

Department of Epidemiology and Population Health EPHD 317

Epidemiology of Non-Communicable Diseases and Mental Health Disorders [2 credits]

Course Syllabus Spring Semester, Academic Year 2023-2024

Class time and Venue:

Lecture: Thursdays 16:00-17:15

Room: Van Dyck Auditorium [Thursdays]

Discussion session: Tuesdays 17:00-19:00

Room: Room 332 [Tuesdays]

Lectures outside of these times will be detailed well before the session

Online-only sessions are detailed in the timetable and will take place via MS Teams or Zoom. Links will be circulated before the class.

Course Instructors and Contact Details:

Mental health module:

Name: Lilian Ghandour, PhD Office: Van Dyck room 219

Extension: 4643

Email: lg01@aub.edu.lb

Virtual office hours: Contact via email to arrange a meeting [Monday – Friday: 0900-1700].

NCD module:

Name: Stephen McCall, DPhil Office: Van Dyck room 338

Extension: 4563

Email: sm227@aub.edu.lb

Virtual office hours: Contact via email to arrange a meeting [Monday – Friday: 0900-1700].

Course Description:

Prerequisites for the course include EPHD300 or any equivalent graduate course in Epidemiology. **Total Credits:** The course is 2 credits (1.5 credit lecture = 75 minutes and 0.5 credit lab = 90 minutes).

Course description: The course will begin with a comprehensive overview of non-communicable diseases (NCDs) and mental health disorders (MHDs), and then proceed with the two modules. Module 1 focuses on the epidemiology of select mental health disorders (MHDs) that are major sources of morbidity, mortality and disability worldwide and in the region. The second module focuses on major NCDs and their shared





behavioural risk factors. The course is designed to advance both epidemiological knowledge and skills. The lectures will provide the students with a summary of the epidemiological evidence of a select NCD/MHD, presenting the latest available estimates on morbidity, mortality and burden, as the main commercial and psychosocial determinants, as well as evidence-based effective prevention strategies and interventions. During the discussion session, and through various learning modalities (article discussion, case scenarios, short videos) the students will address the issue from an epidemiological perspective, critically appraising the methodological issues related to measurement, study design, data interpretation as well as control/prevention strategies. Throughout the course, students are expected to learn about and understand the epidemiology of the selected NCDs and MHDs via: (1) active listening and participation during the lectures and discussion sessions; (2) careful reading and evaluation of the required peer-reviewed journal articles and other sources of information, (, and (3) critically reviewing the literature when working on their own paper.

Course format: The course is set up in a way that each topic will be discussed via a lecture and a discussion session. The course instructor or an invited guest speaker, given his/her specific expertise and experience, will deliver the lecture on the selected topic. On the one hand, the lecture will mainly be a synthesis of the epidemiological evidence and rubrics (What? Where? How? Why? What can be done?) for each selected topic. On the other hand, the discussion session will be a platform for critically appraising one or two published articles or videos about the topic, highlighting the main methodological or epidemiological aspects of the presented evidence or key themes, ideas, and controversies. Students are expected to have read or watched the videos ahead of class. The class discussion session requires active participation and critical discussion of the assigned reading/video. During each session, few students will be randomly selected to address a question, and their engagement and level of critical thinking will count towards the participation grade. After each module, there is a reflective session, which allows the students to collectively think through some of the similarities and differences across the different topics that were presented/discussed.

Couse software

- Moodle will be your main course software. All course material (lecture handouts, any recorded sessions, reading materials) will be uploaded on Moodle. The Moodle team will automatically add you to the course page upon registration. If you are not added within the first week, please check with instructors. Lecture material may be added before or after the lecture; discussion material will be added on Moodle one week prior to the session.
- **♣** Zoom will be used to deliver online sessions (if any).
- A discussion forum on Moodle will be developed for **Q&A**. Throughout the course/semester, any questions you may have about the lecture/article reading or general course material, you may post this question or discussion point on Moodle. **Please do not email them to the course instructor.** Posting online ensures that all students are engaged; engagement in online discussion forums will count towards your participation grade.

Course delivery mode

The lectures will be mainly in person. Any online lectures will be delivered by Zoom or MSTeams.



Course readings:

While there is no required textbook for the course, you are **required** to read/watch carefully the readings/videos that are posted on Moodle prior to the relevant sessions. You are expected to check Moodle regularly.

Course learning Objectives

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

- LO1. Demonstrate knowledge of descriptive epidemiology, including the extent distribution of the morbidity, mortality and burden of the selected NCDs and MHDs [EBC1].
- LO2. Discuss the major risk and protective factors for the selected NCDs and MHDs [EBC1].
- LO3. Describe the main evidence-based and effective models of prevention and management of selected NCDs and MHDs [EBC2].
- LO4. Critically review and synthesize published epidemiological evidence, highlighting main findings, and major ethical and methodological issues [EBC3].
- LO5. Demonstrate effective written and oral communication skills through the delivery of a written paper and presentation [EBC3].

Council on Education for Public Health (CEPH) Core/Concentration Competencies mapped to EPHD 317

[EBC1]: Discuss the extent, distribution and determinants of common and emerging communicable and non-communicable disease

ses, and mental health disorders of local, regional and global importance.

[EBC2]: Discuss prevention and control strategies/programs for common and emerging communicable and non-communicable diseases and mental health disorders.

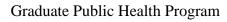
[EBC3]: Review, synthesize and communicate published epidemiological findings in oral and written format.



Essential Skills

Essential Skills

Strategies/teaching methodologies for				
Skill	Description	teaching the skill in class		
Academic Integrity and Plagiarism	Academic integrity includes the values of trust, respect, fairness, accountability, and honesty in your work. Plagiarism is the inclusion of any idea or language from someone else without giving due credit by citing and referencing that source. It also includes copying the information or ideas without adding value from one's own perspective.	1) Discussing forms of plagiarism 2) Practice citing resources 3) Practice paraphrasing/summarizing texts 4) Application on using direct quotes 5) Application on using APA or MLA formats		
Academic Writing	Formal, objective, and technical writing. A core function of public health is to inform, educate, and empower. As such, writing is an essential tool for public health professionals to communicate with the communities they serve and address their health needs. Writing in public health requires evidence-based information and clear communication to multiple audiences including communities, researchers, policy-makers, health care providers, and other public health practitioners. Examples of writing in public health include: policy briefs, needs assessments, project reports, proposals, research papers, and others.	 Apply the writing process for small writing assignments Implement a variety of pre-writing and organization strategies Use feedback from instructors to re-write and refine skills 		





Skill	Description	Strategies/teaching methodologies for teaching the skill in class
Academic Reading	Academic reading is an active process that goes beyond merely reading and highlighting texts. Students need to interact with the text by taking notes, making connections between the text and what they already know or have experienced, and asking critical questions about the material they are reading. Public Health students will be expected to read a variety of types of readings such as scientific articles, needs assessments, reports, policy briefs. This skill is also important for enhancing writing skills.	1) Demonstrate reading strategies in class such as: breaking up the reading/pacing/checking for understanding/highlighting and or annotating facts, phrases and definition/writing questions while reading/figure out unfamiliar words/review and summarize texts/discussing texts
Critical Thinking/analysis	Critical thinking skills that are essential to public health include analysis, evaluation, solution development, identification and assessment of a problem, information seeking, questioning, and reflection.	 Use probing questions Ask open ended questions Allow time for reflection and discussions after
Problem Solving	Creative thinking includes the process of innovative problem-solving — from analyzing the facts to brainstorming to working with others. Examples of these skills include analytical skills, innovation, and collaboration.	 4) Analysis of case studies and real-life problems 5) Use analogies when applicable 6) Utilizing resources for problemsolution/innovation
Searching for information	Ability to search for, locate, extract, organize, evaluate, and use information that is relevant to public health issues.	Practice evaluating resources Conducting efficient searches and using proper key words



Skill	Description	Strategies/teaching methodologies for teaching the skill in class
Presentation skills	Presentations involve delivering effective, accurate, and engaging presentations to a variety of audiences.	1) Offer opportunities for students to practice presenting and give feedback to other presentations
Public Health Ethics	Professional practice requires acting in an ethical manner that abides by the principles of the field.	Analyzing case studies and real-world examples Integrating ethics in course content
Cultural Competence	It is the ability of an individual to understand and respect values, attitudes, beliefs, and norms that differ across cultures, and to consider and respond appropriately to these differences in planning, implementing, and evaluating health promotion programs. Cultural competence requires a system that can personalize health care services according to cultural and linguistic differences.	Analyzing case studies on health care systems that accommodate for cultural competence Reflecting on practices of cultural competence

Link to PHEO Faculty Portal

Course Learning Objectives mapped to CEPH competencies

<u>Table 1</u>. Mapping of course LO to CEPH competencies

	L01	L02	LO3	L04	LO5
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.	X	X		X	
EB2: Discuss prevention and control strategies/programs for common and emerging communicable and non-communicable diseases and mental health disorders.			X		



Graduate Public Health Program

EB3: Review, synthesize and communicate published		X	X
epidemiological findings in oral and written format.			

Course requirements and Student evaluation:

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

Student Evaluation:

<u>Table-2</u> Summary of students' assessments 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. LO5 will be assessed via the paper and participation in class discussions.

Mode of Assessment of Students	EPHD317 COURSE Learning Objectives				
	LO1	LO2	LO3	LO4	LO5
One exam (40% total)	X	X	X	X	
One abstract writing exercise (10% total)					X
Paper (40%)	X	X	X	X	X
Participation in discussion sessions (10%)	X	X	X	X	X



<u>Table -3</u> Description of Assessment methods, Due Dates and Corresponding Learning Objectives

Assessment method	Due dates/Deadlines	LOs covered	Grade Percentage
Participation in discussion	Throughout the course.	LO 1-5	10%
sessions			

<u>Class participation extends beyond just attendance.</u> You are expected to actively participate in class discussions during all class sessions, particularly discussion sessions. Students may be called upon randomly to summarize the main points of the assigned readings/videos. Your responses will be factored into the class participation grade. The extent to which the student is able to address the question critically and/or correctly will be considered as positive participation; inability to engage will be negative participation.

One abstract writing	February 13 th 2024.	LO5	10%
exercise			

This assignment [writing a brief abstract/summary] is relevant to LOs 4 and 6. This assignment will allow **you to critically review and synthesize published epidemiological evidence**, highlighting main findings, and major ethical and methodological issues, as well as help you to develop your communication skills using a seminal paper.

Each paper [with no abstract] will be circulated to you two weeks before the deadline. For each, you will need to write a 400-word structured abstract (summary). The word count includes the headings of the paragraphs. Your abstract should be structured using four distinct and labelled paragraphs:

Background, Methods, Results, and Conclusion.

The course coordinators will mark and comment on your abstract as follows:

- Background (10%)
- Methods (30%)
- Results (30%)
- Conclusion (20%)
- Overall & adherence to guidance (10%)

In completing this assignment, consider the STROBE checklist for conference abstracts for observational studies and the Lancet guidelines, which will be used to grade your abstracts.

https://www.strobe-

statement.org/fileadmin/Strobe/uploads/checklists/STROBE checklist conference abstract DRAFT.pdf

http://www.thelancet.com/pb/assets/raw/Lancet/misc/Abstract_Guidelines_2013.pdf

Additional guidance will be uploaded on Moodle along with the paper two weeks prior to the deadline.

- **♣** The use of tables and figures is not permitted.
- There is no need to cite any references.
- ♣ Type your abstract on A4 paper size with normal margins of 1 inch/2.5 cm on each side
- Use double-line spacing using 11-point Arial/Times New Romans/Calibri typeface
- ♣ Save it in Word .doc or .docx format.
- **♣** Submit your abstract on Moodle



Paper	March 14 th 2024	LO 1-5	40%
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The course requires students to select a topic from a list that will be shared during the week of Feb 6^{th} . Students need to conduct a review and synthesis of the relevant published literature pertaining to that topic, and present their work in a written (paper) format. Throughout the process, students will address all seven learning objectives.

Rubrics and guidelines for the paper will be shared with you on Moodle.

- ♣ Paper may include up to two tables or figures; these are encouraged to highlight essential findings of the chosen topic.
- ♣ 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.
- ♣ Paper should not exceed 2500 words (double-spaced), excluding tables, figures and references.
- ♣ Type your paper on A4 paper size with normal margins of 1 inch/2.5cm
- ♣ Use double-line spacing using 11-point Arial/Times New Romans/Calibri typeface
- ♣ Save it in Word .doc or .docx format.
- ♣ Papers must be submitted as electronic copies onto Moodle.

Delays and exceptions will not be granted or allowed.

4 You are encouraged to submit by Feb 15th an outline of your paper/2-3 main references for feedback.

You may also use office hours to discuss your paper progress and receive feedback from the teaching assistant or course coordinator. The use of Vancouver referencing or numbered styles is recommended.

There will be one exam administered at the end of the semester. The exam will include knowledge-based questions to allow you to demonstrate your knowledge of the descriptive epidemiology of selected NCDs/MHDs, including their level of morbidity, burden, variations across regions and within regions, and major determinants. In addition, it will assess ability to critically appraise and sythensis published literature and propose evidence based solutions in the local/region/global context for specfied MHDs/NCDs. Make-up quizzes will be given only in case of emergencies or major illness (certified medical report is required through the accessibility office).

Policies and other General Notes:

Attendance: While attendance will not count towards your overall course grade, attendance will be taken. You are of course encouraged to attend all classes not because you are required to but because participation in class will help maximize your learning experience. In case of absence, you will be responsible to the material missed and for any announcements made. As per AUB rules and regulations, "students who, during a semester, miss more than one-fifth of the sessions of any course in the first ten weeks of the semester (five weeks in the case of the summer term) are dropped from the course if the faculty member has stated in the syllabus that attendance will be taken."

<u>Use of AI and ChatGPT:</u> In this course, some assessments may ask you to use AI Writing tools such as ChatGPT as part of the excercise as an application of critical appraisal of such AI tools. You will be informed as to when, where, and how these tools are permitted to be used, along with guidance for attribution. Any use outside of this permission constitutes a violation of academic integrity and will be treated as 'cheating and plagiarism' (see below).



Cheating and Plagiarism: "Plagiarism is presenting someone else's work or ideas as your own, with or without their consent, by incorporating it into your work without full acknowledgement". It can be both intentional and unintentional using either published or unpublished sources. Plagiarism is a serious breach of academic regulations and integrity, and will not be tolerated. Common examples of plagiarism include: verbatim without clear acknowledgement; paraphrasing; collusion, this is when students work together on an individual project without authorization or do not acknowledge help received; inaccurate citation, which includes citing articles that you have not been read; use of material written by professional consultancies, this include essay writing services. The good news is that plagiarism is easy to avoid by following good academic practices, including full acknowledgement of assistance you have received and referencing the work that you have relied on.^{1,2} Remember most good scientific ideas are based on previous work and proper referencing helps the reader to understand where your ideas have developed from. We encourage you to use referencing software such as ENDNOTE (freely available at AUB) and follow a referencing style. Further information is available in the Student Code of Conduct and webpages below. ^{1,2} If after examining these resources and you are in doubt about what constitutes as plagiarism, please ask your instructor. Important: The American University of Beirut has a strict anti-cheating and antiplagiarism policy. Students will be penalized for cheating and plagiarism, as they are not tolerated. Penalties include failing marks on the assignment in question, failing the course, suspension or expulsion from University and a permanent mention of the disciplinary action in the student's records (See student handbook).

Students with Disabilities:

If you have a disability, for which you may request accommodation in AUB classes, consult the website for more information and arrange with the Coordinator (http://www.aub.edu.lb/sao/Pages/Students 20with 20Special 20Needs.aspx). Also, please see the instructor of this course privately in regard to possible support services that can be provided to you.

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

¹ Plagiarism. University of Oxford. Available from: https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism [Accessed on 25-01-2021].

² Avoiding Plagiarism, MIT. Available from: https://integrity.mit.edu/handbook/academic-writing/incorporating-words-and-ideas-others [Accessed on 25-01-2021].



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.

Accessible Education Office (AEO):

The Accessible Education Office (AEO) coordinates academic accommodations and services for all eligible AUB students with disabilities (such as ADHD, learning difficulties, mental health conditions, chronic or temporary medical conditions, and others). If you have a disability for which you wish to request accommodations at the department, faculty or university level, please contact AEO as soon as possible. Once you register with our office, we will assist you in receiving appropriate accommodations and will liaise with your instructors and any related entity to best support your needs. AEO is located in West Hall room 314, and can be reached by phone at 1-350000 ext. 3246 or by email: accessibility@aub.edu.lb. Information about our services can be found at: https://www.aub.edu.lb/SAO/Pages/Accessible-Education.aspx

Writing:

Written communication is essential for communication, health education and behavioral science. You are expected to proofread and spell-check any written documents before submission. Points will be deducted from the grades for low quality writings. You are encouraged to contact AUB's Writing Center, located in Ada Dodge Hall, 2nd floor or West Hall, 3rd floor. Appointments can be booked online: aub.mywconline.com, over the phone (Ext. 4077) or by walking in.

Public Health Education Office

Please refer to the Public Health Education Office Student Portal: https://sites.aub.edu.lb/fhspheostudent/





Graduate Public Health Program

Day	Type	Date	Session General Topic	Speakers	Online/in person
Thursday	Lecture	18-Jan	Introduction to course syllabus/expectations	Ghandour/McCall	In person
Tuesday	Lecture	23-Jan	Overview NCD	Abla Sibai	In person
Thursday	Lecture	25-Jan	GBD session – overview	Steve McCall	In person
MHDs					•
Tuesday	Discussion	30-Jan	Overview of MHDs	Lilian Ghandour	In person
Thursday	Lecture	01-Feb	Burden of Suicide	Lilian Ghandour	In person
Tuesday	Discussion	06-Feb	Discussion Suicide (typical /atypical)	Lilian Ghandour	In person
Thursday	Lecture	08-Feb	SU prevention standards for early prevention	Wadih Maalouf	Online
Tuesday	Lecture	13-Feb	Economic, social, and traumatic stressors & population mental health	Sandro Galea	Online
Thursday	Lecture	15-Feb	MEAL UNIT/NMHP	Jinane Abi Ramia	In person
Tuesday	Discussion	20-Feb	Discussion of Integration of MH into PHCs	Jinane Abi Ramia	In person
Thursday	Lecture	22-Feb	Schizophrenia	Joseph El Khoury	Online
Tuesday	Discussion	27-Feb	Discussion Schizophrenia	Bernadette Mdawwar	Online
Thursday	Lecture	29- Feb	Dementia	Monique Chaaya	In person
Tuesday	Discussion	05-Mar	Discussion Dementia	Monique Chaaya	In person
Thursday	Lecture	07-Mar	Neurobiology of Addiction	Farid Talih	In person
Tuesday	Discussion	12-Mar	Discussion Neurobiology of Addiction	Farid Talih	In person
Thursday	Lecture	14-Mar	REFLECTIVE MHD	Lilian Ghandour	In person
NCDs					
Tuesday	Discussion	19-Mar	Overview of NCDs	Steve McCall	In person
Thursday	Lecture	21-Mar	Diabetes	Mona Nasrallah	In person
Tuesday	Lecture	26-Mar	Diabetes	Mona Nasrallah	In person
Thursday	Lecture	28-Mar	Cardiovascular epidemiology	Sarah Lewington	Online
Tuesday	Discussion	02-Apr	Cancer Epidemiology	Salim Adib	In person
Thursday	Lecture	04-Apr	Cancer Epidemiology	Salim Adib	In person
Tuesday	Discussion	09-Apr	Eid Al Fitr		
Thursday	Lecture	11-Apr	Respiratory Epidemiology	Hisham Fakraddine	In person
Tuesday	Discussion	16-Apr	Respiratory Epidemiology	Hisham Fakraddine	In person
Thursday	Lecture	18-Apr	Nutritional Epidemiology	Christelle Akl	In person
Tuesday	Discussion	23-Apr	Nutritional Epidemiology	Christelle Akl	In person
Thursday	Lecture	25-Apr	REFLECTIVE NCD	Steve McCall	In person



Appendix I. Reinforced – Introduced CEPH competencies

Introduced competencies: the competency is introduced at a basic level. Instruction and learning activities focus on basic knowledge, skills and entry-level complexity. The competency is **not assessed.**

Reinforced competency: The competency is reinforced with feedback; students demonstrate the outcome at an increasing level of proficiency (above the introductory stage). Instruction and learning activities concentrate on enhancing and strengthening existing knowledge and skills, as well as expanding complexity. The competency is **not assessed.**

Kindly put an X where applicable. Please remove the tables/rows that are not applicable to your course

Core Competencies	Introduced	Reinforced
CC1. Apply epidemiological methods to the breadth of settings and		
situations in public health practice		X
CC4. Interpret results of data analysis for public health research, policy		
or practice		X
CC6. Discuss the means by which structural bias, social inequities and		
racism undermine health and create challenges to achieving health equity		
at organizational, community and societal levels		X
CC12. Discuss multiple dimensions of the policy-making process,	\mathbf{X}	
including the roles of ethics and evidence		
CC15. Evaluate policies for their impact on public health and health	\mathbf{X}	
equity		
CC19. Communicate audience-appropriate public health content, both in		
writing and through oral presentation		X

EPHD competencies	Introduced	Reinforced
EBCC6: Interpret and communicate statistical findings in oral and		
written format		X
EBCC7: Review, synthesize and communicate published		
epidemiological findings in oral and written format		\mathbf{X}
EBCC8: Appraise the quality of epidemiological evidence by evaluating		
studies for bias and other sources of systematic errors		\mathbf{X}