

# SEE1005: GLOBAL SUSTAINABLE TECHNOLOGIES AND FINANCE

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## Effective Term

Semester A 2025/26

## Part I Course Overview

### Course Title

Global Sustainable Technologies and Finance

### Subject Code

SEE - School of Energy and Environment

### Course Number

1005

### Academic Unit

School of Energy and Environment (E2)

### College/School

School of Energy and Environment (E2)

### Course Duration

One Semester

### Credit Units

3

### Level

B1, B2, B3, B4 - Bachelor's Degree

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Nil

### Precursors

Nil

### Equivalent Courses

Nil

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

This course introduces students to concepts related to sustainability, finance and environmental science and engineering. Underlying factors that fall under Environmental, social and governance pillars will be introduced. Key principles related to broader sustainability context and global initiatives will be addressed. Analysis of ESG factors that affect industry and company performance, and security valuation across a range of asset classes will be emphasized. Sustainable development will be emphasized throughout the course, and the role of policy and economic strategies will be discussed. A quantitative framework will be adopted to aid the analysis of ESG and other disclosures for sustainability decision-making for both internal strategic and shareholder investing. This course intends to lay the foundation for students to pursue advanced courses in their subsequent study.

### Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Demonstrate an understanding on key environmental issues and their financial implications in the 21st century and the importance of sustainable development	10		x	
2	Apply fundamental principles in economics and finance, and environmental science and engineering	40		x	
3	Analyze the current and future financial instruments and environmental technologies	40	x	x	
4	Explain the role of policy and economic strategies for ESG performance across all sectors	10		x	

#### A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

#### A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

#### A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

### Learning and Teaching Activities (LTAs)

LTAs		Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Explain key concepts and principles related to economics and finance, and environmental science and engineering	1, 2, 3, 4	2.5 hrs/wk
2	Tutorial	Solidify students' concepts and understanding with practice	2, 3, 4	0.5 hr/wk

### Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("- for nil entry)	Allow Use of GenAI?
1	In-class test	1, 2, 3, 4	20	-	No
2	Assignment	1, 2, 3, 4	25	-	Yes
3	In-class presentation	1, 2, 3, 4	5	-	Yes

**Continuous Assessment (%)**

50

**Examination (%)**

50

**Examination Duration (Hours)**

2

**Minimum Continuous Assessment Passing Requirement (%)**

30

**Minimum Examination Passing Requirement (%)**

30

**Additional Information for ATs**

Examination duration: 2 hrs Percentage of continuous assessment, examination, etc.: 50% by continuous assessment; 50% by exam To pass a course, a student must do ALL of the following: 1) obtain at least 30% of the total marks allocated towards continuous assessment (combination of assignments, pop quizzes, term paper, lab reports and/ or quiz, if applicable); 2) obtain at least 30% of the total marks allocated towards final examination (if applicable); and 3) meet the criteria listed in the section on Assessment Rubrics.

**Assessment Rubrics (AR)****Assessment Task**

1. In-class test

**Criterion**

Ability to explain concepts, analyze and solve problems related to Sustainable Technologies and Finance

**Excellent (A+, A, A-)**

High

**Good (B+, B, B-)**

Significant

**Fair (C+, C, C-)**

Moderate

**Marginal (D)**

Basic

**Failure (F)**

Not even reaching marginal levels

**Assessment Task**

## 2. Assignment

### **Criterion**

Ability to explain concepts, analyze and solve problems related to Sustainable Technologies and Finance

#### **Excellent (A+, A, A-)**

High

#### **Good (B+, B, B-)**

Significant

#### **Fair (C+, C, C-)**

Moderate

#### **Marginal (D)**

Basic

#### **Failure (F)**

Not even reaching marginal levels

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### **Assessment Task**

## 3. Presentation

### **Criterion**

Ability to relate the concepts from the class to the real-world practice

#### **Excellent (A+, A, A-)**

High

#### **Good (B+, B, B-)**

Significant

#### **Fair (C+, C, C-)**

Moderate

#### **Marginal (D)**

Basic

#### **Failure (F)**

Not even reaching marginal levels

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### **Assessment Task**

## 4. Final exam

### **Criterion**

Ability to explain concepts, analyze and solve problems related to Sustainable Technologies and Finance

#### **Excellent (A+, A, A-)**

High

#### **Good (B+, B, B-)**

Significant

**Fair (C+, C, C-)**

Moderate

**Marginal (D)**

Basic

**Failure (F)**

Not even reaching marginal levels

## Part III Other Information

**Keyword Syllabus**

- Global trends in Sustainable Technologies and Finance
- Environmental, Social and Governance reporting and investing
- Local and global energy and environmental issues (e.g. Climate change, clean water)
- Sustainable development
- Triple bottom line (TBL) accounting
- ESG integration among stakeholders within the investment industry
- Basic policy and economic strategies in the energy and environmental sectors
- Renewable energy technologies
- Energy conservation and management technologies
- Climate change mitigation and adaptation
- Circular economy (e.g., resource recovery)
- Clean and technological innovation
- Green and ESG-related products
- Blue economy

**Reading List****Compulsory Readings**

Title	
1	HKEX. HOW TO PREPARE AN ESG REPORT- A Step-by-Step Guide to ESG Reporting. March 2020.
2	Business Economic Council (BEC), BEC Handbook: Understanding Materiality for Environmental, Social and Governance Reporting

**Additional Readings**

Title	
1	Current and important scientific articles will be provided to supplement lecture materials.