

Course specification of biochemistry For Heptobilliary Surgery

Menoufiya University
National Liver Institute

A- Administrative Information

Course Title: Medical Biochemistry

Code: SURGH 714

Department giving the course: Medical Biochemistry Department

Program on which the course is given: Master degree in Heptobilliary surgery

Department offering the Program : Hepatobilliary surgery department

Semester: 1st part

Date of specification/revision: 2011

Date of approval by Departmental and NLI Council: 2011

(B) Professional information

1 – Overall aims of course

The two major concerns for workers in the health science – and particularly physicians – are the understanding and maintenance of health and the understanding and effective treatment of diseases. Biochemistry impacts enormously on both of these fundamental concerns of medicine. In fact, the interrelationship of biochemistry and medicine is a wide two-ways street. Biochemistry studies have illuminated many aspects of health and disease, and conversely, the study of various aspects of health and disease has opened up new areas of biochemistry.

Shared science and its subjects must be chosen by the Biochemistry department

1. To help students to become familiar with the biochemical knowledge that will assist students in understanding biochemical alteration in health and disease.
2. To provide students with good knowledge about inborn error of carbohydrate, lipids, protein and heme metabolism.
3. To able the students to be oriented with concepts of genetic disease, hormones, immunoglobulin, acute phase reactant proteins, vitamins and minerals and how these fields gave us a new perspective and new technology used in the diagnosis, treatment and new drugs design.

2 – Intended learning outcomes of course (ILOs)

a- Knowledge and Understanding:

By the end of the course, students should be able to:

- 1- Identify the inborn error of CHO metabolism by its genetic defect.
- 2- Compare different types of lipoproteins disorders
- 3- Relate the metabolic disorders to its amino acid inborn errors (melatonin and melanin)

b- Intellectual skills:

By the end of the course, students should be able to:

- b1 Apply the etiology of endocrine disturbance in a given case study report.
- b2 Analyze the application of vitamins as antioxidants.
- b3 Suggest the possible investigations needed for diagnosis of minerals deficiency..
- b4 Point out the specific immunoglobulin related to different diseases.

c- Professional skills:

By the end of the course, students should be able to:

- C1. Interpret signs, genetic and biochemical basis of xeroderma pigmentosum.
- C2. Point-out the application of acute phase reactant proteins in diagnosis.

d- General skills:

- 1. Work effectively in a group in lab or during preparation of seminars.
- 2. Respect the role of staff and co-staff members regardless of degree or occupation.

Contents:

Topic	Theoretical hours	Laboratory/ Practical	Total
Overview on CHO metabolism and its inborn error	2	1	3
Overview on lipid and lipoprotein metabolism and its inborn error	1	1	2
Overview on protein metabolism and its inborn error	1	1	2
Haem metabolism and its inborn error	1	0.5	1.5
Hormones	1	0.5	1.5
Vitamins	1	1	2

Minerals	1	1	2
Immunoglobulins	1	1	2
xeroderma pigmentosum	1	1	2
Acute phase reactant proteins	1	1	2
Total hours	11	9	20

4- Teaching methods:

- Lecture
- Seminars

5- Assessment methods:

- Written Examination for assessment of ILOs number A1-A4, B1-B4, C1-2.
- Oral examination for assessment of ILOs number: A1-A4, B1-B4, C1-2.
- Log book for activities for assessment of mainly practical & transferrable skills.

Assessment schedule:

After 6 month from MSc. registration (written and oral exam with marks)

Percentage of each Assessment to the total mark:

Written exam: 50%

Oral exam: 50%

6- List of references

6.1- Course Notes: Lecture notes prepared by the staff members in the department.

6.2- Essential Books (Text Books): Harpers in Biochemistry.

6.3- Recommended Books: lipnocott in Biochemistry

7- Resources / Facilities required for teaching and learning to achieve the above ILOs

New advanced laboratory facility and equipment to help teaching

- Overhead projectors
- Computers
- Microscope slides
- Laboratories instruments
- Internet club

We certify that all of the information required to deliver this course is contained in

the above specification and will be implemented

Prof. Dr.Naglaa Mohamed Ghanayem

Head of Biochemistry Dept.

Head of Department of Medical Biochemistry

Course specification of pathology for *Hepatobillary* Surgery

Menoufia University

National Liver Institute

A- Administrative information:

Course Title: pathology for Hepatobillary surgery

Code: SURGH 715

Department giving the course: pathology

Program(s) on which the course is given: Master of Hepatobillary surgery

Department(s) offering the Program: Hepatobillary surgery

Academic year/level: 1st part, postgraduate

Date of approval by Departmental and NLI Council: 2011

B- Professional information:

(1) Aim of the course:

1. To familiarize students with the basic disease patterns including definition, etiology, morphologic changes in different organ system diseases in addition to their fate and complication
2. To provide students with essential knowledge for gross and microscopic changes in different diseases for understanding and interpreting pathological reports.

(2) Intended Learning Outcomes (ILOs) for program:

a- Knowledge and Understanding

By the end of the course, students should be able to:

- a1. Identify the principals of general pathology (cell injury, inflammation, tissue repair, homodynamic, cellular dyspalsia , neoplasia... etc) and explain different disease processes occurring in cardiovascular system, renal and endocrinal organs; their causes (etiology), and how the disease develops in response to the etiologic agents

(pathogenesis) together with infectious diseases in all body organs.
a2. Describe and discuss characteristic gross and microscopic pictures of different pathologic lesions within those organ systems and the associated functional disturbances.
a3. Determine the fate and complications of different disease processes.

b- Intellectual skills:

b1. Recognize gross and microscopic pictures aiming at reaching the correct diagnosis.
b2. Predict the diagnosis of different diseases based on the underlying gross and microscopic pictures.

c- Professional and Practical Skills:

c1. Employ the different diagnostic pathological tools
c2. Interpret a pathology report in an accurate manner.

d- General and Transferable Skills:

d1. Search for the recent medical information and continued progress in medical sciences.
d2. Express freely and adequately themselves by improving descriptive capabilities and communication skills.
d3. Respond appropriately according to the seriousness of pathologic diagnosis in acceptable manner.

e- Attitude

e1. Recognize the scope and limits of their role as doctor, as well as the necessity to seek and apply collaboration with other workers..
e2. Respect the responsibility towards work.
e3. Present clearly and effectively a scientific topic in the practical class.

3- Contents

Topic	Theoretical hours	Laboratory/ Practical	Total
GENERAL			
Cell disorders.	3	2	5
Inflammation and repair.	3	2	5
Circulatory disturbance.			
Pathology			
metabolism of calcium and pigment.		2	5
* Immune	3		

response. Tuberculosis and leprosy *Rickettsial, viral and mycotic. Protozoal and helminthes Bilharziasis. * Vitamin deficiency. Disturbance of growth. Tumours. Effect of ionizing radiation. Genetic disease.			
SYSTEMIC	2	2	4
	2	2	4
Diseases of the GIT.	2	1	3
Diseases of the endocrine .	2	1	3
* Diseases of the Male genital system .	2	1	3
Diseases of the female genital system.			
* Diseases of the breast.			
*Diseases of the locomotor system.			
Diseases of the blood and lymphoid .			
*Diseases of the respiratory system .			
*Diseases of heart and blood vessels .			
Diseases of urinary.			
* diseases of skin.			
diseases of LN and spleen			
Total hours	23	15	38

(4) Teaching & learning methods:

4.1. Formal Lectures.

(5) Student assessment:

5.1 Written exams to assess knowledge and intellectual skills to assess (A1-A5, B1-B3).

5.2 Oral exams to assess knowledge and intellectual skills to assess (A1-A5, B1-B3).

Assessment schedules:

One final written exam for two hours in Pathology + oral exam at the end of course

either October or April.

Weighting of assessments

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

6- list of References:

6.1. course notes:

- Dr Gamal Nada, notbook of pathology
- Staff member's color atlas of gars.

6.2 Essential books

- Kumar text
- Cotran text book
- Robbins text book

6.3 Recommended text book: Basic Pathology.

- Macfarlane, Reid & Callender: Illustrated Pathology Lectures.
- CDs available at the department on request.
- Diagnostic histopathology: Fletcher.

6.4 Recommended web sites:

- <http://www.pathmax.com>
- <http://www.medlib.med.utah.edu/webpath/labs/labmenu.html>
- <http://www.medscap.com/pathologyhome>
- <http://www.qwumc.edu/dept/path/2f.htm>

7- Other Resources / Facilities required for teaching and learning to achieve the above ILOs:

Data show , laboratory facilities, internet clubs ,Jar museum and slides.

We verify that all of the information required to deliver this program is contained in

the above specification and will be implemented. All course specification for this program is in place.

Program coordinator:

Name: Prof Dr, Mona Kandil

Dean: Prof. Dr. Abdelkhalek Al Saidany

Course specification of clinical pharmacology for Hepatobiilary Surgery master

Menoufia University

National Liver Institute

A- Administrative information:

1)Course Title: clinical pharmacology

2)Code:

- 3) Department giving the course:** clinical pharmacology
4) Program(s) on which the course is given: Master of HepaTOBILARY Surgery
5) Department(s) offering the program: Hepatobiliary Surgery
6) Academic year/level: 1st part, postgraduate
7) Semesters: 1st semester
8) Date of approval by Departmental and Faculty Council: 2011

B- Professional information:

1- Overall course aims:

- 1- Perfect the bases and methods of medical research.
- 2- Apply analytical methods when dealing with medical problems.
- 3- Oriented with current medical problems and updates in clinical pharmacology.
- 4- Perfect professional skills and use of technological tools needed in his practice.
- 5- Decision maker through analysis of available information.
- 6- Oriented his role in community development and environmental safety.
- 7- Realize the importance of self development and continuous medical.
- 8- Communicate and lead team in systemic professional manner.
- 9- Effectively manage available resources.

2- Intended Learning Outcomes (ILOs):

a- Knowledge and Understanding:

The student should be able to:

- a.1- Define the principles of routes of administration , drug absorption, distribution and metabolism .
- a.2- Demonstrate knowledge of important drug adverse reactions .

b- Intellectual Skills :

The postgraduate degree provides opportunities for candidates to achieve and

demonstrate the following intellectual skills:

- b.1- Analyze and evaluate medical information and relate it to medical problems solving in pharmacology .
- b.2- Apply professional medical decisions according to different situations when facing medical problems .

c- Professional and Medical Skills:

By the end of program, the postgraduate candidate will be able to:

- c.1- Conclude the need for individualization of therapy when necessary.

d- General and Transferable Skills:

The postgraduate degree provides the opportunities to demonstrate the following

transferable skills:

d.1- Communicate effectively with his colleagues .

d.2- Apply self evaluation and specify his medical educational needs .

d.3- Use different learning resources to get knowledge and information .

3- Course Content:

Topic	Theoretical hours	Laboratory/ Practical	Total
1- Basic Pharmacolgy - introduction - dosage forms of drugs - routes of drug administration - evaluation of new drugs - prescription writing - adverse drug reaction - pharmacokinetics - pharmacodynamics -influence of disease on pharmacokinetics and pharmacodynamics - Drugs at the extremes of age - drug interaction	0.5	0.5	1
2- Autonomic Nervous System * Basic anatomy and physiology -molecular mechanism of neurotransmitter actions - adrenergic transmission - cholinergic transmission -skeletal muscles relaxants -drugs acting on autonomic ganglia -drugs acting on the eye 3- Autacoids 4- cardiovascular system -drugs therapy of heart failure - drugs therapy of hypertension - drugs therapy of angina	1	0.5	1.5
	1	1	2

<p>pectoris - drugs therapy of acute myocardial infarction - drugs therapy of cardiac arrhythmia - drugs therapy of peripheral vascular diseases - treatment of shock and hypotensive state</p> <p>5- renal pharmacology - physiological consideration - diuretics - alteration of urinary pH</p> <p>6- Pharmacology of blood - treatment of anaemias - drugs affecting haemastasis - lipid lowering drugs - intravenous fluids</p> <p>7- Chemotherapy - classification of antimicrobials - adverse reactions of antimicrobials - general principles of chemotherapy - drug therapy of T.B - treatment of leprosy - prophylactic antibiotics - antifungal drugs - antiviral drugs - cancer chemotherapy - immunomodulating agents - topical disinfectants, antiseptics - antiprotozoal drugs - antihelminthic drugs</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>0.5</p> <p>0.5</p> <p>1</p> <p>1</p>	<p>1.5</p> <p>1.5</p> <p>2</p> <p>2</p>
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<p>8- Central Nervous system</p> <ul style="list-style-type: none"> - CNS neurotransmitters - sedative-hypnotics and anxiolytics - antiepileptic drugs - analgesic drugs - drug therapy of rheumatic fever - drug therapy of gout - drug therapy of reumatoid arthritis - local anaesthetics - pre-anesthesia medication - antipsychotics - antidepressant - antimanic drugs - central nervous stimulants <p>9- Respiratory System</p> <ul style="list-style-type: none"> - drug therapy of bronchial asthma - drugs used for cough - therapeutic gases <p>10- pharmacology of Endocrine System</p> <ul style="list-style-type: none"> - classification of hormones - mechanism of hormonal action - anterior pituitary hormones - posterior pituitary hormones - drug therapy of diabetes mellitus - thyroid hormones and antithyroid drugs - hormonal regulation of calcium metabolism adrenocorticosteroids 	<p>1</p>	<p>1</p>	<p>2</p>
	<p>1</p>	<p>1</p>	<p>2</p>

- sex hormones			
11- Pharmacology of GIT - drug therapy of peptic ulcer - emetics and antiemetics - prokinetic drugs - medical treatment of gall stones - digestive aids - purgatives - antidiarrheal agents	1	1	2
12- Miscellaneuos Topics - gene therapy - vitamins - dermatological pharmacology	1	0.5	1.5

	0.5	0.5	1
Total hours	23	15	38

4- Teaching And Learning Methods:

4.1- Lecteurs

4.2- Seminars.

5- Student assessment methods

5.1 final written and oral exams

Assessment schedule

one written exam for One hour long+ oral exam, at the end of the course.

Weighting of assessments

Final-term written examination 50 %

Oral examination 50%

6- List of References:

6.1- Essential Books:

- Goodman and Gelmans, the pharmacological basis of therapeutics
- Rang and Dale of pharmacology

6.2. Recommended book

- Lippincott Illustrated Pharmacology Review
- Essential of medical pharmacology by Tripothi
- Laurence Clinical Pharmacology
- Practical pharmacology

6.2- Periodicals

6.3- Web Sites :

direct , [www. Wiley Blackwell](http://www.WileyBlackwell.com) , [www. Micromedix](http://www.Micromedix.com), www.science

7- Other Resources / Facilities required for teaching and learning to achieve the above ILOs

Overhead projectors, Computers, Laboratories instruments, Internet club

We certified that all of the information required to deliver this course is contained in

the above specification and will be implemented.

* Head of department: **Prof. Dr/ Adel Hussein Omar**

* Course Coordinator: **Dr/ Mohamed Farouk Ahmed**