

Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	10/12/2011
- Prof. Ahmad K. Mansur	Mansura	28/11/2011

Program Specification for Master Degree in General Surgery

Sohag University

Faculty of Medicine

A. Basic Information:

- 1- Program Title: Master Degree in General Surgery
- 2- Program Type: Single Program; two parts: 1st & 2nd.
- 3- Faculty: Faculty of Medicine
- 4- Department Responsible: Department of General Surgery, Faculty of Medicine, Sohag University
University faculty: Faculty of Medicine
- 5- Coordinator:Program Coordinator: Prof. Dr: Nabil Abou el Dahab
- 6- External Evaluator :Prof. Dr. Moustafa Najjy Al sanadiky Head of General Surgery
Dept –Al Minia College of Medicine
- 7- Last date of program specifications approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

B. Professional information:

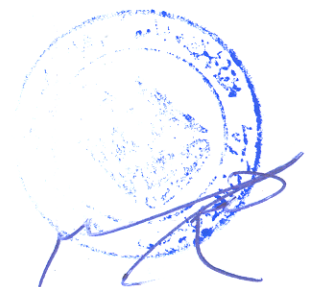
1. Program Aims:

The aim of this program is to provide the postgraduate with the surgical knowledge and skills essential for the practice of general surgery and necessary for further training and practice in the field of general surgery including: through providing:

1. Scientific knowledge essential for the practice of general surgery according to the international standards.
2. Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving and decision making and operative skills
3. Provision of sound ethical principles related to medical practice.
4. Active participation in community needs assessment and problems solving.
5. Maintenance of learning abilities necessary for continuous medical education
6. Upgrading research interest and abilities

2. Attributes of the student:

1. Mastering the basics of scientific research methodologies.
2. The application of the analytical method and used in the field of general surgery.
3. The application of specialized knowledge and integrate it with the relevant knowledge in practice.
4. Be aware of the problems and has modern visions in the field of general surgery.
5. Identify problems in the field of general surgery and find solutions to them.
6. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
7. Communicate effectively and the ability to lead work teams.
8. Decision-making in his professional contexts.



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5. Identify problems in the field of general surgery and find solutions to them.
6. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
7. Communicate effectively and the ability to lead work teams.
8. Decision-making in his professional contexts.

9. To employ and preserve the available resources to achieve the highest benefit.
10. Awareness of his role in the community development and preservation of the environment at the lights of both international and regional variables.
11. Reflects the commitment to act with integrity and credibility, responsibility and commitment to rules of the profession.
12. Academic and professional self development and be capable of continuous learning.

3. **Intended Learning Outcomes**

a) **Knowledge and understanding:**

By the end of the study of master program in general surgery the Graduate should be able to:

- a1. a.1 Mention the in the normal structure and function of the human body on the macro and micro levels.
- a2. Enumerate the normal growth and development of the human body.
- a3. List the abnormal structure, function, growth and development of human body.
- a4. Enumerate the natural history of general surgical diseases.
- a5. Enumerate the causation of general surgical diseases and problems.
- a6. Mention the techniques of different surgical operations
- a7. List the clinical picture of general surgical diseases and problems.
- a8. Enumerate the common diagnostic and laboratory techniques necessary to establish diagnosis of general surgical diseases and problems..
- a9. Describe the various therapeutic methods/alternatives used for general surgical diseases and problems.
- a10. Mention scientific development in the field of general surgery
- a11. Describe the mechanism of action, advantages, disadvantages, side effects and complications of laparoscopic surgery
- a12. Mention the principles and of ethics and legal aspects of professional practice in the field of general surgery.
- a13. Describe the principles of quality assurance of professional practice in the field of general surgery
- a14. Mention the effect of professional practice on the environment and the methods of environmental development and maintenance.
- a15. Enumerate basics and ethics of scientific research

b) **Intellectual skills**

By the end of the study of master program in general surgery the Graduate should be able to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for general surgical problems.
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for for general surgical problems.
- b3. Link between knowledge for professional problem solving.
- b4. Conduct research studies, and/or write a scientific study on a research proble.
- b5. Assess risk in professional practices in the field of general surgery.
- b6. Plan to improve performance in the field of general surgery.
- b7. Identify general surgical problems. and find solutions..
- b8. Analyze reading of research and issues related to the general surgery.

c) professional and practical skills

By the end of the study of master program in general surgery. the Graduate should be able to:

- c1. Apply the basic and modern professional skills in the area of general surgery.
- c2. Write and evaluate of medical reports.
- c3. Assess of methods and tools existing in the area of general surgery

d) General and Transferable skills

By the end of the study of master program in general surgery, the Graduate should be able to:

- d1. Communicate effectively by all types of effective communication
- d2. Use information technology to serve the development of professional practice
- d3. Assess himself and identify of personal learning needs.
- d4. Use different sources to obtain information and knowledge.
- d5. Develop rules and indicators for assessing the performance of others.
- d6. Work in a team, and team's leadership in various professional contexts.
- d7. Manage time effectively.
- d8. Learn himself continuously

4. Academic Standards

Sohag faculty of medicine adopted the general academic reference standard (NARS) provided by the national authority for quality assurance and accreditation of education (NAQAAE) for postgraduate programs , this was approved by the faculty council decree NO.6854 in its cession NO. 177 Dated 18/5/2009 based on these NARS, academic (ARS) were suggested for this program, based on these NARS; Academic Reference Standards ARS were suggested for this program. These ARS were approved by the faculty council decree NO. In its cession NO. 191, dated: 15/3/2010. The adoption of NARS and the

suggested ARS were approved by University council degree No 587, in its session No.60.
Dated 26-12-2011

5. Curriculum Structure and Contents

- 5. a. program duration: 6 semesters (3 years)
- 5. b. program structure:
- 5. b. i. No. of hours per week:

First Part

Number of hours per week

subject	lectures	practical	clinical
Biochemistry	1		
Physiology	1		
Surgical anatomy	1	0.5	
Surgical pathology	2	1	
Histology	1	0.5	
Microbiology	2	1	
Clinical pharmacology	1		

Second part

Number of hours per week

subject	lectures	practical	clinical
General surgery and its branches	3 hrs/w (225)	6 hrs/w (450)	
Code	Item	No	%
b.i	Total credit hours	Compulsory	50
		Elective	•
		Optional	•
b.iii	credit hours of basic sciences courses	7	14
b.iv	credit hours of courses of social sciences and humanities	•	•
b.v	credit hours of specialized courses:	32	64
b.vi	credit hours of other course	--	--
b.vii	Practical/Field Training	5	10
b.viii	Program Levels (in credit-hours system):		
	Level 1: 1 st part	10	30
	Level 2: 2 nd Part	24	48
	Level 3: Thesis	6	12

6. Program courses

Number of compulsory programs 10

6.1- Level of PROGRAM

Semester...1.....

First part

Compulsory

subject	No. of hrs	Number of hours per week			Program ILOs covered by no.
		lectures	Practical/ surgical	clinical	
Surgical anatomy	1.5	1	0.5		a1,a2,a3,a4,b4,b8,c1,d3,d4,d6,d8
Surgical pathology	3	2	1		a3,a4,a5,a7,b2,b7,b8,c1,d3,d4,d6,d8
biochemistry	1	1			a3,b2,b7,b8,c1,d3,d8
histology	1.5	1	0.5		a1,b4,b8,c1,d3,d8
Physiology	1	1			a3,b2,b7,b8,c1,d3,d8
clinical Pharmacology	1	1			A9,b4,b7,b8,c1,d3,d8
microbiology	3	2	1		a4,a5,b2,b7,b8,c1,d3,d4,d8
Biostatistics, computer, Research methodology ,	2	1	2		a11, a13,b4, b8,c2,d4

Second part

Course Title	No. of Units	No. of hours /week			program ILOs Covered (By No.)
		Lect.	Practical/ surgical	clinical.	
General surgery and its branches	9	3	3	3	a1,a4,a5,a6,a7,a8,a9,a10,a11,a12,a13,a14,a15,b1,b2,b3,b5,b6,b7,b8,c1,c2,c3,d1,d2,d3,d4, d5,d6,d7,d8

7. Program Admission Requirements

I- General Requirements.

1. Candidate should have either:
 - i. MBBch degree from any Egyptian Faculty of Medicine or
 - ii. Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
2. Candidate should pass the house office training year.
3. Those who are not university hospital residents should pass a training for at least 12 months in one of the known hospitals.
4. Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (44), dated 6/1/2010.

II. Specific Requirements:

- Candidates graduated from Egyptian Universities should have at least “Good Rank” in their final year examination, and grade “Good Rank” in general surgery Course too.
- Candidate should know how to speak & write English well.
- Candidate should know have computer skills.

8. Regulations for Progression and Program Completion

Duration of program is 50 credit hours (≥ 4 semesters ≥ 3 years), starting from registration till 2nd part exam; divided to:

First Part: (15 Credit hours ≥ 6 months ≥ 1 semester):

- Program-related basic & clinical sciences & research Methodology, Ethics & medical reports, Biostatistics and computer.
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in October — 2nd in April.
- At least 50% of the written exam is needed to pass in each course.
- For the student to pass the first part exam, a score of at least 60% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only for the next time only, and if re-fail, should register for the course from the start.

Thesis/Essay(6 Credit hours ≥ 6 months=1 semester):

- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the **Thesis/Essay** subject.
- Should be completed, defended and accepted after passing the 1st part examination, and at least one month before allowing to enter 2nd part final examination.
- Accepting the thesis is enough to pass this part.

Second Part: (24 Credit hours ≥ 18 months= 3 semesters):

a. Program related specialized science of general surgery courses and ILOs

- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the 2nd part courses.
- After passing at least:
 - University hospital residents: 36 months residency in the department of Obstetrics & Gynecology.
 - Residents in other places: Completed 36 months residency; 12 months of them training in the department of Obstetrics & Gynecology.
- The students should pass the 1st part before asking for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (5 Credit hours; with obtaining $\geq 75\%$ of its mark) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; the credit hours of the logbook are calculated as following:
 - Each Cr. Hr.= 60 working Hrs.
 - Logbook= 5 Cr. Hr. X 60 working Hrs = 300 Working Hrs.
 - Collection of working Hrs. is as following:

Activity		Hrs
Grand rounds	اجتماع علمي موسع	٦
Training courses	دورات تدريبية	12/ day

Conference attendance	حضور مؤتمرات علمية داخلي خارجة	١٢/day 18/day
Thesis discussion	حضور مناقشات رسائل	٦
Workshops	حضور ورش عمل	١٢/day
Journal club	ندوة الدوريات الحديثة	٦
Seminars	لقاء علمي موسع	٦
Morbidity and Mortality conference	ندوة تحليل المخاطر المرضية أو الوفاة	٦
Self education program	برنامج التعليم الذاتي	٦

- Two sets of exams: 1st in October - 2nd in April.
- At least 50% of the written exam is needed to pass in each course.
- For the student to pass the 2nd part exam, a score of at least 60% (Level D) in each course is needed.

9. **Methods of student assessments:**

Method of assessment	weight	The assessed ILOs
1-Activities		- General transferable skills, intellectual skills
2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	50%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
3-OSCE/ OSPE		-Practical skills, intellectual skills, general transferable skills
4-Structured Oral Exams	50%	- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Physiology: Written Exam (2 hours) + Structured oral Exam
- Biochemistry: Written Exam (2 hours) + Structured oral Exam
- Clinical Pharmacology: Written Exam (2 hours) + Structured oral Exam
- Human Anatomy & Embryology and Histology and Cell Biology: Written Exam (2 hours) + structured oral Exam + OSPE
- Surgical Pathology: Written Exam (2 hours) + structured oral Exam + OSPE
- Medical Microbiology and Immunology: Written Exam (2 hours) + structured oral Exam + OSPE
- Biostatistics & Computer and Research Methodology: Written Exam (2 hours) + Structured oral Exam+ OSPE

Part II:

- General surgery and its branches: Two Written Exams (3 hours for each) + + one written exam containing commentary (1.5 hours) + OSCE + Structured oral Exam + Operative.

10. Evaluation of program Intended

Evaluator	Tool	Sample
1- Senior students	questionnaire	6
2- Alumni	questionnaire	35
3- Stakeholders (Employers)	questionnaire	1
4-External Evaluator(s) (External Examiner(s))	report	1
5- Other		

Course Specifications of Medical Physiology in Master Degree General Surgery (first part)

Sohag University

Faculty of Medicine

1. Program on which the course is given: master degree in general surgery.
2. Minor element of program.
3. Department offering the program: General Surgery department
4. Department offering the course: Medical Physiology
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic information

Title: Medical Physiology for Master Degree in General Surgery

Code: PHY0529-200

Total hours:

Module	Lectures	Practical	Tutorial/clinical	Total hours	Credit
Medical Physiology	30 hours			30 hours	2

B. Professional information

1. Overall aim of the course

to prepare a surgery physician oriented with the Medical Physiology of the cardiovascular system including that of haemorrhage & types of shock and proper management also that concerned with the regulation of arterial blood pressure and PH of the blood. in addition , graduates should have enough knowledge about some endocrine glands especially thyroid gland. And it is very important to know the secretory and motility functions of G.I.T.

2. Intended learning outcomes (ILOs)

a) **Knowledge and understanding:**

By the end of this course, students should have adequate knowledge about:

a1. List the the abnormal function of human body.

b) **Intellectual skills:**

by the end of the course , the students is expected to be able to :

b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for general surgical problems.

b2. Identify general surgical problems and find solutions..

b3. Analyze reading of research and issues related to the general surgery.

c) **Professional and practical skills**

By the end of this course, students should have adequate knowledge about:

c1. Apply the basic and modern professional skills in the area of general surgery

d) General & transferable skills:

By the end of this course, students should have adequate knowledge about:

d1. Assess himself and identify of personal learning needs.

d2. Learn himself continuously

3. Contents of the course

Topic	No. of hours	Lectures	Practical/surgical	Clinical
I-shock & hemorrhage	4	4		
II-regulation of arterial blood pressure	2	2		
III- regulation of respiration	2	2		
IV-regulation of blood PH	4	4		
V-blood volume	2	2		
VI-blood coagulation	2	2		
VII-thyroid, parathyroid & adrenal	6	6		
VIII-secretary & motility function of G.I.T	2	2		
IX-mechanism of urine formation	2	2		
X-calcium ion homeostasis	2	2		
XI-potassium ion regulation in intracellular fluid	2	2		
Total	30	30		
Credit Hours	2	2		

4. Teaching and Learning Methods

4.1-Lectures.

4.2-practical lessons.

4.3- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignments	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1.... Final written exam Week 24

Assessment 2.....Final oral exam Week 24

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism, assignments

6. List of references

Guyton and Hall Textbook of Medical Physiology, John E. Hall, 13th edition, Elsevier Health Sciences, 2015.

6.2- Recommended Books

Ganong's Review of Medical Physiology, 25th Edition, McGraw Hill Professional, 2015.

7. Facilities Required for Teaching and Learning

- a. Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching museum, illustrative images), comfortable desks, good source of aeration, good illumination, safety and security methods.
- b. teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video cameras, scanner, copiers, colour and laser printers.

Course Coordinator: Dr. Hoda Mostafa

Head of Department: Dr. Hoda Mostafa

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Medical Biochemistry in Master Degree General Surgery (first part)

University: sohag

Faculty: Medicine

1. Program on which the course is given: master degree in general surgery.
2. Minor element of program.
3. Department offering the program: General Surgery department
4. Department offering the course: Medical Biochemistry
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic information

Title: Medical Biochemistry for Master Degree in General Surgery

Code: BIO0529-200

Total hours:

Module	Lectures	Practical	Tutorial/clinical	Total hours	Credit
Medical Medical Biochemistry	30 hours			30 hours	2

B. Professional information

1. Overall aim of the course

By the end of the course the post graduate students should be able to have the professional knowledge of the Medical Biochemistry of the electrolyte imbalance as postoperative care, and factors affecting wound healing .

2. Intended learning outcomes (ILOs)

a) **Knowledge and Understanding:**

By the end of this course, students should have adequate knowledge about:

- a1. List the abnormal function of human body.

b) **Intellectual Skills**

By the end of this course, students should have adequate knowledge about:

- b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for general surgical problems.
- b2. Identify general surgical problems and find solutions..
- b3. Analyze reading of research and issues related to the general surgery.

c) **Professional and Practical Skills**

By the end of this course, students should have adequate knowledge about:
 c1. Apply the basic and modern professional skills in the area of general surgery.

d) General and Transferable Skills

By the end of this course, students should have adequate knowledge about:

d1. assess himself and identify of personal learning needs.

d2. learn himself continuously

3. Contents of the course

Topic	No. Of hours	Lecture
Carbohydrates -Factors affecting blood glucose level -Catecholamines -Diabetes mellitus -Hepatic role in regulation of blood glucose . -Biochemical diagnosis of diabetes Lipids:	4	4
Lipids: -Dyslipoproteinemias. -Fatty liver. -Essential fatty acids. -Ketosis in details. Metabolism of athero sclerosis.	2	2
Proteins -Urea cycle - Amino acids (Tyrosine, phenylalanine, tryptophan ,Glycine , Glutamic acid).	2	2
<u>Nucleoproteins</u> -Gout in details	2	2
-Minerals	2	2
Vitamin	2	2
<u>Heme and Hemoglobin metabolism</u> Porphyrrias	2	2
<u>Growth factors</u>	2	2
<u>TYumour markers in details .</u>	2	2
<u>Factors affecting wound healing</u>	2	2
<u>Apoptosis and free radicals</u>	2	2
<u>Electrolyte imbalance(postoperative care)</u>	2	2
<u>Blood gases</u>	2	2
<u>Nutrition</u>	2	2
<u>Total</u>	30	30

<u>Credit Hours</u>	2	2
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4. **Teaching and Learning Methods**

4.1-Lectures.

4.2-practical lessons.

4.3- Assignments for the students to empower and assess the general and transferable skills

5. **Student Assessment Methods**

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignments	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1.... Final written exam	Week 24
Assessment 2.....Final oral exam	Week 24

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism, assignments

6. **List of references**

6.1- Essential Books (Text Books)

1. Text book of Biochemistry For Medical students 8th edition by DM Vasudevan 2016
2. Harper's illustrated Biochemistry 31 edition by victor Rodwell et al 2018

6.2- Recommended Books

1. Lectures notes on clinical Biochemistry, Whitby et al 1993
2. Lippincott's illustrated reviews Biochemistry, Champe, PC, Harvey, RA, 2007

6.3- Periodicals, Web Sites, ... etc

<http://www.ncbi.nlm.gov/>

<http://www.vlib.org/>

www.genome.ad.jp/kegg/regulation.

Findarticle.com

Freemedicaljournals.com

7. Facilities Required for Teaching and Learning

- c. Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching museum, illustrative images), comfortable desks, good source of aeration, good illumination, safety and security methods.
- d. teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video cameras, scanner, copiers, colour and laser printers.

Course Coordinator: Dr. Aidaa Abdeen

Head of Department: Dr. Nagwa Sayed Ahmed Hassan

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Clinical Pharmacology in Master Degree General Surgery (first part)

University: sohag

Faculty: Medicine

1. Program on which the course is given: master degree in general surgery.
2. Minor element of program.
3. Department offering the program: General Surgery department
4. Department offering the course: Clinical pharmacology
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic information

Title: Clinical pharmacology for Master Degree in General Surgery

Code:PHA0529-200

Total hours:

Module	Lectures	Practical	Tutorial/clinical	Total hours	Credit
Clinical Pharmacology	30 hours			30 hours	2

B. Professional information

1. Overall aim of the course

By the end of the course the student should be able to

- Demonstration of knowledge of application of the principles and knowledge of the medical sciences in the field of pharmacology.
- Demonstration of knowledge of pharmacokinetics & dynamics.
- Demonstrate an understanding of the principles and practice of pharmacology.
- Describe the principles that govern taking decision for the suitable types of drugs for the patient.
- Demonstration of types, mechanism of actions, effect, clinical uses, complication, side effects and drug interaction of drugs.

2. Intended learning outcomes (ILOs)

a) **Knowledge and Understanding:**

By the end of the course the student is expected to:

- a1. List indications, pharmaco-kinetics and side effects of commonly used drugs in the field of urology.
- a2. Describe the various therapeutic methods/alternatives used for uro-genetal diseases.
- a3. Describe in the structure, mechanism of action, advantages, disadvantages, side effects and complications of the different drugs for erectile dysfunction

b) Intellectual Skills:

By the end of the course the student is expected to:

- b1. Formulate appropriate drug therapy for uro-genetal diseases.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to

- c1. Identify a clear priority plan in the patient's management by knowledge of indications, contraindications and side effects of various drugs.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d1. Use different sources for information and knowledge to know more about new drugs.

3. Contents of the course

Topic	No. of hours	Lecture
Introduction	4	4
NSAID	4	4
antibiotics	4	4
corticosteroids	4	4
Antithyroid drugs	4	4
Opioid analgesics	4	4
Revision	6	6
Total	30	30
Credit	2	2

4. Teaching and Learning Methods

4.1-Lectures.

4.2-practical lessons.

4.3- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignments	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1.... Final written exam Week 24

Assessment 2.....Final oral exam Week 24

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism, assignments

6. List of references

6.1- Essential Books (Text Books)

Goodman and Gilman (2016) Manual of Clinical Pharmacology and therapeutics. Mc Graw Hill, Katzung (2018),

6.2- Recommended Books

Clinical Pharmacology book, Assiut university.

6.3- Periodicals, Web Sites, etc

Clinical Pharmacology review

Exp Clinical Pharmacology and therapeutic

Web Sites: <http://www.yahoo.com/>

7. Facilities Required for Teaching and Learning

1. Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching museum, illustrative images), comfortable desks, good source of aeration, good illumination, safety and security methods.
2. teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video cameras, scanner, copiers, colour and laser printers.

Course Coordinator: Dr. Hala Ibrahim

Head of Department: Prof: Sanaa Abd-Elaal

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of Human Anatomy & Embryology and Histology and Cell Biology in Master Degree General Surgery (first part)

University of Sohag

Faculty of Medicine

1. Program on which the course is given: Master degree in general surgery.
2. Minor element of program
3. Department offering the program: General Surgery department
4. Department offering the course: Human Anatomy & Embryology and Histology and Cell Biology department
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of Human Anatomy & Embryology and Histology and Cell Biology in Master degree General Surgery

Code: ANA,HIS 0529-200

Total hours:

Lectures	Practical	Tutorial/clinical	Total hours	Credit
15 hours	30 hours		45 hours	2

B. Professional Information

1. Overall Aims of Course

Anatomy module :

By the end of the course the student should be able to have the professional knowledge about the anatomy head, neck, abdomen and pelvis

Histology module :

Our aim is to graduate competent surgeon mastering the:

- Scientific knowledges and skills essential for understanding the surgical problems at microscopical level
- Having the ability to engage in further following researches and training in any branch of applied clinical Histology.

2. Intended Learning Outcomes of Course (ILOs):

Anatomy module :

According to the intended goals of the faculty: the student is to be armed with professional knowledge about the anatomy of the head, neck abdominal and pelvic cavity as well as their embryological bases

a) Knowledge and understanding

By the end of the course the student is expected to:

- a1. Mention the in the normal structure and function of the human body on the macro levels.

- a2. Enumerate the normal growth and development of the human body.
- a3. List the abnormal structure, function, growth and development of human body.

b) Intellectual skills

By the end of the course the student is expected to:

- b1. Conduct research studies, and/or write a scientific study on a research problem.
- b2. Analyze reading of research and issues related to the general surgery.

c) Professional and practical skills:

By the end of the course the student is expected to:

- c1. Apply the basic and modern professional skills in the area of general surgery.

d) General and Transferable skills:

By the end of the course the student is expected to:

- d1. Assess himself and identify of personal learning needs.
- d2. Use different sources to obtain information and knowledge.
- d3. Work in a team, and team's leadership in various professional contexts.
- d4. learn himself continuously

Histology module :

a) Knowledge and Understanding:

By the end of the program the student should be able to:

- a1. Describe sufficient knowledge of the histological structure of the different basic body tissues.
- a2. Describe sufficient knowledge of the histological structure of the different parts of the integumentary, digestive and endocrine systems.
- a3. Enumerate the function of the different parts of the integumentary, digestive and endocrine systems in relation to their structure .

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b1. Use self learning skills in problem solving.
- b2. Interpret some of the medical importance of the histological structure in relation to surgical problems.

a) Professional and Practical Skills

By the end of the study of Master program in urology the Graduate should be able to:

- c1. Master the basic and modern surgical skills in the area of urology

c) General and Transferable Skills:

By the end of the course the student should have the ability to:

- d1. Use the computer to enter histological web sites.
- d2. Collect scientific data from the computer.
- d3. Work in groups, as a leader or as a colleague.

3. Contents

Topic	No. of hours	Lecture	Practical
<u>Anatomy module :</u>			
Introduction	3	1	2
Anatomy and embryology of the face	3	1	2
Anatomy and embryology of the abdominal organs	3	1	2
Anatomy and embryology of the pelvic organs	3	1	2
Anatomy and embryology of the cranial nerves	3	1	2
Anatomy and embryology of the spinal nerves	3	1	2
Revision	6	2	4
<u>Histology module :</u>			
Cytology: -general structure of the nucleus. -general structure of the cytoplasm. General structure of the body basic tissues: - epithelial tissue. -connective tissue. -muscular tissue. -nervous tissue. -blood and haemopoietic tissue.	4	1	3
Cardiovascular system : General structure of the heart wall. General structure of the wall of blood vessels. Arteries (large+medium sized) Veins (large+medium sized) Structure of special types of arteries and veins. Arteriovenous connection; capillaries, sinusoids and arteriovenous anastomosis	4	1	3

<p>Lymphatic and immune system: Structure of lymph vessels. Distribution and structure of lymphoid tissue. structure and function of lymphatic nodule lymphocytes and immune cells reaction of B&T lymphocytes to antigens. Common mucosal immune system. Structur and function of lymphatic organs: Lymph nodes- Spleen –thymus-Tonsils Mononuclear phagocytic system. Antigen presenting cells. Stains to identify member of immune cells.</p>	3	1	2
<p>Integumentary system Structure and function of the skin. Different types of cells in the epidermis. Skin types and their sites. Keratinization of skin. Pigmentation of nskin. Immune responses of the skin. Sweat glands;eccrine,apocrine. Hairs and hair follicles. Sebaceous glands and erector pili muscles. Nails. Sensory receptors of the skin.</p> <p>Endocrine system : Main components of endocrine system. Pituitary gland: Development and general organization. Anterior lobe and its relation to the hypothalamus. Posterior lobe and its rlation to the hypothalamus. Thyroid gland: Development. Microscopic structure;LM.&EM. Characteristic properties. Function and mechanism of secretion. Hypo and hyperfunction and its relation to the structure. Parathyroid gland: Development,site and its relation to the thyroid. Chief and oxyphil cells;structure and function. Suprarenal gland Development (cortex and medulla). Adrenal cortex;zona glomerulosa,zona fasciculata,zona reticularis. Adrenal medulla;chromaffin cells and ganglion cells. Adrenal hormones.</p>	6	2	4

<p>Blood supply of the adrenal gland and its significance.</p> <p>Paraganglia: Structure and function. Relation to supra renal medulla.</p> <p>Pineal gland: Development. Structure and function. Pinealocytes structure and function. eceptors of he skin.</p>			
<p>Digestive system</p> <p>Oral cavity: Lip Tongue. Cheek. Teeth and gingiva.</p> <p>Salivary glands: Classification;major and minor. Parotid gland Submandibular gland. Sublingual gland. Differences between different glands.</p> <p>Palate and pharynx: Hard and soft palate. Pharynx;structure and funvction. Pharangeal and palatine tonsil.</p> <p>Digestive tract: General structure og GIT. Oesophagus. Stomach;fundus,cardiac and pyloerus. Small intestine;duodenum,jejunum and ileum. Large intestine and appendix. Cell renewal in GIT. Junctions;gastro-oesophageal,pylorodudenal and rectoanal. Pancreas: Exocrine portion and pancreatic secretion. Endocrine portion. Liver: Internal organization ang hepatic lobulation. Hepatocytes;LM&EM. Bile canaliculi. Blood supply. Space of Disse. Structure and function of gall bladder</p>	6	2	4
Total	45	15	30
Credit	2	1	1

4. Teaching and Learning Methods

4.1-lectures.

4.2-practical lessons.

4.3- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignments	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1.... Final written exam Week 24

Assessment 2.....Final Structured Oral Exam Week 24

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism, assignments

6. List of References

Anatomy module :

6.1- Essential Books (Text Books)

- Fitzgerald M.J.T. (2016): The anatomical basis of medicine and surgery. By Standing s., ELIS H., Healy J. C., Johnson D. and Williams A. Gray's Anatomy. Elsevier; London, New York. Sydney. Toronto.

6.2- Recommended Books

- Stevens A. and Lowe J. S. (2015): Human histology; 5th edition; edited by Elsevier Mosby
- Colored Atlas of anatomy.

- Martini F. H., Timmons M. J. and McKinley M.P. (2015): Human anatomy; 10 edition.

- Tortora G. J. and Nielson M.T. (2016): Principles of human anatomy 14 edition; Edited by John Wiley and Sons ; United states.

- McMinn R.M.H. (2017): Lasts anatomy regional and applied chapter 7; 14 edition, edited by Longman group UK.

Histology module :

6.1- Essential Books (Text Books)

-Junqueira, Carneino and Kelly (2018): Basic Histology, 15th ed.Librairie du liban and lang buruit,London,New York.

-Fawcett(1997):A Text Book of Histology,12th ed.Chapman and Hall,New York,London.

- Drury,R.A.B. and Walington,E.A.(1980): Histological techniques,5th ed.Oxford university press,New York.

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-Pears,A.G.E.(1985): Histochemistry theoretical and applied,4th ed.Churchill Livingstone,Melbourne and New York.

6.2- Recommended Books

- Cormack,H.D.(2001): A text book of Histology,second edition,Lippincott,J.B. Company,Philadelphia.

- Williams,P.L.(2015):Gray's Anatomy,the anatomical bases of Medicine and Surgery,41th ed.,Cgurchill,Livingstone,Britain.

6.3- Web Sites:

<http://www.histology-world.com>

<http://histo.life.illinois.edu/histo/atlas/slides.php>

7. Facilities Required for Teaching and Learning

- a. Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching museum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.
- b. Teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers,scanner,copiers, colour and laser printers.

Course Coordinator:

Anatomy module : Dr . Mohamed Al-Badry.

Histology module : Dr. Eman Khalefa Ahmed

Head of Department:

Anatomy module :Dr. Mohamed Al-Badry.

Histology module :Prof Hekmat Osman

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specifications of Pathology in Master degree General Surgery

Sohag University

Faculty of Medicine

1. Program on which the course is given: Master degree in general surgery.
2. Minor element of program.
3. Department offering the program: general surgery department
4. Department offering the course: pathology department
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of pathology in Master degree General Surgery

Code: PAT0529-200

Total hours :

Module	Lectures	Practical	Total hours	Credit
Pathology	15 hours	30	45 hours	2

B. Professional Information

1. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the pathology of surgical diseases.

2. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) Knowledge and Understanding:

By the end of the course the student should be able to:

- a1. List the the abnormal structure, function, growth and development of human body.
- a2. Enumerate the natural history of general surgical diseases.
- a3. Mention the causation of general surgical diseases and problems.
- a4. List the clinical picture of general surgical diseases and problems.

b) Intellectual Skills:

By the end of the course the student should have the ability to:

- b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for general surgical problems.
- b2. Identify general surgical problems and find solutions..
- b3. Analyze reading of research and issues related to the general surgery.

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- c1. Apply the basic and modern professional skills in the area of general surgery.

d) General and Transferable Skills:

- By the end of the course the student should have the ability to:
- d1. Assess himself and identify of personal learning needs.
 - d2. use different sources to obtain information and knowledge.
 - d3. Work in a team, and team's leadership in various professional contexts.
 - d4. Learn himself continuously

3. Course contents:

Topic	No. of hours	Lecture	Practical
<u>1- General Pathology:</u>			
1.1. Inflammation & repair.	3	0.5	1
1.2. Cell response to injury and aging.	3	0.5	1
1.3. Circulatory disturbances.	2	0.5	1
1.4. Immunity and hypersensitivity.	1	0.5	0
1.5. Infectious diseases.	3	0.5	1
1.6. Disturbances of cellular growth.	2	0.5	1
1.7. General pathology of tumors.	4	0.5	2
1.8. Diagnostic cytology	2	0.5	1
<u>2- Gastrointestinal tract:</u>			
2.1. Diseases of the lips & tongue.	2	0.5	1
2.2. Diseases of the oral cavity.	2	0.5	1
2.3. Diseases of the salivary glands.	2	0.5	1
2.4. Diseases of esophagus.	2	0.5	1
2.5. Diseases of the stomach.	3	0.5	1
2.6. Diseases of the small intestine.	3	0.5	1
2.7. Diseases of the large intestine & appendix.	3	0.5	1
<u>3- Liver, biliary passages & pancreas.</u>			
3.1. Tumors of the liver & gall bladder	4	0.5	2
3.2. Portal hypertension & liver cell failure	1	0.5	0
3.3. Cholecystitis & gall stones.	3	0.5	1
3.4. Pancreatitis & pancreatic tumors.	3	0.5	1
3.5. Peritonitis & peritoneal tumors.	2	0.5	1
<u>4- Endocrine system:</u>			
4.1. Diseases of thyroid gland	3	0.5	1
4.2. Diseases of parathyroid gland	2	0.5	0.5
4.3. Diseases of adrenal gland	2	0.5	0.5
4.4. Diseases of adrenal medulla	2	0.5	1
<u>5- Diseases hematopoietic & lymphoid systems:</u>			
5.1. Lymphadenopathy.	3	0.5	2
5.2. Lymphomas	5	1	1
<u>6- Diseases of the female breast:</u>			
6.1. Inflammatory lesions of the breast.	2	0.5	1
6.2. Benign breast diseases.	2	0.5	1
6.3. Tumors of the breast.	4	0.5	2
Total	45	15	30
Credit Hours	2	1	1

4. Teaching and Learning Methods

- 4.1-Lectures.
- 4.2-Practical lessons.
- 4.3- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignments	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1.... Final written exam	Week 24
Assessment 2....Final Structured Oral Exam	Week 24

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Essential Books (Text Books):

- Muir’s text book of pathology, 15th edition, 2014
- Robbins pathologic basis of diseases, 10th edition, 2017

6.2- Recommended Books:

- Rosi & Ackerman text book of pathology, 11th edition, 2017
- Sternberg text book of pathology, 6th edition, 2015

6.3- Periodicals, websites:

American journal of pathology
 Pathology journal
 Human pathology journal
 Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

7. Facilities Required for Teaching and Learning

- a) Adequate infra structures: including: teaching places (teaching classes, teaching halls, teaching museum, illustrative images), comfortable desks, good source of aeration, good illumination, safety and security methods.

b) Teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers,scanner,copiers, colour and laser printers

Course Coordinator: Dr/ Fatma El Zahraa

Head of Department: Dr/ Afaf El-Nashar

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specifications of Medical Microbiology and Immunology in Master degree General Surgery

Sohag University

Faculty of Medicine

1. Program on which the course is given: Master degree in general surgery.
2. Minor element of program
3. Department offering the program: general surgery department
4. Department offering the course: Medical Microbiology and Immunology department
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specifications of Medical Microbiology and Immunology in Master degree General Surgery

Code: MIC0529-200

Total hours :

Module	Lectures	Practical	Total hours	Credite
Microbiology and immunology	15 hours	30	45 hours	2

B. Professional Information

1. Overall Aims of Course

By the end of the course the postgraduate student should be efficiently able to have basic knowledge of the microorganisms affecting human beings all over the world and particularly in Egypt , and learn to use the knowledge gained from applied microbiology to better understand the pathology, clinical symptoms, complications and the laboratory tests needed for diagnosis of each disease, in particular how to use microbiological testing in determining antibiotic prescription. The student is expected to fully understand the concept of nosocomial infections, particularly on how to avoid and manage SSI; and to fully co-operate with the infection control team. The student is also expected to acquire advanced knowledge about the structure and function of the immune system and the role of the immune system in health and disease.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and Understanding:

By the end of the course the student is expected to:

- a1. Enumerate the natural history of general surgical diseases.
- a2. Mention the causation of general surgical diseases and problems.

b) Intellectual Skills:

By the end of the course the student is expected to:

- b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for general surgical problems.

- b2. Identify general surgical problems. and find solutions.
 b3. Analyze reading of research and issues related to the general surgery.

c) Professional and Practical Skills:

- By the end of the course the student should have the ability to
 c1. Apply the basic and modern professional skills in the area of general surgery.

d) General and Transferable Skills:

- By the end of the course the student should have the ability to:
 d1. Assess himself and identify of personal learning needs.
 d2. Use different sources to obtain information and knowledge.
 d3. Learn himself continuously

3. Course contents:

Topic	No. of hours	Lecture	Practical
<u>General Bacteriology</u>			
Bacterial anatomy & Physiology	0.5	0.5	
Bacterial genetics	0.5	0.5	
Recombinant DNA technology	0.5	0.5	
Antibiotics	1	1	
Sterilization & Disinfection	1	1	
<u>Systematic Bacteriology</u>			
Gram +ve cocci	0.5	0.5	
Gram -ve cocci	0.5	0.5	
Gram +ve bacilli	0.5	0.5	
Gram -ve bacilli(1)	0.5	0.5	
General virology	0.5	0.5	
<u>Systematic Virology</u>			
RNA viruses	1	1	
DNA viruses	0.5	0.5	
<u>Mycology</u>			
Fungal classifications	0.5	0.5	
Opportunistic mycosis& Antifungal drugs	0.5	0.5	
<u>Immunology</u>			
Congenital & Acquired Immunity	0.5	0.5	
Immunological Cells	0.5	0.5	
Hypersensitivity	0.5	0.5	
Transplantation	0.5	0.5	
Tumor Immunology	0.5	0.5	
Immunodeficiency	0.5	0.5	
<u>Applied Microbiology</u>			
Nosocomiology & Infection control	2	2	
Bacterial Cultures	2		2
Bacterial Isolation & Identification	2		2
Diagnostic Molecular Biology Methods	2		2
Antibiotic Sensitivity Tests	2		2
Sterilization & Disinfection	1		1

Immunology(Antigen Antibody Reactions) 1	2		2
Immunology(Antigen Antibody Reactions) 2	2		2
Staphylococci	1		1
Streptococci & Pneumococci	1		1
Neisseria	2		2
Corynebacterium	2		2
Mycobacterium	1		1
Enterobacteria	1		1
Pseudomonas & Yersinia	2		2
Bacillus	2		2
Clostridium	2		2
Vibrios & Brucella	2		2
Spirochaetes & Mycology	2		2
Total	45	15	30
Credit Hours	2	1	1

4. Teaching and Learning Methods

4.1-Lectures.

4.2-Practical lessons.

4.3- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignments	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1.... Final written exam Week 24

Assessment 2.....Final Structured Oral Exam Week 24

Weighting of Assessments

Final-term written examination	50%
Structured Oral Exam	50%
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Course Notes

Notes of the department and practical notebook

Prof. Abla Elmeshad
6.2- Essential Books (Text Books)
Jawetz Medical Microbiology 2016.
Roitt Essential Immunology.
Abbas Clinical Immunology
Alberts Molecular Biology
6.3- Recommended Books
A coloured Atlas of Microbiology.
Topley and Wilson, Microbiology
6.4- Periodicals, Web Sites, ... etc
Microbiology
Immunology
<http://mic.sgmjournals.org/>

7. Facilities Required for Teaching and Learning

- a) Adequate infra structures: including: teaching places (teaching classes, teaching halls, teaching museum, illustrative images), comfortable desks, good source of aeration, good illumination, safety and security methods.

- b) Teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video cameras, scanner, copiers, colour and laser printers

Course Coordinator: Dr. Ekram Abd-El-Rahman

Head of Department: Prof . Abeer Shenif

Date: 18/12/2011, **Revised:** 1/9/2012, **Revised:** 1/12/2013, **Revised:** 1/12/2018

Course Specifications of Applied biostatistics (with computer use) and Research Methodology in Master degree of General Surgery

Sohag University

Faculty of Medicine

1. Program title : Master degree in General Surgery
2. Major/minor element of the program : Minor
3. Department offering the course: Community Medicine and public Health Dep.
4. Department offering the program: General Surgery
5. Academic year /level : 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Master degree in General Surgery Biostatistics and Computer use for health services **and Research Methodology**

Code: COM: 0529-200

Total Hours:

Title	Lectures	Practical/ surgical	Total	credit
Applied biostatistics and computers & Research methodology	15	30	45	2

B. Professional Information

1. Overall Aims of Course

Applied Biostatistics Module:

- a. To influence the students to adopt an analytical thinking for evidence based medicine.
- b. To use precisely the research methodology in researches and computer programs SPSS, Epi Info and Excel in data analysis.

Research Methodology Module:

The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of Public health and Community Medicine through providing:

1. Recent scientific knowledge essential for the mastery of practice of Public Health and Community Medicine according to the international standards.
2. Skills necessary for preparing for proper diagnosis and management of community problems, skills for conducting and supervising researches on basic scientific methodology.

3. Ethical principles related to the practice in this specialty.
4. Active participation in community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Upgrading research interest and abilities.

2. Intended Learning Outcomes of Courses (ILOs)

Applied Biostatistics Module:

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. Mention different programs of analysis of data and statistical packages
- a2. Define the recent advances of sources of data and methods of collection.
- a3. Summarize data, construct tables and graphs
- a4. Calculate measures of central tendency and measures of dispersion
- a5. Describe the normal curves and its uses
- a6. Illustrate selected tests of significance and the inferences obtained from such tests
- a7. Illustrate selected tests of significance for parametric and non parametric inferences
- a8. Identify factor analysis and discrimination analysis.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

- b1. Mention how to collect and verify data from different sources
- b2. Interpret data to diagnose prevalent problems clinical pathology

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c1. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in clinical pathology

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

- d1. Use appropriate computer program packages.
- d2. Use of different sources for information and knowledge about biostatistics.

Research Methodology Module:

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

- a1. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
- a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
- a3. Describe the study design, uses, and limitations.
- a4. Mention the recent advances of principles, methodologies, tools and ethics of scientific research.
- a5. Explain the strategies and design of researches.
- a6. Describe bias and confounding.
- a7. Describe sampling techniques and list advantages of sampling

- a8. Identify principles of evidence based medicine.
- b) Intellectual Skills**
 By the end of the course, the student is expected to be able to:
 b1. Conduct research studies that add to knowledge.
 b2. Formulate scientific papers in the area of public health and community medicine
 b3. Innovate and create researches to find solutions to prevalent community health problems
 b4. Criticize researches related to public health and community medicine
- c) Professional and Practical Skills:**
 By the end of the course, the student is expected to be able to:
 c1. Enumerate the basic and modern professional skills in conducting researches in the area of public health and community medicine.
 c2. Design new methods, tools and ways of conducting researches. .
- d) General and Transferable Skills:**
 By the end of the course, the student is expected to be able to:
 d1. Use of different sources for information and knowledge to serve research.
 d2. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Applied Biostatistics Module:			
Recent advances in collection, analysis and interpretation of data	3	1	2
-Details of Tests of significance: Proportion test	3	1	2
-Chi-square test	1.5	.5	1
-Student T test	1.5	.5	1
-Paired T test	1.5	.5	1
-Correlation	1.5	.5	1
-Regression	2	1	1
-ANOVA test	3	1	2
-Discrimination analysis	3	1	2
-Factor analysis	3	1	2
-Parametric and non parametric tests	4.5	.5	4
Research Methodology Module:			
Details of epidemiological studies (case control, cohort and cross sectional)	3	1	2
Clinical trials, Quasi experimental study	3	1	2
Bias and errors	2	1	1
Setting a hypothesis	1.5	.5	1
Recent advances in screening	1.5	.5	1

- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	3	1	2
Setting an objective - Critical thinking	2	1	1
Formulation of papers	1.5	.5	1
Total hours	45	15	30
Total Credit hours	2	1	1

4. Teaching and Learning Methods

- 4.1- Lectures
- 4.2- Practical sessions
- 4.3- Computer search assignments
- 4.4- Computer application

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills, - Practical skills, intellectual skills
5.3-Structured Oral Exams	- Knowledge
5.4Computer search assignment	- general transferable skills, intellectual skills

Assessment Schedule

- Assessment 1....Final written exam Week: 24
- Assessment 2....Final oral exam Week: 24
- Assessment 3 Attendance and absenteeism throughout the course
- Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50%
Final oral Examination	50%
Total	100%

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

6. List of References

Applied Biostatistics Module:

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, 2008.,Robert Wallace, publisher McGraw-Hill Medical; 15 edition.

6.2- Recommended Books

1- Dimensions of Community Based projects in Health Care, 2018. Arxer, Steven L., Murphy, John W.; 1st edition.

2- Parks Text Book of Preventive & Social Medicine. 2017., K. Park. BanarsidasBhanot Publishers; 23 edition.

3- Clinical Epidemiology: The Essentials, 2013, Robert F., Suzanne W. Fletcher, Grant S., publisher Lippincott Williams & Wilkins; 5 edition.

6.3- Periodicals, Web Sites, ...etc

1-American Journal of Epidemiology

2-British Journal of Epidemiology and Community Health

3- WWW. CDC and WHO sites

Research Methodology Module:

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, 2008.,Robert Wallace, publisher McGraw-Hill Medical; 15 edition.

6.2- Recommended Books

1- Dimensions of Community Based projects in Health Care, 2018. Arxer, Steven L., Murphy, John W.; 1st edition.

2- Parks Text Book of Preventive & Social Medicine. 2017., K. Park. BanarsidasBhanot Publishers; 23 edition.

3- Clinical Epidemiology: The Essentials, 2013, Robert F., Suzanne W. Fletcher, Grant S., publisher Lippincott Williams & Wilkins; 5 edition.

6.3- Periodicals, Web Sites, ...etc

1-American Journal of Epidemiology

2-British Journal of Epidemiology and Community Health

3- WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning:

Applied Biostatistics Module:

- Adequate conditioned space for staff and assistants.
- Adequate conditioned teaching facilities.
- Audiovisual Aids: Data show, overhead and slide projectors and their requirements.

Research Methodology Module:

- ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.
- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinator: Dr/ Rasha Abd-Elhameed

Head of Department: Prof/ Ahmed Fathy Hamed

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specifications of General surgery in Master degree General Surgery

Sohag University

Faculty of Medicine

1. Program on which the course is given: Master degree in general Surgery
2. Major element of program.
3. Department offering the program: General Surgery department
4. Department offering the course: General Surgery department
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A- Basic Information

Title: Course Specifications of general surgery in Master degree General Surgery

Code: SUR0529-200

Total hours

Lectures	surgical	Tutorial/clinical	Total hours	Credit
٢٢٥ hours	250 hours	200 hours	675 hours	25

B- Professional Information

1. Overall Aims of Course are to:

- Deliver an advanced knowledge of general surgery and its subspecialties and hence the candidate can recognize a wide range of general surgical problems
- establish an advanced skill of the candidates to deal safely with the general surgical disorders.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding

By the end of the course the student should have the ability to:

- a1. Mention the recent advances in the normal structure and function of the human body on the macro micro levels.
- a2. Enumerate the natural history of general surgical diseases.
- a3. Enumerate the causation of general surgical diseases and problems.
- a4. Enumerate the techniques of different surgical operations.
- a5. List the clinical picture and differential diagnosis of general surgical diseases and problems..
- a6. Describe the various therapeutic methods/alternatives used for general surgical diseases and problems.
- a7. Mention scientific development in the field of general surgery
- a8. Enumerate the common diagnostic and laboratory techniques necessary to establish diagnosis of general surgical diseases and problems..
- a9. Describe the mechanism of action, advantages, disadvantages, side effects and complications of laparoscopic surgery

- a10. Mention the principles and of ethics and legal aspects of professional practice in the field of general surgery.
- a11. Enumerate the principles of quality assurance of professional practice in the field of general surgery
- a12. Enumerate the effect of professional practice on the environment and the methods of environmental development and maintenance.
- a13. Describe basics and ethics of scientific research

b) Intellectual skills

By the end of the course the student should have the ability to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for general surgical problems.
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for general surgical problems.
- b3. Link between knowledge for professional problem solving.
- b4. Assess risk in professional practices in the field of general surgery.
- b5. Plan to improve performance in the field of general surgery
- b6. Identify general surgical problems.and find solutions..
- b7. Analyze reading of research and issues related to the general surgery.

c) Professional and practical skills

By the end of the course the student should have the ability to:

- c1. Apply the basic and modern professional skills in the area of general surgery.
- c2. Write and evaluate of medical reports.
- c3. Assess of methods and tools existing in the area of general surgery

d) General and Transferable skills:

By the end of the course the student should have the ability to:

- d1. Communicate effectively by all types of effective communication
- d2. Use information technology to serve the development of professional practice
- d3. Assess himself and identify of personal learning needs.
- d4. Use different sources to obtain information and knowledge.
- d5. Develop rules and indicators for assessing the performance of others.
- d6. Work in a team, and team's leadership in various professional contexts.
- d7. Manage time effectively.
- d8. Learn himself continuously

3. Contents

Topic	No. of hours	lectures	clinical/surgical
▪ Module 1: Breast	45	15	30
▪ Module 2: Coloproctology	35	15	20
▪ Module 3: Endocrine	45	15	30
▪ Module 4: General surgery	35	15	20
▪ Module 5: Hepatopancreatobiliary	45	15	30
▪ Module 6: Oesophagogastric	45	15	30
▪ Module 7: General surgery of childhood	45	15	30
▪ Module 8: Transplant	45	15	30
▪ Module 9: Vascular	35	15	20
▪ Module 10: Urinary tract disease	45	15	30
▪ Module 11: Testes and scrotum	35	15	20
▪ Module 12: Fractures	45	15	30
Module 13: Pre and post operative care.	35	15	20
Module 14: Post-operative complications	30	10	20
Module 15: intensive care therapy.	30	10	20
Module 16: lymphatic system	30	10	20
Total	525	225	300
Credit Hours	25	15	10

4. Teaching and Learning Methods

4.1- Lectures.

4.2- Clinical cases

4.3- Surgical lessons

4.4- Attending and participating in scientific conferences, workshops, and group discussion to acquire the general and transferable skills needed.

5. Candidate Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
5.3- Written Exam: - Short essay: 40% - structured questions: 25% - MCQs: 20% - Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.4- Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.5- OSCE	- Practical skills, intellectual skills General transferable skills

Assessment schedule:

Assessment	review	week 92
Assessment	final written exam	week92
Assessment	OSCE	week92
Assessment	final Structured Oral Exam	week92

Weighting of Assessments

Final- written Examination	50%
Structured Oral Examination	30%
OSCE	20%
Total	100%

Formative only assessments: attendance and absenteeism, Log book

6. List of References

Recommended books:

- Bialy and love Text book of surgery
- Kasr El Aini Introduction to surgery.
- A manual of surgery, by M Abdelazeem Rifaat
- An Introduction to the Symptoms And Signs of Surgical Disease, by Norman Browse
- Text book of Surgery , the biological basis of modern surgical practice by David Sabiston
- Schwartz principles of Surgery
- Mastery of surgery, 4th edition (2001), by Robert J Baker, Joseph E Ficher.
- Periodicals
- American Journal of Surgery.
- Surgical clinics of North America.
- Surgery.
- Archives of surgery.
- British Journal of surgery.
- European Journal of surgery.
- Egyptian Journal of surgery

Important web sites

<http://www.ncbi.nlm.nih.gov/>
<http://www.webpath.com/>
<http://www.aacr.org/>
<http://www.uscap.org/>
<http://www.ascp.org/>
<http://www.freebooks4doctors.com/>
<http://www.pubmed.gov/>
<http://www.medscape.com/>
<http://emedicine.medscape.com/oncology>
http://www.geocities.com/jcprolla/cytopathology_diagnoses.html
<http://path.upmc.edu/cases/index.html>
<http://web.med.unsw.edu.au/pathology/Pathmus/pathmus.htm#InteractiveImages>

7. Facilities Required for Teaching and Learning

- a. Adequate infra structures: including: teaching places (teaching classes, teaching halls, teaching museum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.
- b. Teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers, scanner, copiers, color and laser printers.

Course Coordinator: Prof. Dr/ Sameir Abd-El-Maged

Head of Department: Prof. Dr/ Nabil Yosef Abo El Dahab

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018