



ES/IB 332 CHILE: SUSTAINABILITY AND ENERGY

IES Abroad Multi-location Emerging Economies

Course taught in Santiago

DESCRIPTION:

This course provides students with an in-depth overview of the concept of sustainability and business. It offers a framework in which students can assess the outcome of a project in sustainable development and explores how to critically evaluate how environmental policy projects impact their own communities. It is designed for students who are not necessarily environmental specialists.

Discussions and explorations of the concept of sustainable development, that is, economic development that is also socially inclusive and environmentally sustainable, will be important components of this course. It is a type of economic growth pattern where the use of resources meets the needs of human population while preserving the environment as well. Sustainable development means resources are used in such a way that both current and future human needs can be met.

Business is an integral part of sustainability, given that the relationship between them is often defined as managing the triple bottom line - a process by which companies manage their financial, social and environmental risks, obligations, and opportunities. These three impacts are on occasions referred to as profits, people, and the planet.

The social and environmental impact of business is not new. During past years we have seen renewed interest due to pressing global problems such as climate change and poverty. Businesses in general are playing an important role given their global influence and activities in which they are confronted with a range of issues, stakeholders, and institutional contexts. Their potential in being not only part of the problem, but also perhaps part of the solution, is increasingly recognized, and has come to the forefront in research interest in corporate social responsibility activities and sustainable development implications for businesses.

On account of the above, a particular theme in this course will be a focus on concepts of economic development, energy demand, environmental protection, natural resources, and policy within the Chilean framework. As such, the course provides students with ample opportunities to analyze economic and environmental policy, and practical issues as implemented in a developing economy like Chile, as well as in relation to global and general contexts.

CREDITS: 3 credits

CONTACT HOURS: 45 hours

LANGUAGE OF INSTRUCTION: English

PREREQUISITES: None

ADDITIONAL COST: None

METHOD OF PRESENTATION:

The class will consist of lectures, class discussions, guest presenters, and a research project (with presentation and discussion). Additionally, the course will also provide experiential learning opportunities through relevant course-related trips.

REQUIRED WORK AND FORM OF ASSESSMENT:

- Preparation & Active Participation - 10%
- Midterm Exam - 20%
- Group project (Presentation and Research Study) - 25%
- Class exercises - 15%
- Final Exam - 30%

Preparation & Active Participation

Students are required to participate in in-class discussions and other activities. They should read thoroughly all the assigned texts before class and also complete all required assignments, study questions, etc. on time.

Midterm Exam

The particular setting of this course requires two separate evaluations, one for each leg of the program. The first will test the understanding and knowledge of the theoretical concepts. The format for the midterm exam will incorporate both essays and short-answer questions. Students will need to rely on both readings and class materials, to perform successfully on the exams, providing examples as needed and demonstrating mastery of the theoretical concepts.

Research Group Project and Presentations

This assessment requirement consists of two parts. Depending on the number of students, the class will be divided into small groups. Each group will analyze an energy and environmental policy case provided by the professor. The first stage of the project will be delivered through an oral presentation. The analysis will include an in-depth critique of the case. Each group should present a slideshow containing visual aids offering solutions to the proposal, as well as an analysis of the different factors that were considered. A copy of this presentation has to be provided to the professor in advance. The presentation must not exceed 15 minutes per group, and with an additional 10 minutes used for questions and discussions. Students will be graded according to their individual performance as well as a group average grade. Student groups will then present a written report of 3000-3750 words that provides a greater critique of the case, including theoretical background information from class, additional resources, and an eventual problem-solving proposal, incorporating feedback from the presentations when relevant.

The topic of the presentations would be the elaboration of a business project, (product or Service Company), considering one of the 17 Sustainable Development Goals (SDG). To do this, the students must go deeper into the SDG reviewed in class, choose one of them, define the business issue, develop the strategy, and describe the opportunities to innovate in products, services, and models that enable sustainable growth.

The evaluation will consider the theme management chosen (SDG), description of the process, impact of the business in sustainable growth, and the innovation options presented. The group must use PowerPoint and all the audiovisual support to give the presentations.

Class Exercises

During classes, the students must work on different exercises to describe their knowledge and skills acquisition, concerning sustainability and business. The participants will also share the experiences amongst themselves and the experiences seen in class, using different methodological techniques such as technological applications, role-playing, and case studies, among others.

Final Exam

The final test will examine the concepts applied to the Chilean experience regarding the economic, environmental, and social aspects of development. The format for the exam will incorporate both, essays and short-answer questions. Students will need to rely on both readings and class materials to perform successfully on the exams, providing examples as needed and demonstrating mastery of the theoretical concepts.

LEARNING OUTCOMES:

By the end of the course, students will be able to:

- Analyze and discuss terms, concepts, and frameworks associated with sustainable development and business, including policy instruments used to evaluate projects and their performance.
- Describe in detail the evolution of the sustainable development concept and its manifestations within Chile.
- Critically evaluate how to implement sustainability and business projects in students' own communities, using tools learned in the classroom and through experiential education.
- Articulate the challenges of sustainable business, particularly within the context of developing economies such as Chile.
- Outline the challenges and advantages of energy efficiency and energy planning, using Chilean and other national policies and practices as examples.

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. Punctuality: Students who are late to class will receive a .5 absence. Arriving in class more than 15 minutes late will result in 1 absence. Attendance is 90% for regular class and 100% for field studies.

CONTENT:

Session	Content	Assignments
Session 1	<p>Introduction</p> <ul style="list-style-type: none"> Syllabus description Course organization Sustainable development: Basic concepts 	<ul style="list-style-type: none"> Report of the World Commission on Environment and Development: Our Common Future (http://www.un-documents.net/our-common-future.pdf) Chapter 1 & 2 (23 pages)
Session 2	<p>Origin and implementation in the world Economic growth, social equity, and environmental protection</p>	<ul style="list-style-type: none"> Sustainable Development in Practice (35 pages) http://norden.divaportal.org/smash/get/diva2:701386/FULLTEXT01.pdf Keohane, N. & Olmstead, S. (2007). Principles of Market-Based Environmental Policy, In Markets and the Environment: An Introduction to Environmental and Resource Economics. Washington, D.C.: Island Press, Ch. 8
Session 3	<p>Ethics of Wealth, Poverty, and Inequality: International conferences, agreements, and declarations</p> <p>Sustainable Development landmarks</p> <p>Sustainable Development goals</p>	<ul style="list-style-type: none"> Kibert C., Thiele L., Peterson A., & Monroe M. <i>The Ethics of Sustainability</i>. Chapter 1, 4 & 7 (70 pages) UNEP, 1992; Agenda 21 http://www.unep.org/documents.multilingual/default.asp?documentid=52 United Nations, Sustainable development Knowledge Platform https://sustainabledevelopment.un.org/?menu=1300 Sustainable Development Goals platform https://sustainabledevelopment.un.org/?menu=1300
Session 4	<p>Course-related trip #1: Ministry of Environment History, challenges and operation of the Ministry of Environment</p> <p>Design and implementation process of an environmental public policy</p>	

Session	Content	Assignments
Session 5	<p>Growth dynamics</p> <p>Growth and Planetary Boundaries</p>	<ul style="list-style-type: none"> • Growth dynamics; growth and Planetary Boundaries http://businessperspectives.org/journals_free/ee/2012/ee_2012_01_Khan.pdf (31 pages) • Keohane, N. & Olmstead, S. (2007). The efficiency of markets, In <i>Markets and the Environment: An Introduction to Environmental and Resource Economics</i>. Washington, D.C.: Island Press, Ch. 4.
Session 6	<p>Midterm Exam</p> <p>The first test will assess the understanding and knowledge of the theoretical concepts.</p>	
Session 7	<p>Course-related trip #2: RECUPAC</p> <p>Chilean business model associated with the new environmental regulation related to recycling</p> <p>New recycling regulation with managers and workers</p>	
Session 8	<p>Economy and Energy: The Case of Energy in Chile</p> <p>Chilean Energy Policy: Energy Mix and Energy Efficiency</p>	<ul style="list-style-type: none"> • The Economist “Why is Renewable Energy so Expensive?” (5 pages) Joanne Linnerooth-Bayer (2010) • E. Michel-Kerjan, E. & Slovic, P. <i>International Social Protection in the Face of Climate Change: Developing Insurance for the Poor</i>. • <i>The Irrational Economist: Making Decisions in a Dangerous World</i>, New York: Public Affairs. • <i>Energy for the Future, clean secure competitive</i> http://www.centralenergia.cl/uploads/2012/06/National-Energy-Strategy-Chile.pdf (38 pages).
Session 9	<p>Course-related trip #3: Local Environmental Project</p> <p>Local experience in environmental management</p>	<ul style="list-style-type: none"> • Reinhardt, F. (2000). The environment as a business problem. In <i>Down To Earth: Applying Business Principles to Environmental Managemet</i>. Cambridge, MA: Harvard Business School Press, Ch. 1 • Activities: Guided visit to a municipality of the Metropolitan Region to see experiences concerning SDG, (Energy, solid waste, climate change, etc.), exchange experiences, interaction with professionals at local level, and interaction with local community.

Session	Content	Assignments
Session 10	Sustainable Development: The Case of Population	<ul style="list-style-type: none"> UNFPA 2012, “Population Matters for Sustainable Development” (32 pages) http://www.unfpa.org/sites/default/files/pub-pdf/UNFPA%20Population%20matters%20for%20sustainable%20development_1.pdf
Session 11	Economy and sustainable development: Business as usual path versus the sustainable development path Environmental threats & climate change	<ul style="list-style-type: none"> Sustainable Energy: Choosing Among Options: Chapter 2 (56 pages) The Economist “China and the environment: The East is grey” (5 pages) McKibbin, W. & Wilcoxon, P. (2002). The Role of Economics in Climate Change Policy. In <i>Journal of Economic Perspectives</i>. [web]
Session 12	Sustainable Development and Corporate Responsibility Sustainable development goals a business opportunity Green economy and great growth development path	<ul style="list-style-type: none"> Green economy https://www.unec.org/sustainable-development/green-economy/home.html Ervin, D. & F. Casey. (2001). Green Business Rising. In <i>Choices</i>, Third Quarter: 34-37
Session 13	Group Project Presentations	<ul style="list-style-type: none"> Sustainable Development Goals (SDG) Student groups will then present a written report of 3000-3750 pages that provides a greater critique of the chosen case, including theoretical background from class, additional resources, and an eventual problem-solving proposal, incorporating feedback from the presentations when relevant. This work is intended to evaluate the capacity to investigate and select successful experiences applied to SDG. Each group must have 2/3 persons. They must investigate and select the relevant information according to the SDG chosen, and hand in a paper 2 days before the presentation. (50%). The group must do a presentation in class and the presentation time has to be distributed equally among the members of the group.
Session 14	Environmental threats & climate change	<ul style="list-style-type: none"> Chilean Ministry of Environment (2012). National Climate Change Action Plan. Selection chapters (40 pages). The Economist “Energy in Chile: Keeping the lights on” (5 pages) Sustainable Energy: Choosing Among Options: Selections from Chapters 16 – 17 (app. 30 pages)

Session	Content	Assignments
Session 15	<p>Chilean regulatory and legal framework for SD</p> <p>Chilean environmental policy and institutions</p>	<ul style="list-style-type: none"> Chilean environmental law and regulations (English version, provided by the teacher)
Session 16	<p>Economic growth and socio-environmental conflicts, the case of Chile</p>	<ul style="list-style-type: none"> Environmental Recuperation Program at Ministry of Environment
Session 17	<p>Final Exam</p>	

COURSE-RELATED TRIPS:

- Ministry of the Environment
- RECUPAC, Recycling business
- Local metropolitan environmental project

REQUIRED READINGS:

- Required Book: Strange, T. and A. Bayley (2008), Sustainable Development: Linking Economy, Society, Environment, OECD Insights, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/9789264055742->
- Required Readings (Moderate):
- Ministry of Energy (2014). Energy Agenda: A challenge for the country, progress for everyone.
- Ministry of Environment (2012). National Climate Change Action Plan.
- United Nations Environmental Program, Agenda 21, 1992.
- Required Readings (Easy):
- The Economist “China and the environment: The East is grey”, Aug 2013.
- The Economist “Why is Renewable Energy so Expensive?” Jan 2014.
- Walking the talk, The Business case for sustainable development, Holliday, Ch, Schmidheiny S, Watts Ph. 2002

RECOMMENDED READINGS:

During the course, the professor might choose to assign additional readings. These may consist of case studies which will be discussed with the students. The reading of these supplemental texts is not optional and will be required for class discussions. Failing to complete the readings will be reflected on class participation evaluation.