

Department of Biology  
 Faculty of Science, Mahidol University  
 Environmental Microbiology (SCBE 330)  
 Second Semester, 2022  
 Monday 13.30-16.20 (SC1-XXX) **SC1-161, Salaya campus**

WK		Topic	Instructor
1	Jan 9	Introduction to environmental microbiology	PS
2	Jan 16	Microbial evolution	PS
3	Jan 23	Microbial ecosystems	PS
4	Jan 30	Biogeochemical cycles	PS
5	Feb 6	Metabolic diversity	PS
6	Feb 13	Microbial symbioses	PJS
7	Feb 20	Microorganisms in agriculture	PJS
8	Feb 27	Class activity: metabolic diversity and Winogradsky column	PS
9		Midterm week (Mar 7-10)	
10	Mar 13	Class discussion: microbial diversity	PS
11	Mar 20	Methods for studying environmental microbiology	PS
12	Mar 27	Microbial genomics and other omics	PS
13	April 3	Applied topics in environmental microbiology	PS
14	April 10	Field trip (Mahidol WWTP)	PS
15	April 17	Songkran Day	-
16	April 24	Case studies and group discussion	PS
17		Final week (May 1 - 12)	

**Reference:**

Madigan, M. T., Martinko, J. M., Stahl, D. A., & Clark, D. P. (2019). Brock Biology of Microorganisms. San Francisco, CA: Benjamin Cummings.

**Instructors:**

- 1) Assistant Professor Dr.Prinpida Sonthiphand (PS) pinpida.son@mahidol.ac.th
- 2) Assistant Professor Dr.Patompong Johns Saengwilai (PJS) patompong.sae@mahidol.ac.th

**Evaluations:**

Assignments	10%
Class discussion: microbial diversity	20%
Midterm examination	30%
Case studies: Report and presentation	20%
Final examination	20%

**Course coordinator:** Prinpida Sonthiphand, Ph.D