

**Department of Environmental Health
Faculty of Health Science
American University of Beirut
ENHL 227 (3crs) : Environmental Microbiology
Spring Semester AY 2023-2024
Lab. Syllabus**

A. Course Instructor:

Name: Rola Ajib

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Office: Van Dyck 4th FL (Environmental Health Department), Rm. 404

Ext: 4626

B. Lab Time and Location:

Time: Friday: from 2:00 pm to 4:00 pm.

Location: Van Dyck 4th FL (Environmental Health Department) Room # 418

C. ENHL 227 Course Description:

This course aims at introducing students to the microbial world and covers environmental issues related to Microbiology. It emphasizes in its first part on fundamental aspects of microbiology in relation to environmental health. In its second part the course covers infectious diseases of man and animals transmitted through air, fresh and saline water, food, soil, municipal solid wastes, and wastewater.

The Laboratory sessions cover basic microbiological techniques and applications including isolation, microscopy, media preparation, cultivation techniques, microbial growth requirements, biochemical profile, and antibiotic susceptibility testing and expose students to principles of quality assessment of environmental samples by applying standard analytical techniques and emphasizing quality control protocol.

D. Course Learning Objectives

By the end of this lab, the students will be able to:

LO1: Develop a basic knowledge and understand the basic microbiological techniques and applications

LO2: Conduct Microbiological quality assessment of environmental samples (food, water, air, soil...)

E. Course Content

Week	Date	Topic
1	Jan 26	Introduction, Laboratory Safety Rules Microscopy and Staining Techniques
2	Feb 2	Media Preparation and Cultivation Techniques 1
3	Feb 9	St Maroun's Day- No Classes
4	Feb 16	Cultivation Techniques 2: Serial Dilution
5	Feb 23	Biochemical Activities of Microorganisms
6	Mar 1	Rinse and Swab Tests
7	Mar 8	Exam I
8	Mar 15	Food Microbiology I
9	Mar 22	Food Microbiology II: Milk and Milk Products (Ice Cream)
10	Mar 29	Latin Easter Vacation-No Classes
11	Apr 5	Water & Wastewater Microbiology
12	Apr 12	Id El Fitr-No Classes
13	Apr 19	Soil Microbial population and Air Microflora
14	Apr 26	Exam II

PS: Kindly Note that 3 of the lab sessions will be extended as per the Registrar's office recommendation to make up for the 3 Holidays

F. Laboratory Evaluation:

Lab represents **30%** of the Final grade of the course

- 1- Lab Exam I: 12%
- 2- Lab Exam II: 12%
- 3- Quizzes, Lab work & Discipline: 6 %

G. Exams

Written exams are used to assess student learning, so “by signing up for this course, you confirm that you have read and accepted the terms and provisions of AUB’s [Privacy Statement](#)”.

H. Dress Code

Students will be expected to follow a dress code at the laboratory that follows the safety measures.

I. Students with Special Needs

‘AUB strives to make learning experiences accessible for all. If you anticipate or experience academic barriers due to a disability (such as ADHD, learning difficulties, mental health conditions, chronic or temporary medical conditions), please do not hesitate to inform the Accessible Education Office. In order to ensure that you receive the support you need and to facilitate a smooth accommodations process, you must register with the Accessible Education Office (AEO) as soon as possible: accessibility@aub.edu.lb; [+961-1-350000](tel:+961-1-350000), x3246; West Hall, 314.

J. Academic Integrity

The American University of Beirut has a strict anti-cheating and anti-plagiarism policy. So please review the “Student Code of Conduct” on: (<http://www.aub.edu.lb/pnp/generaluniversitypolicies/Documents/StudentCodeConduct/StudentCodeConduct.pdf>)

Based on the rules and regulations of AUB, any attempt of cheating and plagiarism or moral misconduct would result in disciplinary actions against the student.

<http://www.aub.edu.lb/pnp/generaluniversitypolicies/Documents/StudentCodeConduct/StudentCodeConduct.pdf>)

K. Non-Discrimination – Title IX – AUB

“AUB is committed to facilitating a campus free of all forms of discrimination including Sex/ gender-based harassment prohibited by Title IX. The University’s non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University’s Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at www.aub.edu.lb/titleix. To report an incident, contact the University's Title IX Coordinator Ms. Mitra Tauk at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via EthicsPoint at www.aub.ethicspoint.com”.

*Enjoy Your Semester
Good Luck ☺*