LIFS 2060 Biodiversity

Fall 2017-18

Wednesday and Friday, 16:30 - 17:50, LTD

Learning Outcomes

On successful completion of this course, students are expected to be able to:

1) Appreciate the beauty and richness of our biodiversity.
2) Discuss the variety and classification of life, and identify the ecological relationships between organisms and their environment.
3) Critically evaluate the relationship between humans and the environment, and examine how environmental conservation has been carried out.
4) Give examples to illustrate the balance between human society and the natural world, and how this affects the concept of sustainable living.

Instructors

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Format and Course Assessment

Two 80-minute lectures (with discussions) per week.

Tentatively, the final grades are based on:

- Midterm Examination (35% – 40%)
- Final Examination (55% – 60%)
- Quizzes (up to 10%)

Textbook

Raven PH, Johnson GB, Losos JB, Mason KA & Singer SR (2014) *Biology*, 10th edition, McGraw-Hill Companies, Inc

Reference

Cunningham WP & Cunningham MA (2017) *Principles of Environmental Science: Inquiry & Application*, 8th edition, McGraw-Hill Companies, Inc

	Date	Lecture Topic	Instructor
1)	1 Sept (Fri)	Introduction and Overview	Liu
2)	6 Sept (Wed)	Characteristics of life	Liu
3)	8 Sept (Fri)	Classification of life	Liu
4)	13 Sept (Wed)	Bacteria and Viruses	Liu
5)	15 Sept (Fri)	Protists	Liu
6)	20 Sept (Wed)	Green Plants	Liu
7)	22 Sept (Fri)	Fungi	Liu
8)	27 Sept (Wed)	Animals	Liu
9)	**29 Sept (Fri)**	**Mid-term examination**	**Liu**
10)	4 Oct (Wed)	Origin of life; Chemical evolution	Zeng
11)	6 Oct (Fri)	Evolution of life: Darwin's Theory	Zeng
12)	11 Oct (Wed)	Evidence for evolution	Zeng
13)	13 Oct (Fri)	Microevolution (genes within populations)	Zeng
14)	18 Oct (Wed)	Five agents of evolution change	Zeng
15)	20 Oct (Fri)	Species concept; Macroevolution (speciation)	Zeng
16)	25 Oct (Wed)	Species extinction	Zeng
17)	27 Oct (Fri)	The future of evolution	Zeng
18)	1 Nov (Wed)	The value of biodiversity	Ko
19)	3 Nov (Fri)	Habitat diversity and biomes	Ko
20)	8 Nov (Wed)	Tropical rainforests (I)	Ko
21)	10 Nov (Fri)	Tropical rainforests (II)	Ko
22)	15 Nov (Wed)	Coral reefs (I)	Ko
23)	17 Nov (Fri)	Coral reefs (II)	Ko
24)	22 Nov (Wed)	Human effects: Loss of biodiversity (I)	Ko
25)	24 Nov (Fri)	Human effects: Loss of biodiversity (II)	Ko
26)	29 Nov (Wed)	Ecological conservation and restoration	Ko