

City University of Hong Kong

Information on a Course offered by Department of Asian and International Studies with effect from Semester A in 2012-13

Part I

Course Title:	Energy, Environment, and the Future: Crisis and Opportunity
Course Code:	AIS 3201
Course Duration:	One semester
No. of Credit Units:	3
Level:	B3
Medium of Instruction:	English
Prerequisites: <i>(Course Code and Title)</i>	Nil
Precursors: <i>(Course Code and Title)</i>	Nil
Equivalent Courses: <i>(Course Code and Title)</i>	Nil
Exclusive Courses: <i>(Course Code and Title)</i>	Nil

Part II

1. Abstract

The course introduces students to projections of various possible futures, in regard to problems of future energy shortages, resource depletion, environmental and resources impacts of continuing population growth, and consequences of these types of changes for economies and human populations. Technological, economic, political, and social solutions to these actual or looming problems will be discussed, including renewable energy, new technologies, conservation, economic restructuring, and localization. Students will learn the complex relationships of all these through case studies. They will also design 'plans of action' for Hong Kong, China, or other relevant contexts for specific environmental and resources problems to assess selected risks and probable futures.

2. Course Aims

The course introduces students to projections of various possible futures, in regard to problems of future energy shortages, resource depletion (fisheries, forests, arable land, water), environmental and resources impacts of continuing population growth, and likely consequences of these types of changes for economies and human populations. Technological, economic, political, and social solutions to these actual or looming problems will be discussed, including renewable energy, new technologies, conservation, economic restructuring, and localization. Case studies of cities and other political units which are already planning or implementing various kinds of deliberate changes related to such projections (eg. the ‘transition towns’ movement, and mandated increases in renewable energy) will be compared. Students will also learn about advocacy groups and interest-groups which aim to influence these debates, and study examples of their material. The aim is to give the students an opportunity to see how future scenarios are projected and modelled from current trends, to discuss the variety of proposed solutions, to participate actively and constructively in planning and discussion of such projections, and to be able to assess selected risks and opportunities in these possible and probable futures.

3. Course Intended Learning Outcomes (CILOs)

Upon successful completion of this course, students should be able to:

No.	CILOs	Weighting (if applicable)
1.	Critically analyze the main methods of producing projections and models of future social and environmental conditions	
2.	Critically evaluate the main types of proposed technological and political responses to impending environmental and resources problems	
3.	Present reasoned plans of action for Hong Kong, China, or other relevant contexts for specific environmental and resources problems	
4.	Demonstrate ability to contribute to discourse about environmental and resources issues and proposals	

4. Teaching and learning Activities (TLAs)

(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	TLAs	Hours/week (if applicable)
CILO 1	Lectures, seminars, readings, small-group discussions, presentations	
CILO 2	Lectures, seminars, readings, case studies, small-group discussions, presentations	
CILO 3	Small group discussions, group presentations, term paper.	
CILO 4	Group presentations, term paper.	

5. Assessment Tasks/Activities

(Indicative of likely activities and tasks designed to assess how well the students achieve the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	Type of Assessment Tasks/Activities	Weighting	Remarks
1, 2, 4	Class participation	20%	
1-4	Presentations {plans of action}	20 %	
1-4	Essay	30%	
1-2	Quiz	30%	

6. Grading of Student Achievement: Refer to Grading of Courses in the Academic Regulations

Standard (A+, A, A- ...F)

A-/A/A+	Demonstration of <u>excellent</u> understanding and critical evaluation of environmental and resources problems, projections, and proposals, with very good to excellent participation in presentations and class discussion
B-/B/B+	Demonstration of <u>good to very good</u> understanding and critical evaluation of environmental and resources problems, projections, and proposals with at least good participation in presentations and class discussion
C-/C/C+	Demonstration of general knowledge of main features of environmental and resources problems, projections, and proposals, but without good critical evaluation; at least satisfactory participation in presentations and class discussion
D	Demonstration of some basic knowledge of environmental and resources problems, projections, and proposals, but without sufficient critical evaluation; at least some basic participation in presentations and class discussion
F	<u>Failure</u> to demonstrate basic knowledge of environmental and resources problems, projections, and proposals; inability to engage in critical evaluation; and/or lack of attendance or participation in class discussion and presentations; and/or substantial plagiarism

Part III

Keyword Syllabus

Energy, peak oil, coal, gas, nuclear power, renewable energy technologies; resource depletion, overfishing, deforestation; climate change; computer projections and models; population growth, demographic projections, development goals; localization, economic transitions.

Recommended Reading

Diamond, J., 2005. *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking.

Heinberg, R., 2004. *Powerdown: Options and Actions for a Post-Carbon World*. Gabriola Island, B.C.: New Society Publishers.

Heinberg, R., 2005. *The Party's Over: Oil, War, and the Fate of Industrial Societies*. Gabriola Island, B.C.: New Society Publishers.

Hopkins, R., 2008. *The Transition Handbook: From Oil Dependency to Local Resilience*. Green Books Ltd, Foxhole.

Lerch, D., 2007. *Post Carbon Cities: Planning for Energy and Climate Uncertainty. A Guidebook on Peak Oil and Global Warming for Local Governments*. Sebastopol, Calif.: Post Carbon Press (Post Carbon Institute).

Li, M., 2007. Peak oil, the rise of China and India, and the global energy crisis. *Journal of Contemporary Asia*, 37(4), pp. 449-471.

Lynas, M., 2008. *Six Degrees: Our Future on a Hotter Planet*. London: Harper.

Meadows, D., Randers, J. & Meadows, D., 2004. *Limits to Growth: The 30-Year Update*. White River Junction, VT: Chelsea Green Publ. Co.

Monbiot, G., 2006. *Heat: How to Stop the Planet from Burning*. Cambridge, Mass: South End Press.

Murphy, P., 2008. *Plan C: Community Survival Strategies for Peak Oil and Climate Change*. Gabriola Island, B.C.: New Society Publishers.

Roberts, P., 2008. *The End of Food*. New York: Houghton-Mifflin.

Online Resources (examples)

IEA (International Energy Agency). 2007a. *World Energy Outlook 2007*.

Available at: <http://www.worldenergyoutlook.org/2007.asp>

IPCC (Intergovernmental Panel on Climate Change). 2007. *Climate Change, 2007: Synthesis Report*.

Available at: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf

Lerch, Daniel. 2007. U.S. City First to Fight Climate Change and Peak Oil Together.

Available at: <http://postcarboncities.net/node/2422>

Portland Peak Oil Task Force. 2007. *Descending the Oil Peak: Navigating the Transition from Oil and Natural Gas*.

Available at: <http://www.portlandonline.com/osd/index.cfm?c=42894>).

Post Carbon Institute.

Available at: <http://www.postcarbon.org/>

Prime Minister's Office Commission on Oil Independence. 2008. *Making Sweden an Oil Free Society*.

Available at: <http://www.sweden.gov.se/sb/d/2031/a/67096>

Rosen, D. H. & House, T., 2007. *China Energy: A Guide for the Perplexed*. May.

Available at: www.petersoninstitute.org/publications/papers/rosen0507.pdf

World Watch Institute: Vision for a Sustainable World.

Available at: <http://www.worldwatch.org/>