

LIFS 1030 Environmental Science (Fall 2017-18)

Time/ Place: Tuesday and Thursday 10:30 - 11:50 (LTA)

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 (80 minutes each) per week.

Course Assessment

- A short essay about an environmental issue, 400 words (about 20%)
- Examinations
 - Mid-term Examination (about 30%)
 - Final Examination (about 50%)

Course Instructors

Course Director: Prof Pei-Yuan Qian
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Major Reference

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

Tentative Lecture Outline and Schedule

Lecture Topic		Instructor
Part 1: Matter and Energy (Chapters 2 & 13)		
1)	5 Sept (Tue) Course Introduction & Matter and Energy (1)	Ko
2)	7 Sept (Thu) Matter and Energy (2)	Ko
Part 2: Understanding Our Environment (Chapter 1)		
3)	12 Sept (Tue) Pressing Global Environmental Issues (1)	Qian
4)	14 Sept (Thu) Pressing Global Environmental Issues (2)	Qian
5)	19 Sept (Tue) Pressing Global Environmental Issues (3)	Qian
6)	21 Sept (Thu) Global Effort in Addressing Environmental Challenges	Qian
7)	26 Sept (Tue) Hong Kong Environmental Issues	Qian
Part 3: Life and Biomes (Chapters 3, 5 & 6)		
8)	28 Sept (Thu) Life Supporting Systems—Species, Population, and Community	Qian
9)	3 Oct (Tue) Life Supporting Systems—Ecosystem	Qian
	5 Oct (Thu) <i>Public Holiday</i>	
10)	10 Oct (Tue) Climates and Earth's Major Biomes	Qian
11)	12 Oct (Thu) Mid-term Exam	Qian/Ko/Lam
Part 4: Biodiversity (Chapter 5)		
12)	17 Oct (Tue) Biodiversity and Its Significance	Ko
13)	19 Oct (Thu) Threats to Biodiversity	Ko
Part 5: Human Populations (Chapter 4)		
14)	24 Oct (Tue) Human Population Dynamics and Control	Ko
Part 6: Food and Nutrition (Chapter 7)		
15)	26 Oct (Thu) Nutrition and Food Supply	Wang
Part 7: Environmental Health and Toxicology (Chapter 8)		
16)	31 Oct (Tue) Environmental Toxicology and Health (1)	Wang
17)	2 Nov (Thu) Environmental Toxicology and Health (2)	Wang
Part 8: Atmosphere and Pollution (Chapter 9)		
18)	7 Nov (Tue) Atmosphere and Climate	Wang
19)	9 Nov (Thu) Air Pollution (1)	Wang
20)	14 Nov (Tue) Air Pollution (2)	Wang
Part 9: Water Resources and Pollution (Chapter 10)		
21)	16 Nov (Thu) Water Usage	Wang
22)	21 Nov (Tue) Water Pollution (1)	Wang
23)	23 Nov (Thu) Water Pollution (2)	Wang
Part 10: Solid and Hazardous Wastes (Chapter 13)		
24)	28 Nov (Tue) Wastes and Disposal (1)	Lam
25)	30 Nov (Thu) Wastes and Disposal (2)	Lam