

THE EDUCATION UNIVERSITY OF HONG KONG

Course Outline

Part I

Programme Title	: Bachelor of Education (Honours) (Geography) (Five-year Full-time)
Programme QF Level	: 5
Course Title	: Climate Change and Global Warming
Course Code	: GGP3008
Department	: Social Sciences
Credit Points	: 3
Contact Hours	: 39
Pre-requisite(s)	: Nil
Medium of Instruction	: English
Course Level	: 3

Part II

The University's Graduate Attributes and seven Generic Intended Learning Outcomes (GILOs) represent the attributes of ideal EdUHK graduates and their expected qualities respectively. Learning outcomes work coherently at the University (GILOs), programme (Programme Intended Learning Outcomes) and course (Course Intended Learning Outcomes) levels to achieve the goal of nurturing students with important graduate attributes.

In gist, the Graduate Attributes for Undergraduate, Taught Postgraduate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- Professional Excellence;
- Ethical Responsibility; &
- Innovation.

The descriptors under these three domains are different for the three groups of students in order to reflect the respective level of Graduate Attributes.

The seven GILOs are:

1. Problem Solving Skills
2. Critical Thinking Skills
3. Creative Thinking Skills
- 4a. Oral Communication Skills
- 4b. Written Communication Skills
5. Social Interaction Skills
6. Ethical Decision Making
7. Global Perspectives

1. Course Synopsis

This course aims to provide students with knowledge of basic science of climate change and the impacts of contemporary global warming on human societies. The role of human beings on climate change will be critically examined. Mitigation and adaptation measures for global warming will be covered through local and overseas case studies. In addition, sustainable changes of the human behaviour and lifestyle will also be evaluated in the context of climate change adaptation and mitigation.

2. Course Intended Learning Outcomes (CILOs)

Upon completion of this course, students will be able to:

- CILO₁: demonstrate competence in knowledge on the interpretation of climate change by different stakeholders in society.
- CILO₂: explain the causes and impacts of climate change and global warming
- CILO₃: distinguish fundamental interrelationships of climate change and global warming with individuals and societies.
- CILO₄: evaluate and critique information, policies and discourses concerning climate change and global warming.
- CILO₅: criticize the contemporary mitigation and adaptation measure for climate change.

3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
A. Basics of global climate a) Components and phenomena in the climate system b) Energy flow c) Atmospheric circulation patterns d) Hydrological cycle e) Carbon and nutrient cycles.	CILO _{2,3}	<ul style="list-style-type: none">• Lectures• Classroom discussions
B. Weather, climatic variability and climate change a) Overview about past, recent and future climate change b) Cause of climate change including natural processes and human activities c) Consequences of climate change, such as change of regional climate circles, ecological effects etc.	CILO _{2,3}	<ul style="list-style-type: none">• Lectures• Classroom discussions

<p>C. Introducing the science of global warming</p> <p>a) Greenhouse gas</p> <p>b) Greenhouse effects on global warming</p> <p>c) Links between economic forces, the carbon cycle, and the earth's climatic response to warming</p>	<p>CILO_{1,2,3}</p>	<ul style="list-style-type: none"> • Lectures • Classroom discussions
<p>D. Monitoring and mitigation</p> <p>a) Assessing climate change vulnerability</p> <p>b) Approaches to reduce impacts: natural system and human system</p> <p>c) Low carbon economy and society</p> <p>d) Policies for environmental sustainability: regional and national aspects</p> <p>e) Geoengineering</p>	<p>CILO_{4,5}</p>	<ul style="list-style-type: none"> • Lectures • Field trip • Classroom discussions • Case studies
<p>E. Imperatives for adaptive responses</p> <p>a) Vulnerability and actions in developing and developed world context</p> <p>b) Inequality and poverty</p>	<p>CILO_{4,5}</p>	<ul style="list-style-type: none"> • Lectures • Classroom discussions • Case studies

4. Assessment

Assessment Tasks	Weighting (%)	CILO _s
<p>(a) Individual presentation The students are required to give a presentation based on their individual essay.</p>	<p>20%</p>	<p><i>CILO_{1, 2, 3}</i></p>
<p>(b) Individual essay 1000-word individual essay examining what each student has learnt during the class.</p>	<p>30%</p>	<p><i>CILO_{1,2,3,4,5}</i></p>
<p>(c) Examination A two-hour written examination comprising of various format of questions aiming to assess different levels of knowledge on climate change and global warming.</p>	<p>50%</p>	<p><i>CILO_{1,2,3,4,5}</i></p>

5. Required Text(s)

Gillard, A. (2011). *Climate Change*, Detroit: Gale, Cengage Learning.

6. Recommended Readings

- Drake, F. (2014). *Global warming: The science of climate change*. London: Arnold.
- Colson, R. (2014). *Economics of global warming and climate change*. Delhi: University Publications.
- Philander, S. G. (2008). *Encyclopedia of global warming and climate change*. Thousand Oaks, Calif.: Sage Publications.
- Adger, W. N.; Lorenzoni, I.; & O'Brien, K. L. (2009). *Adapting to climate change: thresholds, values, governance*. Cambridge: Cambridge University Press.
- Urry, J. (2012). *Climate change and society*. Cambridge: Polity.

7. Related Web Resources

HKEPD

http://www.edp.gov.hk/edp/english/climate_change/

350. Org: International campaign to promote just and science-based solutions to climate crisis.

www.350.org

United Nations, Department of Economic and Social Affairs: Climate Change and Sustainable Development

<http://www.un.org/en/development/desa/climate-change/index.shtml>

GreenFILE: Information on human impacts on the environment

<http://library.ied.edu.hk/record=b1762886~S5>

The International Research Center for Climate and Society

<http://portal.iri.columbia.edu/portal/server.pt>

8. Related Journals

Climate Policy

International Journal of Climate Change Strategies and Management

Journal of Climate Change

International Journal of Global Warming

International Journal of Global Warming and Climate Change

Development and Change

Environment and Behavior

Global Environmental Change

Ecological Engineering

Global and Planetary Change

Environmental Science and Policy

9. Academic Honesty

The University adopts a zero tolerance policy to plagiarism. For the University's policy on plagiarism, please refer to the *Policy on Academic Honesty, Responsibility and Integrity with Specific Reference to the Avoidance of Plagiarism by Students* (<https://www.eduhk.hk/re/modules/downloads/visit.php?cid=9&lid=89>). Students should familiarize themselves with the Policy.

10. Others

Newspaper articles and other media reports, including contemporaneous reporting, related to the course; recent related reports from scientific organizations and nongovernmental organizations; new video media and websites.