

SYLLABUS

PM 599: Sustainable Development & Health: Perspectives from Costa Rica

Trip dates: May 23-June 4, 2020

COURSE DESCRIPTION

During this course, participants are immersed in activities and experiences that focus on the links between health, the environment, and sustainable development using Costa Rica as a living example. We will analyze how issues such as climate change, migration, economic development, changing ecosystems are inter-related and how they impact human and planetary health from the perspectives of multiple stakeholders, especially vulnerable populations. We will also examine the role of culture and human rights in developing appropriate solutions to prevent or mitigate the negative impacts of these issues. This process of conceptual integration is mediated through problem-based learning, site visits, critical discussions, group exercises and community interactions. Each unit in this program brings unique case examples from three separate locations (biomes) in Costa Rica to facilitate the experiential learning process.

The seven course modules include:

- Climate Change and Health
- Changing Ecosystems and Environments
- Health systems
- Structural Violence & Human Rights
- Migration and Economic Development
- Culture and Health
- Infectious Diseases

INSTRUCTOR

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Interamerican Center for Global Health

cfaerron@cisgcr.org**LEARNING OBJECTIVES****By the end of this course, students will be able to:**

- Analyze anthropogenic variations that are linked to emerging threats to the health of vulnerable populations.
- Articulate how biodiversity loss and changing ecosystems can impact disease ecology and increase the threat of infectious diseases.
- Appraise the complex relationships between health, development, politics, the environment, and the socio-cultural context.
- Describe why monoculture puts communities at risk for poor health outcomes
- Describe how social determinants of health and why certain populations are more vulnerable to poor health outcomes.
- Correlate the changing demographic, nutritional, and epidemiological profile of LMIC and its relationship with health and health systems.
- Define structural violence and discuss the Costa Rican context.
- Analyze the current existing correlations between economic growth, consumption patterns, energy production, livelihoods and health of vulnerable populations.
- Distinguish the similarities and differences in health systems, with a focus between Costa Rica and the U.S.A.
- Identify some of the major human rights issues facing the country and describe how violations are handled through the Interamerican Court of Human Rights.
- Describe the Sustainable Development Goals and how these relate to health.
- Discuss how food security and livelihoods in Costa Rica and other LMICs can be negatively impacted by changing ecosystems.
- Describe strategies to promote economic growth while also protecting the planet.

COURSE MODULE DESCRIPTIONS**UNIT 1: Understanding Health Systems in Costa Rica**

This unit examines health care systems and provides a better understanding of how health systems operate. The activities will cover a brief recap of the historical development of health care systems as well as the current models for financing and organizing health systems. We will further explore the role of promotion of health, prevention of disease and other non-medical factors in population health outcomes. A specific focus will be placed on the historical and contextual factors that led the Costa Rican health systems to be considered one of the most efficient in the world.

UNIT 2: Climate Change & Health

Health impacts of climate change can seem disconnected to our everyday reality. But we will all be impacted and climate change will impact hardest vulnerable populations in the tropical regions of the world. The projected and ongoing consequences of climate change will be explored, using Costa Rica as a case example, more specifically, the fragile and highly biodiverse region of the Osa Peninsula. Discussion will also focus on the roles of future public health professionals in mitigating and creating resilience in the battle against climate change.

UNIT 3: Structural Violence & Human Rights

The term structural violence describes the situations in which the full satisfaction of basic human needs is hindered as a result of social stratification processes. Through the experience of the indigenous populations of southern Costa Rica and the historical conflict between indigenous and non-indigenous populations, we will explore the distribution and access of resources, and how this detrimentally affects the indigenous minority. We will further explore how other variables such as gender and nationality can also play a role in structural violence. Through the interaction with NGOs working at the forefront of human rights and health advocacy, this unit will also increase participants' understanding of the interrelationships between human rights frameworks and health as a human right. Throughout the activities we will explore and broaden the different definitions of health in international agreements, and how the use of the human rights framework could be of use for health policy advocacy, good governance, and a transformative strategy for health systems.

UNIT 4: Migration and Economic Development

Migration is a major determinant of health. Costa Rica, famous for its coffee, has been the destination country for migrant workers from neighboring countries for decades. Political conflicts and difficult economic conditions also attract migrants. Migrants have worse health outcomes for a variety of reasons. Our location near the Panama border provides the perfect opportunity to learn more about how Costa Rica deals with its migrant population.

UNIT 5: Culture and health

There is a need to visualize global health as an intercultural process that requires respectful approaches, tolerance, validation, ethics, horizontality, and contextualization. The prior involves considering the biological, cultural and social diversity of human beings and their influence in the process of health/disease. This unit analyzes the definition of culture/multiculturalism, identifies intercultural health needs, and works on limitations and opportunities of global intercultural health. The engagement with the La Casona indigenous community and local health system helps participants examine the practical applications of the intercultural approach to health beyond this community.

UNIT 6: Changing Ecosystems and Environments

But in the second half of the 20th century ecosystems changed more rapidly than at any other time in recorded human history. Virtually all of Earth's ecosystems have been significantly transformed through human actions. Some of the most significant changes have been the conversion of forests and grasslands into cropland, the diversion and storage of freshwater behind dams, and the loss of coral reefs. This unit will emphasize different aspects of anthropogenic changes to natural systems, such as biodiversity loss and change in land use – and how these impact health. Discussions will also address monoculture, food insecurity, and the importance of mangroves.



UNIT 7: Infectious Diseases

The significant ongoing change of environmental dynamics must be analyzed with particular attention to the risk of infectious diseases. Links will be made to climate change. We will discuss how to mitigate the risk of both reemerging and emerging diseases in Costa Rica and globally.



SITE DESCRIPTIONS

Inter-American Court of Human Rights

The Inter-American Court of Human Rights is a judicial organ of the Organization of American States (OAS) based in San José, Costa Rica. Its purpose is to apply and interpret the American Convention on Human Rights and other human rights treaties to which the so-called Inter-American system for the protection of human rights is subject. It deals with a broad range of human rights issues, many times related to health, such as equal access to sexual and reproductive rights throughout the nations of the American continent.

Teribe Indigenous territory

The Teribe people are known for their struggles defending their rights, especially regarding land and water use. This site visit includes interactions with leaders of a women's association that has led processes related to land rights, human rights, gender equality, women economic empowerment, and the strengthening of the Teribe roots. We will learn about how the community fought against the government and economic development that threatened their livelihood. The activities here are varied according to the objectives and the permanence of groups and they range from the guided walks, workshops, and tasting traditional foods of the Teribe people.

Rio Sereno Border Post

Located on the Coto Brus southern border of Costa Rica, we find the migratory passage of Rio Sereno, a local predominate site for agricultural activities (coffee, banana, cattle) and commerce. At Rio Sereno, we will find a few government buildings, a grocery store, and a couple of other small stores. Nevertheless, Rio Sereno presents the same social conditions of vulnerability of other migratory passages. Here, during the time of the coffee harvest in Costa Rica, we have the migration of around 15,000 Ngobes. A series of health interventions are delivered to address issues such as validation of human rights and labor rights, sexual and reproductive health, prevention and promotion of communicable diseases, and vaccination and screening campaigns.

La Casona

In the southern region of Costa Rica, province of Puntarenas, in the canton of Coto Brus, we find the Ngobe-Bugle indigenous territory of La Casona. With an area of 7900 hectares and an Indigenous resident population of more than 1600 inhabitants, the Ngobes are an indigenous group who have preserved to a high degree their culture, traditions, history, legends, arts and other ancient customs. The territory is made up of eleven smaller communities. However, La Casona is the place with the largest settlement. It is here that complex socio-cultural realities develop, and it is easy to see how inequities determine health conditions. In this visit, we address basic issues of global health such as interculturality, the relevance of "Asesores Culturales" (cultural advisors) as a means of contextualizing community realities and cultures, including the use of traditional medicine, midwifery, and water/sanitation.

Casas de la Alegría

The *Casas de la Alegría* or Joy Houses, are a public-private partnership model involving coffee producers, the Costa Rican government and civil society organizations. These houses are the result of a multi-stakeholder dialogue to reach solutions to address the risks that indigenous migrant children were facing when their families migrated from Panama to Costa Rica for the coffee

harvesting season. The Joy Houses are care centers where children are provided with culturally-appropriate food, a safe environment for them to play and spend the day while their parents take part in the coffee harvest. This model has proven to be a unique example of effective attention to the children and is currently being extended to other areas of the country. The students will learn, first hand, how these partnerships can be constructed, the challenges of multi-stakeholder coordination, the challenges that children face when they migrate for the season with their families, the effectiveness of the program, as well as the challenges that they still face.

La Cuesta Corredores - African Palm Oil and Pineapple fields

One of the poorest municipalities in Costa Rica per Human Development Index, Corredores, is a bordering canton to Panamá. Development policies have focused on facilitating the entrance of large corporations for the harvest of African Palm Oil and Pineapple. Large fractions of the land here are now dedicated to these crops. Environmental consequences have led to ecosystems transformations that are directly altering the burden of disease in the region. Vector-borne diseases are changing in transmission patterns. Monoculture has contributed to a transition of nutritional intake of the surrounding populations, and has led to food insecurity. There have been reports of major contamination of the water sources in the communities near the plantations.

Osa Peninsula and Playa Blanca

The Osa Peninsula was named by National Geographic as one of the most biodiverse places on earth. Two small fishing communities facing the Golfo Dulce have been immensely affected by unsustainable fishing activities and drastic changes in sea level, coral reef bleaching, and mangrove destruction. They are home to a set of projects that connect environmental and human health issues in order to protect the health of the community and the environment.

Dos Brazos de Río Tigre

Its literal translation “two tributaries of the Tiger River” relate to the location of this community in the Osa Peninsula. The community is located the periphery of the renown Corcovado National Park, and more specifically in the area where two tributaries of the Tiger River meet. This rural community has made enormous steps in improving their socio-economic situation. This area was characterized by miners, loggers, and poachers. Nonetheless, today it hosts eco-tourism activities, as well as various other projects that have been coordinated with the Costa Rican government, such as the unique construction of a community home to host the local government and various events. The experience allows students to explore the complexities of community economic development, transition of livelihoods in remote areas, as well as the role of local governments to generate wellbeing to their people.

TEACHING AND LEARNING STRATEGIES

- Lectures by USC instructor and local partner
- Field visits and on-site key stakeholder interviews to observe and document key elements of global health.
- In-class discussion of readings and key concepts
- Workshops to stimulate alternative ideas.
- Case study analysis and presentation on critical issues on global health to exemplify global health in the local and global context.

Prior to travel to Costa Rica, students will participate in several class sessions to increase their understanding of the country, ethical practices in global health research and immersion, and prepare for the trip. In Costa Rica, participants will be engaged dynamically on a day-to-day basis, with in-class lectures and participatory activities, as well as field visits. This allows the necessary integration to enable participants to build competencies that allow them to more comprehensively understand and effectively work in complex and challenging global health contexts.

STUDENT ASSESSMENT

Students will be evaluated on the basis of their participation, collaboration and contribution to cohort learning. Immersive and experiential learning requires active participation from the student in the course. Attendance is obligatory throughout the course. In addition to attendance, students are expected to actively engage throughout the course and complete the required readings ahead of the corresponding unit. Appropriate evidence of participation and collaboration will be agreed between students and faculty before the commencement of the course. Students are responsible for compiling and presenting evidence of their participation and collaboration as a requirement for successful completion of this course.

Students will demonstrate their knowledge acquisition from both their didactic learning and their experiential learning activities through the following:

Pre-trip & Post-Trip Sessions	15%	Complete assigned readings, attend three pre-trip and one post-trip sessions lasting about 90 minutes each. Readings should be completed prior to each session. See schedule.
Reflective Journal	30%	See instructions below for more details.
In the Field	15%	Active engagement and participation in all lectures and field visits with community members and organization visits.
Daily Review Questions	10%	During the trip, at the end of each day students will submit 3 questions that assess key messages derived from the activities and lectures of the day. More details will be given in class.
Final Exam	30%	Final in-class exam on last day of trip covering all of the topics from the course.

Reflective Journal

Participating in international global health experiences can be transformative and life changing. This is especially true in settings such as the ones that we will be immersed in, in which students experience a resource-limited environment, meet new people and observe new cultures. Students will submit a reflective journal based on the material covered and experiences in this class, including skills developed and the international experience itself. This should be about 12-15 pages, double-spaced, with 11- or 12-point font and ½-inch to 1-inch margins. Students should begin the journal prior to trip departure to reflect on their assumptions and expectations for the trip in about one page. They should also write a list of 5 questions relating to the course topics that they hope to answer on the trip. Then, during the trip, students should write at least 12 daily thoughtful and well-crafted entries into the journal, which should include key takeaway messages or lessons from the daily course activities (lectures, materials). Each daily entry should be at least

one-half page. Then, after the trip, students should write a final commentary/reflection of 2 or so pages.

The following elements should be incorporated into the reflective journal:

1. Expectations and goals for this course, including why this appealed to you and the competencies and skills you hope to develop on this trip.
2. Description of reactions and feelings that emerged throughout the course- before, during, and after the experience. Be specific about which visit or activity elicited the reactions.
3. Discuss the issues covered in Costa Rica in the context of the readings and pre-trip discussions. Explain which topics could be applied in other settings. Describe how much culture influenced these topics.
4. Reflection of how your own values, beliefs, and assumptions influenced perceptions of the Costa Rica experience.
5. Description of how the course will influence your future understanding, attitudes, and practices with regards to global health.
6. Overview of the knowledge and skills that were learned or advanced (thinking about the core competencies for the MPH degree)

We will review the details of the other assignments in pre-trip sessions and during the trip.

READINGS

Background Readings:

- World Health Organization. Country Report: Costa Rica. (2015) Available at: <http://www.who.int/gho/countries/cri.pdf?ua=1>
- World Health Organization. Noncommunicable Disease Report: Costa Rica. (2015) Available at: http://www.who.int/nmh/countries/cri_en.pdf?ua=1
- World Health Organization. Country Cooperation Strategy Report: Costa Rica. (2016) Available at: http://apps.who.int/iris/bitstream/10665/250646/1/ccsbrief_cri_en.pdf?ua=1

UNIT 1 (Health Systems) Readings:

- Frenk, J, Gómez-Dantés, O. (2018). Health Systems in Latin America: The Search for Universal Health Coverage. *Arch Med Res*, 49(2):79-83.
- Frenk, J. (2009). Reinventing primary health care: the need for systems integration. *The Lancet*, 11;374(9684):170-3.
- Pesec, M, Ratcliffe, HL, Karlage, A, Hirschhorn, LR; Gawande, A, Bitton, A. (2017). Primary Health Care That Works: The Costa Rican Experience. *Health Affairs*, 36(3): 531-538.
- <https://www.weforum.org/agenda/2018/05/how-costa-rica-gets-it-right>
- De Andrade, LO, Pellegrini Filho, A, Solar, O, Rígoli, F, de Salazar, LM, Serrate, PC, Ribeiro, KG, Koller, TS, Cruz, FN, Atun, R. (2015). Social determinants of health, universal health coverage, and sustainable development: case studies from Latin American countries. *The Lancet*, 4;385(9975):1343-51.

UNIT 2 (Structural Violence and Human Rights) Readings:

- Gruskin, S, Mills, EJ, and Tarantola, D. (2007) History, principles, and practice of health and human rights. *The Lancet*, 370:449-455.
- Lemaitre, J. and Sieder, R. (2017). The moderating influence of international courts on social movements: Evidence from the IVF case against Costa Rica. *Health and Human Rights*, 19(1), p.149.
- Rivers-Moore, M. (2010). But the kids are okay: motherhood, consumption and sex work in neo-liberal Latin America. *Br J Sociol*, 61(4): 716-36.
- Farmer, P., Bourgois, P., Scheper-Hughes, N., Fassin, D., Green, L., Heggenhougen, H.K., Kirmayer, L., Wacquant, L. and Farmer, P. (2004). An anthropology of structural violence. *Current Anthropology*, 45(3):305-325.
- Scott-Samuel, A., Stainistreet, D. and Crawshaw, P. (2009). Hegemonic masculinity, structural violence and health inequalities. *Critical Public Health*, 19 (3&4):287-292.

UNIT 3 (Migration) Readings:

- Goldade, K, Okuyemi, KS. (2012). Deservingness to state health services for South-South migrants: a preliminary study of Costa Rican providers' views. *Soc Sci Med*, 74(6):882-6.
- Cabieses, B, Bernales, M, van der Laet, C. (2016). Health for all migrants in Latin America and the Caribbean. *Lancet Psychiatry*, 3(5):402.
- Goldade, K. (2011). Babies and belonging: reproduction, citizenship, and undocumented Nicaraguan labor migrant women in Costa Rica. *Med Anthropol*, 30(5):545-68.

UNIT 4 (Culture) Readings:

- Tella, S. (2018). A Ngabe-Bugle: A home cut in two. Pulitzer Center. Available at: <https://pulitzercenter.org/reporting/ngabe-bugle-home-cut-two>
- Llamas, A. and Mayhew, S. (2016). The emergence of the vertical birth in Ecuador: an analysis of agenda setting and policy windows for intercultural health. *Health Policy and Planning*, 31(6): 683-690.
- PAHO. (2019). Masculinities and Health in the region of the Americas: Executive Summary. Available at: <http://iris.paho.org/xmlui/handle/123456789/51666>

UNIT 5 (Climate Change) Readings:

- McMichael, AJ. (2013) Globalization, Climate Change, and Human Health. *New England Journal of Medicine*, 368 (14): 1335-43.
- MacPherson, CC. (2012). Climate Change Matters. *Journal of Medical Ethics*, 40(4): 288-290.
- Jones, R. (2018). Climate change and indigenous health promotion. *Global Health Promotion*, 26(supp 3): 73-81.
- Mayrhofer, J.P. and Gupta, J. (2016). The science and politics of co-benefits in climate policy. *Environmental Science & Policy*, 57: 22-30.
- Levy, BS, and Patz, JA. (2015). Climate Change, Human Rights, and Social Justice. *Annals of Global Health*, 80(3): 310-322.
- Reidpath, DD, Gruskin, S, and Allotey, P. (2015). Is the right to health compatible with sustainability? *J Glob Health*, 5(1):010301.

UNIT 6 (Changing Ecosystems & Environments) Readings:

- Berbes-Blazquez, M. (2012) A participatory assessment of ecosystem services and human wellbeing in rural Costa Rica using photovoice. *Environmental Management*, 49:862-875.
- https://www.huffingtonpost.com/entry/opinion-scharmer-our-broken-food-system_us_5b06b0a0e4b05f0fc8455acb
- Mendez A, Castillo LE, Ruepert C, Hungerbuehler K, Ng CA. (2018). Tracking pesticide fate in conventional banana cultivation in Costa Rica: A disconnect between protecting ecosystems and consumer health. *Sci Total Environ.* 613-614:1250-1262.
- Brisbois, BW, Spiegel, JM, Harris, L. (2019). Health, environment and colonial legacies: Situating the science of pesticides, bananas, and bodies in Ecuador. *Social Science and Medicine*, 239: 1125-1129.

UNIT 7 (Infectious Diseases) Readings:

- Ostfeld, Richard S. Biodiversity loss and the ecology of infectious disease. *The Lancet Planetary Health* 1.1 (2017): e2-e3.
- Ebi, KL, Nealon, J. (2016). Dengue in a changing climate. *Environmental Research*, 151:115-123.
- Cardona-Ospina JA, Henao-San Martin V, Acevedo-Mendoza WF, Nasner-Posso KM, Martínez-Pulgarín DF, Restrepo-López A, Valencia-Gallego V, Collins MH, Rodríguez-Morales AJ. (2019). Fatal Zika virus infection in the Americas: A systematic review. *Int J Infect Dis.* 88:49-59.
- Campbell-Lendrum, D., Manga, L., Bagayoko, M. and Sommerfeld, J. (2015). Climate change and vector-borne diseases: what are the implications for public health research and policy?. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 370(1665): 20130552.

OTHER RESOURCES TO BE REVIEWED IN CLASS:

- WHO. (2010). World Health Report 2010. Health Systems Financing: The Path to Universal Coverage Geneva: World Health Organization.
- <https://www.npr.org/sections/goatsandsoda/2018/05/14/607551772/whats-behind-the-alarming-spike-in-hiv-infections-in-panama>
- <https://www.npr.org/sections/thesalt/2013/07/25/205486197/palm-oil-in-the-food-supply-what-you-should-know>
- <https://www.youtube.com/watch?v=OsI2HAmEFcw>
- Miner, H. (1956). Body ritual among the Nacirema. *American Anthropologist*, 58(3):503-507.
- Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M. Hawkins, S.C., Herring, L. Jantarasami, D. M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska. (2016). Executive Summary. The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. U.S. Global Change Research Program, Washington, DC, 24.
- Sieder, R. (2016). Indigenous peoples' rights and the law in Latin America. Handbook of indigenous peoples' rights (Chap. 27, 414-423). London: Routledge.
- Kleinman, A. (1978). Concepts and a model for the comparison of medical systems as cultural systems. *Social Science & Medicine*. Part B: Medical Anthropology, 12:85-93.



COURSE SCHEDULE

Pre-trip Sessions

- #1 Introduction to Course
- #2 Units 1, 2, 3, 4
- #3 Units 5, 6, 7

(Students are expected to complete readings for each of the units prior to session in which they are reviewed and come to class prepared to discuss)

Trip Dates

May 23-June 4, 2020 *(see attached daily itinerary)*

COSTS

Most of the expenses are included in the total program price of \$1500 per person plus international airfare. Participants of this program will stay in facilities such as research stations and hotels. All locations will include facilities required for a high-quality educational experience, including Wi-Fi, lecturing rooms, lodging, meals, among other services and amenities. Dietary requirements can be accommodated.

Option to stay an additional 4 weeks in Costa Rica to complete a practicum is available for Spanish speakers. This option would incur additional costs to the student.

Please see course schedule for detailed daily itinerary and assignments.