

## The Hong Kong Polytechnic University

### Subject Description Form

*(only applicable for Semester 2, 2021-22 in relation to 212 LTA arrangements)*

<b>Subject Code</b>	LSGI1B02
<b>Subject Title</b>	Climate Change and Society
<b>Credit Value</b>	3
<b>Level</b>	1
<b>Pre-requisite/ Co-requisite/ Exclusion</b>	Nil
<b>Objectives</b>	<ul style="list-style-type: none"> <li>(i) To enhance students' knowledge of climate and historical climate change</li> <li>(ii) To enhance students' understanding of the dependence of life on the non-living environment</li> <li>(iii) To enable students to appreciate the difference between information sources from textbooks on the one hand, and scientific literature on the other</li> <li>(iv) To impart skills in basic sentence and paragraph construction in academic writing</li> </ul>
<b>Intended Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ul style="list-style-type: none"> <li>(a) Understand the historical development of processes which maintain the earth's climatic and ecological balance</li> <li>(b) Understand the interdependence between living and non-living parts of the earth</li> <li>(c) Recognise the dependence of social development and civilizations on the particular climatic context and conditions</li> <li>(d) Appreciate the fragility of the relationships between society and climate, and society's response to climate change</li> <li>(e) Have a better understanding of recent greenhouse-induced climate change and our response to it in the context of previous changes in global climate</li> <li>(f) Use logical concepts of premises, inference and conclusion, to construct meaningful arguments in academic writing</li> </ul>
<b>Subject Synopsis/ Indicative Syllabus</b>	<ul style="list-style-type: none"> <li>1. World climates and climate change since prehistoric times</li> <li>2. Human evolution in climatic context</li> </ul>

	<ol style="list-style-type: none"> <li>3. Examples of European, American and Asian societies in climatic context (Roman, Middle Eastern, Chinese Dynasties)</li> <li>4. Climatic impacts on life and society</li> <li>5. Theories and principles of greenhouse-induced climate change</li> <li>6. The climate of Hong Kong in context of regional and global climate, and in long term context including trends and variability of past climates</li> <li>7. Climate change predictions for Hong Kong and its impacts on society</li> </ol>
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<b>Teaching/Learning Methodology</b>	<p>Staff-student contact in lectures and tutorials. Lectures are mainly for information on the historical and current development of earth's climate and its historical impact on society. In tutorials, case studies will be introduced and students will be asked to prepare their own cases studies for further discussion.</p>
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<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	<table border="1"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> <th>e</th> <th>f</th> </tr> </thead> <tbody> <tr> <td>1. <del>Written test on students' understanding of lectures, and course readings</del> <u>Mid-term test</u></td> <td><del>40</del>20%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>2. <del>Group project presentation</del> <u>Final test</u></td> <td><del>20</del>40%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>3. Written <b>2,500-word</b> summary of essay, particular attention to <b>writing</b> of logical grammatical constructs and structured arguments</td> <td>40%</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td><b>Total</b></td> <td><b>100 %</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e	f	1. <del>Written test on students' understanding of lectures, and course readings</del> <u>Mid-term test</u>	<del>40</del> 20%	✓	✓	✓	✓	✓		2. <del>Group project presentation</del> <u>Final test</u>	<del>20</del> 40%	✓	✓	✓	✓	✓		3. Written <b>2,500-word</b> summary of essay, particular attention to <b>writing</b> of logical grammatical constructs and structured arguments	40%						✓	<b>Total</b>	<b>100 %</b>						
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<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p>																																															

	<p>The 40% essay writing is a requirement of a EWR subject in which students can have a thorough and in-depth understanding of the subject matter, and be trained to express ideas critically. Students should also supply two drafts to ELC and seek their advice to improve their English writing skills. This is also reinforced by a written test on students' understanding of the essential knowledge.</p> <p>The group project enables students to work in a team. Based on a chosen topic of climate change impact, students need to conduct a literature review, produce and present in class a scientific report with supporting data.</p>	
<b>Student Study Effort Expected</b>	Class contact:	
	<ul style="list-style-type: none"> <li>▪ Lecture</li> </ul>	26 Hrs.
	<ul style="list-style-type: none"> <li>▪ Tutorial</li> </ul>	13 Hrs.
	Other student study effort:	
	<ul style="list-style-type: none"> <li>▪ Course Reading and Chapter (Book) Review</li> </ul>	28 Hrs.
	<ul style="list-style-type: none"> <li>▪ Group Project</li> </ul>	20 Hrs.
	<ul style="list-style-type: none"> <li>▪ Essay Writing</li> </ul>	30 Hrs.
	Total student study effort	117 Hrs.
<b>Reading List and References</b>	<p>Burrough, W.J., 2007. Climate change: a multidisciplinary approach. 2nd edition, Cambridge University Press.</p> <p>Houghton, J., 2009. Global warming: the complete briefing. 4th Edition, Cambridge University press, UK., 283p.</p> <p>IPCC, 2014. Climate Change 2014: Working Group II: Impacts, Adaptation and Vulnerability”<a href="http://www.ipcc.ch/report/ar5/wg2/">http://www.ipcc.ch/report/ar5/wg2/</a>  <b>(20,000 words of reading)</b></p> <p>Lam CY (2006) On Climate Changes Brought About by Urban Living. Hong Kong Met. Soc. Bull. 16(1/2).</p> <p>Leung Y K, Wu M C, Yeung K K, Leung WM (2007) Temperature projections in Hong Kong based on IPCC Fourth Assessment Report. Hong Kong Met. Soc. Bull. 17.</p> <p>Lee, H.F., Zhang, D. 2012. A tale of two population crises in recent Chinese history. Climatic Change, DOI 10.1007/s10584-012-0490-9</p> <p><b>**Maslin, M. (2014) Global Warming: A Very Short Introduction’ (3rd edn), Oxford, OUP: 2008, 176 pp.; ISBN 978-0-19-954824-8 (30,000 words of reading)</b></p>	