DEPAUL | School of Continuing and Professional Studies

Global Infectious Diseases and Health
Undergraduate Course Information Guide

Course Number: CCS 328- 4 credits, 10 Weeks
Delivery Formats: Online Async, On Campus, Online: Sync, Hybrid

Course Description

In this course we will learn about the global burden of disease with an emphasis on understanding the critical intersection of policy, social expectations in determining how health systems function and adapt to address new challenges; and examine why some health systems are so fragile in the face of new disease challenges such as the Covid-19 pandemic. We will look at the role of globalization in introducing "western world" diseases to low and middle income countries, and we will learn about the science-based methods and tools we have to track the emergence of new disease threats, assess global disease burden, understand disease mitigation strategies, and compare our ability to measure improvements in health outcomes in well-resourced and resource-poor countries. Online learning will include readings, slide presentations, discussions, and open-source epidemiological tools to examine disease burden and trends.

Learning Outcomes

After completing this course, you will be able to:

• Discuss the global burden of disease and related public health challenges, with particular regard to infectious diseases, by drawing upon course materials, assigned readings and independent research.

• Understand the difference between communicable and non-communicable diseases and clearly distinguish endemic, epidemic and pandemic disease.

• Describe at least three contributing factors complicating the reduction of the burden disease, and demonstrate approaches to dealing with this disease in a resource-poor setting.

• Describe the impact of culture, environment and policy on the trajectory of disease burden globally.

• Understand how scientific methods are used to assess disease burden, monitor and track disease, and measure the outcomes of health interventions in resource-poor settings.

Learning Strategies and Resources

Some learning activities, assignments and deadlines will vary depending on the delivery format of the course and may differ slightly from what is presented in this document.

Students will follow ten (10) online modules (one per week) that include readings, slide presentations, videos, and interactive features tracing the global disease burden, starting with a basic understanding of the methodology we use to describe and track disease. We will work through modules that explore the different triggers and pressure points of the global disease burden. Please note that videos supplement the full module readings; they do not replace them.

Required Readings

Books and learning materials are available at the DePaul bookstore, at http://depaul-loop.bncollege.com, or through alternative sources.

Additional readings available on Electronic Reserve, at the DePaul Library. Login to Ares Course Reserves and select the course. Log in using your Campus Connect User ID and password. You will then get a page listing the courses in which you're enrolled that have readings posted in Ares. Click on the title of this course and the list of our electronic reserve readings will be displayed.

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Learning Deliverables

At the end of module 2, there will be an initial assessment assignment. At the end of week 5, there will be a mid-term exam; this exam will be a take home exam. It will cover subject matter learned in the first 5 weeks of class.

Students taking the class for two credits will take a shorter exam than the students taking the exam for four credits. The exam will contain questions related to information covered in both the written modules and the video lectures. All students must take the mid-term exam.

At the end of week 10, there will be a final exam for all students. This will be a take home exam and it will cover subject matter learned throughout the full 10 weeks of class. All students must take the final exam.

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Assessment of Student Learning

Grading Practices

Students will be graded in the discussions based on weekly participation, posting comments that reflect an understanding of the subject matter of the week and on thoughtful, informed responses to other students' postings.

50% of the weekly discussion grade will be for an original student post; 50% will be for a thoughtful response to a classmate.

The mid-term exam will review topics covered in the first five weeks of class. Each question will be worth 5 points (students taking the class for only two credits will have a shorter exam than students taking the exam for four credits).

The final exam will have questions relevant to all topics covered in the full ten weeks of class.

Distribution of Grade Points

Graded Assignments	**Percentage of Final Grade**
Weekly Discussions	20%
Week 2 Assignment	5%
Mid-term Exam for students taking 2 credit hours	10%
Mid-term Exam for students taking 4 credit hours	20%
Final Exam for students taking 2 credit hours	65%
Final Exam for students taking 4 credit hours	55%

Grading Scale

A = 95 to 100	A- = 91 to 94	B+ = 88 to 90
B = 85 to 87	B- = 81 to 84	C+ = 77 to 80
C = 73 to 76	C- = 69 to 72	D+ = 65 to 68
D = 61 to 64	F = 60 or below	INC

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Course Schedule

Week or Module Title or Theme	Readings / Learning Activities	Graded Assignments
Week 1, Module 1: An Introduction to global health and measuring disease burden	Read: Module 1 Child poverty, toxic stress, and social determinants of health How to read a scientific paper Video: Introduction to the course Measuring Disease Burden	Discussion: Introductions
Week 2, Module 2: Microbes, infectious diseases and vaccines	Read: Module 2 Status of HPV vaccination globally Video: Microbes Vaccine development	Discussion: the importance of vaccines Initial assessment:
Week 3, Module 3: Understanding epidemics	Read: Module 3 Exploring R naught with the epidemic calculator Plot an epidemic curve Video: Epidemic Curves and containment measures R naught and herd immunity	Discussion: the role of the media in epidemics

Week 4, Module 4: Maternal and child health	Read: Module 4 Reducing neonatal deaths in South Africa World Health Assembly global nutrition targets 2025 Healthy Women, Healthy World Video: Maternal and child health	Discussion: Ideas for addressing the health care needs of mothers and children in LMICs
Week 5, Module 5: Antibiotics and antimicrobial resistance	Read: Module 5 WHO MDR-TB 2017 update The Resistance Map: interactive exploration of antimicrobial resistance Video: Antimicrobial resistance	Discussion: Public awareness of the antimicrobial threat Mid-term exam
Week 6, Module 6: Chronic non-communicable diseases	Read: Module 6 Tobacco control progress in low and middle income countries Social determinants of health: poverty, national infrastructure and investment: cancer case study from Ethiopia Cancer control in low and middle income countries: is it time to consider screening? Video: Non-communicable diseases	Discussion: How do we tackle the health burden for countries in two stages of the epidemiologic transition at the same time?
Week 7, Module 7: Global aid, Universal Health Coverage	Read: Module 7	Discussion: Where does the United States stand on achieving UHC?

	More, better, faster and sustained: strengthen primary health care to advance universal health coverage A study on the public health and socioeconomic impact of substandard and falsified medicines Video: Global health diplomacy and PEPFAR Universal health coverage	
Week 8, Module 8: Science versus Policy	Read: Module 8 Public administration, science and risk assessment: a case study of the UK bovine spongiform encephalopathy case Politics and public health: engaging the third rail Video: Science versus policy	Discussion: What have we learned during the Covid-19 pandemic about science versus policy
Week 9, Module 9: Habitat disruption and disease	Read: Module 9 Habitat fragmentation, biodiversity loss and the risk of novel infectious disease emergence Seed dispersal and forest fragmentation in Colombia Video: Habitat disruption	Discussion: Our own or local examples of habitat disruption
Week 10, Module 10: Health system infrastructure and the Sustainable Development Goals	Read: Module 10 The impact of physician migration on mortality in low and middle income countries	Discussion: What solutions might be available to address the challenges in health care infrastructure in LMICs?

	Health in Africa: corruption and misplaced priorities Investing in non-communicable disease prevention and management to advance the Sustainable Development Goals Video: Health care infrastructure	Final exam

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Course Policies

For access to all SCPS and DePaul University academic policies, refer to the following links:

SCPS Student Resources Website

DePaul Student Handbook

The D2L Course Website for this course.

Credit for Prior Learning

Students whose home college is SCPS that have not transferred more than 99 credit hours from community college or exam credit, and have not reached 132 credit hours toward graduation may qualify for prior learning credit. If you have prior knowledge you think may be equivalent to the learning outcomes of a SCPS course, you can contact the Office of Prior Learning Assessment at scpspla@depaul.edu or the PLA website for information on how to submit a proposal to use Prior Learning Assessment (PLA) credit for a nominal fee in lieu of regular tuition as an alternative to completing a course.

Course Syllabus

The official syllabus for this course that includes course dates, instructor information and quarter specific details will be provided by the course instructor by the start of the course and available on the course D2L website.

Course Registration

To find out when this course will be offered next, you can go to the SCPS Registration website for details on how to register for the course.

For information on how this course can apply to your program, contact your academic advisor.

School of Continuing and Professional Studies

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