

Course E-Syllabus

1	Course title	Immunology
2	Course number	5501433
3	Credit hours	3
	Contact hours (theory, practical)	50
4	Prerequisites/corequisites	Biochemistry (5501321)
5	Program title	Biological Sciences (undergraduate)
6	Program code	5501
7	Awarding institution	University of Jordan
8	School	Science
9	Department	Marine Sciences
10	Level of course	4 th
11	Year of study and semester (s)	2019/2020 – Summer
12	Final Qualification	Pass
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Teaching methodology	<input checked="" type="checkbox"/> Blended <input type="checkbox"/> Online
16	Electronic platform(s)	<input type="checkbox"/> Moodle <input type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input checked="" type="checkbox"/> Zoom <input type="checkbox"/> Others.....
17	Date of production/revision	26/6/2020

18 Course Coordinator:

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19 Other instructors:

Name:
Office number:
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Name:
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Email:

20 Course Description:

As stated in the approved study plan.

The course provides the basic knowledge and ability to give the student a broad understanding of the immune system and its functions. Topics include: history, nomenclature, components of the immune system and their interaction. It also provides basic concepts of the normal innate and adaptive immune responses, in addition to basic concepts to the immune disorders such as autoimmunity and hypersensitivity.

21 Course aims and outcomes:

A- Aims:

- **Identify the major components of the immune system and describe their functions in health and disease.**
- **Define the principal concepts of immune responses and conceptualize cellular interaction of these immune responses.**
- **Apply aspects of immunology to understand the mechanisms of immune disorders and discuss different perspectives.**
- **Discuss current research activities in the field and possible applications.**

B- Intended Learning Outcomes (ILOs):

Upon successful completion of this course, students will be able to:

- 1.1 Recall the key components of the immune system, their properties and functions**
- 1.2 Relate the components of immune responses and their interactions.**
- 1.3 Recognize the cellular and molecular mechanisms of abnormal immune responses**
- 2.1 Explain immune responses to self- and non-self-antigens.**
- 3.1 Show independent thinking and demonstrate self-esteem.**

22. Topic Outline and Schedule:

Week	Lecture	Topic	Teaching Methods*/platform	Evaluation Methods**	References
1	1	Introduction to the Immune System	Synchronous lecturing	Exam	Textbook
	1.2	Introduction to the Immune System	Synchronous lecturing	Exam	Textbook
	1.3	Introduction to the Immune System	Synchronous lecturing, Problem solving	Exam, Classroom participation	Textbook
	1.4	Introduction to the Immune System	Synchronous lecturing, Brainstorming	Exam, Classroom participation	Textbook
	1.5	Introduction to the Immune System	Synchronous lecturing,	Exam, Classroom participation	Textbook

		System	Brainstorming		
2	2.1	Innate Immunity	Synchronous lecturing	Homework, Exam	Textbook
	2.2	Innate Immunity	Synchronous lecturing, Brainstorming	Homework, Exam	Textbook
	2.3	Innate Immunity	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	2.4	Innate Immunity	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	2.5	Innate Immunity	Synchronous lecturing, Brainstorming	Exam, Classroom participation	Textbook
3	3.1	Antigen Capture and Presentation	Synchronous lecturing	Homework, Exam	Textbook
	3.2	Antigen Capture and Presentation	Synchronous lecturing, Brainstorming	Quiz, Homework, Exam	Textbook
	3.3	Antigen Capture and Presentation	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	3.4	Antigen Capture and Presentation	Synchronous lecturing, Problem solving	Homework, Classroom participation Exam	Textbook
	3.5	Antigen Capture and Presentation	Synchronous lecturing	Exam, Classroom participation	Textbook
4	4.1	Antigen recognition in Adaptive Immunity	Synchronous lecturing	Homework, Exam	Textbook
	4.2	Antigen recognition in Adaptive Immunity	Synchronous lecturing, Brainstorming	Homework, Exam	Textbook
	4.3	Antigen recognition in Adaptive Immunity	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	4.4	Antigen recognition in Adaptive Immunity	Synchronous lecturing, Problem solving	Homework, Classroom participation Exam	Textbook
	4.5	Antigen recognition in Adaptive	Synchronous lecturing	Exam, Classroom participation	Textbook

		Immunity			
5	5.1	T cell-mediated Immunity	Synchronous lecturing	Homework, Exam	Textbook
	5.2	T cell-mediated Immunity	Synchronous lecturing, Brainstorming	Homework, Exam	Textbook
	5.3	T cell-mediated Immunity	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	5.4	T cell-mediated Immunity	Synchronous lecturing, Problem solving	Homework, Classroom participation Exam	Textbook
	5.5	T cell-mediated Immunity	Synchronous lecturing	Exam, Classroom participation	Textbook
6	6.1	Effector Mechanisms of T cell-mediated Immunity	Synchronous lecturing	Homework, Exam	Textbook
	6.2	Effector Mechanisms of T cell-mediated Immunity	Synchronous lecturing, Brainstorming	Homework, Exam	Textbook
	6.3	Effector Mechanisms of T cell-mediated Immunity	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	6.4	Effector Mechanisms of T cell-mediated Immunity	Synchronous lecturing, Problem solving	Homework, Classroom participation Exam	Textbook
	6.5	Effector Mechanisms of T cell-mediated Immunity	Synchronous lecturing	Exam, Classroom participation	Textbook
7	7.1	Humoral Immune Responses	Synchronous lecturing	Homework, Exam	Textbook
	7.2	Humoral Immune Responses	Synchronous lecturing, Brainstorming	Homework, Exam	Textbook
	7.3	Humoral Immune Responses	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	7.4	Humoral Immune Responses	Synchronous lecturing, Problem solving	Homework, Classroom participation Exam	Textbook
	7.5	Humoral	Synchronous	Exam, Classroom	Textbook

		Immune Responses	lecturing	participation	
8	8.1	Effector Mechanisms of Humoral Immune Responses	Synchronous lecturing	Homework, Exam	Textbook
	8.2	Effector Mechanisms of Humoral Immune Responses	Synchronous lecturing, Brainstorming	Homework, Exam	Textbook
	8.3	Effector Mechanisms of Humoral Immune Responses	Synchronous lecturing	Homework, Classroom participation Exam	Textbook
	8.4	Effector Mechanisms of Humoral Immune Responses	Synchronous lecturing, Problem solving	Homework, Classroom participation Exam	Textbook
	8.5	Effector Mechanisms of Humoral Immune Responses	Synchronous lecturing	Exam, Classroom participation	Textbook

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: Homework, Quiz, Exam, pre-lab quiz...etc

23 Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:				
Evaluation Activity	Mark	Topic(s)	Period (Week)	Platform
Quiz-I	10	Antigen Capture and Presentation	3	E-learning
Assignments	25	Antigen Capture and Presentation, Innate immunity, Antigen recognition in adaptive immunity	All through	E-mail
Report	10	T cell-mediated immunity, Effector mechanisms of T cell, Humoral immunity	6-8	E-mail
Classroom Participation	5	All through (Restricted to lectures attendees)	All through	E-learning
Final Exam	50	All topics	8	E-learning

24 Course Requirements (e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):

Computer with internet connection

25 Course Policies:

A- Attendance policies: Attendance is mandatory
Maximum absence allowed with excuses is 7.

B- Absences from exams and submitting assignments on time:
Being on time is mandatory. However, some individual exceptions can be considered.

C- Health and safety procedures:
None

D- Honesty policy regarding cheating, plagiarism, misbehavior:
Please refer to Student Handbook; pages 63-71.

E- Grading policy:
Please refer to item number 23.

F- Available university services that support achievement in the course:
Instructor will discuss and answer additional questions on a Facebook page.

26 References:

A- Required book(s), assigned reading and audio-visuals:
Basic Immunology (5th edition), Abul K. Abbas et al. 2016

B- Recommended books, materials and media:
Principles of Immunology (1st edition) , Hanieh Hamza et al. 2018

27 Additional information:

None

Name of Course Coordinator: **Dr. Hamza Hanieh** Signature: ----- Date: 26/6/2020

Head of Curriculum Committee/Department: ----- Signature: -----

Head of Department: **Dr. Zeinab H. Arabeyyat** Signature: **Dr. Zeinab H. Arabeyyat**

Head of Curriculum Committee/Faculty: ----- Signature: -----

Dean: **Prof. Riaydh Manasrah** Signature: -----