



**Kafrelsheikh University**

**Faculty of Medicine**

**Department of Clinical Pathology**

**Course Specifications**

**Clinical Pathology / Fifth year**

### **1- Administrative Information:**

Course title: Clinical Pathology

- Code:
- Department offering the course: Clinical Pathology
- Program on which this course is given: M.B.B.Ch
- Departments offering the program: All the faculty departments
- Academic year/level: 2017-2018/ fifth year of M.B.B.Ch
- Semester in which the course is given: all the year
- Date of approval by department:
- Date of approval by Faculty:
- Taught hours: 18 hours
- Lectures 12 (each lecture has a duration of 1.5 hours)
- The students are distributed into three groups and the course must be given to each group (12 weekly lectures) and repeated three times per academic year.

### **2- Overall Course Aims to:**

- Provide medical students with innovative tools and opportunities to acquire knowledge, skills and attitudes that will enable them to become effective and safe members of the health.
- Acquire basic knowledge, skills and attitude in Clinical Pathology including Clinical Hematology, Clinical Chemistry, Clinical Immunology and Clinical Microbiology.
- Interpret and integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.
- Acquire basic hygiene in infection control.

### **3- Intended Learning Outcomes (ILOS):**

#### **a- Knowledge and understanding;**

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

**a1.** Recognize etiology and pathogenesis of clinically important disease processes and understand the pathological processes that lead to hematological, chemical and immunological changes.

**a2.** Identify the role of the laboratory investigations in the diagnosis and management of diseases.

**a3.** Define the function of each organ, identify effects of the different diseases on function of each organ with its chemical changes, recognize chemical tests for diagnosis and follow up of diseases.

**a4.** Identify laboratory role in isolation of different microorganisms that cause human infections and hospital acquired infections and define their antibiotic sensitivity.

**b- Intellectual skills;**

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

**b1.** Demonstrate appropriate laboratory investigations for diagnosis, assessment of prognosis and monitoring of common diseases.

**b2.** Organize patient's data and basic knowledge to select appropriate laboratory tests that help in diagnosis and management.

**b3.** Interpret different medical information to solve medical problems.

**b4.** Explain the professional medical decisions according to different situations when facing medical problem.

**b5.** Analyze the principles of sterilization and infection control regulations.

**c- Professional and practical skills;**

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

**c1.** Report and interpret laboratory results.

**c2.** Construct appropriate judgments by comparing the obtained patient data with other laboratory results to ensure the validity of results and the need for additional tests.

**c3.** Combine the relation between the laboratory test results and the clinical case of the patient.

**d- General transferable skills, professional attitude and communication skills.**

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

**d1.** Use information technology and apply the principles of lifelong learning.

**d2.** Make effectively an appropriate attitude towards teaching staff, colleagues and patients.

**d3.** Work collaboratively in a team with other health professionals in other disciplines to maximize patient benefits and minimize the risk of errors and know when and how to ask for senior consultation.

**d4.** Adopt an empathic approach to the patients and their problems and provide care to patients who are unable to pay.

**d5.** Communicate clearly, sensitively and effectively with patients and their relatives and also, colleagues.

**d6.** Cope with situations where communications is difficult including breaking bad news and show compassion to the patients and their relatives in situations of stress and grief.

#### 4- Topics (Contents of the course):

Topics	Teaching hours
<b>I- Clinical Hematology</b>	
- Hematopoiesis and blood cells	0.5
- Anemias	2.5
- White blood cells disorders and leukemias	1.5
- Hemostasis and bleeding disorders	1.5
- Blood transfusion	1.5
<b>II- Clinical Chemistry</b>	
- Disorders of carbohydrates, proteins and lipid metabolism	1.5
- Liver functions and laboratory features of liver diseases	1.5
- Kidney functions, laboratory features of kidney diseases and urine analysis	1.5
- Enzymes of clinical significance and diagnosis of myocardial infarction	0.5
- Laboratory features of endocrinal disorders	0.5
- Tumor markers and body fluids	0.5
- Acid base balance, minerals and electrolytes.	1.5
<b>III- Clinical Immunology</b>	
- Autoimmune disorders and hypersensitivity reactions	0.5
- Immune deficiency disorders	0.5
- Hisocompatibility testing for organ transplantation	0.5
<b>IV- Clinical Virology</b>	
- Clinical microbiology and infection control	1
- Clinical virology	0.5
<b>Total</b>	<b>18 hours</b>

#### 5- Teaching and learning methods:

5.1. Illustrated lectures: Large group plenary sessions in lecture theaters are timetabled; set the scene for atopic, highlight important issues and arouse curiosity in relevant areas.

5.2. The students are distributed into three groups and the course must be given to each group (12 weekly lectures) and repeated three times per academic year.

5.3. Lectures are supplemented with class demonstrations, study questions, group discussions, assignment and case studies.

5.4. Attendance with guidance.

5.5. Assignment to implement general and professional skills.

## **6- Student Assessments:**

### **a) Methods used:**

1. Final written exam to assess (a1,2,3,4, b1,3, c1,3 d1,2)
2. Oral exam to assess (a1,2,3, b2,4,5, c1,2, d1,2)
3. Assignment and case study (a1,2,3, b2,4,5, c1,2, d1,2,3,4,5,6)

### **b) Assessment schedule:**

1. Final written exam (at the end of the academic year)
2. Oral exam (at the end of the academic year)
3. Assignments (during the course)

### **c) Weighing of assessments**

<b>Exam</b>	<b>Marks</b>	<b>% of total</b>
Final written exam	30	75%
Oral exam	10	25%
Assignments	-	-
total	40	100%

### **d) Attendance criteria:**

Students should attend not less than 75% of teaching classes as an essential prerequisite to be legible for the final exams.

### **e) Grading system:**

<b>Exam</b>	<b>Topics</b>	<b>Description</b>	<b>Marks</b>
End round	Assignment	Throughout the academic year	---
Final examination	- MCQ (30 MCQ with the written exam of Internal Medicine) - Oral examination	30 MCQ and case study/problem solving in Clinical Hematology, Chemistry, Immunology and Microbiology.	30 10

