Course Title	: *Environmental Science*
Course Code	: SCI3002
Recommended Study Year	: Year 3
No. of Credits/Term	: 3
Mode of Tuition	**:** Sectional mode
Class Contact Hours	: Two 1.5 hours lecture each week
Category	: Elective course in the Minor in Environmental and Scientific Literacy
Prerequisite	: SCI2001 Introduction to Scientific Literacy
Co-requisite	: Nil
Exclusion	: Nil
Exemption Requirement	: Nil
Remarks	: Students may take this course as free electives with permission of the instructor based on prior knowledge of relevant disciplines

Brief Course Description:

This course will introduce students to controversial environmental and allow students to apply their scientific literacy skills to better understand and communicate about the issue.

Aims:

The aims of this course are to develop student's scientific literacy through focus on environmental issues.

Learning Outcomes (LOs):

Upon completion of this course, students will be able to:

1. Explain and analyze the scientific concepts required to make sense of environmental issues.
2. Clearly articulate the controversies and analyze the evidence and arguments supporting the alternative views.
3. Express and analyze scientific arguments related to environmental issues in a relevant social context both orally and in writing.
4. Critically analyze and evaluate scientific argument including written (primary literature, secondary literature, and media) and oral arguments and place these arguments in a social context.

Indicative content

Pollution, energy, waste management, recycling

Common course elements include
- exploration of critical and controversial scientific issues (wicked problems)
- exploration of the critical trade-offs and constraints relevant to this issue
- exposure to the scientific content, thinking, and analysis required to gain some understanding of this issue
- careful exploration of causes of "scientific controversies" (either real or contrived)
- exposure to primary literature
- critical analysis of secondary literature sources focusing on how to determine the reliability of information
- exploration of how to improve governmental, industry, and general public understanding of the issue in order to allow for better public and private decisions/actions.
- classroom discussion and organized debates
- written communication

Teaching Method:
Students will meet twice each week for one and a half hours of lecture.

Course Assessment:

Assignments (in class and take-home)	25%
Written Assignments	25%
Debate	25%
Final Take Home Assignment	25%

Measurement of Learning Outcomes: Environmental Science

Assessment Method	Intended Learning Outcomes			
	1	2	3	4
Assignments	X		X	
Writing Assignments	X	X	X	X
Debates	X	X	X	X
Final Take-Home Assignment	X	X	X	X

Required Readings:

There is no required textbook for this course. The issues examined in this course can vary from term to term so required readings will vary. Readings from a variety of sources throughout the semester on the course moodle.

Important Notes:

1. Students are expected to spend a total of 9 hours (i.e. 3 hours of class contact and 6 hours of personal study) per week to achieve the course learning outcomes.

2. Students shall be aware of the University regulations about dishonest practice in course work, tests and examinations, and the possible consequences as stipulated in the Regulations Governing University Examinations. In particular, plagiarism, being a kind of dishonest practice, is "the presentation of another person's work without proper acknowledgement of the source, including exact phrases, or summarised ideas, or even footnotes/citations, whether protected by copyright or not, as the student's own work". Students are required to strictly follow university regulations governing academic integrity and honesty.

3. Students are required to submit writing assignment(s) using Turnitin.

4. To enhance students' understanding of plagiarism, a mini-course "Online Tutorial on Plagiarism Awareness" is available on https://pla.ln.edu.hk/.

Grading Rubrics

Assignments

	Excellent (A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Poor (D+, D)	Fail (F)
Context (20%)	Demonstrates excellent understanding of context and audience	Demonstrates good understanding of context and audience	Demonstrates some understanding of context and audience	Demonstrate minimal understanding of context and audience	Fails to demonstrate understanding of context and audience
Organization and Content (50%)	Includes excellent detail and full analysis of subject Organized in a thoughtful and effective manner	Includes good detail and analysis of subject Good organization	Includes fair detail and analysis of subject Fair organization, but some ideas could be expanded	Poor detail and analysis of subject Poor organization, ineffective in delivery	Fails to include detail and analysis of subject Unorganized delivery of content
Communication (30%)	Uses excellent language that effectively conveys the message Contains minimal errors	Uses good language that conveys the message Contains a few errors	Uses fair language to convey the message Contains some errors	Use poor language Contains excessive errors	Fails to convey the message

Written Assignments

	Excellent (A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Poor (D+, D)	Fail (F)
Understanding context and audience (20%)	Demonstrates a thorough understanding of context and audience	Demonstrates good attention to the audience and purpose of the assignment	Demonstrates some understanding of context and audience	Demonstrate minimal understanding of context and audience	Fails to demonstrate understanding of context and audience
Depth and Organization of content (50%)	Includes in full depth of analysis and detail of subject matter and organizes the material in a thoughtful and effective manner	Includes good depth of analysis and detail subject matter and organizes the material but ideas could be organized and communicated more fully and effectively	Includes adequate depth of analysis and detail of subject matter and provides acceptable organization of the material but ideas could be organized and communicated much more fully and effectively	Include limited depth of subject matter or organize material	Fails to include adequate depth of subject matter or organize material
Uses language effectively (30%)	Uses language that effectively conveys the message and contains no errors	Uses clear language, the use of language may contain a few errors	Uses appropriate language, but these efforts may be simple, and the use of language may contain some errors	Uuse poor language and contains many errors	Fails to convey the message

Debates

	Excellent (A, A-)	**Good (B+, B, B-)**	**Fair (C+, C, C-)**	**Poor (D+, D)**	**Fail (F)**
Understanding of Topic (20%)	Demonstrates in-depth understanding of topic	Demonstrates good knowledge of topic	Demonstrated an understanding of major points, but lacked on some detail	Demonstrate minimal understanding of the topic	Fails to demonstrate an understanding of the topic
Organization (20%)	Well organized presentations	Organized presentations	Organization of the presentations could be improved	Poor organization of presentations	Fails to organize presentations effectively
Arguments (statistics, examples, facts, etc) and Rebuttal (40%)	Excellent and repeated use of supporting arguments and evidence throughout, able to effectively rebut arguments using effective counter-arguements	Good use of supporting arguments and evidence, effectiveness of some arguments could be improved. Able to rebut arguments with counter-arguements	Fair use of supporting arguments and evidence, may include a fewer effective arguments and inaccurate facts. Could improve counterarguments and ability to rebut arguments	Poor use of supporting arguments and evidence and unable to rebut arguments	Fails to provide useful supporting arguments and evidence and unable to rebut arguments
Communication (use of language, eye contact, tone, gestures, etc) (20%)	Delivery with language and communication style that conveyed the message effectively	Generally good use of language and communication style. Some room for improvement	Fair use of language and communication style. Room for improvement in both	Use poor language and ineffective communication style	Fails to convey the message