

Course Specification

A- Basic Information

Programme(s) on which the course is given:	MSc of General Physiology
Department responsible for offering the course:	Zoology
Department responsible for teaching the course:	Zoology
Academic year:	2012-2013
Course title and code:	Physiology of Immune system Z618
Contact hours (credit hours):	Lecture: 2 hrs Practical: 2hrs Total: 3 hrs
Course coordinator:	Dr. Hany. M. Ibrahim

B- Professional Information

The course aim and intended learning outcomes are based on that mentioned in the programme specifications, with more course-related specific details.

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

- * Outline the fundamental principles of immunophysiology.
- * Identify innate and adaptive immune response.
- * List the 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- Outline 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- Course Contents

Topic	No. of hours	Tutorial/ Practical	Lecture
Immunophysiology (Introduction)	3	2	2
Innate immune response	3	2	2
Adaptive immune response	6	4	4
Immune cells specificity and activation	3	2	2
Effectors mechanisms of immune response	6	2	2
Immunity in defense	3	2	2
Immunoregulation	3	2	2
Immuno-diseases	3	2	2
Immunological techniques	3	2	2

4- Teaching and Learning Methods

- Lectures.
- Practical sessions.
- Writing essays.
- Oral presentation.

5- Student Assessment Methods

- Essays
- Oral exms
- Written exams.

- Practical exams.
- Quizzes.

Assessment schedule

Assessment 1	Essay	Week 1 essay/term
Assessment 2	Oral exam	Twice/term
Assessment 3	Mid-term exams	Week 7
Assessment 4	Semester Work Exam	Week 10
Assessment 5	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%
Total	100%

6- List of references

1. Course Notes

- 1- Internet and library material.
- 2- Handouts given separately during the course span.

2. Essential Books (Text books):

- 3- Immunology (Ivan Roitt).
- 4- Immunology (Kuby).

3. Recommended Books

- 5- General Physiology.
- 6- Immunology (Hyde).
- 7- Cellular and Molecular Immunology.

4. Periodicals, web sites,....,etc

- 8- Journal of Immunology.

7- Facilities required for teaching and learning

- * Dark room equipped with overhead and LCD projector.
- * Laboratory slides and specimens.
- * Librarian facilities.

* Computers with internet Access.

Course coordinator: Dr. Hany. M. Ibrahim

Head of Department: Prof. Saber Sakr

Date: 15/1/ 2013