

# OCES/LIFS1030 Environmental Science (Spring 2018-19)

Wednesday and Friday (LTD)

16:30 – 17:50

## **Learning Outcomes**

By the end of this course, the students are expected to be able to:

- 1) Comprehend essential environmental concepts such as life supporting system, biodiversity and biomes, natural resources, sustainability, and their inter-relationships;
- 2) Develop a broad interest and connect the knowledge to their major study;
- 3) Recognize the importance of harmony among human, the nature, and a sustainable living society;
- 4) Apply the knowledge in daily life and contribute to environmental protection.

## **Course Format**

Two lectures per week (Wednesday and Friday pm)

## **Course Assessment**

- Midterm Examination (about 50%): Multiple-Choice only
- Final Examination (about 50%): Mainly Short Questions/Essays, with Multiple-Choice

## **Course Instructors**

Course Director: Prof. Wen-Xiong Wang  
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Course Instructor: Dr. Ice Ko  
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## **Major Reference:**

Cunningham, W.P. and Cunningham, M.A. (2017) *Principles of Environmental Science: Inquiry and Application*. Eighth Edition. McGraw-Hill Companies, Inc.

## Lecture Outline and Schedule (Wang: 13 lectures, Ko: 12 lectures)

Week	Date	Lecture Topic	Instructor
1	30 Jan (Wed)	What is Environmental Science?	Wang
	1 Feb (Fri)	Global Environmental Issues	Ko
	6 Feb (Wed)	<i>Public Holiday (no class)</i>	
	8 Feb (Fri)	Energy, Matter and Resources in the Environment (1)	Ko
2	13 Feb (Wed)	Energy, Matter and Resources in the Environment (2)	Ko
	15 Feb (Fri)	Earth's Major Biomes	Ko
3	20 Feb (Wed)	Biodiversity and Its Values	Ko
	22 Feb (Fri)	What Threatens Biodiversity?	Ko
4	27 Feb (Wed)	Human Population Dynamics	Ko
	1 Mar (Fri)	Overpopulation and Population Control	Ko
5	6 Mar (Wed)	Resource Consumption and Ecological Footprint	Ko
	8 Mar (Fri)	Food and Hunger	Ko
6	13 Mar (Wed)	How Have We Managed to Feed Billions?	Ko
	15 Mar (Fri)	The Atmospheric Environment	Wang
7	<b>20 Mar (Wed)</b>	<b>Midterm Exam</b>	<b>Ko</b>
	22 Mar (Fri)	The Atmosphere: Acid Rain, Ozone, Ocean Acidification	Wang
8	27 Mar (Wed)	The Atmosphere: Greenhouse Gases and Air Pollutants	Wang
	29 Mar (Fri)	Water Supply, Usage and Cycle	Wang
9	3 Apr (Wed)	Aquatic Hypoxia and Eutrophication	Wang
	5 Apr (Fri)	<i>Public Holiday (no class)</i>	
10	10 Apr (Wed)	Water Pollution and Remediation	Wang
	12 Apr (Fri)	Soil Environment and Pollution	Wang
11	17 Apr (Wed)	Human Health and the Environment: Global and Local Issues	Wang
	19 Apr (Fri)	<i>Midterm break (no class)</i>	
	24 Apr (Wed)	Environmental Toxicology: Transport and Bioaccumulation	Wang
	26 Apr (Fri)	Environmental Toxicology: Toxicity Assessment	Wang
12	1 May (Wed)	<i>Public Holiday (no class)</i>	
	3 May (Fri)	Environmental Assessments in Hong Kong: Science Based?	Wang
13	8 May (Wed)	Environments in the Greater Bay: The Future	Wang