Philadelphia University
Faculty of Science
Department of Biotechnology & Genetic Engineering
First semester, 2014/2015

Course Syllabus

Course Title :Microbiology lab	**Course code: 240217**
Course Level: First year	**Course pre- or co-requisite: Microbiology(240216)**
Lecture Time: Sec. 1 ,Mon. 13:10 – 16:00	**Credit hours: 1**

Academic Staff Specifics

Name	Rank	Office Number and Location	Office Hours	E-mail Address
Esraa Al-haj ali	**Lecturer**	**1016/ Department of Biotechnology**	**11- 12 am Daily**	**ealhajali@philadelphia.edu.jo**

Course module description:

This module is a major requisite for the students of biotechnology and genetic engineering and it is presented in lectures. Its contents focus on basic microbiological techniques involved in studying the general characteristics of microorganisms and their growth requirement

Course module objectives:

Learning how to deal with different microorganisms in laboratory and studying the biochemical characteristics of microorganisms

Course/ module components:

Lab Sheets will be provided during course

Teaching methods:

Lectures, experiments, Result discussion, Reports, Tutorials, problem solving, debate, etc.

Learning outcomes:

Knowledge and understanding

At the end of this module, student will be able to:

1. Learning how to deal with different microorganisms in laboratory
2. Studying the biochemical characteristics of microorganisms

Assessment instruments

- Short reports and/ or presentations, and/ or Short research projects
- Quizzes.
- Home works
- Final examination: 40 marks

Allocation of Marks	
Assessment Instruments	**Mark**
Midterm examination	**30 %**
Final examination: 40 marks	**40%**
Reports, research projects, Quizzes, Home works, Projects	**30 %**
Total	**100%**

Documentation and academic honesty

- Documentation style (with illustrative examples)
- Protection by copyright
- Avoiding plagiarism.

Course/module academic calendar

week	Basic and support material to be covered
(1)	**Smear preparation and simple staining**
(2)	**Gram staining**
(3)	**Culture media preparation**
(4)	**Culture transfer techniques**
(5)	**Plating techniques**
(6)	**Determination of bacterial number**
(7)	**Midterm Exam**
(8)	**Triple Sugar Iron and Starch Hydrolysis tests**
(9)	**Biochemical tests (Enzymes): Catalase & Urease activity assays**
(10)	**The IMViC Tests**
(11)	**Casein Hydrolysis test**
(12)	**Revision**
(13)	**Final Exam**

Expected workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.