

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

Course number: EPHD317

**Course name: Epidemiology of Non-Communicable Diseases and Mental Health Disorders
2-credit course**

**Semester: Spring 2020
Academic Year: 2019/2020**

Course Instructors/Moderators

Mental health module:

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NCD module:

Name: Abla Sibai, PhD
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Class time and location

Lecture: Wednesdays 3:30-5:00
Discussion session: Mondays 5:30-7:30
Classroom: Room 201

Course description

The first part examines selected mental health disorders (MHDs) that are major sources of morbidity, mortality and disability worldwide and in the region. The second part examines major non-communicable diseases (NCDs), (e.g., cardiovascular diseases, cancer, diabetes as well as chronic respiratory diseases) and their shared behavioural risk factors. For all health outcomes covered in this course, students will study the epidemiological evidence focusing on the available estimates of morbidity, mortality and burden, as well as determinants. Students will also examine evidence-based and effective prevention strategies and interventions, as well as main methodological issues in the measurement, control/prevention of the selected health outcomes.

Course format The course will have a lecture and a discussion session. The lecture will be delivered by the course instructor or a guest speaker selected given his/her specific expertise and experience in the selected topic. The discussion session will be a class discussion of a reading circulated ahead of class; all students are expected to have read the assigned reading prior to class during which questions will be will circulated and discussed to highlight key themes, ideas, and controversies. The class discussion session requires active participation and critical discussion of the assigned reading. The course also entails two "reflective sessions" that will be focused on summarizing the major points discussed in each module (i.e. NCD and MHD), and on further stressing special topics in NCDs/MHDs (such as focus on the broader social determinants of health, or issues in measurement and case ascertainment, challenges to building and maintaining registries). Throughout the course, students are expected to learn about and understand the epidemiology of the selected NCDs and MHDs via: (1) careful reading and evaluation of the required peer-reviewed journal articles and other sources of information, (2) active listening and taking an active role in the classroom discussions, as well as (3) critically reviewing the literature when working on their own paper.

Prerequisites for the course include EPHD300 or any equivalent graduate or undergraduate-level course in Epidemiology.

Total Credits: The course is 2 credits (1.5 credit lecture, 0.5 credit lab) resulting in a 75 minutes lecture and a 2-hour discussion session

Required readings

There is no required textbook for the course. Required readings will be selected by the speaker and assigned one week prior to each class topic. Students are required to do the readings prior to class. Students are also expected to check Moodle regularly as the lecture handouts will be posted on Moodle. If the handouts are not posted on Moodle, the course instructor will bring hard copies of the lecture handout to class.

EPHD Competencies covered in this course

[EB1]: Discuss the extent, distribution and determinants of common and emerging communicable and non-communicable diseases, and mental health disorders of local, regional and global importance

[EB2]: Discuss prevention and control strategies/programs for common and emerging communicable and non-communicable diseases and mental health disorders

[EB3]: Review, synthesize and communicate published epidemiological findings in oral and written format

Course learning objectives (LOs) and corresponding competencies

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

1. Demonstrate knowledge of the descriptive epidemiology, including the extent distribution of the morbidity, mortality and burden of the selected NCDs and MHDs [EBC1]
2. Discuss the major risk and protective factors for the selected NCDs and MHDs [EBC1]
3. Describe the main evidence-based and effective models of prevention and management of selected NCDs and MHDs [EBC2]
4. Critically review and synthesize published epidemiological evidence, highlighting major ethical and methodological issues [EBC3]
5. Discuss gaps in knowledge and future research needs relevant to the selected NCDs and MHDs [EBC3]
6. Demonstrate effective written communication skills through the delivery of a written paper [EBC3]

Assessment methods mapped to course learning objectives

Below is a table that maps the assessment methods to the course learning objectives. The learning objectives are topic-based; meaning for each topic, the lecture and discussion session will address LO1-LO5. LO6 will be assessed via the paper. Participation will mainly assess LOs 4-5.

Mode of Assessment of Students	EPHD317 COURSE Learning Objectives					
	LO1	LO2	LO3	LO4	LO5	LO6
Exam 1 (30%) relevant to NCDs	X	X	X	X	X	
Exam 2 (30%) relevant to MHDs	X	X	X	X	X	
Paper (30%) relevant to student selected topic	X	X	X	X	X	X
Participation (10%)				X	X	

Course requirements and student evaluations

Assessment method	Due dates/Deadlines	LOs covered	Grade percentage
Exam 1	Monday March 9 th	LO 1-5	30%
Exam 2	Registrar to set date	LO 1-5	30%
<p><u>Note on exams:</u> Exam 1 will focus on the first part of the course relevant to NCDs . Exam 2 will focus on the second part of the course relevant to MHDs. Both exams will take place in-class. Knowledge-based questions will include multiple choice questions and short answer questions to demonstrate knowledge of the descriptive epidemiology of selected NCDs/MHDs, including their level of morbidity, burden, variations across regions and within regions, and major determinants. Additional short answer questions will allow students to discuss major methodological issues, ethical considerations, and knowledge gaps. Students are required to take exams on the assigned time. Make up exams will be given <u>only</u> in case of emergencies or major illness (certified medical report is required).</p>			
Paper	April 30 th 2020	LO 1-6	30%
<p><u>Note on paper:</u> The course requires students (working in groups of 2-3) to select a topic and conduct a review and synthesis of the relevant literature pertaining to that topic, and present their work in a written (paper) format. Students can choose a disease/disorder and synthesize the epidemiological evidence available for that disease/disorder, or they can choose to focus on a particular research question for a specific disease/disorder–addressing either a gap or a point of debate or controversy. Throughout the process, students will address all seven learning objectives. The topic must be pre-approved by the course instructor. Students are encouraged to choose a health topic of relevance and importance to the region. <u>Previously approved topics (as examples) include:</u> sudden cardiac arrest in young athletes; impact of war on child mental health; obesity and asthma; media and eating disorders/depression; depression post-stroke; depression and burnout among health care professionals; intentional and unintentional Injuries (road traffic crashes, falls, violence, suicide...); specific types of cancer; mother and child health, oral health and NCDs. You may visit the following two links and other sources of data to guide you in the topic selection. IHME: http://www.healthdata.org/gbd WHO: http://www.who.int/topics/global_burden_of_disease/en/ Rubrics and guidelines for the paper will be shared with you on Moodle. Papers must be submitted as <u>hard copies</u> to Ms. Asma Shihab, and also electronically by only one of the group members to lg01@aub.edu.lb and am00@aub.edu.lb, and copying the remaining group members. The paper should not exceed 3000 words (double-spaced), excluding tables, figures and references. <u>Delays and exceptions will not be granted or allowed.</u> You</p>			

are encouraged to make use of office hours to discuss your paper progress and receive feedback from either/both course coordinators. A referencing software (e.g., Endnote) should be used for referencing. Internet and organization sites (e.g., WHO) as references must be kept to a minimum; efforts must be made to locate original studies.

Participation	All through the course	LO 5/6	10%
<p>You are required to attend all classes. In case of absence, you will be responsible to the material missed and for any announcements made. Students who miss more than one-fifth of class sessions are subject to withdrawing from the course with a W-grad (check AUB catalogue).</p> <p><u>Class participation however extends beyond just attendance.</u> You are expected to actively participate in class discussions during all class sessions particularly reflective sessions. Some weeks students may be asked in advance to read and summarize the assigned readings, and other weeks the students will be called upon randomly to summarize the main points of the assigned readings. Your responses will be factored into the class participation grade.</p>			

AUB policies and other class regulations

Cheating and Plagiarism:

Education is demanding and time management is essential. Do not hesitate to use the resources around you but do not cut corners. Cheating and plagiarism will not be tolerated. Please review the Student Code of Conduct in your handbook and familiarize yourself with definitions and penalties. If you are 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 and anti-plagiarism policy. Students will be penalized for cheating and plagiarism, as they are not tolerated. 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.

Students with Special Needs: "If you have documented special needs and anticipate difficulties with the content or format of the course due to a physical or learning disability, please contact me and/or your academic advisor, as well as the Counselling Center in the Office of Student Affairs (Ext. 3196), as soon as possible to discuss options for accommodations. Those seeking accommodations must submit the Special Needs Support Request Form along with the required documentation."

Use of mobiles: The use of mobile phones for any reason is not allowed during class time. Please make sure to place them out of sight. Laptops are allowed for note taking or search purposes only.

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 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.

Detailed course schedule

Day	Date	Topic of the session	Speakers (tentative)	Assessment (where your learning on this will be assessed)
Wednesday	January 22	Introduction to course syllabus/course expectations/guest speakers	Lilian Ghandour Abla Sibai	N/A
Monday	January 27	Global Burden of Disease ^{1,2} : What is GBD? What are the estimates for disability and death from MHDs according to the GBD? Global overview, with a focus on the Arab region and Lebanon	Lilian Ghandour	Exam 1
Wednesday	January 29	Data Visualization using IHME GBD findings	Sirine Anouti	Exam 1
Monday	February 3	General overview on mental health disorders (MHDs) ³ : What are MHDs? What is the prevalence and burden of major MHDs of childhood, adulthood, and late adult life? What are major issues in classification/nosology of MHDs? What are main measurement techniques to maximize reliability/validity? What are some major global responses for surveillance/prevention/control?	Lilian Ghandour	Exam 1
Wednesday	Feb 5	Substance Use in Young Adults	Lilian Ghandour	Exam 1
Webinar⁴ on Friday February 7th at 1 p.m. local Beirut time – International Standards in Drug Prevention: Lessons from Field Operations of United Nations Office on Drugs and Crime- https://canal.uib.eu/ - Confirm attendance by sending email to gifesuib@gmail.com Speaker Dr. Wadih Maalouf, program manager, UNODC				
Monday	Feb 10	Discussion of an assigned article on Substance Use	Lilian Ghandour	Exam 1

¹ <http://www.healthdata.org/gbd/about/history> (read ABOUT GBD--> History)

² GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. DOI: [https://doi.org/10.1016/S0140-6736\(18\)32279-7](https://doi.org/10.1016/S0140-6736(18)32279-7)

³ https://www.who.int/mental_health/en/ (Read through the various sections)

⁴ Hanna, H., Wadih, M. & Giovanna, C. The United Nations Office on Drugs and Crime's Efforts to Strengthen a Culture of Prevention in Low- and Middle-Income Countries. *Prev Sci* (2020) doi:10.1007/s11121-020-01088-5

Wednesday	Feb 12	Schizophrenia	Joseph El Khoury	Exam 1
Monday	Feb 17	Discussion of an assigned article on Schizophrenia	Raghid Charara	
Wednesday	Feb 19	Tele-mental health and low-income settings	Andres Barkil-Oteo	Exam 1
Monday	Feb 24	Discussion of an assigned reading on technology / MH	Andres Barkil-Oteo	Exam 1
Wednesday	Feb 26	Dementia	Monique Chaaya	Exam 1
Monday	March 2	Discussion of an assigned reading on Dementia	Monique Chaaya	Exam 1
Wednesday	March 4	REFLECTIVE SESSION ON MHDs	Lilian Ghandour	Exam 1
Monday	March 9	Exam 1 (MHDs module)		Exam 2
Wednesday	March 11	Computer lab Exercise/ Global Burden of Disease Data Visualization	Sirine Anouti	Exam 2
Monday	March 16	General overview on NCDs: What are NCDs? What is the level of their burden? What is impact of the demographic/epidemiological transitions? What are the 4 shared behavioral risk factors? What are some major global responses for to reduce risks and prevent NCDs?	Abla Sibai	Exam 2
Make up session to be scheduled this week (before March 20th): Discussion of assigned reading on NCDs ⁵⁻⁶				
Wednesday	March 18	Cancer	Salim Adib	Exam 2
Monday	March 23	Discussion of an assigned reading on Cancer	Salim Adib	Exam 2
Wednesday	March 25	Annunciation Day, holiday. No classes	-----	Exam 2
Monday	March 30	Tobacco: from Epidemiology to Policy	Rima Nakkash	Exam 2
Wednesday	April 1	Nutritional Epidemiology/Food security	Hala Ghattas	Exam 2
Monday	April 6	Discussion of an assigned reading	Hala Ghattas	Exam 2

⁵ Rahim, H. F. A., Sibai, A., Khader, Y., Hwalla, N., Fadhil, I., Alsiyabi, H., ... & Hussein, A. (2014). Non-communicable diseases in the Arab world. *The Lancet*, 383(9914), 356-367.

⁶ Wickramasinghe, K., Wilkins, E., Foster, C., Fadhil, I., Hammerich, A., Slama, S., ... & Townsend, N. (2018). The development of national multisectoral action plans for the prevention and control of noncommunicable diseases: experiences of national-level stakeholders in four countries. *Global health action*, 11(1), 1532632.

Wednesday	April 8	Cardiovascular diseases	Abla Sibai	Exam 2
Monday	April 13	Latin Easter vacation, holiday. No classes		Exam 2
Wednesday	April 15	Discussion of an assigned reading on CVDs	Abla Sibai	Exam 2
Monday	April 20	Greek Orthodox Easter vacation, holiday. No classes		Exam 2
Wednesday	April 22	Diabetes	Mona Nasrallah	Exam 2
Monday	April 27	Discussion of assigned reading on Diabetes ⁷⁻⁸	Mona Nasrallah	Exam 2
Wednesday	April 29	REFLECTIVE SESSION ON NCDs (Exam II)	Abla Sibai	Exam 2

⁷ Elling, D., Surkan, P. J., Enayati, S., & El-Khatib, Z. (2018). Sex differences and risk factors for diabetes mellitus-an international study from 193 countries. *Globalization and health*, 14(1), 118.

⁸ Booth, G. L., Kapral, M. K., Fung, K., & Tu, J. V. (2006). Relation between age and cardiovascular disease in men and women with diabetes compared with non-diabetic people: a population-based retrospective cohort study. *The Lancet*, 368(9529), 29-36.