



Jerash University
Faculty of Pharmacy
(Course Syllabus)
GENERAL IMMUNOLOGY

Subject Name	Credit Hours	Course No.	Prerequisite
IMMUNOLOGY	2	1101332	1101333

Coordinator Name	Lecturer/s	Room No.	E-mail	Office Hours	Lecture time
Dr. Haitham Tumah	Dr. Haitham Tumah	403	haithamtumamah@yahoo.com	Check the schedule	M+W 08:00-09:30

This course describes the basic principles of the immune system and its components which include; central lymphoid tissue, thymus gland, bone marrow stem cells, peripheral lymphoid tissue, lymph nodes, immune cells, T and B lymphocytes. Also it describes the innate immunity, acquired immunity which includes; hormonal and cellular immunity.

Course Objectives:

This course covers an introduction to the basic principles of the immune system and its components which include; central lymphoid tissue, thymus gland, bone marrow stem cells, peripheral lymphoid tissue, lymph nodes, immune cells, T and B lymphocytes. Description of innate immunity, acquired immunity which includes; humoral and cellular immunity. Structure and function of immunoglobulins (antibodies). Histocompatibility system and its relation to immune response. Complement system and its role in defense and pathological conditions. Cytokines as mediators of the immune system. Immunopathology of the immune system including; hypersensitivity, autoimmunity, immunodeficiency, tumor immunology, transplantation immunology, immunity to infection and vaccines, Immunopharmacology and immunotherapy, immunosuppressants and their clinical applications.

Intended Learning Outcomes:

Following the successful completion of this course, the student should be able to:

A. Knowledge and understanding: Student is expected to

A1. Differentiate between different types and parts of Immune system

A2. Differentiate between of innate immunity, acquired immunity

A3. Familiar with Complement system and its role in defense and pathological conditions

A4. Familiar with the Histocompatibility system and its relation to immune response.

A5. Familiar with the types hypersensitivity, autoimmunity, immunodeficiency, tumor immunology, transplantation immunology, immunity to infection and vaccines, Immunopharmacology and immunotherapy, immunosuppressants and their clinical applications.

B. Subject specific skills: Student is expected to

B1. How to Differentiate between different parts of Immune system

B2. understand how the immune defense is very important to protect our body from a very dangerous diseases

C. Cognitive and Intellectual skills: Student is expected to

C1. Build up knowledge and scientific skills regarding factors that affect the Immune defense mechanisms .

C2. Understand the importance of the healthy immune system to keep our body resist infections

Transferable Skills: Student is expected to be able to

D1. Recognize the importance of the the different types of cells in the immune system .

D2. Acquire knowledge about the different arms and parts of our immune defense mechanisms

D3.Recognize the types of hypersensitivity, autoimmunity, immunodeficiency

Teaching and Learning Methods:

Development of ILOs is promoted through the following **teaching and learning methods:**

ILOs	Learning Methods	Evaluation Methods
A,B,C and D	Lectures (to explain the theoretical knowledge for each topic) this is accompanied with oral questions and discussions about the topic based on thinking	Exams first, second, final

Learning skills:

1. Critical thinking
2. Connecting the topics with each others
3. Problem-solving skills

Course Content:

Week	Date	Lecture number / hours	Topic's Details	Exams/ /quizes/holidays	Main Reference (chapter)	ILOs achieved
1.	July	2 hours	Introduction, Innate Immunity	Exam	Immunology, Roit, Immunology of infectious Diseases, Kaufmann,	Lectures
2.	July	2 hours	Innate Immunity, Specific Immunity		Chapter 3 (main refrence)	Lectures A1
3.	July	2 hours	Antigens , Immunoglobulins Immunoglobulin genes	Exam	Chapter 4 (main refrence)	A2
4.	July	2 hours	Regulation Ig gene expression, Lymphoid organs		Chapter 4 (main refrence)	A2
			Cells of the immune system and			
5.	August	2 hours	Major Histocompatability , Immune Complex response	Exam	Chapter 4&6 (main refrence)	A3

6.	August	2 hours	Complement system, Hypersensitivity		Chapter 6 (main reference)	A3 ,A4 and C1
7.	August	2 hours	Tumor immunology		Chapter 6 (main reference)	A4 and D2
8.	August	2 hours	Immunodeficiency, Oral Immunology, Autoimmune diseases	Exam	Chapter 6 (main reference)	A4

Grade Distribution:

Your course grade will be determined by the following:

<i>Assessment Method</i>	<i>% of Final Grade</i>
First Exam	20 %
Second Exam	20 %
Final Exam	40 %
Quizzes, home works & reports	20 %

* Provisional dates are scheduled in the course schedule.

Distribution of examination material (may vary depending on material included):

45 % - questions based on critical thinking, connecting the topics and successful conclusions .

25% - questions based on memorizing (if available)

30% - calculations and questions based on using laws presented in the course

23. Course Policies:

A- Attendance policies:

Attendance: Mandatory.

First warning – with 4 absences

Last warning – with 5 absences

Failing in the subject – with 6 absences

B- Absences from exams :

Will result in zero achievement unless health report or other significant excuse is documented.

C- Health and safety procedures: NA

D- Honesty policy regarding cheating, plagiarism, misbehavior:

The participation, the commitment of cheating will lead to applying all following penalties together

1. Failing the subject he/she cheated at
2. Failing the other subjects taken in the same course
3. Not allowed to register for the next semester. The summer semester is not considered as a semester

E- Grading policy:

Exams and Quizzes.

First Exam: **20 points**

Second exam: **20 points**

Assignments/quizzes: **20 points**

Final Exam: **40 points**

Total: **100 points**

F- Available university services that support achievement in the course:

Classrooms, internet classes

24. Required equipment:

Data show and internet connection

Make-up Exam Policy:

Make-up exams will be offered for valid reasons. They may be different from regular exams, both in content and format.

Textbooks information:

Main Reference:

- 1) Immunology, Roit,
- 2) Immunology of infectious Diseases, Kaufmann,
- 3) Immunology, Fifth Edition 2003, R.A. Goldsby, T.J. Kind, B.A. Osborne, J. Kuby. Publisher W.H. Freeman & Company, New York

Additional information:

No side talks during lecture

No mobile phones during lecture

Entering the lecture theatre after the instructor is not permitted.

Homework should be done by students independently and will be asked at the exams

Course Material and Announcements

Students need to use the e-learning page at the ASU website in order to get all lecture handouts and guidelines which will be uploaded there.

In addition, course related announcements and exam results will be posted on the ASU online AND/OR course website and is the responsibility of each student to check the sites regularly.