# SW 328/CCS 328

**GLOBAL INFECTIOUS DISEASES AND HEALTH**

Autumn, 2020-2021

## INSTRUCTOR INFORMATION

Name: Siobhán Ní Bhuachalla, MPH

Office Location: Online only

You can reach me at 847-224-6065 or at snibhuac@depaul.edu

Course Dates: September 9 through November 24, 2020

Course Location and Delivery Format 100% online

## COURSE DESCRIPTION

In this course we will learn about the world of global health and emerging infectious diseases, with an emphasis on understanding the critical intersection of policy, social expectations in determining how health systems function and adapt to address new challenges such as the Covid-19 pandemic; and examining why some health systems are so fragile in the face of new health challenges. 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 novel infectious diseases such as Covid-19 as well as monitoring growing disease burden from chronic diseases, 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 AND, IF RELEVANT COMPETENCIES:

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 & RESOURCES

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.

LEARNING DELIVERABLES (GRADED EVIDENCES OF LEARNING)

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 must take the mid-term exam; and must answer at least 7 questions of the 15 questions in the exam. Students taking the class for 4 credits must answer all 15 questions in the mid-term exam. The exam will contain questions related to information covered in both the written modules and the video lectures.

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 answer all questions in the final exam.

Syllabus, SW 328/ CCS328
Each module contains online discussions, so you can share knowledge and communicate with your virtual classmates. **These discussions are mandatory and must be completed within the week they are open.** Participation in the discussions is defined as posting at least one original comment reflecting the student’s understanding of the issue and directly addressing the question posed in the discussion and at least two thoughtful responses to class colleagues.

**Assessment of Student Learning**

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. In discussions that ask for opinions, it is expected that those opinions will be formed after researching the issue and reading the module of the week. Opinions that do not address the question asked in the discussion will not be graded. 50% of the weekly discussion grade will be for an original student post; 50% will be for a thoughtful response to a classmate. All comments (original posts and responses to classmates) must be posted in the week that a discussion is open. No early posting (in advance of the week) is permitted and no late or retro-posting (after the week has passed) is permitted.

The mid-term exam will be required of all students; students taking the class for 2 credits must answer 7 of the questions; students taking the class for 4 credits must answer all the questions. The mid-term exam will have 15 questions on topics covered in the first five weeks of class. Each question is worth 5 points. Some questions may have more than one component or more than one correct answer: points will be awarded for partial answers.

The final exam will be required of all students taking the class. The exam will have questions relevant to **all topics covered in the full ten weeks of class**. Grading will follow the same format as the mid-term exam.

**Grading Criteria & Scale**

The initial assessment assignment in week 2 will represent 5% of the overall grade. All students are required to take the initial week 2 assessment.

The weekly discussions will represent 20% of the overall grade. All students are required to participate in the weekly discussions: 50% of the weekly discussion grade will be for an original student post; 50% will be for a thoughtful response to a classmate. Please see Assessment of Student Learning (paragraph above for further guidance on weekly discussions).

The week 2 initial assignment will represent 5% of the overall grade for all students.

The mid-term exam will represent 20% of the overall grade for students taking the class for 4 credits and
10% of the overall grade for students taking the class for 2 credits.

The final exam will represent 55% of the overall grade for students taking the class for 4 credits

The final exam will represent 65% of the grade for students taking the class for 2 credits

Fractional points/percentages will be rounded to the higher grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>95 to 100</td>
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<tr>
<td>A-</td>
<td>91 to 94</td>
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<td>B+</td>
<td>88 to 90</td>
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<td>B</td>
<td>85 to 87</td>
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<tr>
<td>B-</td>
<td>81 to 84</td>
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<tr>
<td>C+</td>
<td>77 to 80</td>
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<tr>
<td>C</td>
<td>73 to 76</td>
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<tr>
<td>C-</td>
<td>69 to 72</td>
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<tr>
<td>D+</td>
<td>65 to 68</td>
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<tr>
<td>D</td>
<td>61 to 64</td>
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<td>F</td>
<td>60 or below</td>
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PASS/FAIL GRADE POLICY
Students interested in taking a course on a Pass/Fail grade basis need to contact their academic advisor to request the option by the end of the second week of the course. SCPS students can email their requests to their advisors and include the course number, quarter, and student ID number. Non-SCPS students need to contact their home college for instructions on submitting these requests. Please review the P/F guidelines, course restrictions and GPA implications in the University catalog before making your request. A grade of Pass represents a D or better standard and therefore will not meet requirements that have a minimum standard of C- or better. For further clarification of the P/F option for SCPS students beyond the university guidelines, please refer to the SCPS catalog.

MINIMUM SCPS GRADE POLICY
SCPS degree programs with majors (BAPSBA, BAPSC, BAH, BADA, BANM, and BALS) require a grade of C- or better in courses taken at DePaul or transfer work applied to course requirements in the Major and in the LL 261: Essay Writing course in the College Core. All other course requirements in these programs can be completed with a grade of D or better. SCPS degree completion major programs (BAABS and
BALS) require a C- or better in all courses taken at DePaul applied to those programs. SCPS competence-based programs (BAIFA, BAC, BAGB and BAECE) require a D or better in courses taken at DePaul or transfer work applied to competence requirements.

INCOMPLETE (IN) GRADE
This process follows university policy.

A student who encounters an unusual or unforeseeable circumstance that prevents her/him from completing the course requirements by the end of the term may request a time extension to complete the work.

- The student must formally initiate the request by submitting the Contract for Issuance of Incomplete Grade form (via email, word doc), no later than week 10 (or prior to the final week of a shorter-term course).
- *The instructor has discretion* to approve or not approve the student’s request for an IN grade.
- *The instructor has discretion* to set the deadline for completion of the work, which may be earlier but no later than two quarters (not counting Summer term).
- The instructor *may not* enter an IN grade on behalf of a student without a completed and agreed upon contract.
- The student is alerted that IN grades are not considered by Financial Aid as evidence of satisfactory academic progress.

COURSE SCHEDULE
With the exception of week one, which starts on a Wednesday (September 9), we will start each week on a Monday. New modules initiate each Monday. The class week will run Monday through Sunday and participation in weekly discussions must take place during that time. Each weekly discussion will open at 6 am on Monday and close on Sunday night at 11:30 pm. No grades will be awarded for discussion participation outside of the class week.

<table>
<thead>
<tr>
<th>Module</th>
<th>Discussion Assignment</th>
<th>Other Assignment</th>
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<tbody>
<tr>
<td>Module 1</td>
<td>Discussion: Introductions</td>
<td>Read: Module 1</td>
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<tr>
<td>An Introduction to global health and measuring disease burden</td>
<td>DUE: September 20</td>
<td>Video:</td>
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<tr>
<td></td>
<td></td>
<td>1. Introduction to the course</td>
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<td>2. Measuring Disease Burden</td>
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<td><strong>Additional readings/resources for more context:</strong></td>
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<tr>
<td></td>
<td></td>
<td>1. Child poverty, toxic stress, and social determinants of health</td>
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<td></td>
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<td>2. How to read a scientific paper</td>
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</tbody>
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| Module 2 | Discussion: the importance of vaccines | Read: Module 2  
Video:  
1. Microbes  
2. Vaccine development  
Additional readings/resources for more context:  
1. Status of HPV vaccination globally  
Initial assessment: |
| --- | --- | --- |
| Microbes, infectious diseases and vaccines  
DUE: September 27 |  |  |
| Module 3 | Discussion: the role of the media in epidemics | Read: Module 3  
Video:  
1. Epidemic Curves and containment measures  
2. R naught and herd immunity  
Additional readings/resources for more context:  
1. Exploring R naught with the epidemic calculator  
2. Plot an epidemic curve |
| Understanding epidemics  
DUE: October 4 |  |  |
| Module 4 | Discussion: Ideas for addressing the health care needs of mothers and children in LMICs | Read: Module 4  
Video:  
1. Maternal and child health  
Additional readings/resources for more context:  
1. Reducing neonatal deaths in South Africa  
2. World Health Assembly global nutrition targets 2025  
3. Healthy Women, Healthy World |
| Maternal and child health  
DUE: October 11 |  |  |
| Module 5 | Discussion: Public awareness of the antimicrobial threat | Read: Module 5  
Video:  
1. Antimicrobial resistance  
Additional readings/resources for more context:  
1. WHO MDR-TB 2017 update  
2. The Resistance Map: interactive exploration of antimicrobial resistance  
Mid-term exam: exam opens October 18 and is due by 11:30 pm October 22 |
| Antibiotics and antimicrobial resistance  
Module DUE: October 18  
Mid-term exam due: October 22 |  |  |
| Module 6 | Discussion: How do we tackle the health burden | Read: Module 6  
Video:  
1. Non-communicable diseases |
|  |  |  |
| Chronic non-communicable diseases | for countries in two stages of the epidemiologic transition at the same time? | Additional readings/resources for more context:  
1. Tobacco control progress in low and middle income countries  
2. Social determinants of health: poverty, national infrastructure and investment: cancer case study from Ethiopia  
3. Cancer control in low and middle income countries: is it time to consider screening? |
| --- | --- | --- |
| Module 7  
Global aid, Universal Health Coverage | Discussion: Where does the United States stand on achieving UHC? | Read: Module 7  
Video:  
1. Global health diplomacy and PEPFAR  
2. Universal health coverage  
Additional readings for more context:  
1. More, better, faster and sustained: strengthen primary health care to advance universal health coverage  
2. A study on the public health and socioeconomic impact of substandard and falsified medicines |
| Module 8  
Science versus Policy | Discussion: What have we learned during the Covid-19 pandemic about science versus policy | Read: Module 8  
Video:  
1. Science versus policy  
Additional readings for more context:  
1. Public administration, science and risk assessment: a case study of the UK bovine spongiform encephalopathy case  
2. Politics and public health: engaging the third rail |
| Module 9  
Habitat disruption and disease | Discussion: Our own or local examples of habitat disruption | Read: Module 9  
Video:  
1. Habitat disruption  
Additional readings for more context:  
1. Habitat fragmentation, biodiversity loss and the risk of |
<table>
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<tr>
<th>Module 10</th>
<th>Health system infrastructure and the Sustainable Development Goals</th>
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<tbody>
<tr>
<td><strong>Discussion:</strong></td>
<td>What solutions might be available to address the challenges in health care infrastructure in LMICs?</td>
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<tr>
<td><strong>Module DUE:</strong></td>
<td>November 22</td>
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<tr>
<td><strong>Final exam opens November 20 and is due AT LATEST by 11:30 pm November 25</strong></td>
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<thead>
<tr>
<th><strong>Read:</strong></th>
<th>Module 10 Video:</th>
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<tbody>
<tr>
<td>1. Health care infrastructure</td>
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**Additional readings for more context:**
1. The impact of physician migration on mortality in low and middle income countries
2. Health in Africa: corruption and misplaced priorities
3. Investing in non-communicable disease prevention and management to advance the Sustainable Development Goals

**Final exam:** exam opens November 20 and is due AT LATEST by 11:30 pm November 25

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**COURSE POLICIES**

Describe here the specific policies and procedures the instructor has for the course that are additional to the college/university policies, for example, classroom/discussion etiquette, late work, code of responsibility, etc. Include how changes to the syllabus will be communicated. (Changes to the originally published course syllabus used to select/register for a course should be communicated in the first session/week of the course in writing; if significant assignment changes are made during the course it should be done officially with the consensus approval of students.)

Select the applicable policies below (i.e., UGRAD and/or GRAD) depending on the level of your course. Include the statement:

*THIS COURSE INCLUDES AND ADHERES TO THE COLLEGE AND UNIVERSITY POLICIES DESCRIBED IN THE LINKS BELOW:*

- APA citation format (GRAD)
- Academic Integrity Policy (GRAD)
- Academic Integrity Policy (UGRAD)

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Syllabus, SW 328/ CCS328
Incomplete (IN) and Research (R) Grades Expiration Policy

Withdrawal/Drop Policy and Withdrawal Tuition

Accommodations Based on the Impact of a Disability

Students are also invited to contact me privately to discuss your challenges and how I may assist in facilitating the accommodations you will use during this course. This is best done early in the term and our conversation will remain confidential.

Protection of Human Research Participants

OTHER RESOURCES FOR STUDENTS
University Center for Writing-based Learning
Dean of Students Office

INSTRUCTOR BRIEF BIO
Siobhán NiBhuachalla, M.P.H.

Siobhán Ni Bhuachalla has worked in the field of global health care policy for over 25 years. Her experience covers international patient advocacy in movement disorders, infectious diseases and cancer; creating innovative approaches to access to medicines in emerging economies; training patient advocates in Latin America on techniques to promote disease awareness; developing a global campaign to educate stakeholders on awareness of substandard and counterfeit medicines; the development of public-private initiatives among industry, government and NGOs to advance new vaccine programs under the Federal Agency Biodefense Program; and most recently working with a faculty of advisors from Harvard School of Public Health, Oxford University and the London School of Hygiene and Tropical Medicine on an initiative to promote sustainable health systems; and helping to build a population health strategy for breast cancer in low and middle income countries. She has a degree in Law from the National University of Ireland (Dublin) and a Masters degree in Public Health from Johns Hopkins University. She is an emeritus member of the Educational Advisory Board of the California Academy of Family Physicians, and an FDA Award winner for excellence in consumer education.

Recording of Classroom Sessions Conducted via Videoconference tools:

- Synchronous teaching sessions can be recorded by the instructor for educational purposes. These recordings will be made available only to students presently enrolled in the course via videoconference tools.
password protected links. Links will be posted via the course webpages on D2L and viable for the present term only.

- Students are prohibited from sharing class recordings or disclosing the links to a class session to anyone outside of the course.
- Students have the right to protect their privacy during recordings by appearing in an audio-only mode; pseudonymous usernames can be used by students, if shared offline with the instructor.
- Instructors may retain portions of the recordings that contain their intellectual property consistent with University policy, with students’ identifying information removed.