Course Specification

University: Menoufiya Faculty: Science

Course Specifications:

Programme (s) on Which the Course is Given: Diploma of Hematology

Major or Minor Element of Programmes: Major

Department offering the Program: Zoology

Department offering the Course: Zoology

Academic Year/ Level: ------

Date of Specification Approval: 2013

A- Basic Information

Title: Physiology of Immune system Code: Z5120

Credit Hours: 3 Lecture: 2

Tutorial: 0 Practical: 2

Total: 3

B- Professional Information

1- Overall Aims of the Course: By the end of this course, the student should be able to

* Develop an understanding of the fundamental principles of immunophysiology.

* Develop an understanding of innate and adaptive immune response.

* Develop an understanding of signaling of immune cells and the interaction between the humoral and cellular

immune response.

2- Intended Learning Outcomes of Course (ILOs):

a- Knowledge and Understanding:

a1- recognize the significance of the immune system in combating infection and disease.

a2- Distinguish between the innate (non-specific) and adaptive (specific) immune systems.

a3- Understand the mechanisms of combating infection/disease (killing pathogens).

a4- Know the humoral and cellular components of innate immunity.

a5- comprehend the mechanism of action of the humoral and cellular components of innate immunity

a6- Identify the pathways and signaling incorporated in the immune response.

b- Intellectual Skills:

b1- Measure the student capability to differentiate between the innate and adaptive immune response.

b2- Define the pathways and signaling incorporated in the immune response.

b3- Discriminate between passive and active immunity.

b4- Distinguish the different mechanisms of the immune response.

c- Professional and Practical Skills:

c1- Demonstrate skills in identification, characterization immune cells.

c2- Distinguish between different chemokine and cytokine structure and functions.

c3- Diagnose some diseases related to the immune disorders.

d- General and transferable Skills:

d1- Measure the scientific writing ability.

d2- Utilize the oral communication skills.

d3- Use appropriate lab equipment.

d4- Use the appropriate technology such as (Internet) for scientific research.

3- Contents

Topic	**No. of Hours**	**Lecture**	**Tutorial / Practical**
Immunophysiology (Introduction)	2	2	2
Innate immune response	2	2	2
Adaptive immune response	4	3	3
Immune cells specificity and activation	4	1	1

Effector mechanisms of immune response	4	1	1
Immunity in defense	2	1	1
Immunoregulation	2	1	1
Immuno-diseases	2	1	1

4- Teaching and Learning methods

4.1-Lectures.

4.2-Oral presentation.

4.3- Research assignment.

4.4-Practical demonstration.

5- Student assessment methods

5.1-Reports to assess Collection of course material.

5.2- Mid-term exam to assess Mid-term performance.

5.3-Practical and oral exam to assess practical skills.

5.4-Final term exam to assess end of course performance.

Assessment schedule

Assessmen1 Mid term Week

Assessment2 semester activities Week 5 and 8

Assessment3 final term practical exam Week 13

Assessment4 final term exam Week 14

Weighting of assessments

Mid-Term Examination	20 %
Final-Term Examination	40%
Oral Examination	10%
Practical Examination	20%
Semester Work	10%
Other Types of Assessment	0%
Total	100%

6- List of references

6.1- Course Notes:

***** Lecture notes.

6.2- Essential books (text books)

***** Immunology (Ivan Roiit).

* Immunology (Kuby).

6.3- Recommended books:

* General Physiology.

* Immunology (Hyde).

* Cellular and Molecular Immunology.

6.4- Periodicals, Web sites….Etc:

* Journal of Immunology.

7-Facilities required for teaching and learning:

* Lecture room provided with a white board.

* Dark room equipped with overhead and slide projectors, data show.

* Lab provided with suitable equipments.

Course coordinator: Prof. Dr. M. F. F. Bayomy

Head of Department: Prof. Saber Sakr

Date: 15/1/ 2013