

**Department of Epidemiology and Population Health
Faculty of Health Sciences
American University of Beirut**

EPHD 300 (3 credits)
Principles of Epidemiology
Course structure and content
Fall Semester AY 2017-2018

Course Instructors

Dr. Abla Mehio Sibai (and course coordinator)

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Sessions

Common Lecture: Thursday 3:30- 5:10 (Amphitheatre)

Lab (section 1): Monday 5:30- 7:30 (Room 201)

Lab (section 2): Thursday 9:00- 11:00 (Room 201)

Course Description

This course introduces students to the principles, concepts and application of epidemiology in the field of Public Health. The course consists of lectures, and complimentary practical sessions that provide students with basic epidemiological knowledge and tools relevant to public health practice. Students will acquire an understanding of the basic principles of epidemiology, different epidemiologic study designs, and applied epidemiologic knowledge and biologic principles of infectious diseases.

Learning outcomes

By the end of this course, students should be able to

1. Know the role of epidemiology in public health
2. Calculate measures of morbidity, mortality, and risk association
3. Identify and evaluate key sources of epidemiological data
4. Describe the magnitude of health problems by person, time and place
5. Know the designs and analysis of common observational epidemiological study designs (cross-sectional, case-control and cohort studies)
6. Draw appropriate causal inferences from epidemiologic data by understanding the role of various biases (selection, information, and confounding) and appreciate the difference between confounding and effect modification
7. List general categories of biological agents associated with infectious and communicable diseases
8. Explain the role of biological agents in the etiology of infectious diseases and understand dynamics of transmission
9. Define the steps involved in outbreak investigation
10. Appreciate the principles of causation in epidemiology

Student Evaluation

Midterm Exam	40%
Final Exam	55%
Class participation	5%

Students are expected to take the examinations on the scheduled date and time. Make up examinations are not allowed except under very unusual and convincing circumstances. Students who fail to take the examinations on the scheduled date without a written permission of the coordinator will receive an F on the examination.

Assigned book

Gordis L. Epidemiology. Philadelphia: Pennsylvania, WB Saunders Co.; 2008 4th edition.

Useful Online Resources

To learn more of Epidemiology, an extensive list of resources, including free downloadable e-textbooks and online training, can be found at

- <http://www.pitt.edu/~super1/> [an on-line EPI course]
- <http://www.epibiostat.ucsf.edu/epidem/epidem.html/> [UoCalifornia]
- <http://www.epidemiolog.net/> [free downloadable e-textbooks]
- <http://www2.sph.unc.edu/nccphp/training/> [free online training]
- <https://www.coursera.org/jhu> [free online training]
- OpenEpi (www.OpenEpi.com) open source program works like a calculator where summary information is provided and calculations performed.
- Epi Info (www.cdc.gov/epiinfo) is a statistical package for data entry and analysis

AUB Policies

Cheating and Plagiarism

Cheating and plagiarism will not be tolerated. Review the Student Code of Conduct in your handbook and familiarize yourself with definitions and penalties. If you're in doubt about what constitutes plagiarism, ask your instructor because it is *your* responsibility to know. The American University of Beirut has a strict anti-cheating policy. Penalties include failing marks on the assignment in question, suspension or expulsion from University and a permanent mention of the disciplinary action in the student's records.

Absenteeism

Students are expected to attend all assigned lab sessions and to successfully complete all lab assignments. Failure to do so will be reflected in the overall course evaluation. Students who miss more than one-fifth of the sessions of any course in the first ten weeks of the semester are dropped from the course.

Drop and Add

Please note that the last date for dropping courses for the Fall term is Friday, November 24, 2017

Accessibility

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, x3246; West Hall, 314.

Non-Discrimination

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 Trudi Hodges at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via EthicsPoint at www.aub.ethicspoint.com.

	Date	Time	Class	Subject	Instructor	
A U 8	Thursday 31	3:30-5:10	Lec 1	Introduction /Measures	Sibai	LO#1,2
Sept	Monday 4	5:30-7:30	Lec 2	Measures + sources of data	Sibai	LO#2,3
	Thursday 7	9:00-11:00	Lec 2	Measures + sources of data	Sibai	LO#2,3
	Thursday 7	3:30-5:10	Lec 3	Descriptive epidemiology	Adib	LO#4
	Monday 11	5:30-7:30	Appl 1	Self-directed application/ HW1 in groups	Sibai	LO#1,2,3
	Thursday 14	9:00-11:00	Appl 1	Self-directed application/ HW1 in groups	Sibai	LO#1,2,3
	Thursday 14	3:30-5:10	Lec 4	Surveys and cross-sectional studies	Adib	LO#5
	Monday 18	5:30-7:30	Lec 5	Cohort studies I	Sibai	LO#5
	Thursday 21	9:00-11:00	Lec 5	Cohort studies I	Sibai	LO#5
	Thursday 21	3:30-5:10	Lec 6	Cohort studies II	Sibai	LO#5
	Monday 25	5:30-7:30	Appl 2	Readings in cross-sectional studies	Adib	LO#5
	Thursday 28	9:00-11:00	Appl 2	Readings in cross-sectional studies	Adib	LO#5
	Thursday 28	3:30-5:10	Lec 7	Case-control	Sibai	LO#5
Oct	Monday 2	5:30-7:30	Appl 3	Self-directed application (cohort) / HW2 in groups	Sibai	LO#5
	Thursday 5	9:00-11:00	Appl 3	Self-directed application (cohort) / HW2 in groups	Sibai	LO#5
	Thursday 5	3:30-5:10		Q&A session		
	Saturday 7 LO#1,2,3,4,5	TBA		Midterm Exam (up to cohort studies)		
	Monday 9	5:30-7:30	Appl 4	Readings in case-control studies	Sibai	LO#5
	Thursday 12	9:00-11:00	Appl 4	Readings in case-control studies	Sibai	LO#5
	Thursday 12	3:30-5:10	Lec 8	Causal Inference I	Sibai	LO#6
	Monday 16	5:30-7:30	Lec9	Causal Inference II	Sibai	LO#6
	Thursday 19	9:00-11:00	Lec9	Causal Inference II	Sibai	LO#6
	Thursday 19	3:30-5:10	Lec 10	Causal Inference III	Sibai	LO#6
	Monday 23	5:30-7:30	Appl 5	Readings / Biases and causation	Sibai	LO#6
	Thursday 26	9:00-11:00	Appl 5	Readings / Biases and causation	Sibai	LO#6
Thursday 26	3:30-5:10	Lec 11	Biological principles of infectious diseases	Adib	LO#7	
Monday 30	5:30-7:30	Lec 12	Prevention/control of infectious diseases	Adib	LO#8	
Nov	Thursday 2	9:00-11:00	Lec 12	Prevention/control of infectious diseases	Adib	LO#8
	Thursday 2LO#8	3:30-5:10	Lec 13	Immunology and vaccines	Melhem	LO#8
	Monday 6	5:30-7:30				

	Thursday 9	9:00-11:00				
	Thursday 9	3:30-5:10				
	Monday 13	5:30-7:30	Appl 6	Eradication and emergence	Adib	LO#8
	Thursday 16	9:00-11:00	Appl 6	Eradication and emergence	Adib	LO#8
	Thursday 16	3:30-5:10	Lec 14	Outbreak investigation	Adib	LO#9,10
	Monday 20	5:30-7:30				
	Thursday 23	9:00-11:00				
	Thursday 23	3:30-5:10				
	Monday 27	5:30-7:30	Appl 7	Application	Adib	
	Thursday 30	9:00-11:00	Appl 7	Application	Adib	
	Thursday 30	3:30-5:10	Appl 8	Q&A	Adib/Sibai	
Dec	Monday 4	5:30-7:30				
	Thursday 7	9:00-11:00				
	Thursday 7	3:30-5:10				