



## **CIEE Paris, France**

<b>Course title:</b>	Global Health and Emerging Diseases
<b>Course code:</b>	(GI) PUBH 3010 PAFR
<b>Programs offering course:</b>	Arizona State University Global Flex - Course + Internship, Arizona State University Global Flex - 3 Credit, Arizona State University Global Flex - 6 Course Credits, Paris Open Campus Block
<b>Open Campus Track:</b>	Global and Community Health
<b>Language of instruction:</b>	English
<b>U.S. semester credits:</b>	3.00
<b>Contact hours:</b>	45.00
<b>Term:</b>	Spring Block I 2023

### **Course Description**

This course is oriented to analyze the current situation of global health and emerging diseases as priority topics that affect population health. Focusing on a global health scenario, the course will deal with the complexities of achieving global coordination, which is needed between multiple organizations to achieve improvements in the respective fields. Three related areas determine global health action: the socioeconomic situation, security, and public health. These issues play out against a background of demographic change, economic development, and urbanization. Infectious diseases remain critical factors, but are no longer the major cause of global illness and death. A global geopolitical and environmental scenario needs to identify how major threats to health have changed in order to devise ways to confront them. Undoubtedly, poverty and social inequality constitute the greatest challenges in addressing health problems at the population level. By learning about different local realities, theoretical frameworks, and specific sets of problems, the class will facilitate a better understanding of those approaches and global health topics.

### **Learning Objectives**

By completing this course, students will:

- Evaluate the complexity of the social and environmental settings that contribute to the emergence of specific diseases.
- Apply indicators to characterize population health and the relation with diseases risk.
- Understand the current debates regarding global health scenarios, public policies and political decisions related to the control of emerging diseases.
- Link those public policies and political decisions to debates about economic asymmetries and cultural differences between the global north and the global south.

### **Course Prerequisites**

Students should have completed a level 2000 class in health studies and/or health issues and/or zoonosis prior to taking this course.

### **Methods of Instruction**

The course will be taught using lectures, seminars, case study projects, and group presentations. Analyzing data, interpreting them and preparing them for presentation, which plays an important role in this course, will typically be done in groups. Case studies and scenarios on individual countries in particular will be facilitated by the instructor. Debates in the class forum will focus on understanding complex concepts and theories related to public and global health. Students will also do site visits and interviews. Invited guest speakers will add to the learning experiences of the class.

### **Assessment and Final Grade**

1.	Weekly Report (4)	25%
2.	Comparative Case Study	20%
3.	Critical Discussion	15%

4.	Presentation	20%
5.	Participation	20%
	TOTAL	100%

## **Course Requirements**

### **Weekly Report (4)**

At the end weeks 1-4, every student will submit a 500-word synthesis reporting on highlights, main contributions and learning points during the week. These will be uploaded to the online CANVAS forum. Mandatory readings must be included in each report. The facilitator will provide the students with guidelines in the first week of the course.

### **Comparative Case Study**

Students will overview a significant ecosystem mediated health issue from the European continent and then compare the effects of such impacts in the host environment country. The overview will also include a summation of the current political debates and directions in each country regarding this issue. The paper will be 1500-words exactly and draw on the mandatory course readings and at least FOUR other relevant academic papers. The assessment will be graded on a student's ability to elaborate on the effects, the political debates and compare both the health effects, the relation to population health, the diseases risk and attempts to address these effects at a national and global level.

### **Critical Discussion**

A 1200-word discussion paper about the underlying issues for addressing a key emerging global disease in the student's home country will be required. The structure of the paper will have a common format (template) that will be provided during the course. The specific topics will be discussed and selected with the facilitator prior to completion. The discussion will be graded on a student's ability for high leveled comprehension and critical thinking about the issue in relation to the effect of disease and the influence of external economic and political debates and directives in addressing the disease effects. The individual topic can be part of the oral presentation assessment undertaken in the final week of the course.

### **Presentation**

Students will be required to prepare a group (3-4 students) presentation based on a topic covered by the class. This presentation will be part of a group session with the participation of the students and discussed with the facilitator prior to presenting.

### **Participation**

Participation is valued as meaningful contribution in the digital and tangible classroom, utilizing the resources and materials presented to students as part of the course. Meaningful contribution requires students to be prepared in advance of each class session and to have regular attendance. Students must clearly demonstrate they have engaged with the materials as directed, for example, through classroom discussions, online discussion boards, peer-to-peer feedback (after presentations), interaction with guest speakers, and attentiveness on co-curricular and outside-of-classroom activities.

## **Attendance**

To encourage engaged learning, regular class attendance is required throughout the program. This includes any required co-curricular class excursion or event, as well as internship, service-learning, or other required field placement.

An excused absence in a CIEE course will only be considered if approved by a CIEE Center Director/Academic Director (not the Instructor), and:

- it is a self-certified absence for illness (only once per course, requires formal request before or within 24 hours, cannot miss assessment worth more than 5% of final course grade)
- a doctor's note from a local medical professional is provided
- evidence of a family emergency is provided
- it is a pre-approved observance of religious holiday

Unexcused absences include personal travel and/or travel delays, as well as missing more than 25% of a single class period (including tardiness and early departure). Assessments missed due to unexcused absences will be

marked as zero. Students with over 10% unexcused absences will be contacted by CIEE staff. Students with over 20% unexcused absences will be contacted by CIEE staff, receive a formal warning letter (shared with their home institution) and lose 10% of the final course point total (e.g., a final A grade of 93% will be lowered to a B grade of 83%).

For more detail, please consult your CIEE Academic Manual.

### **Academic Integrity**

Academic integrity is essential to a positive and inclusive teaching and learning environment. All students are expected to complete coursework responsibilities with fairness, respect, and honesty. Failure to do so by seeking unfair advantage over others or misrepresenting someone else's work as your own can result in grade penalties or disciplinary action. See the CIEE Student Academic Manual for further information on academic integrity.

***N.B. Course schedule and co-curriculars are subject to change. The final duration and distribution of content and assignments will be determined and presented to students at the onset of the course.***

### **Weekly Schedule**

#### **Week 1**

Class: 1.0 Global Health and Its Impacts on Human Wellbeing

During this class students will be introduced to major global health challenges, programs and policies. The principal conceptual frameworks on which global health research and strategies are based will be introduced to the students.

Class: 2.0 Basic Determinants of Emerging Infectious Diseases

In this class students will analyze the determinants and drivers of infectious diseases. For this, students will analyze and interpret specific data subsequently to be presented to the rest of the class. Students are asked to come to class with a personal computers/tablet/smartphone with internet access for this session.

Reading:

De Cock K, Simone P, Davison V, and Slutsker L. (2013). 'The New Global Health'. Emerging Infectious Diseases. (19)8, pp. 1192 - 1197.

#### **Due Date for Submission of the Weekly Report**

#### **Week 2**

Class: 3.0 Managing the Health Effects of Environmental Changes

This class will help the students to understand the most important links among environmental changes and its effects on the living conditions of the populations related to how they can affect their wellbeing and health.

Reading:

Koplan H, Bond T, Merson M, Reddy K, Rodriguez M, Sewankambo N,

Wasserheit J. (2009). 'Toward a Common Definition of Global Health'. The Lancet. (373), pp. 1993 - 1995.

Class: 4.0 c Ecosystem-Mediated Health Effects by Environmental Changes

In this class students will be introduced to the analysis of how certain social and environmental settings contribute to the emergence of specific diseases. For this purpose, students will analyze and discuss data based on guided readings that expose them to the complexity of establishing such correlations.

**Reading:**

Semenza, J., Lindgren E, Balkanyi L., Espinosa L., Almqvist M, Penttinen

P., Rocklöv J. (2016). 'Determinants and Drivers of Infectious Disease Threat Events in Europe'. Emerging Infectious

Diseases. (22)4, pp. 581 - 589.

Class: 5.0 Analysing the Data: Impacts

Based on the data previously collected and the information provided by the instructor, students will work on case studies. After they finish they will present it to discuss in class their results and findings.

**Reading:**

Whitmee et al. (2015). 'Safeguarding human health in the Anthropocene

Epoch: report of The Rockefeller Foundation–Lancet

Commission on planetary health'. The Lancet. (386)10007, pp. 1973 – 2028.

**Due Date for Submission of the Weekly Report**

**Week 3**

Class: 6.0 Principal Aspects of Mobility and Migration in a Global World

In this module students will explore the relationship between migration and health as a complex web of the associations between population growth and environmental effect which have large implications for global health.

**Reading:**

Stephenson J, Crane S, Levy C, Maslin M. (2013). 'Population,

development, and climate change: links and effects on human health'. The Lancet. (382)9905, pp. 1665 –1673.

Class: 7.0 Migration and Health in Australia

This class will be divided into two parts:

**Part One:** by means of the presentation of a guest speaker (TBA), students will be introduced to the differences in health outcomes between migrants and Australian born residents in order to understand the specific issues that affect migrant's health in Australia and to analyze the 'healthy migrant' effect. The guest speaker will introduce students to the differences in health outcomes between migrants and Australian born residents and the key health issues faced by the migrant population.

**Part Two:** each group of students will discuss with the instructor the structure of their research topics, based on the selected topic, sources needed and research approach.

**Reading:**

Fennelly, K. (2007). 'The Healthy Migrant Effect. Healthy Generations. (5)3, pp. 1-4.

Class: 8.0 Communicable Diseases: Life Conditions Matter

In this class students will approach the problem of the communicable diseases and the association that primarily linked them with poverty. Therefore, the class will cover the analysis of topics like migration based on war, conflict or economic crisis that certainly increase the risks of communicable diseases, particularly measles, and food- and waterborne diseases, such as tuberculosis (TB), HIV/AIDS and others.

**Reading:**

Gushulak. B., & MacPherson D. (2004). 'Globalization of infectious

diseases: the impact of migration'. Clinical Infectious Diseases. (38)12, pp. 1742-1748.

## Due Date for Submission of the Weekly Report

### Week 4

Class: 9.0 Emerging Infectious Diseases and One Health

Most human infectious diseases, especially recently emerging pathogens, originate from animals, and ongoing disease transmission from animals to people presents a significant global health burden.

#### Reading:

United Nations. (2008). Contributing to One World, One Health. A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal–Human–Ecosystems Interface. Paper presented at International Pledging Conference on Avian and Human Pandemic Influenza. Beijing, China.

Class: 10.0 Emerging Infectious Diseases and its Representation in Cinematography

The films “Outbreak” and “Contagion” will be discussed and analyze the theme of both films in relation to the global health and the distribution of the emerging infectious diseases. Students will be divided into two groups to present the arguments of the debate.

#### Reading:

Kreuder-Johnson et al. (2015). Spillover and pandemic properties of zoonotic viruses with high host plasticity. *Scientific Reports* 5, p. 14830.

Class: 11.0 Site Visit

Students will visit a neighborhood to observe and collect environmental, social and demographic data to analyze how some of the diseases covered by the class had impact in the local context.

#### Readings:

McCloskey B, Dar O, Zumla A, Heymann D. (2014). ‘Emerging infectious diseases and pandemic potential: status quo and reducing risk of global spread’. *The Lancet Infectious Diseases*. (14)10, pp. 1001–1010.

Reperant L, MacKenzie J, Osterhaus A. (2016). ‘Periodic Global One Health threats update’. *One Health*. (2), pp. 1 – 7.

## Due Date for Submission of the Weekly Report

### Week 5

Class: 12.0 Emerging Infectious Diseases by Arbovirus (Part 1)

This class will focus on the principal vector-borne emerging infectious diseases and their impact on global health. To do so students will have to analyzed specific data and the instructor will provide them with reading guidelines.

#### Reading:

Morse et al. (2012). ‘Prediction and prevention of the next pandemic zoonosis’. *The Lancet*. (380)9857, pp.1956 – 65.

Class: 13.0 Emerging Infectious Diseases by Arbovirus (Part 2)

This class will focus on the principal vector-borne emerging infectious diseases and their impact on global health. To do so students will have analyzed specific data and the instructor will provide them with reading guidelines.

#### Readings:

Cao-Lormeau. (2016). ‘Guillain-Barré Syndrome outbreak associated

with Zika virus infection in French Polynesia: a case-control study’. *The Lancet*. (387)10027, pp.

Castro M, Wilson M & Bloom D. (2017). 'Disease and economic burdens of dengue'. The Lancet Infectious Diseases. (17)3, pp. 70 -78.

Class: 14.0 Emerging Infectious Diseases by Bats and Rodents

This class will focus on the principal emerging infectious diseases transmitted by bats and rodents and their impact on global health. To do so students will have analyzed specific data and the instructor will provide them with reading guidelines to facilitate group debates in class. Each group will be asked to prepare some of the articles listed below to do so.

**Readings:**

Islam et al. (2016). 'Nipah Virus Transmission from Bats to Humans

Associated with Drinking Traditional Liquor Made from Date Palm Sap, Bangladesh, 2011–2014'. Emerging Infectious Diseases. (22)4, pp. 664 – 670.

Luis et al. (2013). 'A comparison of bats and rodents as reservoirs of

zoonotic viruses: are bat special?'. Proceedings of the Royal Society. (280)1756, pp. 1 – 9.

**Due Date for Submission of the Critical Reflection**

**Week 6**

Class: 16.0 Shared Knowledge

Group research presentation and open debate

**Reading:**

The Lancet (Editorial) (2015). The G7 and Global Health: Inaction or

Incisive Leadership? The Lancet, 385, p 2433.

**Due Date for Submission of the Presentation Assessment**

**Course Materials**

**Readings**

Cao-Lormeau. (2016). 'Guillain-Barré Syndrome outbreak associated with Zika virus infection in French Polynesia: a case-control study'. The Lancet. (387)10027, pp. 1531 – 1539.

Castro M, Wilson M & Bloom D. (2017). 'Disease and economic burdens of dengue'. The Lancet Infectious Diseases. (17)3, pp. 70 -78De

Cock K, Simone P, Davison V, and Slutsker L. (2013). 'The New Global Health'. Emerging Infectious Diseases. (19)8, pp. 1192 - 1197.

Fennelly, K. (2007). 'The Healthy Migrant Effect. Healthy Generations. (5)3, pp. 1-4.

Gushulak B, MacPherson D. (2004). 'Globalization of infectious diseases: The impact of migration'. Clinical Infectious Diseases, (38)12, pp. 1742-1748.

Islam et al. (2016). 'Nipah Virus Transmission from Bats to Humans Associated with Drinking Traditional Liquor Made from Date Palm Sap, Bangladesh, 2011–2014'. Emerging Infectious Diseases. (22)4, pp. 664 – 670.

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Semenza J, Lindgren E, Balkanyi L, Espinosa L, Almqvist M, Penttinen, P, Rocklöv J. (2016). 'Determinants and Drivers of Infectious Disease Threat Events in Europe'. Emerging Infectious Diseases. (22)4, pp. 581 – 589.

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Luis et al. (2013). 'A comparison of bats and rodents as reservoirs of zoonotic viruses: are bat special?'. Proceedings of the Royal Society. (280)1756, pp. 1 – 9.

- McCloskey B, Dar O, Zumla A, Heymann D. (2014). 'Emerging infectious diseases and pandemic potential: status quo and reducing risk of global spread'. *The Lancet Infectious Diseases*. (14)10, pp. 1001–1010.
- Morse et al. (2012). 'Prediction and prevention of the next pandemic zoonosis'. *The Lancet*. (380)9857, pp.1956 – 65.
- Reperant L, MacKenzie J, Osterhaus A. (2016). 'Periodic Global One Health threats update'. *One Health*. (2), pp. 1 – 7.
- Stephenson J, Crane S, Levy C, Maslin M. (2013). 'Population, development, and climate change: links and effects on human health'. *The Lancet*. (382)9905, pp. 1665 –1673.
- The Lancet (Editorial) (2015). The G7 and Global Health: Inaction or Incisive Leadership? *The Lancet*, 385, p 2433.
- United Nations. (2008). *Contributing to One World, One Health. A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal–Human–Ecosystems Interface*. Paper presented at International Pledging Conference on Avian and Human Pandemic Influenza. Beijing, China.
- Wasserheit, J. (2009). 'Toward a Common Definition of Global Health'. *The Lancet*. (373), pp. 1993 - 1995.
- Whitmee et al. (2015). 'Safeguarding human health in the Anthropocene Epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health'. *The Lancet*. (386)10007, pp. 1973 – 2028.