# IDS 2935 The Next Pandemic

### Quest 2

## I. Course Information

### **Spring 2021**

Time:	M/W/F Period 3 (9:35am-10:25am)
Location:	Class will meet synchronously, in-person in McCarty Hall A (MCCA) room 1142

Primary General Education Designation: Biological Sciences Secondary General Education Designation: International (N) \*A minimum grade of C is required for general education

#### Instructor

Instructor:	Dr. Gabriela Hamerlinck Turlington 3122   352.294.7513
Office Hours:  Office hours will be held both in Dr. Hamerlinck's office and via Zoom. The Zoom link will be provided on the front page of our Canvas course.	Tuesday noon – 2:00 pm Wednesday 11:00 am – 1:00 pm (or by appointment)
E-Mail:	ghamerlinck@ufl.edu

## **Course Description**

This course is an introduction to human diseases that have shaped our civilization. Students will learn about significant historic outbreaks, modern diseases that plague our society, and hypothesize what the next pandemic will be. Disease outbreaks today are growing increasingly complex with the many emerging social, political and demographic changes in our population, as well as dynamic changes in animal and vector populations and the environment. As a result, we need new and creative mechanisms of disease prevention and control. Diseases with a pandemic potential could greatly influence the social, political and economic stability of a country, region or even the world.

There will be a considerable focus on disease burden held by resource poor areas, as well as the underlying risk factors that lead to their emergence and geographic spread. We will review a variety of diseases that have a global health significance, and explore different interventions (prevention and control strategies) used to reduce disease burden and stop disease outbreaks.

This Quest 2 course also leverages the geographical spread of historic pandemics to guide students through predicting where the next pandemic will strike – asking students to consider the following

pressing questions: What social, political, biological, and environmental factors led to historic disease outbreaks? What would happen if our planet experienced a pandemic today? How can we prepare for the next disease pandemic?

### **Student Learning Objectives**

In this class, students will...

- 1. **Discuss and describe** fundamental concepts relating to global disease outbreaks through human history
- 2. **Explain** how diseases can become pandemics by exploring how emergence interacts with the landscape from ecological, demographic and climate perspectives
- 3. **Analyze and interpret** the impact of socioeconomic, environmental, political, and demographic factors on the risk and spread of a disease through a global population
- 4. **Synthesize** course lectures, class discussions and activities to develop a global response plan for a pandemic
- **5. Develop and present** novel solutions for real-world problems
- 6. Explain key scientific findings in written, oral, and visual formats
- 7. **Articulate and critique** their own personal beliefs and behaviors related to the spread of disease and potential future pandemics

### **Course Objectives**

This course will...

- 1. Explore the interrelatedness of globalization and socioeconomic risk factors on disease burden
- 2. **Compare** the socioeconomic, demographic, political, and environmental factors to disease risk of populations across historic and current pandemics
- 3. **Evaluate** and **critique** personal beliefs and behaviors, current challenges of preventing the global spread of disease, and how disease risk differs across international communities
- 4. Explore the role of climate change on human health and potential pathogen spread
- 5. **Discuss** the benefits and drawbacks to medical, social, and education interventions used to slow or stop the spread of pandemic pathogens
- 6. **Compare** global preparedness plans for past and present disease outbreaks to develop a response plan for the next pandemic

Required & Recommended Course Materials: *None*. Students will be assigned a set of weekly readings and videos to watch before class. All readings and links to all videos will be made available through Canvas or in hard copy from the instructor.

Materials and Supplies Fees: None

# II. Coursework & Schedule

## 1. List of Graded Work

Assignment	Description	Percent of Grade
Weekly quizzes	Students will complete a weekly 5-question multiple-choice quiz on Canvas that will test their understanding of the assigned video.	15%
Reading homework	Students will write a 25-word summary for one article in each set of assigned readings throughout the semester.	5%
Exams (x3)	Two short (one-period) tests will be administered at the end of the first and second units. Each of the exams will comprise a mix of multiple choice, short answer, diagramming, and short essay responses.	20%
In-class	Most Wednesday class periods will include an in-class activity, to be completed either as a group or individually. All students are expected to fully participate in each activity and abide by the classroom group-work guidelines.	
activities	**All members of a group will receive the same score for graded group activities and projects unless otherwise noted in the activity. Each group will complete a peer evaluation to ensure appropriate participation by all group members. Peer evaluations are required, but are not graded.	25%
Final presentation	A group presentation that designs the next pandemic and the global response plan. In-class collaboration time is provided during week 13.  **All members of a group will receive the same score for graded group activities and projects unless otherwise noted in the activity. Each group will complete a peer evaluation to ensure appropriate participation by all group members. Peer evaluations are required.	15%
Discussion leader	Students will participate fully in discussions, and will lead specific discussions in groups by presenting a short summary of the discussion topic (<5 minutes), and introducing questions based on the provided readings, for the class to explore. Students will be assigned a date and a specific discussion topic to lead following the drop/add date once the number of students in the class is finalized.	10%
Class participation	In addition to participating in online posts/discussions on Canvas, all students are expected to participate in class discussions according to the course guidelines. A rubric for class participation can be found below	5%
Reflection Students will periodically reflect on course themes and their personal beliefs and biases by composing a short reflection		5%

# 2. Weekly Course Schedule

Students should note that the syllabus is a guideline and that there may be changes to the class schedule.

Week/ Date	Activity	Topic/Assignment (Question/Subject)		
Week 1	Topic	Start of Unit 1: Historic Pandemics		
	Торіс	INTRODUCTION TO PANDEMICS		
		Wednesday Introduction to the course		
	Summary	<b>Friday</b> lecture defining what a disease is, how it becomes an epidemic or a pandemic, and a summary of agents of disease		
		Read "Agents of Disease" (14 pages; adapted from EDC's Exploring Infectious Disease)		
	Readings/Works	<b>Read</b> Senthilingam, M. (2017). Seven reasons we're at more risk than ever of a global pandemic. <i>CNN, available at</i> : <a href="www.cnn.com/2017/04/03/health/pandemic-risk-virus-bacteria/index.html">www.cnn.com/2017/04/03/health/pandemic-risk-virus-bacteria/index.html</a>		
	Assignment	Compose a 25-word summary for "Agents of Disease"		
Week 2 Topic PLAGUE		PLAGUE		
Monday lecture with a brief introduction to the social, political, and economic facets of c		Monday lecture with a brief introduction to the social, political, and economic facets of disease		
	Summary Wednesday lecture on plague with an introduction to the three documented plague pan Black Death, and Modern).			
		<b>Friday</b> "tempting fate" card game activity simulation of the social, political, and economic impacts of the Black Death.		
	Readings/Works	<b>Read</b> Cohn, S. (2008). 4 Epidemiology of the Black Death and Successive Waves of Plague. <i>Medical History</i> , 52(S27), 74-100. doi:10.1017/S0025727300072100		
	Readings/ Works	Watch Documentary: Timeline "The Great Plague" <a href="https://www.youtube.com/watch?v=HPe6BgzHWY0">https://www.youtube.com/watch?v=HPe6BgzHWY0</a> (77 mins)		
	Assignment	1. Compose a 25-word summary for Cohn (2008)		
		2. Watch plague documentary and complete quiz on Canvas		
		3. Guided reflection		

Week/ Date	Activity	Topic/Assignment (Question/Subject)		
Week 3	Topic	Influenza		
Treeks	10010	Monday no class (holiday)		
	Summary	Wednesday lecture on influenza biology, introducing the idea of antigenic drift vs shift. Brief overview of the differences between seasonal flu and a pandemic flu.		
		Friday activity on the Spanish Flu pandemic		
		Read Webster, R.G., and Walker, E.J. (2004). Influenza. American Scientist 91: 122–129.		
	Readings/Works	<b>Watch</b> Documentary: The 1918 Influenza Pandemic in America – Struggle Against the Spanish Flu <a href="https://www.youtube.com/watch?v=l0juBE-ra3A">https://www.youtube.com/watch?v=l0juBE-ra3A</a> (57 mins)		
	Assignment	1. Compose a 25 word summary of Webster and Walker (2004)		
		2. Watch flu documentary and complete quiz on Canvas		
Week 4	Topic	SMALLPOX		
		Monday lecture on smallpox, specifically about how it is a vaccination success story in controlling a pandemic		
	Summary	Wednesday smallpox activity		
		Friday student-led discussion on bioterrorism and the ethics of disease		
	Read Henderson, D.A. (2011). The eradication of smallpox – An overview of the past, pr Vaccine 29S: D7-D9.			
I Readings/Works I		<b>Read</b> Tognotti, E. (2010). The eradication of smallpox, a success story for modern medicine and public health: What lessons for the future? <i>Journal of Infection in Developing Countries</i> . 4: 264-266.		
		Watch Ted Talk by Dr. Larry Brilliant on the global smallpox vaccination effort <a href="https://www.ted.com/talks/larry brilliant my wish help me stop pandemics">https://www.ted.com/talks/larry brilliant my wish help me stop pandemics</a> (26 mins)		
	Assignment	1. Compose a 25 word summary for either Henderson (2011) or Tognotti (2010)		
		2. Watch the assigned Ted Talk and complete quiz on Canvas		
		3. Guided reflection		

Week/ Date	Activity	Topic/Assignment (Question/Subject)		
Week 5	Topic	EXAM WEEK		
	1000	Monday unit summary (historic pandemics)		
	Summary	Wednesday exam review		
	,	Friday exam		
	Readings/Works	None		
	Assignment	1. Post as least 2 questions you have about the unit to Canvas		
		Optional: Post any additional questions you have to Canvas		
	Start of Unit 2: Current Pandemics			
Week 6	Topic	VACCINATIONS (MEASLES AND DENGUE)		
Monday lecture on measles, how it is a va		Monday lecture on measles, how it is a vaccination failure story throughout the world		
	Summary Wednesday vaccination case study (Dengvaxia in the Philippines)			
Friday vaccination gallery walk activity for a c		Friday vaccination gallery walk activity for a class-compiled vaccination timeline		
		Watch Documentary: Dengue: The hunt for a vaccine <a href="https://www.youtube.com/watch?v=xnPK8vPNMfy">https://www.youtube.com/watch?v=xnPK8vPNMfy</a> (45 mins)		
	Readings/Works	<b>Read</b> Fatima, K., & Syed, N. I. (2018). Dengvaxia controversy: impact on vaccine hesitancy. <i>Journal of Global Health</i> , 8(2), 010312. doi:10.7189/jogh.08-020312		
		<b>Read</b> ABC: Samoa shuts schools and declares emergency ( <a href="https://abcnews.go.com/Health/wireStory/samoa-shuts-schools-declares-emergency-measles-kills-67095260">https://abcnews.go.com/Health/wireStory/samoa-shuts-schools-declares-emergency-measles-kills-67095260</a> )		
	Assignment 1. Watch dengue documentary and complete quiz on Canvas			
		2. Compose a 25 word summary for Fatima and Syed (2018)		
		3. Prepare a single slide on an assigned event in vaccine development history for the gallery walk		
Week 7	Topic	COVID-19		

Week/ Date	Activity	Topic/Assignment (Question/Subject)	
		Monday Lecture on COVID-19 and what makes a modern pandemic.	
	Summary	Wednesday Activity: Exploring disease modeling – how can we stop a pandemic?  ( <a href="https://www.color.com/covid-19-outbreak-model">https://www.color.com/covid-19-outbreak-model</a> )	
		Friday Discussion with follow up questions from the activity above	
	Watch "The role of applied math in real-time pandemic response: How basic disease models work" by Nina Fefferman (recording and slides available via <a href="NIMBioS">NIMBioS</a> ) <a href="https://www.youtube.com/watch?v=Ewuo_2pzNNw&amp;feature=youtu.be">NIMBioS</a> ) <a href="https://www.youtube.com/watch?v=Ewuo_2pzNNw&amp;feature=youtu.be">NIMBioS</a> )		
	Readings/Works	Explore New York Times "How the Virus Won" interactive story:  https://www.nytimes.com/interactive/2020/us/coronavirus-spread.html	
		<b>Read</b> Walker, P. G., Whittaker, C., Watson, O. J., Baguelin, M., Winskill, P., Hamlet, A., & Thompson, H. (2020). The impact of COVID-19 and strategies for mitigation and suppression in low-and middle-income countries. <i>Science</i> . 369: 413-422.	
	Assignment	1. Watch Dr. Fefferman's webinar and complete quiz on Canvas	
		2. Compose a 25-word summary for Walker et al. (2020).	
		3. Guided reflection	
Week 8	Topic	CHOLERA	
		Monday lecture on cholera and how a historic pandemic made a comeback in current times	
	Summary	Wednesday activity on how geographic patterns can be analyzed to identify the source of an epidemic	
		Friday student-led discussion on the activity and documentary	
		Watch Ted Talk by journalist Rose George "Let's talk crap. Seriously." <a href="https://www.ted.com/talks/rose_george_let-s-talk-crap-seriously">https://www.ted.com/talks/rose_george_let-s-talk-crap-seriously</a> (14 mins)	
	Readings/Works	Read NPR: Why is cholera making headlines in 2019?	

Week/ Date	Activity	Topic/Assignment (Question/Subject)		
		<b>Read</b> Chunara, R., Andrews, J. R., & Brownstein, J. S. (2012). Social and news media enable estimation of epidemiological patterns early in the 2010 Haitian cholera outbreak. <i>The American journal of tropical medicine and hygiene</i> , <i>86</i> (1), 39–45. doi:10.4269/ajtmh.2012.11-0597		
	Assignment	1. Watch Rose George's Ted Talk and complete quiz on Canvas		
		2. Compose a 25-word summary for Chunara et al. (2012)		
		3. Guided reflection		
Week 9	Topic	OBESITY		
	Summary	Monday lecture on obesity, a different way of thinking about pandemics, and how it is not just an American problem  Wednesday food desert activity to propose creative solutions to food deserts		
		Friday student-led discussion on diseases of poverty		
	Readings/Works	Watch Documentary: HBO Docs "Weight of the Nation: Poverty and Disease" <a href="https://www.youtube.com/watch?v=7MJnm5X9NN0">https://www.youtube.com/watch?v=7MJnm5X9NN0</a> (25 mins)		
		<b>Read</b> Roth, J., Qiang, X., Marbán, S.L., Redelt, H. and Lowell, B.C. (2004), The Obesity Pandemic: Where Have We Been and Where Are We Going? <i>Obesity Research</i> , 12: 88S-101S. doi:10.1038/oby.2004.273		
	Assignment	1. Watch obesity documentary and complete quiz on Canvas		
		2. Compose 25 word summary for Roth et al. (2004)		
		3. Guided reflection		
Week 10		SPRING BREAK		
Week 11	Topic	EXAM WEEK		
		Monday unit summary (current pandemics)		
	Summary	Wednesday exam review		
		Friday exam		
	Readings/Works	None		

Week/ Date Activity		Topic/Assignment (Question/Subject)		
	Assignment	1. Post as least 2 questions you have about the unit to Canvas		
		Optional: Post any additional questions you have to Canvas		
Week 12	Topic	Start of unit 3: Future pandemics		
WCCK 12	Торге	CLIMATE AND DISEASE		
		Monday lecture on climate impacts for disease and other health factors		
	Summary	Wednesday activity co-led by a UF Geography climate scientist		
		Friday Student-led discussion on extreme weather and disease		
	Watch CDC Grand Rounds "Climate change and health – From science to practice"  https://www.youtube.com/watch?v=6V_OJaE2Gz0 (59 mins)  Readings/Works  Readings/Works  Readings/Works  Example reading: Berry, P., Enright, P. M., Shumake-Guillemot, J., Villalobos Prats, E., & Campb D. (2018). Assessing health vulnerabilities and adaptation to climate change: A review of interruptogress. International Journal of Environmental research and public health, 15: 2626. (25 pp.)  Example reading: Ford, J. D. (2012). Indigenous health and climate change. American journal of health, 102(7), 1260-1266.			
	Assignment	1. Compose 25 word summary for TBD reading from guest lecturer		
		2. Watch CDC Grand Rounds video and complete quiz on Canvas		
		3. Guided reflection		
Week 13	Topic	EBOLA		

Week/ Date	Activity	Topic/Assignment (Question/Subject)		
		Watch Documentary: PBS "Spillover: Zika, Ebola & Beyond" <a href="https://www.pbs.org/spillover-zika-ebola-beyond/home/">https://www.pbs.org/spillover-zika-ebola-beyond/home/</a> (56 mins)  Read New York Times "Ebola fallacies" <a href="https://www.nytimes.com/2014/10/24/us/fallacies-are-spreading-as-readily-as-the-virus-has.html">https://www.nytimes.com/2014/10/24/us/fallacies-are-spreading-as-readily-as-the-virus-has.html</a>		
	Readings/Works	Read New York Times "Ebola virus outbreak" <a href="https://www.nytimes.com/interactive/2014/07/31/world/africa/ebola-virus-outbreak-qa.html">www.nytimes.com/interactive/2014/07/31/world/africa/ebola-virus-outbreak-qa.html</a>		
	Read Kilgo, D. K., Yoo, J., & Johnson, T. J. (2018). Spreading Ebola panic: Newspaper and social me of the 2014 Ebola health crisis. <i>Health communication</i> . 34: 811-817.  Watch Wired video "Disease expert breaks down pandemic scenes from film and TV" <a href="https://www.youtube.com/watch?v=feGHmv">https://www.youtube.com/watch?v=feGHmv</a> eDcw&feature=youtu.be (22 mins)			
	Assignment	Watch PBS documentary and complete quiz on Canvas		
		2. Compose 25 word summary for one of the NYT articles		
		3. Watch Wired video		
Week 14	Topic	FINAL PROJECT WORK TIME		
	Summary	Monday and Wednesday group work time to design the next pandemic and the global response plan (these two days of group work time are considered a single activity for the grading scheme)  Friday group presentations (design and timing of presentations will be determined by class size)		
	Readings/Works	None		
	Assignment	Group presentations		
Week 15	Topic	ZOMBIES		
		Monday lecture on zombies in the real world		
	Summary	Wednesday activity simulation of zombie types and possible interventions to stop the zombie apocalypse		
		Friday student-led discussion on diseases in pop culture		

Week/ Date	Activity	Topic/Assignment (Question/Subject)		
		<b>Read</b> Munz, P., Hudea, I., Imad, J., & Smith?, R. J. (2009). When zombies attack!: mathematical modelling of aroutbreak of zombie infection. Infectious disease modelling research progress, 4, 133-150.		
	Readings/Works	Listen NPR interview with Robert Smith? "Who will win in human, zombie war?" (3 mins)		
		Read CDC "Zombie Pandemic" (graphic novel) <a href="https://www.cdc.gov/cpr/zombie/00">https://www.cdc.gov/cpr/zombie/00</a> docs/zombie pandemic.pdf (36 pages)		
	Assignment	1. Read Munz et al. (2009) and listen to the NPR interview to complete quiz on Canvas		
		2. Guided reflection		
Week 16	Topic	WRAP UP		
		Monday course summary (future pandemics)		
	Summary	Wednesday Wrap up discussion		
		Friday no class (reading days).		
	Readings/Works	None		
	Assignment	Peer reviews of final presentations		
Finals week	Final	SUBMIT YOUR FINAL REFLECTIONS AND PEER REVIEWS		

# III. Grading

## 3. Statement on Attendance and Participation

### Attendance and Participation:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <a href="https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/">https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/</a>

- Attendance: will be taken daily. Attendance and participation are critical to successful completion of
  this course. You are allowed one "personal day" for the semester, after which each absence that
  does not meet university criteria for "excused" will result in a two-point deduction from your final
  grade.
- <u>Participation:</u> Consistent informed, thoughtful, and considerate class participation is expected and will be evaluated using the rubric below. The instructor will inform you of your participation grade to date when mid-term exams are returned and schedule a conference if you are earning below 70% of the possible points.
- <u>NOTE:</u> If you have personal issues that prohibit you from joining freely in class discussion, e.g., shyness, language barriers, etc., see the instructor as soon as possible to discuss alternative modes of participation.

### Participation Grading Rubric:

	High Quality	Average	Needs Improvement
Informed: Shows evidence of having done the assigned work. This includes class preparation (i.e. posting questions to Canvas prior to class)			
Thoughtful: Shows evidence of having understood and considered issues raised.			
Considerate: Takes the perspective others into account.			

## 4. Grading Scale

For information on how UF assigns grade points, visit: <a href="https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/">https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/</a>

A	<b>A-</b>	B+	В	B-	C+	C	C-	D+	D	D-	E
100-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	63-66	62-60	59-
(4.0)	(3.67)	(3.33)	(3.0)	(2.67)	(2.33)	(2.0)	(1.67)	(1.33)	(1.0)	(0.67)	(0)

# V. General Education and Quest Objectives & SLOs

## 7. This Course's Objectives—Gen Ed Primary Area and Quest

## **Biological Sciences + Quest 2 + Course Objectives**

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Biological Sciences Objectives	Quest 2 Objectives	This Course's Objectives → (This course will)	Objectives will be Accomplished By:  (This course will accomplish the objective in the box at left by)
Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences.	Address in relevant ways the history, key themes, principles, terminologies, theories, or methodologies of the various social or biophysical science disciplines that enable us to address pressing questions and challenges about human society and/or the state of our planet.	explore the socioeconomic, demographic, political, and environmental factors related to disease risk across populations	examining pandemic pathogens and their impacts on policy, populations, and society through student-led discussions and in-class activities
Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern biological systems.	Present different social and/or biophysical science methods and theories and consider how their biases and influences shape pressing questions about the human condition and/or the state of our planet.	discuss the benefits and drawbacks to medical, social, and education interventions used to slow or stop the spread of pandemic pathogens	connecting successful and unsuccessful disease interventions to future preparedness planning via student-led discussions and group activities

Biological Sciences Objectives →	Quest 2 Objectives	This Course's Objectives → (This course will)	Objectives will be Accomplished By:  (This course will accomplish the objective in the box at left by)
Students will formulate empirically-testable hypotheses derived from the study of living things, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.	Enable students to analyze and evaluate (in writing and other forms of communication appropriate to the social and/or biophysical sciences) qualitative or quantitative data relevant to pressing questions concerning human society and/or the state of our planet.	compare global preparedness plans for past and present disease outbreaks to develop a response plan for the next pandemic	communicating inquiry results as written reports and group presentations
Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences.	Analyze critically the role social and/or the biophysical sciences play in the lives of individuals and societies and the role they might play in students' undergraduate degree programs.	evaluate and critique personal beliefs and behaviors, current challenges of preventing the global spread of disease, and how disease risk differs across communities	reflecting on personal beliefs, biases, and experiences with disease and how they relate to data and examples presented in class through guided written reflections
	Explore or directly reference social and/or biophysical science resources outside the classroom and explain how engagement with those resources complements classroom work.	explore the role of climate change on human health and potential pathogen spread	interpret real-world climate and disease data with guidance from expert testimony and case studies

# 8. This Course's Student Learning Outcomes (SLOs)—Gen Ed Primary Area and Quest

# **Biological Sciences + Quest 2 + Course SLOs**

	Biological Sciences SLOs  Students will be able to	Quest 2 SLOs  Students will be able to	This Course's SLOs → Students will be able to	Assessment Student competencies will be assessed through
Content	Identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method; the major scientific discoveries and the impacts on society and the environment; and the relevant processes that govern biological and physical systems.	Identify, describe, and explain the cross-disciplinary dimensions of a pressing societal issue or challenge as represented by the social sciences and/or biophysical sciences incorporated into the course.	DISCUSS and DESCRIBE fundamental concepts relating to disease outbreaks through human history; EXPLAIN how diseases can become pandemics by exploring how emergence interacts with the landscape from ecological, demographic and climate perspectives.	Three exams, weekly student-led discussion, and a final group presentation
Critical Thinking	Formulate empirically- testable hypotheses derived from the study of physical processes or living things; apply logical reasoning skills effectively through scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes.	Critically analyze quantitative or qualitative data appropriate for informing an approach, policy, or praxis that addresses some dimension of an important societal issue or challenge.	ANALYZE AND INTERPRET the impact of socioeconomic, environmental, political, and demographic factors on the risk and spread of a disease through a global population; SYNTHESIZE course lectures, class discussions and group activities to develop a global response plan for a pandemic.	Group activities and a final project presentation

	Biological Sciences SLOs  Students will be able to	Quest 2 SLOs → Students will be able to	This Course's SLOs → Students will be able to	Assessment Student competencies will be assessed through
Communication	Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.	Develop and present, in terms accessible to an educated public, clear and effective responses to proposed approaches, policies, or practices that address important societal issues or challenges.	<b>DEVELOP AND PRESENT</b> novel solutions for real-world problems; <b>EXPLAIN</b> key scientific findings in written, oral, and visual formats.	Weekly group activities and discussions, and a final project presentation
Connection	N/A	Connect course content with critical reflection on their intellectual, personal, and professional development at UF and beyond.	ARTICULATE AND CRITIQUE their own personal beliefs and behaviors related to the spread of disease and potential future pandemics.	Guided reflections, class discussion, and group activities

# 9. Secondary Objectives and SLOs

# **International Objectives (for N co-designation)**

International Objectives →	This Course's Objectives→ (This course will)	Objectives will be Accomplished By:  (This course will accomplish the objective in the box at left by)
International courses promote the development of students' global and intercultural awareness.	explore the interrelatedness of globalization and socioeconomic risk factors on disease burden	examining the risk factors of disease emergence across cultures and societies throughout human history
Students examine the cultural, economic, geographic, historical, political, and/or social experiences and processes that	compare the socioeconomic, demographic, political, and environmental	connecting biological pathogen characteristics to geographic spread, social implications, and economic impacts of historic and current

International Objectives →	This Course's Objectives  (This course will)	Objectives will be Accomplished By:  (This course will accomplish the objective in the box at left by)	
characterize the contemporary world, and thereby comprehend the trends, challenges, and opportunities that affect communities around the world.	factors to disease risk across populations across historic and current pandemics	pandemics to predict how a changing population will react to the next pandemic	
Students analyze and reflect on the ways in which cultural, economic, political, and/or social systems and beliefs mediate their own and other people's understanding of an increasingly connected world.	evaluate and critique personal beliefs and behaviors, current challenges of preventing the global spread of disease, and how disease risk differs across international communities	reflecting on personal beliefs, biases, and experiences with disease and how they compare to their classmates' and populations across the world	

# International Student Learning Outcomes (for N co-designation)

	International SLOs  Students will be able to	Course SLOs → Students will be able to	Assessment Student competencies will be assessed through
Content	Identify, describe, and explain the historical, cultural, economic, political, and/or social experiences and processes that characterize the contemporary world.	DISCUSS and DESCRIBE fundamental concepts relating to global disease outbreaks through human history with regards to socioeconomic, cultural, and biological aspects of disease transmission	Three exams, weekly student-led discussion, and a final presentation
Critical Thinking	Analyze and reflect on the ways in which cultural, economic, political, and/or social systems and beliefs mediate understandings of an increasingly connected contemporary world.	<b>REFLECT</b> on the impact of socioeconomic, environmental, political, and demographic factors on the risk and spread of a disease through a global population	Group activities, student-led discussions, and guided reflections

# VI. University Policies

### 10. Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <a href="https://disability.ufl.edu/students/get-started/">https://disability.ufl.edu/students/get-started/</a>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### 11. UF Evaluations Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <a href="https://gatorevals.aa.ufl.edu/students/">https://gatorevals.aa.ufl.edu/students/</a>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <a href="https://ufl.bluera.com/ufl/">https://ufl.bluera.com/ufl/</a>. Summaries of course evaluation results are available to students at <a href="https://gatorevals.aa.ufl.edu/public-results/">https://gatorevals.aa.ufl.edu/public-results/</a>.

### 12. University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code

(<a href="https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/">https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/</a>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## 13. Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: <a href="http://www.counseling.ufl.edu/cwc/Default.aspx">http://www.counseling.ufl.edu/cwc/Default.aspx</a>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

## 14. The Writing Studio

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <a href="http://writing.ufl.edu/writing-studio/">http://writing.ufl.edu/writing-studio/</a> or in 2215 Turlington Hall for one-on-one consultations and workshops.