



**ES/GE/HE 320 ENVIRONMENT, HEALTH, AND DEVELOPMENT IN CHILE AND LATIN AMERICA**  
**IES Abroad Santiago**

**DESCRIPTION:**

Using the lens of geography, this course provides students with the opportunity to apply a geographic and territorial perspective to the concepts of environment, health, and development. In particular, it seeks to understand the complex relationships between these concepts across space, in different places, and at multiple scales. Through a series of case studies highlighting the relationship between the environment, health, and development models in Latin America and Chile, organized by thematic axes (climate change, water, transport, extractivism), this course challenges students to pose and answer the following questions:

- Is there a direct link between the health of ecosystems and the health of the populations that inhabit them?
- Does a healthier environment translate into a healthier population?
- What is the nexus between economic development models and human public health?
- Does greater economic development automatically mean a higher number of healthy people?
- How does the health of communities contribute to sustainable development and ecosystem resilience

**CREDITS:** 3

**CONTACT HOURS:** 45

**LANGUAGE OF INSTRUCTION:** English

**INSTRUCTOR:** TBD

**PREREQUISITES:** None

**ATTENDANCE POLICY:** Attendance and punctuality are mandatory for all IES Abroad classes, including course-related excursions. Any exams, tests, presentations, or other work missed due to student absences can only be rescheduled in cases of documented medical or family emergencies. If a student misses more than 1.5 classes (for courses taught once a week) or 2.5 classes (for courses taught twice a week) in any course, the final grade will be reduced by one-third of a letter grade (for example, A- to B+) for every additional unexcused absence. Six absences in any course will result in a failing grade.

**METHOD OF PRESENTATION:** This course uses a variety of active learning pedagogies. Each week is structured around a thematic axis combining theoretical lectures, group work, and class debate to interrogate the relationship between environment, health, and development.

**REQUIRED WORK AND FORM OF ASSESSMENT:**

**Class Participation 15%:** Questions, group debates

**In-Class Activities 20%:** Critical analysis based on assigned readings and Fieldtrips

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**Mid-Term Case Assessment 25%:** Two-part evaluation: short-answer/essay questions and analysis of a case study.

**Final Exam 40%:** Oral presentation of a socio-environmental conflict in Latin America or Chile and its impacts on public health.

**Midterm Assessment 25%:** This evaluation will consist of short-answer questions and a longer development question (essay). The exam material will come both from the contents covered in classes and from the two field trips linked to the course. The final exam for this subject will be taken in two parts. Part 1 will consist of short-answer questions and a development question. Part 2 will consist of a case study, where students will be asked to apply the knowledge developed in this course, demonstrating the relationship between the environment, health, and development.

**Final Exam 40%:** Students, in groups, must conduct an in-depth investigation of a case of free choice, addressing the socio-environmental factors and conflicts reviewed in class. They must collect context, causes, data, statistics and analyze its relationship and impact on the health of the affected population. Likewise, they must investigate and describe the response provided by the health system and perform a critical analysis of it, detecting flaws and proposing possible improvements. Format: Group presentation of 15 to 18 minutes supported by PPT, videos, maps, and graphic resources.

**LEARNING OUTCOMES:** Upon successful completion of this course, students will be able to:

Define the concepts of environment, health, and development from a geographical perspective;

- Discuss the relationships between the concepts of environment, health, and development in a variety of contexts;
- Apply the concepts of space, place, and scale to case studies to make visible the
- Importance of a geographical understanding of human health in different environmental and development contexts;
- Critique development theories using a geographical approach and a critical perspective on the relationship between human health and the environment;
- Evaluate the importance of human health in achieving sustainable development

## CONTENTS:

| Week and Guiding Question                                                                                                | Contents and Sessions                                                                                                                                                                                           | Required Readings and Conceptual Frameworks                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Week 1</b><br><br>How does the geographical perspective contribute to the understanding of health and sustainability? | <b>Health and Territory</b><br><br>Session 1: Welcome and scope of the course.<br><br>Initial exploration of the links between health, environment, and territorial development.                                | <ul style="list-style-type: none"> <li>• Cummins, S. et al. (2007). Relational approaches to 'place' in health research.</li> <li>• ECLAC (CEPAL) conceptual frameworks on sustainable development in Latin America.</li> </ul>           |
| <b>Week 2</b><br><br>Why is territory and sustainability a critical factor for public health?                            | <b>Medical Geography vs. Health Geography</b><br><br>Conceptual evolution of space and place.<br><br>Geography of public health and socio-spatial disparities.                                                  | <ul style="list-style-type: none"> <li>• Kearns, R. &amp; Moon, G. (2002). From medical to health geography.</li> <li>• Supplementary readings on urban socio-spatial segregation in the Southern Cone.</li> </ul>                        |
| <b>Week 3</b><br><br>How do ecological and political dynamics interact in the distribution of diseases?                  | <b>Disease Ecology Framework and Political Ecology</b><br><br>The classic ecological model.<br><br>Impact of development and land-use changes.<br><br>Political ecology of health and structural vulnerability. | <ul style="list-style-type: none"> <li>• Mayer, J. (1996). The political ecology of disease as a new focus for medical geography.</li> <li>• Breilh, J. (2013). La epidemiología crítica latinoamericana y la salud colectiva.</li> </ul> |
| <b>Week 4</b><br><br>In what ways do development theories explain health gaps in the region?                             | <b>Development Theories and their Sanitary Impact</b><br><br>Geographical thought and social theory.                                                                                                            | <ul style="list-style-type: none"> <li>• Peet, R. (1998). Modern Geographical Thought.</li> <li>• Gudynas, E. (2011). Debates sobre el desarrollo y alternativas al extractivismo in América Latina.</li> </ul>                           |

| Week and Guiding Question                                                                        | Contents and Sessions                                                                                                                                                                | Required Readings and Conceptual Frameworks                                                                                                                                                                                                                             |
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|                                                                                                  | Impacts of development models in Latin America and Chile:<br>Modernization, Dependency, Extractivism, and Globalization.                                                             |                                                                                                                                                                                                                                                                         |
| <b>Week 5</b><br><br>What is the role of public health within the regional 2030 Agenda?          | <b>Health in the Sustainable Development Goals (SDGs)</b><br><br>The centrality of health in the SDGs.<br><br>Planetary boundaries, health equity, and development targets in Chile. | <ul style="list-style-type: none"> <li>• WHO (OMS) (2016). Health in Sustainable Development Goals.</li> <li>• United Nations reports on the progress of the SDGs in Latin America and the Caribbean.</li> </ul>                                                        |
| <b>Week 6</b><br><br>Why do conflicts affect the most vulnerable groups to a greater degree?     | <b>Socio-environmental Conflicts in Chile</b><br><br>Exposure to pollutants, land-use change, Climate Change, drought, and others.<br><br>Trends, responses, and challenges.         | <ul style="list-style-type: none"> <li>• NEMA (IEMA), State of the Environment Report, Government of Chile.</li> <li>• Epidemiological studies by the Ministry of Health of Chile (MINSAL) on exposure to heavy metals and atmospheric pollutants in minors.</li> </ul> |
| <b>Week 7</b><br><br>How does the social environment determine life expectancy in our countries? | <b>Social and Environmental Determinants of Health</b><br><br>Mapping of health determinants (WHO).<br><br>Structural inequality and health gaps in Latin American urban contexts.   | <ul style="list-style-type: none"> <li>• Marmot, M. (2005). Social Determinants of Health. The Lancet.</li> <li>• Reports on health equity in Chile and the impact of zip codes on the burden of disease.</li> </ul>                                                    |
| <b>Week 8</b><br><br>-                                                                           | <b>Midterm Assessment</b>                                                                                                                                                            |                                                                                                                                                                                                                                                                         |

| Week and Guiding Question                                                                                       | Contents and Sessions                                                                                                                                                                                                                         | Required Readings and Conceptual Frameworks                                                                                                                                                                                                                              |
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| <b>Week 9</b><br><br>In what way do political decisions shape epidemiological profiles?                         | <b>Political Determinants of Health</b><br><br>Politics as a shaper of collective health.<br><br>Comparative analysis of public sanitary and environmental policies in the face of endemic crises in the Southern Cone.                       | <ul style="list-style-type: none"> <li>• Kickbusch, I. (2015). The political determinants of health 10 years on. BMJ.</li> <li>• Bambra, C. et al. (2005). Towards a Politics of Health.</li> </ul>                                                                      |
| <b>Week 10</b><br><br>How does urban planning influence lifestyles and well-being?                              | <b>The Impact of the Built Environment on Health</b><br><br>Definition of the built environment in Latin American cities.<br><br>Urbanism, green areas, access to physical activity, food environments, and segregation in Santiago de Chile. | <ul style="list-style-type: none"> <li>• Ellaway, S. &amp; Macintyre, S. (2010). Neighborhoods and Health.</li> <li>• Studies by the Center for Sustainable Urban Development (CEDEUS) on environmental justice and access to public urban infrastructure.</li> </ul>    |
| <b>Week 11</b><br><br>Why is climate change considered the greatest health challenge of the 21st century in LA? | <b>Climate Change and Human Health</b><br><br>Links between extreme weather events and health.<br><br>Climate vulnerability in Andean ecosystems and arid zones. Vector transmission and heatwaves in the Chilean context.                    | <ul style="list-style-type: none"> <li>• Lancet Countdown South America Alliance on Health and Climate Change (Annual Reports).</li> <li>• Framework Law on Climate Change in Chile and Sectoral Adaptation Plans (Health and Environment).</li> </ul>                   |
| <b>Week 12</b><br><br>How does access to safe water condition human development?                                | <b>Water, Sanitation, and Water Security</b><br><br>Sessions 31 and 32: Access to drinking water as a fundamental human right.<br><br>Session 33: Water economics, privatization, and hydrological basin management in Chile.                 | <ul style="list-style-type: none"> <li>• Tarrass, F. &amp; Benjelloun, M. (2012). The effects of water shortages on health and human development.</li> <li>• Analysis of water governance in Chile, community water scarcity, and its impact on rural health.</li> </ul> |

| Week and Guiding Question                                                                         | Contents and Sessions                                                                                                                                                                                                                                                                                                     | Required Readings and Conceptual Frameworks                                                                                                                                                                                                                                                                       |
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| <b>Week 13</b><br><br>What are the lessons from prolonged drought crises in the region?           | <b>The Megadrought as a Lens of Analysis</b><br><br>The Megadrought in central Chile and subsistence crises.<br><br>Intersection between water scarcity, food security, environmental migration, and rural mental health.<br><br>Session 36: Models of community resilience and adaptation.                               | <ul style="list-style-type: none"> <li>• Studies by the Center for Climate and Resilience Science (CR2) on the social and health impacts of the megadrought in Chile.</li> <li>• Regional literature on water rationing and conflicts between human consumption and the agro-export/mining industries.</li> </ul> |
| <b>Week 14</b><br><br>How do barriers to healthcare system access condition environmental equity? | <b>Health Systems and Environmental Justice</b><br><br>Universal health coverage and geographical barriers in vulnerable territories.<br><br>The case of "Sacrifice Zones" in Chile (e.g., Quintero-Puchuncaví or Coronel) as the ultimate expression of environmental injustice and the need for specialized healthcare. | <ul style="list-style-type: none"> <li>• Barnett, R. &amp; Copeland, A. (2010). Providing Health Care.</li> <li>• Reports by the National Institute of Human Rights (INDH) of Chile on sacrifice zones and the violation of the right to live in an environment free of pollution.</li> </ul>                     |
| <b>Week 15</b>                                                                                    | <b>Final Exam</b><br><br>Integrative evaluation of acquired knowledge.                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                   |

#### SUGGESTED READINGS:

- Pronczuk, J. 2005. Where the child learns. (Chapter 4, pp: 40-45). In Children's Health and the Environment: A Global Perspective. World Health Organization.
- Ricketts, T. 2010. Accessing Health Care (Chapter 27, pp: 521-539). In A Companion to Health and Medical Geography WileyBlackwell, Malden MA.
- Royal Geographical Society (nd). Theories of Development (this is a really useful overview of how conceptualizations (and hence, theories) of development have changed over time)
- Seminar 1 in: Health, Environment and Sustainable Development: Towards the Future We Want (pages 2-8).

- Shareia, B. 2015. Theories of Development. International Journal of Language and Linguistics 2(1):78-90 (the empirical focus of this article is not important; the discussion of theories of development is important and is what you should focus on).
- Sustainable Development – Public Health (presentation of statistics for the European Union)
- Tarrass, F. & Benjelloun, M. 2012. The effects of water shortages on health and human development. Perspectives on Public Health 132, 4:240-244.
- Tennassee, M. 2005. Where the child works. (Chapter 5, pp: 46-53). In Children's Health and the Environment: A Global Perspective. World Health Organization.
- Villaneuva, K. et al. 2013. The impact of the built environment on health across the life course: design of a cross-sectional data linkage study. BMJ Open 3:np.
- Wu, X. 2016. Impact of climate change on human infectious diseases: Empirical evidence and human adaptation. Environment International 86:14-23.