



## COURSE SPECIFICATION

### Immunology

Faculty of Medicine– Mansoura University

#### (A) Administrative information

(1) Programme offering the course.	MD Degree of Histology & Cytology
(2) Department offering the programme.	Histology and Cell Biology Department
(3) Department responsible for teaching the course.	Medical Microbiology and Immunology Department
(4) Part of the programme.	Second part
(5) Date of approval by the Department's council	3/5/2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title.	Immunology
(8) Course code.	HIST 602 IM
(9) Credit hours.	2
(10) Total teaching hours.	30

## **(B) Professional information**

### **(1) Course Aims.**

The broad aims of the course are as follows.

1. To provide the candidate with elements of basic immunology namely lymphocyte biology, antigen presentation, humoral, cellular, mucosal immune responses, inflammation, complement and cytokines.
2. To promote the candidate's understanding of diseases related to the immune system emphasizing the hypersensitivity reactions, autoimmunity and immunodeficiency diseases.

### **(2) Intended Learning Outcomes (ILOs).**

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

On successful completion of the course, the candidate will be able to:

#### **A- Knowledge and Understanding**

- A 1- Recognize the normal immune system.
- A 2- Describe the mechanisms of innate immunity.
- A 3- Explain the Complement and kinin systems
- A 4- Recognize antigens, Immunoglobulins and understand antigen – antibody reactions, antigen presentation and the major histocompatibility complex.
- A 5 Discuss inflammation and the inflammatory response.
- A 6- Recognize the humoral and cell mediated immune response
- A 7- Explain the mucosal immune system and the hypersensitivity reactions.
- A 8- Explain Immune tolerance and principles of autoimmunity.
- A 9- Explain the basics of the immunodeficiency diseases, transplantation immunity, and tumour immunity

## B- Intellectual skills

- B 1- Interpret the warning signs of immune disorders.
- B 2- Achieve a specific or differential diagnosis
- B 3- Analyze and explain the type of graft rejection.
- B 4- Recognize the mechanism of autoimmune diseases.

## Course content.

Subjects	Lectures	Seminars
1-Normal immune system	2	----
2- Innate immunity	2	
3- Complement and kinin systems	2	
4- Antigens	1	
5- Immunoglobulins and immunoglobulin genes	2	
6- Antigen - antibody reactions	2	
7- Major histocompatibility complex	2	
8- Inflammation	2	
9- Humoral immune response 2	2	
10- Cell mediated immune response	2	
11- Cytokines and chemokines	2	
12- Mucosal immune system	1	
13-Hypersensitivity reactions	1	-----
14-Immunodeficiency diseases	2	
15- Immune tolerance and autoimmunity	2	
16- Transplantation immunity	1	
17- Tumour immunity	2	
<b>Total</b>	<b>30</b>	

## (3) Teaching methods.

### 4.1. Lectures

4.2: Self learning (internet search for specific topics)

**(4) Assessment methods.**

5.1: Written exam for assessment of A1-9, B 1-4.

5.2: MCQ Exam for assessment of A1-9, B 1-4

**Percentage of each assessment to the total mark.**

**Written exam: 80%= 40 degrees**

**MCQ exam: 20% = 10 degrees**

**References of the course.**

6.1: Hand books: Department theoretical books

6.2: Text books:

1. Immunology: Janis Kuby- 2003.

2- Basic Clinical Immunology. Fudenburg, Stites, Caldwell, Weils-1997 6.3.

**Journals:** Immunology

**(5) Facilities and resources mandatory for course completion.**

Data show for power point presentations

Library

Computers

**Course coordinator:** Dr. Shireen Mazroa

**Head of the department:** Prof Dr. Salwa Gawish

**Date:** 1/5/2016