-G	A-R
Anal fissure	A,E	A-D	A-F	A-R
Hemorrhoids	A,E	A-D	A-F	A-R
Anorectal abscess	A,E	A-D	A-F	A-R
anal fistula	A,E	A-D	A-F	A-R
fecal incontinence	A,E	A-D	A-F	A-R
anal canal and anal verge tumors	A,E	A-D	A-F	A-R
Unit 2 Breast and Endocrinal Surgery				
Developmental abnormalities of thyroglossal duct	A-E	A-D	A-I	A-R
Goiter	A-E	A-D	A-I	A-R
Hyperparathyroidism	A-E	A-D	A-I	A-R

Hypoparathyroidism	A-E	A-D	A-I	A-R
Adrenal tumors	A-E	A-D	A-I	A-R
Congenital anomalies of the breast	A-E	A-D	A-I	A-R
Inflammation of the breast	A-E	A-D	A-I	A-R
Fibrocystic diseases breast	A-E	A-D	A-I	A-R
Cyst of the breast	A-E	A-D	A-I	A-R
Nipple discharge	A-E	A-D	A-I	A-R
Breast neoplasm	A-E	A-D	A-I	A-R
Diseases of male Breast	A-E	A-D	A-I	A-R
Developmental abnormalities of thyroglossal duct	A-E	A-D	A-I	A-R
Goiter	A-E	A-D	A-I	A-R
Hyperparathyroidism	A-E	A-D	A-I	A-R
Hypoparathyroidism	A-E	A-D	A-I	A-R
Adrenal tumors	A-E	A-D	A-I	A-R

Congenital anomalies of the breast	A-E	A-D	A-I	A-R
Inflammation of the breast	A-E	A-D	A-I	A-R
Fibrocystic diseases of	A-E	A-D	A-I	A-R
Cyst of the breast	A-E	A-D	A-I	A-R
Nipple discharge	A-H	A-D	A-I	A-R
Breast neoplasm	A-H	A-D	A-I	A-R

Diseases of male Breast	A-H	A-D	A-I	A-R
Unit *3 Maxillofacial and Neck Surgery*				
Congenital anomalies of the face and tongue	A-H	A-D	A-J	A-R
Maxillofacial injuries	A-H	A-D	A-J	A-R
Infections of the face and tongue	A-H	A-D	A-J	A-R
Neoplasms of the tongue and Jaws	A-H	A-D	A-J	A-R
Diseases of the salivary glands	A-H	A-D	A-J	A-R
Differential diagnosis of neck masses and their treatment	A-H	A-D	A-J	A-R
Unit 4 Abdominal Wall, Hernias, Testis And Scrotal Surgery				
Abdominal incision	A-I	A-D	A-K	A-R
Disease of abdominal wall	A-I	A-D	A-K	A-R
Inguinal Hernia	A-I	A-D	A-K	A-R
Femoral Hernia	A-I	A-D	A-K	A-R
Umbilical Hernia	A-I	A-D	A-K	A-R
Epigastric Hernia	A-I	A-D	A-K	A-R
Other rare types of Hernias	A-I	A-D	A-K	A-R
Congenital anomalies of the	A-I	A-D	A-K	A-R

testis				
Inflammatory, conditions of	A-I	A-D	A-K	A-R

testis and spermatic cord				
Neoplasm of the testis	A-I	A-D	A-K	A
Varicocele	A-I	A-D	A-K	A
Hydrocele	A-I	A-D	A-K	A
Fournier's gangrene	A-I	A-D	A-K	A
Carcinoma of the Pines	A-I	A-D	A-K	A
Unit 5 Cardiothoracic surgery				
Chest injuries	A,D-H	A-D	A-K	A-R
chest wall and infections	A,D-H	A-D	A-K	A-R
tumors of Ribs, lung and pleura	A,D-H	A-D	A-K	A-R
Post-operative Atalectasis	A,D-H	A-D	A-K	A-R
Lung Abscess	A,D-H	A-D	A-K	A-R
Bronchiectasis	A,D-H	A-D	A-K	A-R
Pulmonary TB	A,D-H	A-D	A-K	A-R
Actinomycosis	A,D-H	A-D	A-K	A-R
Cysts	A,D-H	A-D	A-K	A-R
Pulmonary embolism	A,D-H	A-D	A-K	A-R
Post operative Complications	A,D-H	A-D	A-K	A-R

Thymus Gland	A,D-H	A-D	A-K	A-R
Mediastinum	B	A-D	A-K	A-R
Cardiac injuries	A-H	A-D	A-K	A-R
Cardiac arrest	C,B	A-D	A-K	A
Pediatric Congenital heart Disease	A,D-H	A-D	A-K	A-R
Acquired heart disease	A,D-H	A-D	A-K	A-R
Cardiac operations	A,D-H	A-D	A-K	A-R
Unit 6 Vascular surgery				
Acute ischemia	A-G	A-D	A-I	A-R
Chronic ischemia.	A-G	A-D	A-I	A-R
Venous Thrombosis	A-G	A-D	A-I	A-R
Heamangiomas	A-G	A-D	A-IA	A-R

Varicose Vein.	A-G	A-D	A-IA	A-R
Diabetic foot	A-G	A-D	A-I	A-R
Unit 7 Plastic surgery				
Malignant neoplasm of skin	A-H	A-D	A-J	A-R
Haemangiomas	A-H	A-D	A-J	A-R
Skin Defects and flaps	A-H	A-D	A-J	A-R
Raw area and Grafts	A-H	A-D	A-J	A-R
Reduction plastic surgery	A-H	A-D	A-J	A-R
Augmentation plastic surgery	A-H	A-D	A-J	A-R
Burns	A-H	A-D	A-J	A-R

Methods of the course:

1. Didactic (lectures, seminars, tutorial)
2. Outpatient
3. Inpatient
4. Case presentation
5. Direct observation
6. journal club
7. Critically appraised topic.
8. Educational prescription
9. Clinical rounds
10. Clinical rotation
11. Senior staff experience
12. Case log
13. Observation and supervision
14. Written & oral communications
15. Simulation
16. Hand on work shop
17. Service teaching
18. Perform under supervision of senior staff
19. Postgraduate teaching

Course Methods of teaching/learning: for students with poor achievements:

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

Course assessment: Assessment tools:

1. Oral examination
2. Clinical examination
3. Written examination
4. Objective structure clinical examination (OSCE)
5. Procedure/case Log book and Portfolios
6. Simulation
7. Record review (report)
8. Patient survey
9. 360o global rating
10. Check list evaluation of live or recorded performance
11. MCQ Exam

- Time schedule: At the end of second part
- Marks 1200