

LIFS 1030 Environmental Science (Summer 2016-17)

Course Period: 26 June to 4 August 2017
Monday, Wednesday and Friday; 10 am – 12:20 pm
Venue: LTJ

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

Three lectures (2.5-hour each) per week.

Course Assessment (based on the following course activities and examinations)

Course Activities (about 30%)

- a. Group project with intra-group peer evaluation (about 25%)
 - Each group needs to produce a 5-minute video clip (*submitted by 31 July*)
- b. Inter-group peer evaluation (about 5%)
 - Each student needs to mark 10 video clips from other groups (*finished by 8 August*)

Examinations (about 70%)

Midterm Examination (about 25%) and Final Examination (about 45%)

Course Instructors

Course Director: Prof Pei-Yuan Qian

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Course Instructors: 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.

Tentative Lecture Outline and Schedule

| | Lecture Topic | Instructor |
|---|--|----------------------|
| Part 1: Understanding Our Environment (Chapter 1) | | |
| 1) | 26 June (Mon) Course Introduction & Pressing Global Environmental Issues | Qian |
| 2) | 28 June (Wed) Global Effort in Addressing Environmental Challenges & Movie | Ko |
| 3) | 30 June (Fri) Project Briefing | Ko & Lam |
| Part 2: Matter and Energy (Chapters 2 & 13) | | |
| 4) | 3 July (Mon) Energy, Matter and Resources in the Environment | Ko |
| Part 3: Biomes and Biodiversity (Chapter 5) | | |
| 5) | 5 July (Wed) Earth's Major Biomes | Ko |
| | 7 July (Fri) <i>Study Break (no lecture)</i> | |
| 6) | 10 July (Mon) Midterm Exam | Qian & Ko |
| 7) | 12 July (Wed) Biodiversity: Its Significance and Threats | Ko |
| Part 4: Food and Nutrition (Chapter 7) | | |
| 8) | 14 July (Fri) Nutrition and Food Supply | Ko |
| Part 5: Human Populations (Chapter 4) | | |
| 9) | 17 July (Mon) Human Population Dynamics | Ko |
| 10) | 19 July (Wed) Overpopulation and Population Control | Ko |
| Part 6: Atmosphere and Pollution (Chapter 10) | | |
| 11) | 21 July (Fri) Atmosphere and Climate | Lam |
| 12) | 24 July (Mon) Air Pollution | Lam |
| Part 7: Water Resources and Pollution (Chapter 11) | | |
| 13) | 26 July (Wed) Water Usage | Lam |
| 14) | 28 July (Fri) Water Pollution | Lam |
| Part 8: Solid and Hazardous Wastes (Chapter 14) | | |
| 15) | 31 July (Mon) Wastes and Disposal | Lam |
| | 2 Aug (Wed) <i>Study Break (no lecture)</i> | |
| 16) | 4 Aug (Fri) Final Exam | Ko & Lam |