# GE2261: URBAN SUSTAINABILITY IN HONG KONG

**Effective Term** Semester A 2024/25

# Part I Course Overview

**Course Title** Urban Sustainability in Hong Kong

Subject Code GE - Gateway Education Course Number 2261

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

**GE Area (Primary)** Area 2 - Study of Societies, Social and Business Organisations

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 aims to nurture critical thinking and to equip future generation of professionals with skills necessary for answering the grand call for forming collective actions towards sustainability. It introduces scientific, economic, social and political considerations in addressing sustainability challenges. Adopting a problem-driven and learning by doing approach, students will incorporate both scientific reasoning and deliberation in localized solution finding for a specific sustainability challenge faced by Hong Kong society. By taking the course, the students are prepared to discover and deliberate on value judgments integral to decision-making, to work with diversity, and to engage in debating contemporary sustainability issues from an informed and analytical perspective.

#### Course Intended Learning Outcomes (CILOs)

|   | CILOs  | Weighting (if app.) | DEC-A1 | DEC-A2 | DEC-A3 |
|---|--|---------------------|--------|--------|--------|
| 1 | Understanding key concepts, assumptions<br>and value judgements concerning urban<br>sustainability   | 30                  | х      |        |        |
| 2 | Critically applying stakeholder analysis and<br>cost-benefit analysis in role playing and<br>deliberation  | 30                  | x      | x      | X      |
| 3 | Creating problem statement and action plan<br>in a visual / oral / written form cultivating<br>professional accountability and developing<br>leadership skills | 40                  |        | X      | 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<br>applicable) |
|---|----------------|---|----------|-------------------------------|
| 1 | Lecture        | Acquire basic<br>understanding of key<br>urban sustainability<br>challenges in Hong<br>Kong. The major topics<br>covered in this course<br>include air pollution,<br>energy efficiency, water<br>security, housing,<br>waste management,<br>climate mitigation<br>and adaptation. The<br>following methods<br>will be introduced:<br>cost-benefit analysis,<br>multi-criteria analysis,<br>stakeholder analysis, and<br>deliberation. | 1, 2     |                               |
| 2 | Video shooting | Students will form groups<br>(6-8 students per group).<br>Each group of students<br>will select a sustainability<br>challenge in Hong Kong<br>for conducting case<br>analysis.  | 1, 2, 3  |                               |
| 3 | Deliberation   | Each group of students<br>will conduct teacher<br>guided deliberation in<br>class, discussing and<br>developing an action<br>plan.  | 1, 2, 3  |                               |
| 4 | Action plan    | Students will develop<br>an action plan and<br>demonstrate the domain<br>knowledge on selected<br>sustainability challenges,<br>abilities in conducting<br>stakeholder analysis and<br>cost-benefit analysis, and<br>sensitivity to value and<br>ethical considerations.  | 1, 2, 3  |                               |

# Assessment Tasks / Activities (ATs)

|   | ATs            | CILO No. | Weighting (%) | Remarks (e.g. Parameter<br>for GenAI use) |
|---|----------------|----------|---------------|---|
| 1 | Video shooting | 1, 2, 3  | 40            |   |
| 2 | Deliberation   | 1, 2, 3  | 20            |   |
| 3 | Action plan    | 1, 2, 3  | 40            |   |

# Continuous Assessment (%)

100

#### Examination (%)

0

**Examination Duration (Hours)** 

N/A

#### Additional Information for ATs

Examination duration: N/A

Percentage of continuous assessment, examination, etc.: 100% by continuous assessment

This course will be offered jointly with Arizona State University for a joint summer school, hence there will be no individual assessment.

Faculty members will evaluate each group's performance in the assessment.

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 ; 2) meet the criteria listed in the section on Assessment Rubrics.

#### Assessment Rubrics (AR)

#### Assessment Task

1. Video

**Criterion** critically apply stakeholder analysis and cost-benefit analysis

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

Excellent ability to conduct stakeholder analysis and cost-benefit analysis.

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

Good ability to conduct stakeholder analysis and cost-benefit analysis.

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

Fair ability to conduct stakeholder analysis and cost-benefit analysis.

#### Marginal (D)

Marginal ability to conduct stakeholder analysis and cost-benefit analysis.

Failure (F)

Fail to conduct stakeholder analysis and cost-benefit analysis.

#### Assessment Task

2. Deliberation

#### Criterion

members in a same group will divide the work to play the role of the stakeholders and represent their interests during the deliberative discussion. Each student is expected to engage with real persons who he/she will represent.

Excellent (A+, A, A-) Excellent role play and deliberation

Good (B+, B, B-) Good role play and deliberation

# Fair (C+, C, C-)

Fair role play and deliberation

## Marginal (D)

Marginal role play and deliberation

# Failure (F)

Fail to do role play and deliberation

#### Assessment Task

3. Action plan

#### Criterion

Students will demonstrate the domain knowledge on selected sustainability challenges, abilities in conducting stakeholder analysis and cost-benefit analysis, and sensitivity to value and ethical considerations. It is preferable to integrate the output from stage 1 and 2 to form the action plan.

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

Excellent understanding of concepts, relevance and integration of materials, and excellent ability to solve selected sustainability challenges in Hong Kong.

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

Good understanding of concepts, relevance and integration of materials, and good ability to solve selected sustainability challenges in Hong Kong.

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

Fair understanding of concepts, relevance and integration of materials, and fair ability to solve selected sustainability challenges in Hong Kong.

#### Marginal (D)

Marginal understanding of concepts, relevance and integration of materials, and marginal ability to solve selected sustainability challenges in Hong Kong.

#### Failure (F)

Fail to understand concepts, relevance and integration of materials, and fail to solve selected sustainability challenges in Hong Kong.

# Part III Other Information

#### **Keyword Syllabus**

Urban sustainability, air pollution, energy, water, housing, waste management, climate change, cost-benefit analysis, multiple criteria, stakeholder analysis, deliberation

#### **Reading List**

#### **Compulsory Readings**

|   | Title  |
|---|--|
| 1 | OECD. 10 June 2020. Innovative citizen participation and new democratic institutions. Organisation for Economic<br>Cooperation and Development (Paris). https://www.oecd-ilibrary.org/content/publication/339306da-en. |
| 2 | United Nations. 2015. Sustainable Development Goals – 17 goals to transform our world. Accessible at http://<br>www.un.org/sustainabledevelopment/#.   |

| 3 | McGartland, Al, Richard Revesz, Daniel A. Axelrad, et al. 2017. "Estimating the health benefits of environmental regulations." Science no. 357 (6350):457-458. doi: 10.1126/science.aam8204. |
|---|--|
| 4 | Chan, Chung-Shing. 2017. "Health-related elements in green space branding in Hong Kong." Urban Forestry & Urban Greening no. 21:192-202. doi: 10.1016/j.ufug.2016.12.009.                    |
| 5 | Council for Sustainable Development. 2020. Report on public engagement on long-term decarbonisation strategy.<br>Hong Kong.  |

# **Additional Readings**

|   | Title |
|---|-------|
| 1 | Nil   |

# Annex (for GE courses only)

A. Please specify the Gateway Education Programme Intended Learning Outcomes (PILOs) that the course is aligned to and relate them to the CILOs stated in Part II, Section 2 of this form:

Please indicate which CILO(s) is/are related to this PILO, if any (can be more than one CILOs in each PILO)

PILO 1: Demonstrate the capacity for self-directed learning

1

PILO 2: Explain the basic methodologies and techniques of inquiry of the arts and humanities, social sciences, business, and science and technology

2

PILO 3: Demonstrate critical thinking skills

3

B. Please select an assessment task for collecting evidence of student achievement for quality assurance purposes. Please retain at least one sample of student achievement across a period of three years.