

Subject Description Form

Subject Code	CSE40475
Subject Title	Sustainable Development Strategy
Credit Value	3
Level	4
Pre-requisite/ Co-requisite/ Exclusion	Exclusion: CSE475
Objectives	To provide students with an overview and understanding of the theory and current practices in sustainable development. Global perspective and holistic view will be emphasized. This will equip students with a sound knowledge on the methods to evaluate sustainability at global, local, corporate, and individual levels. It will also equip students with practical tool for corporate sustainability strategy and reporting.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: - understand the fundamentals of sustainable development strategy; understand global energy balance, climate change, ozone depletion, global carbon cycle, carbon footprint, non-renewable and renewable energy; - apply concept and knowledge on carbon footprint to real life scenarios, such as regional energy planning, personal choices of transportation options, corporate social responsibility, personal life style; - learn how to write sustainability report in line with various internationally recognized standards and local requirement; - master the basic knowledge and skills for climate related financial disclosure; and - understand the practical sustainable finance products.
Subject Synopsis/ Indicative Syllabus	<u>Sustainable Development Basics</u> The need of global sustainable development; definition, indicators, and measurements of sustainable development. <u>Issues with Global Sustainability</u> Greenhouse gases and their effects; global warming/climate change and its debates; ozone depletion; ocean acidification; United Nation's Sustainable Development Goals (SDGs); Hong Kong's approach toward sustainability.

	3. <u>Carbon Footprint and Renewable Energy</u> Carbon basics, global carbon reservoirs, exchanges, and balances; concept and calculation of life-cycle carbon footprint for various activities and products, such as choice of transportation, secondary energy, commercial products, different life styles, renewable energy. 4. <u>Corporate ESG Reporting</u> Corporate ESG reporting standards and guideline (HKEx, GRI and SASB); corporate governance; materiality test; stakeholder engagement; case studies. 5. <u>Climate-related Financial Disclosure</u> Types of climate risks; four pillars of climate related financial disclosure; risk management process; case studies for real estate sector. 6. <u>Sustainable Finance Products</u> Sustainable finance; climate finance and its drivers; types of common sustainable finance products; taxonomy and green washing.																																								
Teaching/Learning Methodology	Lectures are used to deliver the various topics and case studies and demonstration are used to link the basic knowledge to real life scenarios. Discussion-based format and group projects will be employed to enhance the learning objectives and learning outcomes. This can provide students with an overview and understanding of the current practices in the planning for sustainable development. This will equip students with a sound knowledge on the methods to evaluate and to propose sustainable development strategies at global, local, corporate, and individual levels.																																								
Assessment Methods in Alignment with Intended Learning Outcomes	<table><tr><th rowspan="2">Specific assessment methods/tasks</th><th rowspan="2">% weighting</th><th colspan="5">Intended subject learning outcomes to be assessed</th></tr><tr><th>a</th><th>b</th><th>c</th><th>d</th><th>e</th></tr><tr><td>1. Project</td><td>15%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td>2. Assignment</td><td>15%</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td>3. 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="5"></td></tr></table> Students must pass the final examination and achieve a passing overall score / grade to pass the subject. Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed					a	b	c	d	e	1. Project	15%	✓	✓	✓	✓	✓	2. Assignment	15%	✓	✓	✓	✓	✓	3. Examination	70%	✓	✓	✓	✓		Total	100%					
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	The project, assignment and exam will together embrace all the learning outcomes. The project and assignment require students to apply what they have learnt in the module and their observations in daily life. Participants are required analyzing the problems with critical thinking and discussing with reasons. Feedback will be delivered to them, which will help clarify the concepts and methodology in evaluating sustainable development.	
Student Study Effort Expected	Class contact:	Average hours per week
	▪ Lectures / Case Study and demonstration	3 Hrs.
	Other student study effort:	
	▪ Self Study	6 Hrs.
	Total student study effort	9 Hrs.
Reading List and References	• R. T. Wright & D. F. Boorse (2017) Environmental Science: Towards A Sustainable Future, 13th Ed., Pearson Education. • Sergio C. Capareda (2020) Introduction to Renewable Energy Conversions, CRC Press/Taylor & Francis. • The 2030 Agenda for Sustainable Development, The United Nations • Hong Kong 2030: Planning Vision and Strategy – Strategic Environmental Assessment, Planning Department, Hong Kong Government. • HKEx Main Board Listing Rules Appendix 27 Environmental, Social and Governance Reporting Guide https://en-rules.hkex.com.hk/rulebook/environmental-social-and-governance-reporting-guide-0 • GRI The global standards for sustainability reporting. https://www.globalreporting.org/standards/ • Value Reporting Foundation SASB standards https://www.sasb.org/ • Recommendations of the Task Force on Climate related Financial Disclosures (2017). • ICMA (2020) Sustainable finance high-level definitions • The Green Bond Principles (GBP) 2021 • International Platform on Sustainable Finance (2022) Common Ground Taxonomy – Climate Change Mitigation	