

GE1205: GREEN ECONOMICS

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Green Economics

Subject Code

GE - Gateway Education

Course Number

1205

Academic Unit

Economics and Finance (EF)

College/School

College of Business (CB)

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 provides student with knowledge of environmental issues, which is inclusive of discovering environmental problems in the “real-life” context, analysing key issues in an innovative way and figuring out effective solutions to these situations. Current topics such as what is the interrelation between environmental issues and economics and what is the influence of environmental issues on the society, government and technological development will be deeply discussed in seminars. Meanwhile, the course aims to arouse student’ s interest in environmental issue and develop student’ s sense of responsibility of environmental protection. Student will gain the knowledge through discussion during seminars, teamwork in group project and interaction during presentation. In addition, because environmental protection is a multi-disciplinary subject matter, cross-disciplinary seminar talks will be arranged to facilitate understanding. Through the course, students will enhance their creative thinking and analytical skills. Arouse students’ awareness and interest in environmental issues and help them think critically on the issues; Understand the relations between the environment and the economy and discover the underlying interrelations; Develop students’ ability in analyzing and solving environmental problems using their creative and innovative ability. Develop students’ sense of responsibility of environmental protection, and lead them to do self-reflection and assessments on issues related to environmental protection; The course also encourages discovery learning as students use their knowledge and skills acquired through seminars to discover, for themselves various solutions that incorporate economic analysis when dealing with environmental problems in real-life contexts; Students will develop their attitude and ability to discover and innovate through class discussion and group case studies. The project presentation and examinations will reflect their accomplishments in discovery and innovation.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Identify and outline current and major environmental issues; to motivate discovery-based learning; students are to compare and contrast different issues.	20	x	x	x
2	Explain how the environment is related to economy; and how economic analysis and illuminate these issues; students will discover the interrelations between environment and economy, and strengthen their discovery skills when examining these issues in real life context.	25	x	x	x
3	Apply multi-dimensional analysis to environmental issues and problems; incorporate perspectives from economics, politics, science and engineering.	25	x	x	x
4	Suggest practical solutions to environmental problems based on in-depth reflection, criticism, and assessment.	20	x	x	x
5	Demonstrate awareness of one’ s own responsibility to environmental protection.	10	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.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Seminars	<p>Lecturer encourages students to think critically and logically by asking them to respond to questions and getting students to solve the problems by themselves instead giving away the solutions</p> <p>Suggested arrangements/ interactions:</p> <ul style="list-style-type: none"> - Part 1: 30 minutes - The instructor outlines basic ideas or showing related videos - Part 2: 30 minutes - Students are divided into groups - Each group is assigned a piece of reading - Readings can be different for each group - Students discuss the topics based on the readings - Part 3: 30 minutes - A representative from each group summarize and present the group' s ideas - If there are too many groups, which group to present can be determined by random draw - Group can also present their conclusions in an online forum for discussion - At the end of this part, each group are required to submit one question for further discussion - Part 4: 30 minutes - Each group takes the question raised by another group for further discussion - Each group is required to write a short paragraph based on the question (about 50 to 100 words), providing explanations or solutions for the question. - The short paragraph 	2, 3	3 hours per week

2	Group project	<p>Suggested arrangements</p> <ul style="list-style-type: none"> - 4 to 5 students form a group - Each group identifies an environmental problem (may be through a field trip to places with environmental damages) - Students need to explain and analyze the problem - Students need to suggest practical solutions to the problem - Students need to submit an essay as a summary of their findings 	2, 3, 4	
3	Presentation	<p>Suggested arrangements</p> <ul style="list-style-type: none"> - Students present their group project in the last (extra) seminar - Each group needs to respond to questions raised by the audiences - Students can discuss with the instructor on their chosen topic - The instructor gives verbal feedback to students after their presentation 	2, 3, 4	
4	Weekly journal	<p>Suggested arrangements</p> <ul style="list-style-type: none"> - Require students to keep a weekly journal of what have they done to support the environmental protection - These journals can be used for discussion on Topic 13 - Students need to submit their weekly journals at the end of week 10 for informal assessment and feedback 	2, 3, 4	

5	Cross-discipline seminar talk (tentatively scheduled for the weekends)	One to two seminar talks by professionals from the School of Energy and Environment (SEE) will be arranged during lectures. Students are required to submit a post-seminar report to reveal their understanding of the issues discussed in the seminar.	1, 2, 3, 4	
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Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Group project Report and Presentation (It assesses students' ability to identify and describe real-world environmental problems, and offer practical solutions to them based on economic and other considerations. Students are required to present their work in both written report and verbal presentation.)	1, 2, 3, 4, 5	30	
2	Participation in seminars (Exercises covering various green economics issues will be given to students in seminars. The purpose is to develop students' collaborative ability to apply economic concepts to the issues including their fixes through discussion and reflection.)	1, 2, 3, 4, 5	10	
3	Short quizzes (A combination of multiple-choice questions and short real-world cases. The former assess students' understanding of the interrelations between environment and economy, and the later assess their ability to apply multi-dimensional analysis to environmental problems and their solutions.)	1, 2, 3, 4	50	

4	Weekly journal or Seminar report (It is a written record of one thing that student does every week during the course to protect and save the environment. It develops students' awareness of the environmental problems and issues through examining their environments, and working out suitable actions for fixing them.)	1, 2, 3, 4, 5	10	
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Continuous Assessment (%)

100

Examination (%)

0

Assessment Rubrics (AR)**Assessment Task**

Group project Report and Presentation

Excellent (A+, A, A-)

- i. Delivering a succinct, convincing and fluent presentation on the original analysis and practical solutions to an environmental problem
- ii. Students have demonstrated very strong overall ability to discover and innovate, and shown very strong evidence of accomplishments of discovery

Good (B+, B, B-)

- i. Delivering a fluent presentation on the critical analysis and practical solutions to an environmental problem
- ii. Students have demonstrated strong overall ability to discover and innovate, and shown strong evidence of accomplishments of discovery.

Fair (C+, C, C-)

- i. Delivering a presentation on the basic analysis and solutions to a simple environmental problem
- ii. Students have demonstrated some ability to discover and innovate, and shown satisfactory evidence of accomplishments of discovery

Marginal (D)

Students have demonstrated marginal ability to discover and innovate, and shown marginal evidence of accomplishments of discovery.

Failure (F)

Students have demonstrated little evidence of ability to discover and innovate, and shown little evidence of accomplishments of discovery.

Assessment Task

Participation in seminars (including the questions and short paragraphs submitted during the seminars)

Excellent (A+, A, A-)

- i. Strong evidence of original thinking in applying the multi-dimensional analysis and proposing practical solutions to environmental problems
- ii. Extensive knowledge in current environmental issues

Good (B+, B, B-)

- i. Some evidence of critical capacity and analytic ability in applying the multi-dimensional analysis and proposing practical solutions to environmental problems
- ii. Evidence of familiarity in current environmental issues

Fair (C+, C, C-)

- i. Basic understanding in major environmental issues
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Assessment Task

Short quizzes

Excellent (A+, A, A-)

- i. Superior abilities in identifying major environmental issues, understanding the relations between environment and economy and appreciating the multi-disciplinary nature of environmental issues

Good (B+, B, B-)

- i. Evidence of abilities in identifying major environmental issues, understanding the relations between environment and economy and appreciating the multi-disciplinary nature of environmental issues

Fair (C+, C, C-)

- i. Ability of applying basic analysis and developing solutions to simple environmental problems

Marginal (D)

Sufficient familiarity with the subject.

Failure (F)

Little evidence of familiarity with the subject.

Assessment Task

Weekly journal or Seminar report

Excellent (A+, A, A-)

- i. Practical and innovative ways of supporting environmental protection mentioned in the journals

Good (B+, B, B-)

- i. Practical ways of supporting environment protection mentioned in the journals

Fair (C+, C, C-)

- i. Limited ways of supporting environmental protection mentioned in the journals
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Part III Other Information

Keyword Syllabus

Natural Resources, waste, ecosystem, biodiversity, global climate change, environmental quality, economic activity and environment materials balance model, energy production and consumption, Kyoto Protocol, Copenhagen Conference

Scarcity, choices, opportunity cost, circular flow model, market system, demand supply, consumers, producers, competitive market, efficiency, cost and benefit analysis

Reading List

Compulsory Readings

Title	
1	The Economic Approach to Environmental and Natural Resources, Third Edition, by KAHN, J.R., published by Thomson South-Western, 2005.

Additional Readings

Title	
1	Economics, Second edition, by KRUGMAN, P and WELLS, R, published by Worth Publishers, 2010.
2	Environmental Economics: An Introduction, 5th Edition, by B.C. Field and M.K. Field, published by McGraw-Hill, 2009.
3	Environmental Economics and Policy, Fourth Edition, by TIETENBERG, T., published by Addison Wesley, 2004.
4	Environmental Economics: Applications, Policy, and Theory, Fifth edition, by THOMAS, J.M. and CALLAN, S.J., published by Thomson South-Western, 2009.
5	Environmental Science, Eleventh Edition, by MILLER, G.T., published by Thomson Learning, 2006.
6	Living in the Environment, Fifteenth Edition, by MILLER, G.T., published by Thomson Learning, 2007.
7	Natural Resource and Environmental Economics, Third Edition, by PERMAN, R., MA, Y., MCGILVRAY, J., and COMMON, M., published by Addison Wesley, 2003.
8	Our Choice: A Plan to Solve the Climate Crisis, by GORE, A., published by Rodale, 2009.
9	The Copenhagen Diagnosis, 2009: Updating the World on the Latest Climate Science, The University of New South Wales Climate Change Research Centre (CCRC), Sydney, Australia.
10	A long game: China sees opportunities as well as dangers in climate change, The Economist, 3 December 2009 http://www.economist.com/specialreports/displaystory.cfm?story_id=14994880
11	A special report on climate change and the carbon economy, The Economist, 3 December 2009 http://www.economist.com/specialreports/displayStory.cfm?story_id=14994872
12	Booklet: How to save the climate published by Greenpeace China http://www.greenpeace.org/raw/content/china/ch/press/reports/save-climate-booklet.pdf
13	Can Energy Be Governed?, Ann Florini, Project Syndicate, 11 January 2010 http://www.project-syndicate.org/commentary/florini2
14	Carbon trading, CBC News, 3 November 2006 http://www.cbc.ca/news/background/kyoto/carbon-trading.html
15	Carbon Trading: How it works and why it fails?, by Tamra Gilbertson and Oscar Reyes, published by Dag Hammarskjold Foundation Uppsala, 2009 http://www.carbontradewatch.org/index.php?option=com_content&task=view&id=322&Itemid=292
16	CityU Greenweb http://www7.cityu.edu.hk/greenweb/
17	Climate Change and “Climategate”, Bjørn Lomborg, 12 November 2009 http://www.project-syndicate.org/commentary/lomborg55
18	Copenhagen deal: key points, BBC News, 19 December 2009 http://news.bbc.co.uk/2/hi/science/nature/8422307.stm
19	Copenhagen Diagnosis 2009 http://www.copenhagendiagnosis.org/
20	European Environmental Agency http://www.eea.europa.eu/
21	Friends of the Earth, http://www.foe.co.uk/
22	How Carbon Trading Works? http://science.howstuffworks.com/carbon-trading.htm/printable
23	Q&A: The Copenhagen Climate Submit, BBC News, 21 December 2009 http://news.bbc.co.uk/2/hi/science/nature/4269921.stm

24	Q&A: The Kyoto Protocol, BBC News, 16 February 2005 http://news.bbc.co.uk/2/hi/science/nature/4269921.stm
25	Is it worth it? What economists have to say about mitigating climate change, The Economist, 3 December 2009 http://www.economist.com/specialreports/displaystory.cfm?story_id=14994731
26	Kyoto Protocol http://unfccc.int/resource/docs/convkp/kpeng.pdf
27	Overcoming the Copenhagen Failure, Joseph E. Stiglitz, Project Syndicate, 6 January 2010 http://www.project-syndicate.org/commentary/stiglitz121
28	The green slump: Why investors have been deserting clean energy, The Economist, 3 December 2009 http://www.economist.com/specialreports/displaystory.cfm?story_id=14994802
29	United Nations Economic Mission for Europe http://www.unece.org/env/
30	United States Environmental Protection Agency (EPA) http://www.epa.gov/
31	Design e ² (Video Recording): the economies of being environmentally conscious, PBS Home Video, 2006 Call No.: NA2542.35 .D44 2006
32	Environmental issues and human impact (Video Recording), Princeton, N.J. : Cambridge Educational, 2006 Call No.: TD174 .E5825 2006
33	State of the planet (Video Recording), London: BBC Worldwide, 2001 Call No.: GF75 .S838 2001
34	The global environment (Video Recording), London: BBC, 1990 Call No.: TD170 .G56 1990
35	停車熄匙 (Video Recording), 時事追擊, 香港:亞洲電視, 21/02/2009 Call No.: DS796.H7 S55 2009
36	塑膠購物袋徵費計劃 (Video Recording), 時事追擊, 香港:亞洲電視, 11/07/2009 Call No.: DS796.H7 S55 2009
37	冷凍之都, 新聞透視 (Video Recording), 香港:電視廣播有限公司, 20/08/2005 Call No.: DS796.H7 X55 2005
38	綠化香港 (Video Recording),新聞透視, 香港:電視廣播有限公司, 12/16/2000 Call No.: DS796.H7 X55 2000
39	垃圾圍城 (Video Recording), 時事追擊, 香港:亞洲電視, 02/07/2005 Call No.: DS796.H7 S55 2005
40	環保代價 (Video Recording),新聞透視, 香港:電視廣播有限公司, 30/03/2006 Call No.: DS796.H7 X55 2006
41	環境保護與可持續發展 (Video Recording), 中國人民大學出版社:中國人民大學音像出版, 社, 2004 Call No.: HC21 .S54 2004 v.10
42	環保實錄. 飲水思源 (Video Recording), 時事追擊, 香港:亞洲電視, 05/09/2009 Call No.: DS796.H7 S55 2009

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, 2, 3, 4, 5

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

1, 2, 3, 4, 5

PILO 3: Demonstrate critical thinking skills

4, 5

PILO 4: Interpret information and numerical data

4, 5

PILO 5: Produce structured, well-organised and fluent text

1, 2, 3, 4, 5

PILO 6: Demonstrate effective oral communication skills

1, 2, 3, 4, 5

PILO 7: Demonstrate an ability to work effectively in a team

1, 2, 3, 4, 5

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, 4, 5

PILO 10: Demonstrate the attitude and/or ability to accomplish discovery and/or innovation

1, 2, 3, 4, 5

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.

Selected Assessment Task

Group Presentation, Group Project Essay