

Philadelphia University	 PHILADELPHIA UNIVERSITY <small>THE WAY TO THE FUTURE</small>	Approved Date:
Faculty:Pharmacy		Issue:1
Department:-		Credit Hours:1
Academic Year:2021/2022		Course Syllabus

Course Information

Course No.	Course Title	Prerequisite
0510320	Microbiology & immunology Practical	0520313
Course Type		Class Time
<input type="checkbox"/> University Requirement <input type="checkbox"/> Faculty Requirement <input type="checkbox"/> Major Requirement <input type="checkbox"/> Elective <input type="checkbox"/> Compulsory		14:15-16:00 Sun,Mon,Tue,Wed
		Room No.
		4407

Instructure Information

Name	Office No.	Phone No.	Office Hours	E-mail
Dr. Nabil Al-Nimr	5513	+9622637444 Ext.:2240	Sun,Tue:13:45-14:45 Mon,Wed:10:45-11:45	N-NIMER@philadelphia.edu.jo
Muna jallad	4405	+9622637444 Ext.:2368	9:00-11:00 Sun,Mon,Tue,Wed	mjallad@philadelphia.edu.jo

Course Delivery Method

<input type="checkbox"/> Blended <input type="checkbox"/> Online <input checked="" type="checkbox"/> Physical			
Learning Model			
Percentage	Synchronous	Asynchronous	Physical
	0	0	100%

Course Description

The course is intended to give student a chance to observe and study microorganisms. Students will learn the factors that influence microbial growth, control of microbial growth by physical and chemical means and identification of microorganisms using various techniques.

Course Learning Outcomes

Number	Outcome	Corresponding Program Outcomes	Corresponding Competencies
Knowledge			
K1	Student become aware of importance of contamination of pharmaceutical products.	Kp1,Kp6	C1,C6
K2	Learn aseptic techniques, handling of microbial cultures and identification of microorganisms	Kp1,Kp6	C1,C6
K3	Students develop the ability to make observations, record data and analyze result	Kp1,Kp6	C1,C6
K4	Students will develop the ability for group discussions and critical thinking	Kp1,Kp6	C1,C6
K5	Students will learn the production of sterile pharmaceutical products and prevent microbial spoilage	Kp1,Kp6	C1,C6
Skills			
S1	Practicing aseptic transfer technique.	Sp2,Sp3,Sp6, Sp7	C8,C9,C12,C13
S2	Handling of microbial cultures	Sp2,Sp3,Sp6, Sp7	C8,C9,C12,C13
S3	Applying sterilization procedures and preparation of sterile products	Sp2,Sp3,Sp6, Sp7	C8,C9,Ca12,C13
S4	Learn how to evaluate antiseptics, disinfectants and chemotherapeutic agents.	Sp2,Sp3,Sp6 Sp7	C8,C9,C12,C13

Learning Resources

Course Textbook	Microbiology: A laboratory manual, James G. Cappucino and Natalie Sherman Publisher: Benjamin Cuning ISBN 0805376461 2004
Supporting References	Microbiology lab manual
Supporting Websites	
Teaching Environment	<input type="checkbox"/> Classroom <input checked="" type="checkbox"/> * laboratory <input type="checkbox"/> Learning Platform <input type="checkbox"/> Other

Meetings and Subjects Time Table

Week	Topic	Learning Method*	Task	Learning Material
1	Vision and Mission of Faculty of Pharmacy Course syllabus	Lecture		Lab manual
2	Introduction, Microscopy and examination of prepared bacterial smears	Practical Flipped learning	Lab report	Lab manual
3	Aseptic microbial transfer technique	Practical Flipped learning	Lab report	Lab manual
4	Preparations for light microscopic examination-Grame staining technique	Practical Flipped learning	Lab report	Lab manual
5	Endospore staining-Capsule staining	Practical Flipped learning	Lab report	Lab manual
6	Growth of microorganisms, preparation of cultures and culture media	Practical Flipped learning	Lab report	Lab manual
7	Control of microbial growth by physical methods(Autoclaving,Boiling,Dry heat)	Practical Flipped learning	Lab report	Lab manual
8	Control of microbial growth by physical methods(Incineration,Filtration & Radiation)	Practical Flipped learning	Lab report	Lab manual
9	Control of microbial growth by chemical methods. disinfectants and antiseptics	Practical Flipped learning	Lab report	Lab manual
10	Anti-microbial chemotherapeutics and antibiotics, sensitivity testing	Practical Flipped learning	Lab report	Lab manual
11	Final Exam			

*Includes: lecture, flipped Class, project based learning, problem solving based learning, collaboration learning.

Course Contributing to Learner Skill Development

Using Technology
-Using power point for preparing presentations. - Using Microsoft Teams. -Using Moodle Application. -Handling microorganisms. - Practicing sterilization methods. - Preparing culture media
Communication Skills
-Report writing -Oral presentation for different topics.
Application of Concept Learnt

- Practical application for Aseptic technique and sterilization methods

Assessment Methods and Grade Distribution

Assessment Methods	Grade	Assessment Time (Week No.)	Course Outcomes to be Assessed
Quizzes	% 30	Continous	K1,K2,K3,K4,K5 S1,S2,S3,S4
Lab reports	% 30	Continous	K1,K2,K3,K4,K5 S1,S2,S3,S4
Final Exam	% 40	11 week	K1,K2,K3,K4,K5 S1,S2,S3,S4
Total	%100		

* Include: quizzes, in-class and out of class assignment, presentations, reports, videotaped assignment, group or individual project.

Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Corresponding Competencies	Learning Method*	Assessment Method**
Knowledge				
K1	Student become aware of importance of contamination of pharmaceutical products	C1,C6	Flipped learning Practical	Quiz Lab report Exam
K2	Learn aseptic techniques, handling of microbial cultures and identification of microorgan	C1,C6	Flipped learning Practical	Quiz Lab report Exam
K3	StudStudents develop the ability to make observations, record data and analyze resultsresults	C1,C6	Flipped learning Practical	Quiz Lab report Exam
K4	StudStudents will develop the ability for groupgroup discussions and critical thinkingking	C1,C6	Flipped learning Practical	Quiz Lab report Exam
K5	Students will learn the production of sterile pharmaceutical products and prevent microbial spoilage	C1,C6	Flipped learning Practical	Quiz Lab report Exam
Skills				
S1	Practicing aseptic transfer technique.	C8,C9, C12,C13	Practical	Quiz Lab report Exam
S2	Handling of microbial cultures	C8,C9,C 12,C13	Practical	Quiz Lab report Exam
S3	Applying sterilization procedureds and	C8,C9,C a12,C13	Practical	Quiz Lab report Exam
S4	preparation of sterile products	C8,C9,C 12,C13	Practical	Quiz Lab report

*Include: lecture, flipped class, project based learning, problem solving based learning, collaboration learning.

** Include: quizzes, in-class and out of class assignments, presentations, reports, videotaped assignments, group or individual projects.

Course Polices

Policy	Policy Requirements
Passing Grade	The minimum pass for the course is (50%) and the minimum final mark is (35%).
Missing Exams	<ul style="list-style-type: none"> • Anyone absent from a declared semester exam without a sick or compulsive excuse accepted by the dean of the college that proposes the course, a zero mark shall be placed on that exam and calculated in his final mark. • Anyone absent from a declared semester exam with a sick or compulsive excuse accepted by the dean of the college that proposes the course must submit proof of his excuse within a week from the date of the excuse's disappearance, and in this case, the subject teacher must hold a compensation exam for the student. • Anyone absent from a final exam with a sick excuse or a compulsive excuse accepted by the dean of the college that proposes the material must submit proof of his excuse within three days from the date of holding that exam.
Attendance	The student is not allowed to be absent more than (15%) of the total hours prescribed for the course, which equates to six lecture days (n t) and seven lectures (days). If the student misses more than (15%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it.
Academic Integrity	Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights.