



COURSE SPECIFICATION

Elective course

(Basic immunology)

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course.	MSc of Medical Biochemistry
(2) Department offering the programme.	Medical biochemistry department
(3) Department responsible for teaching the course.	Medical biochemistry department
(4) Part of the programme.	1 st part
(5) Date of approval by the Department`s council	1/11/2015
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title.	Basic immunology
(8) Course code.	BIC 504 BI
(9) Total teaching hours.	30 hours
(10) Total credit hours.	2 hours

(B) Professional information

(1) Course Aims:

Educate student about the basis of immunity with its relation to health and disease. Also to allow student to discover the potential therapies that cure infectious diseases include vaccines, cancer and other diseases resulting from malfunction of immune system.

(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding:

AIII.1:

AIII.1.a: Identify development and function of the organs and cells involved in immune response

AIII.1.b: Mention properties of antigens and antibodies and the way they interact with each other

AIII.1.b.1: define antigens and factors determining antigenicity

AIII.1.b.2: mention general properties of antibodies

AIII.1.b.3: mention different types of immunoglobulines

AIII.1.b.4: illustrate different immunologic assays

AIII.1.c: Explain genetic control and regulation of antibody

AIII.1.c.1: explain genetic control of immunoglobulin chain synthesis

AIII.1.c.2: explain genetic control of human leukocyte antigen (HLAs)

AIII.1.c.3: explain genetic control of the T-cell antigenic receptor (TCR)

AIII.1.d: Identify different types of immune response

AIII.1.d.1: Define Humoral immunity

AIII.1.d.2: Define Cell mediated immunity

AIII.1.d.3: Discuss role of inflammation in immune response

AIII.1.e: Describe different types of immunologic disorders including

AIII.1.e.1: Hypersensitivity disorders,

AIII.1.e.2: Immunodeficiency disorders, and

AIII.1.e.3: Autoimmune disorders

AIII.1.f: Identify immunologic aspects of transplantation

AIII.1.f.1: define Histocompatibility

AIII.1.f.2: explain complications of organ transplantation

AIII.1.f.3: identify methods of immunosuppression

AIII.1.g: Explain the role of immune system in cancer

AIII.1.g.1: Define oncogene

AIII.1.g.2: Explain the relationship between immune system and cancer

AIII.1.g.3: Mention the methods of cancer immunotherapy

AIII.1.h: Study currently available vaccines and recommended immunization schedules.

B- Intellectual skills

BIII.1	Formulate a systematic approach for laboratory diagnosis of metabolic complications of diseases
BIII.2	Make oral presentation and open discussions about scientific issues in a professional way.

(1) Course content:

Subjects	No. of Teaching Hours	
	Lectures	Laboratory
<i>1- Development and function of the organs and cells involved in immune response</i>	4	–
<i>2- Properties of antigens and antibodies and the way they interact with each other</i>	4	–
<i>3- Genetic control and regulation of antibody</i>	4	–
<i>4- Different types of immune response</i>	3	
<i>5- Different types of immunologic disorders</i>	4	
<i>6- Immunologic aspects of transplantation</i>	4	
<i>7- The role of immune system in cancer</i>	4	
<i>8- Currently available vaccines and recommended immunization schedules</i>	3	

Total Teaching hours	30	-
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(4) Teaching methods.

- 4.1: Lecture
- 4.2: Tutorial
- 4.3: Seminars

(5) Assessment methods.

5.1. **Written Examination** for assessment of knowledge and intellectual ILOS

MCQ continuous assessment for assessment of knowledge and intellectual ILOS

5.2 **Log book for activities for assessment of:** mainly for assessment of practical & transferrable skills which are accepted through attending different conferences, thesis discussions, seminars, workshops, attending scientific lectures as well as self learning.

5.3 **seminars:** the candidate should prepare and present at least one seminar in atopic related to the course and determined by the supervisors in front of the department staff (without marks).

Assessment schedule.

Assessment 1: after 12 month from job registration (written, exam with marks)

Assessment 2 : MCQ exams at the end of each semester

Assessment 3: the candidate should prepare and present at least one seminar in atopic related to the course and determined by the supervisors in front of the department staff (without marks).

Percentage of each Assessment to the total mark.

Written exam 48 marks

MCQ exam 12 marks

Other assessment without marks., seminars and log book assessment are requirement of the 1st part exam.

(5) References of the course.

6.1: Text books.

- Harper's Illustrated Biochemistry: 24th edition by Murray RK, Granner DK, Mayes PA, Rodwell VW, New York, 1996.

- High-Yield Immunology, by Arthur G. Johnson, Wolter Kluwer Company, USA, 1999.
- Fundamentals of Biochemistry, 10th edition, by Dr A C Deb, New Central Book Agency (P) Ltd, LONDON, 2011.

6.2. Websites:

- <http://www.medlib.iupui.edu/ref/biochem.htm>
- The Biology Project (from the University of Arizona):
<http://www.biology.arizona.edu/default.html>
- Harvard Department of Molecular & Cellular Biology Links:
<http://mcb.harvard.edu/BioLinks.html>

(6) Facilities and resources mandatory for course completion:

- Lecture rooms: available in the department

Course coordinator: Staff members of credit committee of the department.

Head of the department: Prof. Dr/ Fagr Bazeed

Date: 1/11/2015.