Subject Description Form

Subject Code	CSE544
Subject Title	Sustainable Development and Environmental Planning
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	To provide students with an overview and understanding of the theories and current practices in sustainable development and environmental planning. The essential tools in evaluating sustainable development will be highlighted and proper approaches in energy planning, transportation and urban planning will be introduced. These will equip students with a sound knowledge to appreciate the interaction between sustainable development, urban planning, and environmental engineering.
Intended Learning Outcomes	Upon completion of the subject, students will be able: a. to understand the fundamentals of sustainable development strategy for planning; b. to identify diverse problems arising from changing constraints that influence sustainable development, such as economic, environmental, andsocial considerations; c. to apply concept and knowledge to real life application, such as energy planning; d. to assess and discuss the ethical and social implications of actions and proposals; and e. to teach how to write a sustainability report and conduct sustainability assessment including (Environmental, Social and Governance) in Hong Kong.

<table>
<tr><td>Subject Synopsis/ Indicative Syllabus</td><td>

<u>Keyword Syllabus</u>

i) <u>Environmental Objectives and Planning</u>
Environmental objectives; social and management responsibility andauthority; sustainable development.

ii) <u>Sustainable Development</u>
Concepts of sustainable development; sustainable development goals (SDGs); long-term approaches to environmental problems.

iii) <u>Evaluation of Sustainability</u>
Carbon footprint; renewable energy system; sustainable transport concepts; energy saving projects.

iv) <u>The Planning System in Hong Kong</u>
The planning hierarchy; Hong Kong Planning Standards and Guidelines; planning development in Hong Kong; new towns.

v) <u>Transport and Infrastructural Development</u>
Port and airport development; strategic road network; railway development study.

vi) <u>Nature and Countryside Conservation</u>
Conservation measures; country park ordinance; cases of regional andlocal conflicts; ecotourism.

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<tr><td>Teaching/Learning Methodology</td><td>The lectures will introduce the concept of sustainable development and the indicators. Environmental issues in the way of the global sustainable development will be discussed. Case studies will be used to demonstrate how to calculate personal carbon footprint as well as corporate carbon footprint. Planning development control system and planning enforcement/prosecution mechanism in Hong Kong will be discussed. Case studies on rural conservation and revitalisation policy for sustainable development will be introduced.</td></tr>
<tr><td>Assessment Methods in Alignment with Intended Learning Outcomes</td><td>
<table>
<tr><td rowspan="2">Specific assessment methods/tasks</td><td rowspan="2">% weighting</td><td colspan="5">Intended subject learning outcomes to be assessed (Please tick as appropriate)</td></tr>
<tr><td>a.</td><td>b.</td><td>c.</td><td>d.</td><td>e.</td></tr>
<tr><td>1. Continuous Assessment</td><td>30%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>2. Written Examination</td><td>70%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Total</td><td>100%</td><td colspan="4"></td><td></td></tr>
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	Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes: The continuous assessment will be based on one project report and one oral presentation. Written examination is evaluated by final examination. **Students must attain at least Grade D in both coursework and final examination (whenever applicable) in order to attain a passing grade in the overall result.**
Reading List and References	**<u>Books</u>** Bailey, R., *An Introduction to Sustainable Development*, the CharteredInstitution of Water and Environmental Management 1997, UK. BRE Natural ventilation in non-domestic buildings, BRE Digest 399, BuildingResearch Establishment (UK), 1994. Brian Edwards, *Green Building Pay*, Spon Press, 1998. *Hong Kong Planning Standards and Guidelines*, Planning Department, HongKong Government. Natural ventilation in buildings: a design handbook, James & James, 1998. O'Riordan, T., *Environmental Science for Environmental Management*,Longman Scientific & Technical, 1995, London. R. T. Wright & D. F. Boorse (2010) Environmental Science: Towards ASustainable Future, Pearson Education. *Territorial Development Strategy: Consultative Digest*, Planning Department,Hong Kong Government. *Town Planning in Hong Kong*, Planning Department, Hong Kong Government. W. Cunningham (2008) Environmental Science: A Global Concern, McGraw-Hill. World Commission on Environment and Development, 1987. *Our CommonFuture*, Oxford University Press, UK.