

Faculty of Science Department of Biology and Biochemistry 2nd semester 2021/2022 Course syllabus

Course information:

Course code & number: BIOL 243 Course title: General Microbiology laboratory

Prerequisite: BIOL 111

Instructor information:

Instructor: Dr. Arwa Abu Khweek.

TA: Leena Abuattiyeh

Lectures: One lab every week- 3hours/week

Office hours: Posted on Ritaj and on the office door

Office: Science 102, 104

<u>It is essential to buy a NEW lab manual. The manual is in color and colors are essential to decipher laboratory results.</u>

Lab outline:

| Lab no. | TOPIC | | |
|---------|---|--|--|
| 1 | Introduction, safety rules and microscopes. Streaking | | |
| 2 | Environmental plate for growth of bacteria | | |
| 3 | Simple staining, Gram staining, and bacterial shapes. | | |
| 4 | Endospores' staining. | | |
| 5 | Media preparation and evaluation: | | |
| 6 | Bacterial population count. | | |
| 7 | Chemical effects on bacterial growth. | | |
| 8 | Physical control of microbial growth | | |
| 9 | Biochemical activities of bacteria. | | |
| 10 | Biochemical activities of bacteria. | | |
| | Unknown | | |
| | Final Lab Exam | | |

<u>Lab Evaluation:</u> Performance of students in the lab section of this course will be evaluated. Understanding of lab techniques as well as successful preparation of lab reports, quizzes, and sheets (including a final exam) are worth 25% of the final class grade. Some laboratories require the submission of a lab report discussing the experiment, while other laboratories results are assessed through laboratory sheets.

Course assessment details:

The grade distribution for the laboratory is as follows:

| Methods of assessment | Relative weight % |
|-----------------------|----------------------|
| Quizzes | 5% |
| Sheets and reports | 10% |
| Final exam | 10% |

| | 35 1 1 0 |
|---------------------------------|--------------|
| Laboratory | Methods of |
| | assessment |
| Simple staining, Gram | 1. Unknown |
| staining, and bacterial shapes. | will be |
| Endospores' staining. | given |
| Zilassperes summig. | following |
| | completion |
| | |
| | of these |
| | laboratories |
| | 2. Report in |
| | all staining |
| Environmental plate for | Sheet |
| growth of bacteria | |
| Media preparation and | Sheet |
| evaluation | |
| Bacterial population count | Quiz |
| Chemical effects on bacterial | Report |
| growth | • |
| Physical control of microbial | Report |
| growth | • |
| Biochemical activities of | Sheet |
| bacteria | |
| Final exam | 10% |

<u>Students with Disabilities:</u>
I encourage students with disabilities, including "invisible" disabilities such as chronic diseases, learning, and psychological disabilities, to explain their needs and appropriate accommodations to me during my office hours. Please bring a verification of your disability for accommodating your needs.