Course Title	: Climate Change and Human Health
Course Code	: CLD9025
Recommended Study Year	: Any
No. of Credits/Term	: 3
Mode of Tuition	: Sectional
Class Contact Hours	: Two 1.5-hour sections per week
Category	: Science, Technology, Mathematics and Society
Cluster	
Prerequisite(s)	: Nil
Co-requisite(s)	: Nil
Exclusion(s)	: Nil
Exemption Requirement(s)	: Nil

Brief Course Description:
This course provides an overview of issues related to climate change and human health in the context of public health. It introduces fundamental concepts of climate change and climate change related human health impacts. The course comprises a series of 3-hour lecture and discussion sessions, as well as field trips. Lectures will cover topics such as causes and consequences of climate change and scientific methods relating to climate change assessments and the challenges of sustainable development. The policy implication about different adaptation and mitigation strategies related to climate change and human health impacts will also be examined. Guest speakers of related disciplines will be invited to talk about future impacts of climate change and small-group field trips will be arranged. Other learning activities include movie appreciation, case studies, media reviews, data analyses, field trips and group discussions.

Aims:
The goal of this course is to enhance student awareness about issues on climate change and its impacts on human health. It teaches numerical data analyses using real-world case studies and literature research. The course hopes to build abilities to analyze causes and consequences of climate change and suggest environmentally sustainable solutions.

Learning Outcomes (LOs):
Upon completion of this course, students will be able to:
1. Define climate change and describe and discuss its causes
2. Determine the consequences of climate change and suggest sustainable solutions
3. Recognize climate change effects on human health
4. Explore real-world examples through case studies

Indicative Contents:
Causes of climate change
Impacts of climate change
Adaptation and mitigation of climate change
Climate effects on health
Climate-sensitive diseases
Public Health responses to climate change
Climate change policies
Sustainable future

Teaching Method:
Three hours of lecture and group discussion sessions involving movie appreciation, case studies, media reviews, data analyses, and field trips.

Course Assessment:
Class participation	10%
Assignments and final group project	55%
Final quiz	35%

Measurement of Learning Outcomes:

Assessment Method	Class participation	Assignments and final group project	Final quiz
Understand the meaning of climate change and its causes	X	X	X
Determine the consequences of climate change and suggest sustainable solutions	X	X	X
Recognize climate change effects on human health	X	X	X
Access relevant case studies and explore real-world examples	X	X	

Essential Readings:
Bourque, F. and Willox A.C., (2014). Climate change: The next challenge for public mental health. International Review of Psychiatry, 26, pp. 415-22.
Hardy, J.T. (2003). Climate Change: Causes, Effects, and Solutions. West Sussex: John
Wiley and Sons, Inc
Intergovernmental Panel on Climate Change http://www.ipcc.ch
Lancet Commissions on Climate Change and Health
http://www.thelancet.com/commissions/climate-change
United Nations Framework Convention on Climate Change http://www.unfccc.int
WHO Climate change and human health http://www.who.int/globalchange/en
Climate Ready @HK https://www.climateready.gov.hk/

Recommended/Supplementary Readings:
Will be uploaded on Moodle in due course.

Proposed Course Outline:

Week	Lecture Topics	Important Dates
1	Course overview and What is climate change?	
2	Causes of climate change	
3	Impact of climate change	
4	Assessment of climate change/climate change debate	Assignment 1 due
5	Adaptation and mitigation to climate change	
6	Climate effects on health	
7	Extreme weather and health	
8	Climate sensitive diseases	Assignment 2 due
9	Formulate group project	
10	Climate change and sustainable development	Mid-term quiz
11	Health and environmental sustainability	Project proposal due
12	Future health impacts of climate change (delivered by a guest speaker)	
13	Final Quiz	
14	Summary	Final Group Project

Assignments:

Assignment 1
Movie review (300-500 words) on a given list of climate change related movie (i.e. The Day After Tomorrow, Snowpiercer, Beasts of the Southern Wild, Hell, Interstellar, Meltdown…etc.)

Assignment 2
Field trip report upon return of the technical visit, students expect to discover, describe and critique one or two current practices

Final Group Project and Report
Students in a group of 4 to 5 are required to decide an environmental-related topic or environmental issue and develop an environmental project. Students should write-up a project proposal to explain the topic they have chosen and the tentative work plan. Presentation and final report should explain the method, analysis results and limitations.

Grading Rubric for Assignments and Final Group Project
Score = # points per assignment x proportion points earned

Criteria	Exceeds standard	Meets standard	Fails to meet standard	Points
Follow instructions (10%)	Follow instructions completely and thoroughly (1 pts)	Follow most of the instructions (0.5 pts)	Fails to follow any instructions (0 pts)	
Understanding context and audience (20%)	Demonstrates a thorough understanding of context and audience. (2 pts)	Demonstrates attention to the audience and purpose of the assignment (0.5 pts)	Fails to demonstrate understanding of context and audience (0 pts)	
Depth and organization of content (40%)	Includes in full depth of analysis and detail of the subject matter and organizes the material in a thoughtful and effective manner (4 pts)	Includes some depth of analysis and detail subject matter and organizes the material but ideas could be communicated more fully and effectively (2-3 pts)	Fails to include adequate depth of subject matter or organize material (0-1 pts)	
Uses language effectively (30%)	Uses language that effectively conveys the message and contains no or a few errors (3 pts)	Uses simple language which may contain some minor errors (1-2 pts)	Fail to use clear language (0-1 pts)	
Proportion points earned				=#marks

Grading Rubric for Final quiz
Score = # points per assignment x proportion pointe earned

Criteria	Exceeds standard	Meets standard	Fails to meet standard	Points
Answer the question completely and thoroughly (10%)	Answers the entire question and follows instructions completely and thoroughly (1 pts)	Answers most of the questions and follow most of the instructions (0.5 pts)	Fails to answer the question and follow instructions (0 pts)	
Organization (30%)	Organizes the answer in a thoughtful and effective manner (3 pts)	Attempts to organize the material but organization is not effective (1-2 pts)	Fails to organize material (0 pts)	
Level of detail (30%)	Provides level of correct detail appropriate for the situation (3 pts)	Provides some detail in the answer, but some details are lacking or incorrect (1-2 pts)	Fails to provide correct level of detail (0 pts)	
Effectiveness of communication (30%)	Communicates the answer effectively in writing and using diagrams and graphs as appropriate and contains no or a few errors (3 pts)	Adequately communicates the answer in writing or using diagrams and graphs that might contain some minor errors (1-2 pts)	Fails to communicate effectively (0 pts)	
Proportion points earned				=#marks

Grading Rubric for Class participation
Score = # points per assignment x proportion pointe earned

Criteria	Exceeds standard	Meets standard	Fails to meet standard	Points
Understanding on a given topic (10%)	Demonstrates a thorough understanding of the given topic and draws correct interpretation of presented data and analyses (1 pts)	Demonstrates some understanding of the given topic but interpretation of data and analyses could be communicated more effectively (0.5 pts)	Fails to demonstrate understanding of the given topic (0 pts)	
Organization (30%)	Organizes the material in a thoughtful and effective manner (3 pts)	Attempts to organize the material but organization is not effective (1-2 pts)	Fails to organize material (0 pts)	
Level of detail (30%)	Provides level of correct detail appropriate for the situation (3 pts)	Provides some detail in the answer, but some details are lacking or incorrect (1-2 pts)	Fails to provide correct level of detail (0 pts)	
Effectiveness of communication (30%)	Communicates the answer effectively in class (3 pts)	Adequately communicates the answer in class (1-2 pts)	Fails to communicate effectively (0 pts)	
Proportion points earned				=#marks