Benha University.

Faculty of Medicine.

Department of Clinical and Chemical Pathology

Course Specifications

Course title: Clinical and Chemical Pathology.
Code: MED 0710
Academic Year (2010 – 2011)

- **Department offering the course:** Clinical and Chemical Pathology
- **Academic year of M.B. & B.Ch. program:** 2009 – 2010.
- **Date of specification approval:** 2009 – 2010.

A) Basic Information:

- **Allocated marks:** 50 marks.
- **Course duration:** 2 weeks of teaching.
- **Teaching hours:** 10 hours / week = 20 hrs total teaching hours.

	Hours / week	Total hours
1- Lectures	**9 hrs/week for 2weeks**	**18 hrs**
2- Small group teaching / tutorials	**----------**	**----------**
3- Practical	**1 hrs/week for 2 weeks**	**2 hrs**
Total	**2 weeks**	**20 hrs**

1- AIM OF THE COURSE:

The aim of this program is to provide:

1) The undergraduate basic scientific knowledge essential for the practice of laboratory medicine.
2) The undergraduate educational experience necessary for further practice in the field of clinical & chemical pathology, and Immunology.
3) Diagnostic problem solving and laboratory report interpretation for proper evaluation & management.

2- INTENDED LEARNING OUTCOMES:

2.1. Knowledge & understanding:

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

2.1.1. Describe normal structure & function of the human body systems at the molecular, biochemical, and cellular level.
2.1.2. Identify the altered development, structure & function of the human body systems as a result of some important diseases by the use of definite laboratory tests..
2.1.3 Describe the scientific basis & interpretation of various diagnostic modalities.
2.1.4. Discuss the principles of blood banking, the importance of dealing with blood & its components.
2.1.5. Review the principles of infection control & how to deal with infections.

2.2. Intellectual skills:

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

2.2.1. Analyses patient's symptoms & physical findings in terms of their anatomic, pathologic & functional diagnostic significances.
2.2.2. Categorize problems, prioritize them, & generate a list of initial diagnostic hypothesis for each problem.
2.2.3. Select the most appropriate & cost effective diagnostic procedures for each problem.
2.2.4. Combine the clinical & investigational database to be proficient in clinical problem solving.
2.2.5. Apply the principles of sterile techniques & infection control guidelines to maintain universal precautions.

2.3. Practical skills:

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

2.3.1. Choose the suitable and appropriate anticoagulant for each laboratory test.
2.3.2. Collect samples properly.
2.3.3. Identify the universal colour-coded tubes.
2.3.4. Choose the suitable laboratory tests relevant to the condition.
2.3.5. Identify common findings in urine & stool examination.Perform routine technical procedures.

2.4. General & transferable skills:

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

2.4.1. Give an accurate, clear, and concise presentation & interpretation of a patient's laboratory result.

2.4.2. Give an accurate, simple, and concise view for the possible diagnosis of the patient's condition.

2.4.3. Frame a question, search the literature & collect, analyze, critically appraise & utilize the obtained information to solve a particular clinical problem or plan management of an individual patient

2.4.4. To respect the patient's dignity, privacy, information confidentiality.

2.4.5. Maintain honesty & integrity in all interactions with patients, patients' families, colleagues & others with whom physicians must interact in their professional lives.

2.4.6. Recognize such non-biologic factors such as the cultural, socioeconomic, religious, environmental, legal & working factors that may influence disease causation or management, patient's perception of health & disease and patient's access to care and adequately respond to these factors in the benefit of the patient & the community.

3- Course contents:

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Practical (hrs)	Total (hrs)	% of Total
I- General					
1. Preanalytical variables affecting lab results (_____.)	1			1	5%
II- Chemical Pathology					
1- Tumour markers ( )	1			1	5%
2- Enzymes of clinical significance (_____.)	1			1	5%
3- Kidney function tests & lab diagnosis of different kidney diseases. ( ).	1			1	5%
4- Hyperglycaemia & hypoglycaemic disorders.	1			1	5%
5- Lipid disorders 7 risk factors for CVD ( )	1			1	5%
6- Liver function tests ( )	1			1	5%
7- Electrolytes ( )	1			1	5%
8- Protein electrophoresis & proteinuria ( )	1			1	5%
9- Hormones: Thyroid, Cushing, Addison's GH excess & deficiency	1			1	5%

III- Haematopathology					
1- Haemostasis ( ).	1			1	5%
2- Granulopoiesis & non malignant disorders of WBCs.	1			1	5%
3- Erythropoiesis & deficiency anaemia ( )	1			1	5%
4- Haemolytic anaemia ( )	1			1	5%
5- Malignant disorders of WBCs ( )	1			1	5%
IV- Microbiology					
1- Bacteraemia & septicaemia ( ).	1			1	5%
2- Respiratory tract infection ( )	1			1	5%
V- Immunology					
1. Hepatitis Markers ( )	1			1	5%
2. Autoimmune diseases ( )	1			1	5%
VI- Practical					
1. Slide projection for : types of vaccutainers, universal colour-code of tubes, ova & cysts, urinary crystals, different bacteriological media, normal and pathological types of blood cells, ….etc			1	1	5%
TOTAL	**19**		**1**	**20**	**100%**

4- Teaching and learning methods:

METHODS USED:

1) Lectures
2) Seminars.
3) Interactive scientific discussion.

TEACHING PLAN:

Lectures: 10 lectures

Practical classes: 2 practical classes

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	19 times/week (each time = **1** hour	**19 hours**	**95 %**
Practical classes	1hours/ week	**1 hours**	**5 %**
Total		**20 hours**	**100%**

5- Students Assessment methods:

5.1. ATTENDANCE CRITERIA:

5.1.1. Lecture attendance
5.1.2. Practical attendance

5.2 Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge acquisition, including MCQs and problem solving
Oral examination	To assess understanding and stability of knowledge given, attitude and presentation.
Practical examination	To assess practical skills.

5.3 TIME SCHEDULE:

Exam	Week
1.Final exam	At the end of academic year

5.4 Weighting System:

Examination	Marks allocated	% of Total Marks
1- Final exam:		
a- Written	30	60%
b- Practical	10	20%
c- Oral	10	20%

Total	**50**	100%

5.5 Examination description:

Examination	Description
1. Final exam: a- Written b- Practical c- Oral	 e.g. select (MCQs). e.g. Identify e.g. How many sessions

6. List of references:

6.1. Basic materials:

Department books.

6.2 Periodicals, Web sites, etc:

- http://www.medscape.com.
- http://www.pubmed.com.
- http://sciencedirect.com.

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Faculty lectures halls
- Department lectures hall.

Course coordinator: Prof Dr. Mona Al-Toukhy Fouda
Head of Department: Prof Dr. Neveen A. Abdul-Hafeez
Date: 2009-2010.