



GPH-GU 2230, Section 001: Global Non-Communicable Disease Prevention and Control

Spring 2022

INSTRUCTOR INFORMATION

Professor: Amelia Boehme, PhD MSPH
Phone: 256-479-1874
Email: ab7725@nyu.edu
Office: 708 Broadway
Office hours: Via Zoom
Dr. Boehme Monday 5-6 pm via zoom

COURSE INFORMATION:

Lecture: Tuesdays, 6:45 – 8:25pm
Location: SILV: Silver Center for Arts and Science 32 Waverly Place, Room 208

COURSE DESCRIPTION

This course will focus on the considerable and increasing burden of disease due to chronic diseases, mental health, substance use (alcohol, tobacco, other drugs), risk factors (obesity, lack of physical activity), and injuries within the developing world. It will present methods for measuring the burden of non-communicable disease, review approaches to program and service development to modify risk factors, present lessons learned from successful developing country programs, and discuss implications for health services development and international development policies.

COURSE OVERVIEW

This course has two main components: a lecture as well as interactive discussion sections during lecture; attending the lecture is important to ensuring success in the course. All students are required to attend lecture sessions.

The main goal of the interactive sessions is to enhance familiarity and confidence in the concepts covered in the lectures. In order to meet this goal, students will work in small groups on 'hands on' exercises developed to provide a fuller understanding of concepts covered in previous lectures. In addition, these weekly sessions provide another opportunity for students to clarify any concepts presented in the online lecture materials.

PRE-REQUISITES

No pre-requisites

LEARNING OBJECTIVES & FOUNDATIONAL COMPETENCIES

Learning objective	Competencies	Course component
To understand approaches to the surveillance and prevention of the most common chronic diseases	<ul style="list-style-type: none">• Be able to identify strategies for disease monitoring and prevention, globally	Lectures 1-13 Midterm and final assignment Oral presentation

Learning objective	Competencies	Course component
To understand the global burden of the most common non-communicable chronic diseases.	<ul style="list-style-type: none"> Understand common measures of disease used to characterize the global burden of disease 	Lectures 1-13 Midterm and final assignment Oral presentation
To critically review, calculate, differentiate and interpret measures of disease frequency and measures of association.	<ul style="list-style-type: none"> Identify methods for measuring the distribution of determinants of health outcomes and well-being within and across populations. 	Lectures 1-13 Midterm and final assignment Oral presentation
	<ul style="list-style-type: none"> Effectively communicate epidemiologic findings both orally and in writing. 	Midterm and final assignment Oral presentation
To correctly identify epidemiologic study designs to assess a given research question.	<ul style="list-style-type: none"> Identify methods for measuring the distribution of determinants of health outcomes and well-being within and across populations. 	Lectures 1-13 Midterm and final assignment Oral presentation
To understand sources of biases in observational studies and evaluate their potential direction, magnitude, and threat to causal inference.	<ul style="list-style-type: none"> Critically evaluate the application of epidemiologic methods to answer public health questions. 	Lectures 1-13 Midterm and final assignment Oral presentation

COURSE REQUIREMENTS AND EXPECTATIONS

A. READINGS

- Students are expected to attend all lectures. If you cannot attend a certain lecture, it is your responsibility to notify the Instructor beforehand, or, in the case of an emergency, immediately upon return. All other absences will be considered unexcused.
- If readings are assigned, they will be available to students via BrightSpace. Complete reading assignments prior to class.

B. REQUIREMENTS & EXPECTATIONS

1. Course Expectations

Students are expected to:

- Check their NYU email accounts and NYU Classes regularly for course updates, new materials and announcements.
- Complete all readings and be ready to fully participate in the discussions.
- The course instructor will read email from students one time per day. Anticipate that it will take 24 hours, and in some cases more time, to receive a reply from the course instructor during weekdays (Monday through Friday). Emails sent over the weekend may not receive a response until Monday.
- Students are expected to turn in assignments on time and take tests at the scheduled times.
 - Late assignments are not accepted. Exceptions to deadlines will only be made for extreme situations (i.e., medical or family emergencies) on a case-by-case basis.
 - There are a number of religious holidays throughout the semester. Students observing those holidays should contact the instructor as soon as possible to ensure that you are not penalized for absences or late assignments.

2. **Midterm Assignment:** There will be a midterm assignment where you will explore the epidemiology of a given condition in a given country (or across states in the US). Details on the midterm assignment will be provided on BrightSpace. **The midterm assignment will be due March 8 on Brightspace by 11:59pm.**
3. **Final Assignment:** There will be a final assignment where you will pick an exposure of interest and provide a summary of how that exposure is related to a NCD of your choosing referencing peer reviewed published studies (references should include at least 3 different study designs) then design a study to build on the prior literature. Details on the final assignment will be provided on BrightSpace. **The final assignment will be due May 3 on Brightspace by 11:59pm.**
4. **Oral Presentation:** Student in groups of 2-3 will give a 15-minute power point presentation on a significant non-communicable disease global health problem not covered in class.
5. **Class Participation:** Participation includes contributions during the lectures and discussions.

6. **Grading Components:**

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| 1. Midterm Assignment: | 30% |
| 2. Final Assignment: | 30% |
| 3. Oral Presentation: | 30% |
| 4. Participation: | 10% |

Grading Scale:

A	94-100	C+	77-79
A-	90-93	C	73-76
B+	87-89	C-	70-72
B	83-86	D+	67-69
B-	80-82	D	60-66
		F	<60

******NOTE: If you have questions about grades on any assignment, speak to Dr. Boehme within 3 days of receiving said grade. After this time, I will not entertain grading disputes. ******

7. **NYU BrightSpace:**

NYU BrightSpace will be used extensively throughout the semester for assignments, announcements, and communication. NYU BrightSpace is accessible through at <https://home.nyu.edu/academics>

TECHNOLOGY POLICY:

Mobile device (e.g., smart phones, pagers, etc.) ringers will be turned off or placed on vibrate prior to class. Laptops and tablets can be used in the classroom to take notes, make calculations, and download/read course materials. Research suggests that non-academic use of the internet is associated with poorer learning outcomes.

COURSE SCHEDULE			
Class	Date	Lecture Topic	Reading Assignment Due
1	1/25	- Introduction to non-communicable diseases	1. GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. <i>Lancet</i> . 2020 Oct 17;396(10258):1204-1222.
2	2/1	- Neurological Disorders	1. GBD 2015 Neurological Disorders Collaborator Group. Global, regional, and national burden of neurological disorders during 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. <i>Lancet Neurol</i> . 2017 Nov;16(11):877-897.
3	2/8	- Cardiovascular Disorders	1. Wang Z, Du A, Liu H, Wang Z, Hu J. Systematic Analysis of the Global, Regional and National Burden of Cardiovascular Diseases from 1990 to 2017. <i>J Epidemiol Glob Health</i> . 2021 Dec 13.
4	2/15	- Respiratory Disorders	1. He H, Pan Z, Wu J, Hu C, Bai L, Lyu J. Health effects of tobacco at the global, regional, and national levels: results from the 2019 Global Burden of Disease study [published online ahead of print, 2021 Dec 20]. <i>Nicotine Tob Res</i> . 2021;ntab265. 2. Shi T, McAllister DA, O'Brien KL, et al. Global, regional, and national disease burden estimates of acute lower respiratory infections due to respiratory syncytial virus in young children in 2015: a systematic review and modelling study. <i>Lancet</i> . 2017;390(10098):946-958. 3. GBD 2019 Respiratory Tract Cancers Collaborators. Global, regional, and national burden of respiratory tract cancers and associated risk factors from 1990 to 2019: a systematic analysis for the Global Burden of Disease Study 2019. <i>Lancet Respir Med</i> . 2021;9(9):1030-1049.
5	2/22	- Cancer	1. Global Burden of Disease 2019 Cancer Collaboration, Kocarnik JM, Compton K, et al. Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life Years for 29 Cancer Groups From 2010 to 2019: A Systematic Analysis for the Global Burden of Disease Study 2019 [published online ahead of print, 2021 Dec 30]. <i>JAMA Oncol</i> . 2021;e216987.
6	3/1	- Alzheimer's Disease, Dementia, and Cognition	1. GBD 2016 Dementia Collaborators. Global, regional, and national burden of Alzheimer's disease and other dementias, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. <i>Lancet Neurol</i> . 2019;18(1):88-106.
7	3/8	- Metabolic & Hormone Disorders - MIDTERM ASSIGNMENT DUE	1. Noubiap JJ, Nansseu JR, Lontchi-Yimagou E, et al. Global, regional, and country estimates of metabolic syndrome burden in children and adolescents in 2020: a systematic review and modelling analysis [published online ahead of print, 2022 Jan 17]. <i>Lancet Child Adolesc Health</i> . 2022;S2352-4642(21)00374-6.
8	3/15	SPRING BREAK- No Class	
9	3/22	- Arthritis and Musculoskeletal Disorders	1. Jin Z, Feng X, Wang D, et al. Global, regional, and national trends in sex- and age-specific disability adjusted life years of musculoskeletal disorders, 1990-2019 [published online ahead of print, 2021 Oct 27]. <i>Rheumatology (Oxford)</i> . 2021;keab804.
10	3/29	- Kidney, Bladder, GI and Liver Disorders	1. Safiri S, Kolahi AA, Naghavi M; Global Burden of Disease Bladder Cancer Collaborators. Global, regional and national burden of bladder cancer and its attributable risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease study 2019. <i>BMJ Glob Health</i> . 2021;6(11):e004128. 2. Qin Y, Tong X, Fan J, et al. Global Burden and Trends in Incidence, Mortality, and Disability of Stomach Cancer From 1990 to 2017. <i>Clin Transl Gastroenterol</i> . 2021;12(10):e00406. Published 2021 Oct 5. 3. GBD 2017 Gastro-oesophageal Reflux Disease Collaborators. The global, regional, and national burden of gastro-oesophageal reflux disease in 195

			<p>countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. <i>Lancet Gastroenterol Hepatol.</i> 2020;5(6):561-581.</p> <p>4. Rumgay H, Ferlay J, de Martel C, et al. Global, regional and national burden of primary liver cancer by subtype. <i>Eur J Cancer.</i> 2022;161:108-118.</p>
11	4/5	-Skin, eyes, hearing, and smell disorders	<p>1. Damiani G, Bragazzi NL, Karimkhani Aksut C, et al. The Global, Regional, and National Burden of Psoriasis: Results and Insights From the Global Burden of Disease 2019 Study. <i>Front Med (Lausanne).</i> 2021;8:743180. Published 2021 Dec 16.</p>
12	4/12	- Pain and Pain management	<p>1. Safiri S, Kolahi AA, Hoy D, et al. Global, regional, and national burden of neck pain in the general population, 1990-2017: systematic analysis of the Global Burden of Disease Study 2017. <i>BMJ.</i> 2020;368:m791. Published 2020 Mar 26.</p> <p>2. Chen S, Chen M, Wu X, et al. Global, regional and national burden of low back pain 1990-2019: A systematic analysis of the Global Burden of Disease study 2019. <i>J Orthop Translat.</i> 2021;32:49-58. Published 2021 Sep 10.</p>
13	4/19	- Reproductive Disorders	TBD
14	4/26	- Presentations 1	
15	5/3	- Presentations 2 - FINAL ASSIGNMENT DUE	

GPH DIVERSITY, EQUITY, and INCLUSION (DEI) STATEMENT:

The NYU School of Global Public Health (GPH) is committed to maintaining and celebrating a diverse, just, and inclusive environment for our students, faculty, and staff around the world. To foster this atmosphere and ideals of Diversity, Equity, and Inclusion (DEI), GPH promotes a welcoming learning environment that embraces cultural humility, and respects and values differences. These differences can include race, ethnicity, religion, gender identity, sexual orientation, physical, mental and emotional abilities, socioeconomic status, and other aspects of human diversity. In this course, we encourage students to share and discuss different perspectives, beliefs, and experiences while treating all with dignity and respect.

University Policies

Please be sure to read the [University Policy on Religious Holidays](#) and the policy [on safety, weather emergencies, and disruptions.](#)

Students with Disabilities:

Students with disabilities should contact the Moses Center for Students with Disabilities regarding the resources available to them, and to determine what classroom accommodations should be made available. More information about the Moses Center can be found here. must appear on the syllabus. Information about the center can be found here: <https://www.nyu.edu/life/safety-health-wellness/students-with-disabilities.html>. Students requesting accommodation must obtain a letter from the Moses Center to provide to me as early in the semester as possible.

Statement of Academic Integrity:

The NYU College of Global Public Health values both open inquiry and academic integrity. Students in the program are expected to follow standards of excellence set forth by New York University. Such standards include respect, honesty and responsibility. The SGPH does not tolerate violations to academic integrity including:

- Plagiarism
- Cheating on an exam
- Submitting your own work toward requirements in more than one course without prior approval from the instructor
- Collaborating with other students for work expected to be completed individually
- Giving your work to another student to submit as his/her own
- Purchasing or using papers or work online or from a commercial firm and presenting it as your own work

Students are expected to familiarize themselves with the SGPH and University's policy on academic integrity as they will be expected to adhere to such policies at all times – as a student and an alumnus of New York University.

Plagiarism

Plagiarism, whether intended or not, is not tolerated in the SGPH. Plagiarism involves presenting ideas and/or words without acknowledging the source and includes any of the following acts:

- Using a phrase, sentence, or passage from another writer's work without using quotation marks
- Paraphrasing a passage from another writer's work without attribution
- Presenting facts, ideas, or written text gathered or downloaded from the Internet as your own
- Submitting another student's work with your name on it
- Submitting your own work toward requirements in more than one course without prior approval from the instructor
- Purchasing a paper or "research" from a term paper mill.

Students in the SGPH and SGPH courses are responsible for understanding what constitutes plagiarism. Students are encouraged to discuss specific questions with faculty instructors and to utilize the many resources available at New York University.

Disciplinary Sanctions

When a professor suspects cheating, plagiarism, and/or other forms of academic dishonesty, appropriate disciplinary action is as follows:

- The Professor will meet with the student to discuss, and present evidence for the particular violation, giving the student opportunity to refute or deny the charge(s).
- If the Professor confirms that violation(s), he/she, in consultation with the Chairperson or Program Director may take any of the following actions:
 - Allow the student to redo the assignment
 - Lower the grade for the work in question
 - Assign a grade of F for the work in question
 - Assign a grade of F for the course
 - Recommend dismissal

Once an action(s) is taken, the Professor will inform the Chairperson or Program Director and inform the student in writing, instructing the student to schedule an appointment with the Associate Dean for Academic Affairs, as a final step. The student has the right to appeal the action taken in accordance with the SGPH Student Complaint Procedure.