

TISHK INTERNATIONAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
Department of MEDICAL ANALYSIS,
-2022 Spring
Course Information for MA 507 SERUM AND VACCINES

Course Name: SERUM AND VACCINES					
Code MA 507	Regular Semester 8	Theoretical 3	Practical -	Credits 3	ECTS 4
Name of Lecturer(s)- Academic Title: Shatha Jumaah - Lecturer					
Teaching Assistant: None					
Course Language: English					
Course Type: Area Elective					
Office Hours wednesday and thursday between 09:00 - 14					
Contact Email: shatha.saadi@tiu.edu.iq Tel:07731329529					
Teacher's academic profile: PhD Holder					
Course Objectives: This course introduces the concepts of clinical vaccine, vaccination and serology for clinical laboratory practice. It covers essential theoretical principles along with vaccines and serology techniques most commonly used in the lab. It provides students with knowledge required to perform different serological techniques used in disease diagnosis.					
Course Description (Course overview): A small number of lectures will provide this introductory course lectures. The course is aimed to give basic scientists a comprehensive understanding of vaccine creation, from conception to development, testing, and use. This interdisciplinary course was created to teach students all elements of vaccine production and use, including infectious illness and chronic non-infectious disease vaccines (e.g., cancer, neurodegenerative diseases, and addiction). The grades will be determined by how well you perform on two exams, presentations, and class attendance.					

COURSE CONTENT

Week	Hour	Date	Topic
1	3	6-10/2/2022	Introduction to serum and vaccine/ Blood Composition
2	3	13-17/2/2022	History of Vaccination, Key Developments, and Ongoing Challenges
3	3	20-24/2/2022	Serum compositions
4	3	27/2-3/3/2022	Serum sickness disease
5	3	6-10/3/2022	Vaccine Design, Development, and Safety
6	3	27-31/3/2022	Key Concepts in Vaccine Immunology I
7	3	3-7/4/2022	
8	3	10-14/4/2022	Midterm Exam
9	3	17-21/4/2022	
10	3	24-28/4/2022	Key Concepts in Vaccine Immunology II
11	3	8-12/5/2022	How Vaccines Protect Individuals: Quantitative Methods for Measuring Vaccine Efficacy (VE)
12	3	15-19/5/2022	Corona virus Vaccines
13	3	22-26/5/2022	Cancer Vaccines
14	3	29/5-2/6/2022	Immunotherapy

15	3	5-9/6/2022	Final Exam
16	3	12-16/6/2022	Final Exam
COURSE/STUDENT LEARNING OUTCOMES			
1	Understanding serology & serum sickness		
2	Serum, vaccine and vaccination		
3	Vaccine Ingredients		
4	Effective vaccines are available for infectious disease		
5	Vaccination and antibodies		
COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES (Blank : no contribution, I: Introduction, P: Profecient, A: Advanced)			
Program Learning Outcomes			Cont.
1	Evaluate clinical laboratory data by interpreting laboratory results and relating the data to various disease states.		A
2	apply principles of evidence-based medicine to determine clinical diagnoses.		A
3	apply the basic principles of gross and microscopic anatomy, physiology, biochemistry, immunology, microbiology/virology.		A
4	formulate and implement acceptable treatment modalities to various disease states.		A
5	use technology effectively in the delivery of instruction, assessment, and professional development.		A
6	exhibit essential employability qualities by demonstrating laboratory safety, analyzing laboratory results, and displaying professional conduct.		
7	exhibit organizational skills, accountability, and ethical behavior.		A
8	apply skills needed in operating laboratory equipment for testing, assessing quality assurance for lab equipment, and adhering to standard safety practices in the laboratory environment.		A
9	apply problem-solving and decision-making skills.		A
10	apply and promote health policies and regulatory standards in the field career.		A
11	develop research in the field of medical analysis using qualitative and quantitative methods.		A
Prerequisites (Course Reading List and References):	Vaccines 6th Edition Expert Consult - Online and Print Authors: Stanley Plotkin Walter Orenstein Paul Offit Hardcover ISBN: 9781455700905 lecture notes		
Student's obligation (Special Requirements):	The student should fellow all the instructor\''s guidelines student should have activities, quizzes and exams		
Course Book/Textbook:	Vaccines 6th Edition Expert Consult - Online and Print Authors: Stanley Plotkin Walter Orenstein Paul Offit Hardcover ISBN: 9781455700905		
Other Course Materials/References:	Kuby Immunology Eighth Edition ©2019 Jenni Punt; Sharon Stranford; Patricia Jones; Judy Owen		
Teaching Methods (Forms of Teaching):	Lectures, Presentation, Seminar, , ,		
COURSE EVALUATION CRITERIA			
Method		Quantity	Percentage (%)
Attendance		1	10
Quiz		2	5
Presentation		1	10
Midterm Exam(s)		1	30
Final Exam		1	40
	Total		100
Examinations: Essay Questions, True-False, Fill in the Blanks, Multiple Choices, Short Answers, Matching, , ,			
Extra Notes:			

ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD

Activities	Quantity	Workload Hours for 1 quantity*	Total Workload
Theoretical Hours	16	3	48
Practical Hours	16	0	0
Final Exam	1	10	10
Attendance	1	3	3
Quiz	2	6	12
Presentation	1	5	5
Midterm Exam(s)	1	10	10
Total Workload			88
ECTS Credit (Total workload/25)			3.52

Peer review

Signature:

Name:

Lecturer

Signature:

Name:

Head of Department

Signature:

Name:

Dean