

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	: Foundation of Physical Geography
Course Code	: GGP1001
Department	: Science and Environmental Studies; Social Sciences
Credit Points	: 3
Contact Hours	: 39
Pre-requisite(s)	: Nil
Medium of Instruction	: English
Course Level	: 1

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 is an introductory course about the physical and biological environment that interacts with human beings. The course will cover the processes that govern the character and spatial patterns of the physical landscapes, including solar energy input, water cycle, ocean and atmospheric circulation; and how these processes shaped our planet's ecosystems and geomorphological landforms. Emphasis will be placed on the interactions between various physical systems and their relationships with the biota, including human beings ourselves.

2. Course Intended Learning Outcomes (CILOs)

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

CILO1: understand the nature and relevant concepts of physical geography

CILO2: describe the major processes involved in the atmosphere, hydrosphere, lithosphere and biosphere that influence the characteristics and spatial relationships of climate, hydrology and vegetation

CILO3: identify the relationships among the four spheres of our Earth system

CILO4: understand the role played by scale in our study of different geophysical processes that have caused variations in different geographical processes, elements, or features

CILO5: appreciate the ways that the geophysical environment interacts with the biota, including our human societies

3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
A. The Earth's environmental systems <ul style="list-style-type: none">- Introducing physical geography- Spheres, systems and cycles	CILO _{1,4,5}	<ul style="list-style-type: none">- Lectures- Presentation- Discussion
B. Global energy balance and the thermal environment <ul style="list-style-type: none">- Radiation balance and insolation- Composition and structure of the atmosphere- Spatial and temporal variation of air temperature	CILO _{2,3,4,5}	<ul style="list-style-type: none">- E-learning- Self-directed learning
C. Atmospheric circulation, weather systems and world's climates <ul style="list-style-type: none">- Pressure and winds- Global wind and pressure pattern- Air masses and weather systems- Global climates		

Course Content	CILOs	Suggested Teaching & Learning Activities
<p>D. Global biogeography and processes</p> <ul style="list-style-type: none"> - Energy and ecosystems - Biogeochemical cycles - The biomes <p>E. Earth materials and plate tectonics</p> <ul style="list-style-type: none"> - Minerals and rocks - Plate tectonics - Volcanic landforms - Tectonic landforms <p>F. Global hydrology, freshwater resources and fluvial processes</p> <ul style="list-style-type: none"> - Hydrological cycle - Soil erosion - Fluvial processes and landforms - Droughts and floods <p>G. Coastal environments and processes</p> <ul style="list-style-type: none"> - Global change and coastal environments - Work of waves and tides - Types of coastlines 		

4. Assessment

Assessment Tasks	Weighting (%)	CILO
<p>In-class and e-learning exercises</p> <p>(a) Allows students to explore earth related processes and outcomes</p>	40%	<i>CILO</i> _{1,2,3,4,5}
<p>Group presentation</p> <p>(b) Student presentation on a selected topic related to human impacts upon various earth systems</p>	20%	<i>CILO</i> _{1,2,3,4,5}
<p>Take-home paper</p> <p>(c) Time-constrained short essay questions. (1200 words in total)</p>	40%	<i>CILO</i> _{1,2,3,4,5}

5. Required Text(s)

Strahler, A. (2013) *Introducing Physical Geography* (6th edn.) Wiley.

6. Recommended Readings

Barry, R. & Chorley R. (2009) *Atmosphere, Weather and Climate* (9th edn.). Routledge.

Bell, M. and M.J.C. Walker. (1992) *Late Quaternary Environmental Change: Physical and Human Perspectives*. London: Longman.

Briggs, D. and P. Smithson (1993) *Fundamentals of Physical Geography*. Routledge.

Christopherson, R.W. (2014) *Geosystems: An Introduction to Physical Geography* (9th edn.). Prentice Hall.

David W. (2009) *The New Wider World* (3rd edn.). Nelson Thornes.

Dickinson, G. & Murphy K. (2006) *Ecosystems*. Routledge.

Goudie, A. (2013) *The Human Impact on the Natural Environment* (7th edn.). Wiley-Blackwell.

Hay, W.W. (1996) 'Tectonics and climate', *Geologische Rundschau: Zeitschrift für allgemein Geologie* 85: 409–37.

Henderson-Sellers, A. and P.J. Robinson (1999) *Contemporary Climatology*. Longman.

Hess, D. & Tasa D. (2013) *McKnight's Physical Geography: a landscape appreciation*. Pearson.

Imbrie, J. and K.P. Imbrie (1986) *Ice Ages: Solving the Mystery*. Harvard University Press.

Knighton, D. (1998) *Fluvial Forms and Processes: A New Perspective* (2nd edn.). Arnold.

Lowe, J. & Walker M. (2014) *Reconstructing Quaternary Environments* (3rd edn.). Routledge.

Molnar, P. & England P. (1990) 'Late Cenozoic uplift of mountain ranges and global climate change: chicken or egg?' *Nature* 346: 29–34.

Morton, O. (1998) 'The storm in the machine', *New Scientist* 157: 22–27.

Newson, M.D. (1994) *Hydrology and the River Environment*. Blackwell.

Shaw, E.M., Beven, K.J., Chappell N.A. & Lamb R. (2010) *Hydrology in Practice* (4th edn.). CRC Press.

Skinner, B., Porter S. & Park, J. (2003) *The Dynamic Earth: An Introduction to Physical Geology* (5th edn.). Wiley.

Summerfield M.A. (1991) *Global Geomorphology*. Longman.

Pachauri R.K. and Meyer L.A. (eds.) (2014) *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. IPCC.

7. Related Web Resources

Physicalgeography.net:

<http://www.physicalgeography.net/>

GCSE Bitesize Geography, BBC:

<http://www.bbc.co.uk/schools/gcsebitesize/geography/>

Fundamentals of Physical Geography, UBC:

<http://serc.carleton.edu/resources/22397.html>

8. Related Journals

Applied Geography

Climatic Change

Geografiska Annaler: Series A, Physical Geography

Global Environmental Change

Journal of Geographical Sciences

Proceedings of the National Academy of Sciences

Progress in Physical Geography

Physical Geography

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

Newspapers and magazines related to topic issues.

Updated 21 August 2020