

Department of Biology
Faculty of Science, Mahidol University
Environmental Microbiology (SCBE 330)
Second Semester, 2025
Monday 13.30-16.20 (SC1-XXX)

WK		Topic	Instructor
1	Jan 5	Introduction to environmental microbiology	PS
2	Jan 12	Microbial evolution	PS
3	Jan 19	Microbial ecosystems	PS
4	Jan 26	Biogeochemical cycles	PS
5	Feb 2	Metabolic diversity	PS
6	Feb 9	Class activity: metabolic diversity and Winogradsky column	PS
7	Feb 16	Microbial symbioses	PJS
8	Feb 23	Microorganisms in agriculture	PJS
9	Mar 2	Midterm Exam	PS
10	Mar 9	Class discussion: microbial diversity	PS
11	Mar 16	Methods for studying environmental microbiology	PS
12	Mar 23	Applied topics in environmental microbiology	PS
13	Mar 30	Field trip (Mahidol WWTP)	PS
14	April 20	Case studies and group discussion	PS
15	April 27	Final Exam	PS

Remark: There will be no class on April 6 and April 13 due to Chakri Memorial Day and the Songkran holiday, respectively.

Reference:

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

Instructors:

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| 1) Associate Professor Dr.Prinpida Sonthiphand (PS) | prinpida.son@mahidol.ac.th |
| 2) Associate Professor Dr.Patompong Johns Saengwilai (PJS) | patompong.sae@mahidol.ac.th |

Evaluations:

Assignments	5%
Class discussion: microbial diversity	15%
Midterm examination	30%
Case studies: Report and presentation	15%
Field trip assignments	10%
Final examination	25%

Course coordinator: Prinpida Sonthiphand, Ph.D