

**City University of Hong Kong  
Course Syllabus**

**offered by School of Energy and Environment  
with effect from Semester A 2017/18**

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**Part I Course Overview**

**Course Title:** Food Security and Sustainability

**Course Code:** GE1228

**Course Duration:** One semester

**Credit Units:** 3

**Level:** B1  
 Arts and Humanities

**Proposed Area:**  Study of Societies, Social and Business Organisations  
*(for GE courses only)*  Science and Technology

**Medium of Instruction:** English

**Medium of Assessment:** English

**Prerequisites:** Nil  
*(Course Code and Title)*

**Precursors:** Nil  
*(Course Code and Title)*

**Equivalent Courses:** Nil  
*(Course Code and Title)*

**Exclusive Courses:** Nil  
*(Course Code and Title)*

## Part II Course Details

### 1. Abstract

(A 150-word description about the course)

Threats to food security present a major challenge on both developing and developed countries towards a sustainable world. This course aims to provide an understanding food safety and security in the context of global sustainable development. Students are expected to develop a broader perspective and critical understanding of social, economic and environment components of sustainability in relation to global food safety and security. The comprehensive course contents consist of food supplies, food production, food safety, food economics, and its associated environmental impacts. Field trips will be offered in the course to expand students' horizons on sustainable food development with particular emphasis on the cost associated with maintaining food safety to international standards in locally produced and imported food.

### 2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

| No. | CILOs <sup>#</sup>  | Weighting*<br>(if applicable) | Discovery-enriched curriculum related learning outcomes (please tick where appropriate) |    |    |
|-----|---|-------------------------------|---|----|----|
|     |   |                               | A1  | A2 | A3 |
| 1.  | Describe the challenges facing in food safety and security in the context of sustainable development                      | 10%                           |   |    |    |
| 2.  | Discover sociological and economical influences of food production and consumption.                                       | 40%                           |   | ✓  |    |
| 3.  | Describe intergovernmental trade policy, climate change, environmental pollution in relation to food safety and security. | 40%                           |   | ✓  |    |
| 4.  | Apply the acquired knowledge to develop a future sustainable food society.  | 10%                           |   |    | ✓  |

\* If weighting is assigned to CILOs, they should add up to 100%.

<sup>#</sup> Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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 self-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.

### 3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

| TLA | Brief Description  | CILO No. |   |   |   | Hours/week<br>(if applicable) |
|-----|--|----------|---|---|---|-------------------------------|
|     |  | 1        | 2 | 3 | 4 |                               |
| 1   | Lectures: Introduction to food safety and security; social, economic and environment in food production; Intergovernmental trade policy, logistics, and sustainable development. | ✓        | ✓ | ✓ | ✓ | 1.5                           |
| 2   | Group discussion/presentation/ tutorial: Practice on problem solving; questions and answers; group discussion.   | ✓        | ✓ | ✓ | ✓ | 0.75                          |
| 3   | Field trips: Visits to facilities associated with food production and food inspection.   | ✓        | ✓ | ✓ | ✓ | NA                            |
| 4   | Reading; Self-study; Project: Data and information collection; problem solving, critical thinking, report writing, result presentation and communication.                        | ✓        | ✓ | ✓ | ✓ | NA                            |

### 4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

| Assessment Tasks/Activities   | CILO No. |   |   |   | Weighting<br>* | Remarks |
|---|----------|---|---|---|----------------|---------|
|   | 1        | 2 | 3 | 4 |                |         |
| Continuous Assessment: 60%  |          |   |   |   |                |         |
| Participation: Students' involvement throughout the course  | ✓        | ✓ | ✓ | ✓ | 10%            |         |
| Assignments: Individual homework assignments on problem solving and analysis in social, economic and environment on food security | ✓        | ✓ | ✓ | ✓ | 20%            |         |
| Field trip reports: Individual field trip assignment on the cost and other economic issues associated with food safety/security   | ✓        | ✓ | ✓ |   | 20%            |         |
| Project and presentation: Group exercise where students work together to explore a contemporary issue of food safety and security | ✓        | ✓ | ✓ | ✓ | 10%            |         |
| Examination: 40% (duration: 2 hrs , if applicable)  |          |   |   |   |                |         |
|   |          |   |   |   | 100%           |         |

\* The weightings should add up to 100%.

Examination duration: 2 hrs

Percentage of coursework, examination, etc.: 60% by coursework; 40% 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 coursework (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.

## 5. Assessment Rubrics

*(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)*

| Assessment Task                             | Criterion | Excellent<br>(A+, A, A-)  | Good<br>(B+, B, B-)  | Fair<br>(C+, C, C-)  | Marginal<br>(D)  | Failure<br>(F) |
|---|-----------|---|--|--|--|----------------|
| 1. Participation, assignment and final exam |           | Strong evidence of knowledge and skills in the interpretation, analysis and problem solving in food safety and security | Some evidence of knowledge and skills in the interpretation, analysis and problem solving in food safety and security. | Student has some understanding of the subject, and shows some analytical capability; evidence of interest in the material. | Sufficient familiarity with matters in the field to enable the student to progress without repeating the course. |                |
| 2. Project and presentation                 |           | High degree of originality and evidence of reflection on performance-based on theory and creative views.                | Some degree of originality. Good coverage with relevant and accurate support on issues.                                | Student covers a fair number of issues. However, little evidence of understanding the overall view of the project.         | Information is relevant, but limited. Minimal understanding with poor coverage of the project.                   |                |

### **Part III Other Information** (more details can be provided separately in the teaching plan)

#### **1. Keyword Syllabus**

*(An indication of the key topics of the course.)*

Food safety, Food security, Food production, Sociological influence on food consumption, Food economy, Global logistics, Intergovernmental trade agreement, Climate change and environmental pollution on food production

#### **2. Reading List**

##### **2.1 Compulsory Readings**

*(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)*

Nil

##### **2.2 Additional Readings**

*(Additional references for students to learn to expand their knowledge about the subject.)*

- (1) Baldwin, C. J. (2011) Sustainability in the Food Industry.
- (2) Cheeke PR (2003) Contemporary Issues in Animal Agriculture
- (3) Cottle D & Kahn L (2014) Beef Cattle Production and Trade
- (4) Izuta T. (2017) Air Pollution Impacts on Plants in East Asia 1st ed
- (5) Lobell, D. B. and Burke, M. (Eds.) (2010) Climate Change and Food Security Adapting Agriculture to a Warmer World.
- (6) Lal, R., Uphoff, N., Stewart, B. A., Hansen, D.O. (2005) Climate Change and Global Food Security.
- (7) Counihan, C. and Siniscalchi, V. (2014) Food Activism: Agency, Democracy and Economy.
- (8) McMahan, P. (2014) Feeding Frenzy: Land Grabs, Price Spikes, and the World Food Crisis.
- (9) Murcott, A., Belasco, W., and Jackson, P. (2013) The Handbook of Food Research.
- (10) Naylor, R. L. (2014) The Evolving Sphere of Food Security.
- (11) Pullman, M., Wu, Z. (2011) Food Supply Chain Management: Economic, Social and Environmental Perspectives 1<sup>st</sup> edition.
- (12) Paarlberg, R. (2013) Food Politics: What Everyone Needs to Know.
- (13) Sarkar, A., Datta, S., Singh, P. (2017) Tropospheric Ozone Pollution, Agriculture, and Food Security
- (14) Schanbacher, W. D. (2010) The Politics of Food: The Global Conflict Between Food Security and Food.
- (15) Thurow, R. and Kilman, S. (2010) Enough: Why the World's Poorest Starve in a World of Plenty.
- (16) Tiwari, B. K., Norton, T. and Holden, N. M. (2013) Sustainable Food Processing.
- (17) Weis, T. (2007) The Global Food Economy: The Battle for the Future of Farming.
- (18) Winston, A. S. (2014) The Big Pivot: Radically Practical Strategies for a Hotter, Scarcer, and More Open World.
- (19) <https://www.unece.org/environmental-policy/conventions/envlrtapwelcome/cross-sectoral-linkages/air-pollution-and-food-production.html>
- (20) <https://www.ncbi.nlm.nih.gov/books/NBK305182/>

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:

| <b>GE PILO</b>  | <b>Please indicate which CILO(s) is/are related to this PILO, if any<br/>(can be more than one CILOs in each PILO)</b> |
|---|--|
| PILO 1: Demonstrate the capacity for self-directed learning   | 1,3  |
| PILO 2: Explain the basic methodologies and techniques of inquiry of the arts and humanities, social sciences, business, and science and technology | 2,3  |
| PILO 3: Demonstrate critical thinking skills  | 2,3,4  |
| PILO 4: Interpret information and numerical data  | 4  |
| PILO 5: Produce structured, well-organised and fluent text  |  |
| PILO 6: Demonstrate effective oral communication skills   |  |
| PILO 7: Demonstrate an ability to work effectively in a team  |  |
| PILO 8: Recognise important characteristics of their own culture(s) and at least one other culture, and their impact on global issues               | 1,2,3  |
| PILO 9: Value ethical and socially responsible actions  | 3,4  |
| PILO 10: Demonstrate the attitude and/or ability to accomplish discovery and/or innovation  | 4  |

*GE course leaders should cover the mandatory PILOs for the GE area (Area 1: Arts and Humanities; Area 2: Study of Societies, Social and Business Organisations; Area 3: Science and Technology) for which they have classified their course; for quality assurance purposes, they are advised to carefully consider if it is beneficial to claim any coverage of additional PILOs. General advice would be to restrict PILOs to only the essential ones. (Please refer to the curricular mapping of GE programme: [http://www.cityu.edu.hk/edge/ge/faculty/curricular\\_mapping.htm](http://www.cityu.edu.hk/edge/ge/faculty/curricular_mapping.htm).)*

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.

| <b>Selected Assessment Task</b>                                 |
|---|
| Group power point presentation/Individual assignment/final exam |