إعتماد توصيف مقررات برنامج الماجستير في الفارماكولوجيا الأكلينيكية

نقر نحن الموقعون على هذا أدناه أن توصيف وثيقة البرنامج التعليمى لدرجة الماجستير فى الفارماكولوجيا الأكلينيكية والمقررات الدراسية المكونة له قد تم وضعها بمعرفة الأقسام المعنية

م	اسم المقرر	اسم منسق المقرر	التوقيع	اسم رئيس القسم	التوقيع
١-	فسيولوجى	د./ نوال بدوي على		أ.د./ جلال محمد عبد القادر	
٢-	كيمياء حيوية	د./ عايده عابدين محمد		د./ نجوي سيد أحمد	
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وكيل الكلية للدراسات العليا

عميد الكلية

Peer Revision

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

Program specification of Master degree in Clinical Pharmacology

Sohag University **Faculty of medicine**

A. Basic Information

1. Program title: Master Degree of Clinical Pharmacology
2. Program type: single
3. Faculty: Faculty of Medicine
4. Department: Clinical Pharmacology
5. Coordinator: Dr. Faten M Omeran
6. Assistant Coordinator: Wafaa Abdel-Aziz Abdel-Lah
7. External evaluator: Pr. Dr. Alaa El-Din El-Koussi
8. Last date of program specifications approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013.

B. Professional Information

1. Program aims

The aim of the program is to provide the postgraduate student with the medical knowledge and skills essential for the practice of Clinical Pharmacology necessary to gain further training and practice in the field of Clinical Pharmacology through providing

1. Scientific knowledge and skills essential for the practice of Clinical Pharmacology according to the international standards.
2. Skills necessary for proper for applying Clinical Pharmacology fordetecting different problems and diseases.
3. Ethical principles related to the practice in this speciality
4. Active participitation in the community needs assessment and problems solving.
5. Maintenance of learning abilities necessary for continuous medical education
6. Maintenance of research interest and abilities.

2. Attributes of the post graduate:

1. Mastering the basics of scientific research methodologies.
2. The application of the analytical method and used in the field of Clinical Pharmacology.
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 Clinical Pharmacology
5. Identify problems in the field of Clinical Pharmacology 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 (ILOs)

By the end of the study of master program in Clinical Pharmacology

1. **the Graduate should be capable of :** Employing and preserve the available resources to achieve the highest benefit.
2. Awareness of his role in the community development and preservation of the environment at the lights of both international and regional variables.

a) Knowledge and understanding

By the end of the study of master program in Clinical Pharmacology the Graduate should be able to know and understand each of:

a1. Enumerate basic Clinical Pharmacology (emphasizing the dynamic relationships of human structure and functions) that are necessary for administration of physical therapy services and education.

a2. Identify and integrate the underlying mechanism of physiological effects and indications for different physical therapy modalities.

a3. Describe basic principles and theories from physics, biomechanics, electroMedical Physiology and applied exercise science that can be utilized in physical therapy.

a4. Evaluate and interpret comprehensively & properly the assessment forms to detect patient's problems in priorities..

a5. Enumerate Scientific developments in the field of Clinical Pharmacology

a6. Enumerate the mutual influence between professional practice and its impacts on the environment.

a7. Mention ethical and legal principles of professional practice in the field of Clinical Pharmacology

a8. Enumerate the principles and fundamentals of quality in professional practice in the field of Clinical Pharmacology

a9. Enumerate the basics and ethics of scientific research.

b) Intellectual skills

By the end of the study of master program in Clinical Pharmacology the Graduate should be able to:

b1. Analyze and evaluate of information and data in the field of Clinical Pharmacology and titration in accordance.

b2. Solve Problems in the specialty of Clinical Pharmacology in light of the available data.

b3. Link between knowledge for Professional problems' solving.

b4. Conduct a research study and / or writing a scientific study on a research problem.

b5. Assesses risks in professional practices in the field of Clinical Pharmacology

b6. Plane for the development of performance in the field of Clinical Pharmacology

b7. Make Professional decisions' in diverse professional contexts.

b8. Analyze reading of research and issues related to the Clinical Pharmacology

c) **Professional and practical skills**

By the end of the study of master program in Clinical Pharmacology the Graduate should be able to :

c1. Master the basic and modern professional skills in the area of Clinical Pharmacology

c2. Write and evaluate medical reports.
c3. Assesses methods and tools existing in the area of Clinical Pharmacology

d) **General and Transferable skills:**

By the end of the study of master program in Clinical Pharmacology the Graduate should able to :

d1. Communicate effectively by its different types.
d2. Use information technology to serve the development of professional practice
d3. Assess and identify 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 Efficiently.
d8. Learn himself continuously.

4. Academic standard:-

Sohag faculty of medicine adopted the general national academic reference standards (NARS) provided by the national authority for quality assurance and accreditation of education (naqaae) for postgraduate programs. This was approved by the faculty council degree No 6854, in its cession No.177. Date 18-5-2009. Based on these NARS; Academic References standard (ARS) were suggested for this program. These ARS were approved by faculty council degree No 7528, in its cession No.191. Date 15-3-2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its cession No.60. Dated 26-12-2011

5. Curriculum Structure and Contents

5.a- Program duration 6 semesters (3 years)

5.b- Program structure

	hours /week		
Subject	Lectures	Practical	Clinical
First Part:			
Minors : - optional course one of the following :			---
-Biochemistry	9	8	a1,a2,a3,b1,b2,c1,d1,d2
-Medical Physiology	9	8	a1,a2,b1,b2,c1,c2,d1,d2.
-Microbiology and immunology	9	8	a1,a2,b2,b3,c3,c4,d1,d2
-Internal medicine	9	8	a1,a2,a3,b1,b2,c1,c2,d1,d3
Biostatistics & Computer and research methodology	1	2	a17, a18, b4, b8, c3, d2, d4.
Second part Medical Clinical Pharmacology	4.6 h/w (210 hours)	6.6 h (300 hours)	a1,a2,b1,b2,c1,c2,d1,d2

code	Item		No	%
b.i	Total credit hours	Compulsory	50	100
		Elective	0	0
		Optional	0	0
b.iii	credit hours of basic sciences courses		13	26
b.iv	credit hours of courses of social sciences and humanities		0	0
b.v	credit hours of specialized courses:		24	48
b.vi	credit hours of other course		2	4
b.vii	Practical/Field Training		5	10
b.viii	Program Levels (in credit-hours system): Level 1: 1st part Level 2: 2nd Part Level 3: Thesis		 15 24 6	 30 48 12

6. Program Course

2 compulsory + 1 of 4 optional courses

6.1- Level/Year of Program…1 st part……. Semester…1…..

a. Compulsory

Course Title	Total No. of credit hours	No. of hours /week			Programme ILOs Covered (By No.)
		Lect.	Lab.	Exer.	
Bio Statistics& Computer and reaserch methodology	2	1	2		a17, a18, b4, b8, c3, d2, d4.

b- Optional – number required

Course Title	totalNo. of credit hours	No. of hours /week			Program ILOs Covered (By No.)
		Lect.	Lab.	Exer.	
Biochemistry	13	9	8		a1,b1,c1,c2,d1,d2

-Medical Physiology	13	9	8		a1,a2,b1,b2,c1,c2,d1,d2
Microbiology and immunology	13	9	8		a1,a2,b1,b2,c1,c2,c3
-Internal medicine	13	9	--	8	a2,a3,b1,b2,c1,c2,d1,d2

Level/Year of Program…2nd part……. Semester…2…..

a. Compulsory

Course Title	Total No. of credit hours	No. of hours /week			Programme ILOs Covered (By No.)
		Lect.	Lab.	Exer.	
Medical Clinical Pharmacology	24	4.6	6.6		a1,a3,b3,b2,c1,d2,d3

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.

1. Candidates graduated from Egyptian Universities should have at least "Good Rank" in their final year/ cumulative years examination, and grade "Good Rank" in Clinical Pharmacology course too.
2. Candidate should know how to speak & write English well
3. Candidate should 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):

- Program related specialized sciences of Clinical Pharmacology courses.
- 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:
  practical training :36 months training in the department of Clinical Pharmacology.
- 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 ≥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 علمى موسع**	**6**
Training courses	**دورات تدريبية**	**12/ day**
Conference attendance	**حضور مؤتمرات علمية** **داخلى** **خارجة**	 **12/day** **18/day**
Thesis discussion	**حضور مناقشات رسائل**	**6**
Workshops	**حضور ورش عمل**	**12/day**
Journal club	**ندوة الدوريات الحديثة**	**6**
Seminars	**لقاء علمى موسع**	**6**
Morbidity and Mortality conference	**ندوة تحليل المخاطر المرضية أوالوفاة**	**6**

Self education program	برنامج التعليم الذاتى	6

- 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	50%	-Practical skills, intellectual skills, general transferable skills
4-Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Written Exam (3 hours): for one of the branches of specialization optional + Structured oral Exam + OSPE.

- Biostatistics & Computer and Research Methodology: Written Exam (2 hours) + Structured oral Exam+ OSPE

Part II:

- Clinical Pharmacology: Two Written Exam (3 hours) +Structured oral Exam + OSPE

10. Evaluation of Program Intended Learning Outcomes

Evaluator	Tool	Sample
1- Senior students	4	20 %
2- Alumni	4	20 %
3- Stakeholders (Employers)	3	30 %
4-External Evaluator(s) (External Examiner(s)	6	20 %
5- Other		10 %

Course Specification of Medical Physiology for Master degree of Clinical Pharmacology

Sohag University **Faculty of Medicine**

1. Program on which the course is given: master. Clinical Pharmacology.
2. Minor or major element of the program: minor.
3. Department offering the program:. Clinical Pharmacology
4. Department offering the course: Medical Physiology.
5. Academic year: master degree 1st part.
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A- Basic Information

Title: Course Specification of Medical Physiology for master of Clinical Pharmacology

Code: PHY 0505 - 200

Lectures	Practical	Total hours	credit hour
135	120	255	13

B- Professional Information

1. aim of the course :

to prepare a **Clinical Pharmacology** physician oriented with the Medical Physiology of A.N.S & circulation especially that concerned with regulation of their activities and effect of stimulation of their receptors. Also the regulation of arterial blood pressure, the different types pf shock and their management. In addition, graduates should have enough knowledge about the control of respiration and acid base balance. They should have adequate information about the neurotransmitters & their sites of actions specially that acting on CNS & GIT .

2. Intended learning outcomes (ILOs):

a) Knowledge and Understanding:

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

a1. Enumerate the Medical Physiology of ANS.

a2. The Medical Physiology of blood coagulation, pain, control of arterial blood pressure & changes with hemorrhage & shock.

a3. The Medical Physiology of digestion.

a4. Neurotransmitters.

b) Intellectual skills:

By the end of the course, the students are expected to be able to:

b1. Know the effect of stimulation of the different body receptors by drugs.

b2. Use this knowledge in discovery of new drugs for tretment of different diseases.

c) GENERAL & TRANSFERABLE SKILLS:

By the end of the course, the students are expected to

c1. Communicate with members of Medical Physiology department.

c2. Diagnose an early physiological defect.

d) Professional skills.

By the end of the course, the students are expected to

d1. Acquiring skills to use computer to enter Medical Physiology web sites and self learning.
d2. Team working for accurate diagnosing of diseases using internet.
d3. Ability to listen and understanding any physiological lecture.
d4. Utilize computers in conducting research and to collect scientific data.
d5. Use standard computer programs effectively (window, office programs).

3. Contents of the course:

Lectures (135 hrs) Coarse matrix of Medical Physiology .

Topic	No of Hours	Lecture 135 h	Practical 120
Medical Physiology of the autonomic nervous system	45	25	20
Medical Physiology of blood coagulation	40	20	20
Digestion	40	20	20
Muscle and nerve	45	25	20
Kidney	40	20	20
Medical Physiology of the CNS	45	25	20
Total	**255**	**135**	**120**
Credit	**13**	**9**	**4**

4. Teaching and Learning Methods

4.1- lectures.
4.2- practical lessons.
4.3- attending and participating in scientific conferences, workshops and thesis discussion to acquire the general and transferable skills needed.

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-OSPE	-Practical skills, intellectual skills

Assessment Schedule

Assessment of the candidate is at the end of the course(1st part exam)

Assessment 1	Final written exam (1 paper)	week 24
Assessment 2	Final Structured Oral Exam	week 24
Assessment 3	Final OSPE	week 24

Weighting of Assessments

Final-term written examination 50%

Structured oral Exam	50 %
Total	100 %

Formative only assessments : essay ,simple research ,. attendance and absenteeism

6. List of References

Course notes

Department notes, lectures & handouts.

Essential books (textbooks)

Gyton textbook of Medical Physiology

6.1- Course Notes

Lectures notes prepared by the staff members in the departement

6.2- Essential Books (Text Books) Gyton in Medical Physiology .

6.3- Recommended Books Gyton in Medical Physiology

6.4- Periodicals, Web Sites, … etc

1-American Journal of Medical Physiology

2-British Journal of Medical Physiology y

7. Facilities Required for Teaching and Learning:

1. Adequate infrastructure includes teaching places(teaching class, teaching halls, teaching laboratory)comfortable desks, good source of aerations, bathrooms, good illumination and safety and security tools.
2. Teaching tools: includes screens, computers cd(r-w) data shows, projectors, flip charts, white broads, video players, digital video scanners, copier, colouer and laser printers
3. Computer programs: for designing and evaluating MCQS.

Course Coordinator: Dr/Hoda Mostafa

Head of Department: Dr/Ahmed Mostafa

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

Course Specifications Medical Biochemistry for Master degree in Clinical Pharmacology

Sohag University **Faculty Of Medicine.**

1. Program(s) on which the course is given: master degree in Clinical Pharmacology
2. Major or Minor element of programs Department offering the program (Clinical Pharmacology Department)
3. Department offering the course (Medical Biochemistry Department)
4. Academic year / Level: Post graduate, master degree in Clinical Pharmacology
5. Academic year: 2008-2009
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Medical Biochemistry

Code: BIO 0505 - 200

Lectures	Practical	Total hours	Credit hour
135	**120**	**255**	**13**

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 biochemistry of the Orthopedic diseases, and able to diagnose any vitamin and calcium regulating hormones deficiency.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

a1. Enumerate the biochemical importance of intermediary metabolism (Anabolic and catabolic)

a2. Mention the importance of clinical biochemistry

a3. Explain the role of vitamin, Minerals

a4. To know and explain hormonal action

b) Intellectual Skills

b1. Diagnosis the affected biochemical deficiency

b2. Integrate basic biochemical and physiological facts with clinical data

b3. How to diagnose early and treatment as early as possible

c) Professional and Practical Skills

c1. To identify the biochemical defect

c2. To perform some laboratory tests for early diagnosis**.**

d) General and Transferable Skills

d1. Acquiring skills to use computer to enter biochemistry web sites and self learning.

d2. Team working for accurate diagnosing of diseases using internet.

d3. Ability to listen and understanding any biochemical lecture.

d4. Utilize computers in conducting research and to Collect scientific data.

d5. Use standard computer programs effectively (window, office programs).

3. Contents

Topics	Total	Lectures	Practical
(1)Biological oxidations include: -General consideration. -Electron transport. -ATP-synthesis. -Translocations. -Superoxide dismutase.	13	7	6
(2) Glycolysis and citric acid cycle: - General consideration. -Enzyme structure and reaction mechanisms. -Regulation mechanisms and biomedical importance.	13	7	6
3) Other Pathways Carbohydrate Metabolism: a- Pentose –phosphate pathway and Gluconeogenesis. -General considerations -Enzyme reaction mechanisms. -Regulation mechanisms -Genetic diseases. B-Glycogen Metabolism: - General considerations - Glycogen Synthetase and phosphorylase: structure and catalytic activities. -Regulation -Genetic diseases C-Metabolism of other hexoses and biosynthesis of mucopolysaccharides. etails	13	7	6
(4) Fat metabolism) General considerations. -Fatty acid oxidation and fatty acid biosynthesis. - Enzymes and reaction mechanisms for biosynthesis of cholesterol and related derivatives, phospholipids, glycolipids and related compounds. -Eicosanoids metabolism. -Adipose tissue metabolism. -Lipid transport in plasma: Lipoproteins: assembly and degradation, biomedical importance. -Genetic diseases.	13	7	6
(5)Protein metabolism: -General consideration -Amino acids degradation: General reaction, nitrogen disposal and ammonia disposal. -Nitrogen fixation. -One carbon metabolism. -Individual amino acids metabolism.	13	7	6
6) Integration of metabolism: - Mechanisms and regulation	13	7	6

7) Metabolism of nucleotides: -General considerations -Purin and pyrimidine biosynthesis. -Ribonucleotide reductase –thioredoxin and Glutaredoxin, Thymidylate synthase and dihydrofolate reductase -Uric acid -Genetic diseases.	13	7	6
8) Porphyrin metabolism and heam biosynthesis and catabolism	13	7	6
(9) Mineral metabolism Tissue chemistry	13	7	6
(10) molecular biology A- Eukaryotic chromosomes Gene E xpression : -Nucleosome and chromatin. -Mitochondrial DNA. -DNA structure :replication and repair: -Structure. -Nucleases and ligases. -DNA topology and topoisomerases. -DNA polymerases. -Origin and direction of replication. Biochemistry of osteoarthritis	13	4	6
(11_)Hormones -Classification, mechanisms of actions. -Pituitary and hypothalamic hormones. -Thyroid and parathyroid hormones. -Hormones of the adrenal cortex and medulla. -Hormones of the Gonads. -Hormones of the pancreas and G.I.T tract.Biochemistry of osteoporosis	13	7	6
12)-Tumour markers.	13	7	6
13)Metabolism of xenobiotics.	8	6	2
(14)Body fluid : -Blood, urine,-semen, C.S.F, bile, gastric juice, milk.	13	7	6
(15)Minerals: (calcium.phosphate,Na,k,mg,Cu,iron,zinc,iodine ,mercury,Cd,florid,lead ,and others trace elements .	13	7.5	5.5
(16)Immnoglobulines	13	7.5	5.5
(17)Physical shemistry	13	7.5	5.5
(18)Free radicals	13	7.5	5.5
(19)Enzymes: -kinetics -Mechanism of action Regulation -	13	7.5	5.5

(20)Vitamin: -Water soluble vitamin. Fat soluble vitamin - Cellular memberane - Exchange of components -Biotransformation and xenobiotics formation and secretion -Radioactive tracer technique and pharmacokinetics.	13	7.5	7
Total	**255**	**135**	**120**
Credit	**13**	**9**	**4**

4. Teaching and Learning Methods

4.1- Lectures

4.2- Searches in computers (assignments)

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-OSPE	-Practical skills, intellectual skills

Assessment Schedule

Assessment of the candidate is at the end of the course(1st part exam)

Assessment 1 Final written exam (1 paper) 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 : essay ,simple research ,. attendance and absenteeism

6. List of References

6.1- Course Notes

Department books

6.2- Essential Books (Text Books)

1. Text book of medical biochemistry with clinical Devlin, JM 1994
2. Harper's biochemistry, Murray, RK 2005

6.3- Recommended Books

1. Lectures notes on clinical biochemistry, Whitby et al 1993
2. Lippincott's illustrated reviews biochemistry, Champe, PC, Harvey, RA, 2005

6.4- Periodicals, Web Sites, … etc

1. http://www.ncbi.nlm.gov/

2. http://www.vlib.org/
3. www.genome.ad.jp/kegg/regulation.
4. Findarticle.com
5. Freemedicaljournals.com

7. Facilities Required for Teaching and Learning

1. Appropriate teaching class
2. Laboratory equipment and safety
3. Computers and data show

Course Coordinator: Dr. Aida Abdeen

Head of Department: Dr. Nagwa Sayed Ahmed Hassan

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

Course Specifications of Medical Microbiology & Immunology for Master Clinical Pharmacology

Sohag University **Faculty of Medicine**

1. Program on which the course is given: Postgraduate – Clinical Clinical Pharmacology (elective course)
2. Major or minor element of program: Minor
3. Department offering the program: Clinical Pharmacology
4. Department offering the course : Medical Microbiology & Immunology
5. Academic year / Level: MSc 1st part Clinical Pharmacology
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Medical Microbiology & Immunology

Code: MIC 0505 - 200

Lectures	Practical	Total hours	Credit hours
135	120	255	13

B. Professional Information

1. Overall Aims of Course

By the end of the course the postgraduate student should be efficiently able to have advanced 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 order specific tests in order to assist clinical practitioners on how to order and interpret lab tests . 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, and how to initiate and / or implement lab results for patients

2. Intended Learning Outcomes of Course (ILOs):

a) **Knowledge and Understanding:**

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

a1. List the microorganisms affecting human beings all over the world and particularly in Egypt.
a2. Describe the metabolism and genetics of organisms.
a3. Describe the pathology, clinical symptoms and complications of each disease.
a4. Summarize the laboratory tests needed for diagnosis of each case.
a5. Name the drugs and instructions used for treatment of each case.
a6. Describe some infection control methods
a7. Describe the structure and function of immune system
a8. Perform basic and advanced microbiology tests in the lab
a9. Interpret the results of tests to aid clinicians in diagnosis

b) **Intellectual Skills:**

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

b1. Differentiate between the different microorganisms (Bacteria, viruses and fungi)

b2. Differentiate between the different types of disease causing microbes
b3. Determine the antibiotic regimen based on previous microbiological experience and laboratory tests.
b4. Determine the involvement of the immune system in the current disease process.
b5. Order a variety of specific tests
b6. Interpret a wide variety of tests and cross correlate with other clinical data

c) **Professional and Practical Skills:**

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

c1. Recognize micro-organisms on morphological bases.
c2. Identify the methods of staining, culturing and biochemical reactions
c3. Recognize some serological tests used in diagnosis.
c4. Handling of samples.
c5. Processing of samples.
c6. Initiate or implement laboratory tests

d) **General and Transferable Skills:**

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

d1. Use the computer and internet to gather scientific information.
d2. Use data analysis and communication skills
d3. Interpret a report containing microbiological or immunological data.
d4. Be reliable and responsible in fulfilling obligations
d5. Learn and teach how to perform and interpret laboratory tests

3. Contents

Lectures	No. of hours	Lectures	Practical
General Bacteriology			
Bacterial anatomy & Medical Physiology	10	5	5
Bacterial genetics	10	5	5
Recombinant DNA technology	10	5	5
Antibiotics	10	5	5
Sterilization & Disinfection	10	5	5
Systematic Bacteriology			
Gram +ve cocci	13	8	5
Gram –ve cocci	11	6	5
Gram +ve bacilli	11	6	5
Gram –ve bacilli(1)	13	8	5
General virology	10	5	5
Systematic Virology			
RNA viruses	13	8	5
DNA viruses	13	8	5
Mycology			
Fungal classifications	10	5	5
Opportunistic mycosis& Antifungal drugs	12	5	7
Immunology			
Congenital & Acquired Immunity	10	5	5
Immunological Cells	9	4	5

Hypersensitivity	9	4	5
Transplantation	9	4	5
Tumor Immunology	10	5	5
Immunodeficiency	9	4	5
Applied Microbiology	12	7	5
Laboratory tests	21	12	9
Nosocomiology	11	6	5
Total	**255**	**135**	**120**
Credit	**13**	**9**	**4**

4. Teaching and Learning Methods

4.1- Lectures.
4.2- Department practical class and notes.
4.3- Practical lessons.

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-OSPE	-Practical skills, intellectual skills

Assessment Schedule

Assessment of the candidate is at the end of the course(1st part exam)
Assessment 1 Final written exam (1 paper) week 24
Assessment 2 Final Structured Oral Exam week 24
Assessment 3 Final Practical exam week 24

Weighting of Assessments

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

Formative only assessments : essay ,simple research ,. 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.
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.

1- Adequate infrastructure: including teaching places (teaching class, teaching halls, teaching laboratory), Comfortable desks, good source of aeration, bathrooms, good illumination, safety & Security tools.

2- Teaching Tools: including screens, Computer including cd(rw), data shows, Projectors, flip charts, white board, video player, digital video camera, Scanner, copier, colour and laser printers.

3- Computer Program: for designing and evaluating MCQs

Course Coordinator: Dr. Mona Fatoh

Head of Department: Prof. Abeer Shenief

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

Course Specifications of Internal medicine for master degree in Clinical Pharmacology

Sohag University **Faculty of Medicine**

1. Program on which the course is given:, Clinical Pharmacology MSc (1st part).
2. Minor element (optional) of program.
3. Department offering the program: Clinical Pharmacology
4. Department offering the course:. Internal Medicine
5. Academic year / Level: master degree,1st.part..
6. Date of specification approval: July /2008
7. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Internal Medicine for master degree in Clinical Pharmacology

Code : MED 0505 - 200

Lectures	Practical	Total hours	Credit hours
135	120	255	13

B. Professional Information:.

1. Overall Aims of Course

By the end of the course of Internal Medicine, the candidate should be able to:

1- Deal with common medical conditions on the basis of adequate history taking, physical examination, interpretation of relevant supportive investigations and management.

2- Perceive and integrate progress in medical technology.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

a1. Grasp the spectrum of clinical symptomatology related to different Internal medicine disorders.

a2. Appreciate the clinical spectrum of common medical conditions with multisystem affection.

b) Intellectual Skills

b1. Interpret the most important symptoms and signs of the most common medical disorders

b2. Formulate appropriate management plans for individual patients presenting with the most common medical disorders.

b3. Make decisions regarding common clinical situations using appropriate problem solving skills.

c) Professional and Practical Skills

c1. Conduct a proper general examination and identify normal and major abnormal physical signs.

c2. Conduct proper regional examination of the thorax and abdomen by inspection, palpation, percussion and auscultation to identify:

- Surface anatomy of internal organs.
- Normal physical signs.
- Major abnormal physical signs.

c3. Develop and present a comprehensive medical sheet including history and physical examination.

c4. Interpret the significance and relevance of abnormal physical signs.

c5. Identify the appropriate supportive investigations relevant to a particular patient and adequately interpret the results.

c6. Integrate the patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis.

c7. Identify adequate logistics for further patient assessment and management.

c8. Become acquainted with specialist approach to the diagnosis of common medical conditions related to the specialty.

c9. Get exposed to less common medical disorders within the domain of specialty.

c10. Get updated information about and demonstrations on modern diagnostic tools within the specialty.

c11. Get acquainted with special therapeutic and interventional techniques related to the specialty.

c12. Adequately interpret the results of common laboratory investigations as urine analysis, blood picture, liver and kidney function tests, etc.

c13. Properly read X-ray, CT and ultrasonic images of common diseases.

c14. Properly interpret ECG recordings of common conditions as ventricular hypertrophy, myocardial infarction, common arrhythmias, etc.

c15. Get acquainted with the methods of patient clinical assessment and monitoring, their significance and inter-relations.

c16. Adequately evaluate the patient's acute morbidity score and need for urgent intervention.

c17. Identify a clear priority plan in the patient's management.

c18. Recognize the indications for consulting higher levels or reference to other disciplines.

d) General and Transferable Skills

d1. Presentation, analyzing and solving of clinical problems .

3. Contents:

DETAILED CONTENTS

1-Cardiology Teaching

The cardiology curriculum is designed so that at the end of the course the candidate will be able to:

1- Know the principles of cardiovascular anatomy and Medical Physiology which are relevant to cardiovascular diseases.

2- Know the basic patho-physiological and structural alteration that occur in cardiovascular diseases.

3- Know the important causes, presenting features (symptoms, signs and alteration in specific investigations) that may occur in each of the following conditions:

-Heart failure, Pulmonary oedema
-Acute coronary syndromes
-Chronic ischemia
-Systemic hypertension
-Causes features and management of Rheumatic heart disease and infective endocarditis.

4-Skills: The graduate should be able to:

- Elicit normal and abnormal cardiovascular signs such as general features, attitude, facies, BP arterial and venous pulse,……
- Elicit normal and abnormal physical signs in chest and abdominal examination that may cause or accompany or result from cardiac disease such as hepatomegaly, splenomegaly, ascites,
- Can perform successfully basic life support and cardiac resuscitation (cardiac message, mouth to mouth breath) either alone or with a team.
- He should be able to interpret normal and abnormal cardiac shadows in chest X-ray.

Cardiology teaching (Methodology):

A combination of strategies are used to reach the above mentioned objects, this include lectures, clinical and self teaching.

1-Lectures : lectures are given to accompany the clinical and the practical teaching. They are designed to cover the sailent features, difficult aspects, recent advances not usually incorporated in students text books and specific personal practices of the following subjects:

Topics	No of lectures
-Cardiovascular Symptoms and signs	1
-Infective endocarditis	1
-Rheumatic heart disease	1
-Coronary artery diseases	1
- Heart failure and acute pulmonary oedema	1
Systemic hypertension	1

B- Practical teaching (cardiology)

Practical Topics:.

1-Cardiovascular history taking
2-Cardiac examination (including pulse BP, and Jugular venous pressure comment)
3-Cardiac valve lesions

4-Infective endocarditis
5-Heart failure

3-Self teaching: This include:

- Personal or group ward responsibilities including follow up of inpatients in the department.
- Cardiology outpatient sessions in which the student examine the patients with the assistant lecturer to recognize the presenting

2-Endocrinology teaching

The curriculum consists of an integrated theoretical, clinical and practical training courses.

Terminal objectives are:

1-To know the principles of the Medical Physiology of endocrinal system

2-To know the basic pathophysiological and structural alteration changes that occur inDiabetes mellitus.

3-To know the basics of various investigations of endocrinal diseases

Endocrinology teaching (Methodology)

A combination of strategies are used to reach the above mentioned objectives. This include:

A-Lectures

Topics	No of lectures
Hypoglycemia	1
Diabetes mellitus, and Diabetic commas	2

3- Hematology Teaching

The curriculum consists of theortical practical and training courses.

Terminal objectives in teaching hematology are:

1-To know the Medical Physiology of blood cells (RBCs, WBCs and platelets. And homeostasis.

2-To know the anatomy of the lymphatic and hematopiotic organs.

3-To examine lymph nodes, liver and spleen and to know causes and management of lymphadenopathy, hepatomegaly, and splenomegaly.

4-To know causes, manifestation and management of bleeding and coagulation disorders.

5-To interpret lab investigations as blood picture, bone marrow examination, results of lymph node, spleen biopsy,……and tests for coagulation disorders.

Hematology teaching (Methodology) :
A combination of stratiegies are used to reach the above mentioned objectives. This include:

A- lectures

Topics	No of lectures
Hematopoiesis	1
-Causes of Spleenomegaly Lymphadenopathy	1
-Disorders of Bleeding -Anemias	1

B- Practical hematologTeaching**)**
Topics:.
1-History taking in hematological disorders
2- Differntial diagnosis of Lymphadenopathy
3- differential diagnosis of Hepatospleenomegaly
4- Bleeding tendency, and anemia
5- 5-Respiratory Teaching

A-Lectures

Topics	No of lectures
Structure and function	1
Acute bronchial asthma	
Pulmonary tuberclosis	1

6-Gastroenterology Teaching

Terminal objectives in teaching gastroenterology are:

1-To know the basic Medical Physiology of the digestive system (oesphagus, stomach, small, large intestine and the pancreas)

2-To know the anatomy and the basic pathophysiological and structural changes that occur in the gastrointestinal tract in various gastrointestinal diseases.

3 To know the gastrointestinal symptoms such as vomiting , diarrhea, constipation, and how to elicit important findings through abdominal examination, examination of the buccal cavity and PR examination.

4-To know the important causes, presentation and management of the following disorders affecting the gastrointestinal tract:

- **GERD**
- **Peptic ulcer**

Practical GIT

Topics:.

1-History taking of gastroenterology disorders

2- Abdominal masses including malignancies

3-Hepatomegally

4-Spleenomegally

5-Ascites

6-Hepatocellular failure

9-Jaundice

11-Self teaching: This include:

- Personal responsibility including follow up of inpatients in the department.
- Hepatology outpatient sessions in which the student examine the patients with the assistant lecturer to recognize the presenting manifestations of the diseased and non diseased person

4. Teaching and Learning Methods

4.1- Illustrated lectures
4.2- Clinical rounds on patients (once /week foe 8 weeks)
4.3- Attendance in outpatients clinic (once/week for 5 weeks)
4.4- Case studies in department conference (once/week for 5 weeks)
4.5- Interactive presentations (lectures with discussion)

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

Assessment Schedule

Assessment of the candidate is at the end of the course(1st part exam)

Assessment 1	Final written exam (1 paper)	week 24
Assessment 2	Final Structured Oral Exam	week 24
Assessment 3	Final Practical exam	week 24

Weighting of Assessments

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

Formative only assessments : essay ,simple research ,. attendance and absenteeism

6. List of References

6.1- Course Notes

6.2- Essential Books (Text Books)

- Kumar and Clarke Textbook of Medicine; Parveen Kumar and Richard Clark; Blackwell Science; 14th edition, 2007

-Hutchison's Clinical Methods; Robert Hutchison; Harry Rainy; 21st edition;2003

6.3- Recommended Books

- Cecil Textbook of Medicine; McGraw Hill; 16th edition, 2007.

- Harrisson's Textbook of Medicine, McGraw Hill, 2005.

6.4- Periodicals, Web Sites, … etc

7. Facilities Required for Teaching and Learning

- Lecture rooms
- Round rooms
- Accessibility to hospital wards, clinics and emergency department
- Audio-visual teaching equipments (computers, data show projector, video, etc.)
- Models and mannequins
- Video tapes and scientific pictures archives.
- Radiology collections and archives.
- Library for the department.

Course Coordinator: Dr. Mervat Mohamed Ahmed Attia

Head of Department: Prof . Hasan Shehata.

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

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

Sohag University **Faculty of Medicine**

1. Program title : Master degree in Clinical Pharmacology
2. Major/minor element of the program : Minor
3. Department offering the course: Community Medicine Dep.
4. Department offering the program: Clinical Pharmacology
5. Academic year /level : 1st part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Master degree in Clinical Pharmacology Statistics and Computer use for health services **and Research Methodology**

Code: COM 0505-200

Total Hours:

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

B. Professional Information

Applied Biostatistics Module:

1. **Overall Aims of Course**
   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:

1. **Overall Aims of Course**

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 Pharmacology

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 Pharmacology

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:

2. Intended Learning Outcomes of Courses (ILOs)

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:	- Knowledge
-Short essay: 40%	- Knowledge
-structured questions: 25%	- Knowledge, intellectual skills
-MCQs: 20%	- Intellectual skills, General transferable skills,
-Commentary, Problem solving: 15%	- 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, Prentice – Hall International Inc

6.2- Recommended Books

1- Dimensions of Community Health, Boston Burr Ridge Dubuque.

2- Short Textbook of preventive & social Medicine Prentice-Hall International Inc.

3-Epidemiology in medical practice, 5thed Churchill Livingstone New York, London and Tokyo

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, Prentice – Hall International Inc

6.2- Recommended Books

1- Dimensions of Community Health, Boston Burr Ridge Dubuque.

2- Short Textbook of preventive & social Medicine Prentice-Hall International Inc.

3- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo

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/ Dr/Ahmed Fathy Hamed

Head of Department: Prof/Eman Abd El-Baset Mohammed

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

COURSE SPECIFICATIONS of Clinical Pharmacology for Master degree in Clinical Pharmacology

Sohag University **Faculty of Medicine**

1. Program on which the course is given: Master degree in Clinical Pharmacology
2. Major or Minor element of program: major
3. Department offering the course: Clinical Pharmacology
4. Academic year / Level: Master degree, 2nd.part.
5. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Clinical Pharmacology for master degree in Clinical Pharmacology
Code:PHA0505-200

Total hours

Lectures	Practical	Total hours	Credit hours
210	300	510	24

B. Professional Information

1. Overall Aims of Course

- To understand basic principles of general Clinical Pharmacology, CVS, CNS, GIT, chemotherapy and hormones
- To know basic informations about drug interactions, proper use of drugs, common side effects of drugs.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

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

a1. Enumerate path Medical Physiology of hypertension, heart failure, hyperlipidemia .
a2. Mention bronchial asthma, diabetes mellitus.
a3. Describe antibacterial drugs, analgesics

b) Intellectual Skills

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

b1. Understand mechanism of action, side effects, drug interactions.
b2. Know pharmacological properties, pharmacokinetics of drugs.

c) Professional and Practical Skills

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

c1. Know trade name, scientific name, proper use of antibiotics for the proper time.
c2. Avoidance of drug interactions, understand main side effects

d) General and Transferable Skills

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

d1. Presentation, analyzing and solving of clinical problems .
d2. Adequately evaluate the patient's acute morbidity score and need for urgent intervention
d3. Identify a clear priority plan in the patient's management.

d4. Recognize the indications for consulting higher levels or reference to other disciplines

3. Contents

4. Teaching and Learning Methods

4.1-Lectures.

5. Student 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

Assessment Schedule

Assessment of the candidate is at the end of the course(1st part exam)

Assessment 1	Final written exam (1 paper)	36 week
Assessment 2	Final Structured Oral Exam	36 week
Assessment 3	Final Practical exam	36 week

Weighting of Assessments

Structured Oral Exam	50%
Written examination	50%
Total	100%

Formative only assessments : essay ,simple research ,. attendance and absenteeism, Log book

6. List of References

6.1- Essential Books (Text Books)

Goodman and Gilman, Katzung, Lipnocott.

6.2- Recommended Books

Clinical Pharmacology book, Assiut university.

7. Facilities Required for teaching and learning.

1- Adequate infrastructure: including teaching places (teaching class, teaching halls, teaching laboratory), Comfortable desks, good source of aeration, bathrooms, good illumination, safety & Security tools.

2- Teaching Tools: including screens, Computer including cd(rw), data shows, Projectors, flip charts, white board, video player, digital video camera, Scanner, copier, colour and laser printers.

3- Computer Program: for designing and evaluating MCQs

Course Coordinator: Dr. Faten M Omeran

Head of Department: Prof. Mahmoud Hamdi

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