

Global Non-Communicable Disease Epidemiology and Control

GPH-GU 2230 001

Class Schedule: Monday – Friday 9am – 12pm

Class Location: NYU London Academic Center

Semester and Year: J-Term 2017

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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 globally. 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.

We will examine the social determinants of NCDs, and explore research and program interventions in low, middle and high income communities. This course will highlight organizational strengths and weaknesses by addressing the double burden of NCDs with a NHS single payer health system.

COURSE LEARNING OBJECTIVES AND RELATED COMPETENCIES AND COMPONENTS:

Learning Objective	Competency	Course component (lesson #, assignment, etc.)
<p>1. Understand the global burden of the most common non-communicable chronic diseases</p> <p>Understand the nature of social determinants of disease and explain the impact of these determinants on NCDs including cardiovascular disease, mental health and obesity</p> <p>Identify complex issues related to the emergence of non-communicable diseases</p>	<p>Understand common measures of disease used to characterize the global burden of disease</p>	<p>Lessons 1, 2, 4, 6, 7</p>

(NCDs) globally and compare the disease experience in low and middle-income countries to high-income countries		
2. Understand the impact of environmental exposures in air and water on the global burden of non-communicable chronic diseases	Be able to identify environmental exposures related to the global burden of disease, by disease type Define health and health burden at the individual and at societal level using a set of diverse health, lifestyle and economic indicators including disability-adjusted life years, quality of life, and unemployment rates	Lessons 3, 4, 5
3 Understand the impact of personal behaviors and genetics on the global burden of non-communicable diseases Compare NCDs interventions at the individual and society level, identifying unique issues related to health systems and country status.	Be able to identify personal behaviors related to the global burden of disease, by disease type	Lessons 1, 2, 3, 4, 5, 6
4 Understand approaches to the surveillance and prevention of the most common chronic diseases	Be able to identify strategies for disease monitoring and prevention, globally	Lessons 1 - 9

PRE-REQUISITES:

None

COURSE REQUIREMENTS AND EXPECTATIONS:

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 CLASSES. Complete reading assignments prior to class.

Assignment: Students will be put into groups for the duration of the course. Each group will be responsible for presenting 2 slides in Class 3, Class 6 and Class 9 on their work so far based on the following topics that will culminate in a 6-page Grant to be turned in at the conclusion of the course.

1. NCD Surveillance
2. NCD Intervention
3. Implementation of an NCD strategy

Groups will choose between writing a “R21” Grant and following the NIH program announcement outline for PAR 16-052; PAR 13-054; PAR 11-031.

Each oral presentation with slides will cover:

1. Class 3: Background and significance
2. Class 6: Specific Aims of Grant
3. Class 9: Proposal Research and Design of the Grant

GRADING RUBRIC:

Item:	Percentage or Points:
Class participation	10%
Oral presentations of Grant (3 presentations at 10% each)	30%
Written Grant	60%
Total	100%

GRADING SCALE:

A:	93-100	C+:	77-79
A-:	90-92	C:	73-76
B+:	87-89	C-:	70-72
B:	83-86	D+:	67-69
B-:	80-82	D:	60-66
		F:	<60

NYU CLASSES:

NYU Classes will be used extensively throughout the semester for assignments, announcements, and communication. NYU Classes 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. [Note that research suggests non-academic use of the internet is associated with poorer learning outcomes. 1,2]

COURSE OUTLINE:

Date	Topics	Readings/Materials Due	Activity
Monday Jan 9 Class #1	Morning: Orientation Afternoon: Epidemiology and the Scientific Basis of NCD Prevention and Control Surveillance and NCDs	1- <u>Lancet 2015; 385: a systematic analysis for the Global Burden of Disease Study 2013</u> 2- <u>The Global Burden of Chronic Diseases (Yach, Hawkes, Gould, Hofman)</u> 3- Surveillance - TBD	Neighborhood and campus tour
Tuesday Jan 10 Class #2	Person, place and time / social determinants <u>Guest speaker:</u> Colonization of UK with emphasis on Africa (Health)	1- <u>Lancet 2013; 381 (DiCesare and Marmot)</u> Evening: Open Bus London Night Tour	History of Disease in London tour Evening: Open Bus London Night Tour
Wednesday Jan 11 Class #3	Global Challenges in Cancer Prevention	1 – <u>New England Journal of Medicine; 2007; Introducing HPV</u>	Tour of National Health Systems facility
Thursday Jan 12 Class #4	Cardiovascular disease and stroke in low, middle, and high income countries	1- <u>Heart 2015; 101: Epidemiology of Cardiovascular Disease in the UK 2014</u> 2- <u>Promoting Cardiovascular Health in the Developing World</u>	Wellcome Trust Museum

Friday Jan 13 Class #5	Aging, Frailty Mental health Alzeheimers Disease (cardiovascular in vulnerable populations, migrants) <u>Guest Speaker:</u> TBD Migrant Health	1- NIH: Global Burden of Mental Disorders 1- AM J Geriatr Psychiatry; Health, Social and Economic Variables	
Monday Jan 16 Class #6	Risk factors Nutrition, Obesity, and Chronic Disease <i>Guest speaker</i>	1- NIH; Heritabilities of the Metabolic Syndrome 2- Prevalence of Hypertension and Associated Risk Factors in Western Alaska Native People	Site Visit: Worksite Wellness Program
Tuesday Jan 17 Class #7	Tobacco and Alcohol Environmental air pollution and chronic disease; chemicals in water and chronic disease Genetics and the Global Burden of NCDs	2- WHO Tobacco cessation framework (http://www.who.int/tobacco/resources/publications/tobacco_dependence/en/#)	Site Visit: National Portrait Gallery (Illnesses of Royals)
Wednesday Jan 18 Class #8	Interventions and implementation, policy, science in NCD's <u>Guest Speaker:</u> Dr. Juliet Bedford, Founder/Director, Anthrologica	To be assigned	<u>Evening:</u> Farewell dinner
Thursday Jan 19 Class #9	Policy initiatives – Ghana and UK Student departure	RFA's	
Jan 20	Final Due		

Program is subject to change. Additional readings may be assigned during program.

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 CGPH 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 CGPH 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 alumni of New York University.

Plagiarism

Plagiarism, whether intended or not, is not tolerated in the CGPH. 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 CGPH and CGPH 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 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 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 CGPH Student Complaint Procedure.

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.