

Environmental Health

Code: 31-3313 1st year 2units
Course ID: GP-b3313L

1. Instructor(s)

Nobutoshi Nawa, Associate Professor, Department of Medical Education Research and Development

Hisaaki Nishimura, Assistant Professor, Department of Global Health Promotion

Takeo Fujiwara, Professor, Department of Global Health Promotion

Brian Schwartz, Professor, Department of Environmental Health and Engineering, Johns Hopkins Bloomberg School of Public Health

Takashi Yorifuji, Professor, Graduate School of Environmental and life Science, Okayama University

Shoji Nakayama, Deputy Director of Ecochil Research Core Center, National Institute of Environmental Studies

Kayo Ueda, Professor, Department of Hygiene, Hokkaido University

Seposo Xerxes, Associate Professor, Department of Hygiene, Hokkaido University

Kazunari Onishi, Associate Professor, St Luke's International University

Ayako Morita, Associate Professor (Career track), Department of Global Health Promotion

Yui Yamaoka, Project Assistant Professor, Department of Global Health Promotion

2. Classroom/Lab

Next Page

3. Course Purpose and Outline

Course Purpose

This course introduces current topics in environmental health issues, scientific understanding of their causes, and possible future approaches toward control of the major environmental health problems.

Outline

Throughout the course we will review and discuss topics including toxicology, exposure assessment, environmental epidemiology, risk assessment/management, air pollution, water pollution, and environmental justice.

4. Course Objective(s)

By the end of this course, students will be able to:

a) Define environmental exposures important in public health and describe how they may cause illness or promote health.

b) Describe specific factors (e.g., gene, demography, socioeconomic status, nutrition, etc.) that influence the likelihood of exposure and the risk of health outcomes.

c) Explain how to identify environmental hazards, assess effects of hazards on health, control hazards, and monitor the control efforts.

5. Format

This course will consist of lectures and case-based class activities. Students will be required to write a final report.

6. Course Description and Timetable

Next Page

7. Grading System

Grades will be based on the following elements:

Participation 20%

Presentation (presentation on toxic environmental problem in your country and countermeasures) 30%

Final paper (letter to the minister of environment in your country, A4 1-2 pages) 50%

8. Prerequisite Reading

Reading materials will be available online at the course webpage. Students are expected to have worked thorough the materials before attending the corresponding class.

9. Reference Materials

Below is a suggestion for a book that may be useful for those who want to read a standard textbook.

Frumkin H, editor. Environmental health: from global to local. San Francisco: Jossey-Bass; 2016.

1 0. Important Course Requirements

For students not in the MPH course, instructor's permission is required before registering to the course. Also, students are required to have TOEFL iBT with a minimum score of 80 or IELTS with a minimum score of 6.5.

1 1. Availability in English

All classes are taught in English.

1 2. Office hours

Please contact Prof. Fujiwara at fujiwara.hlth@tmd.ac.jp

1 3. Note(s) to students

Nothing in particular

Schedule

| No | Day | Time | Topics Venue | Instructor |
|----|------------------|-------------|--|--|
| 1 | February 5, 2024 | 8:50-10:20 | <u>Lecture:</u> Minamata Disease (via Zoom) | Takashi Yorifuji |
| 2 | | 10:30-12:00 | | |
| 3 | | 13:00-14:30 | <u>Lecture:</u> Climate change and health in Japan (G-Lab, M&D Tower 8F) | Hisaaki Nishimura |
| 4 | | 14:40-16:10 | Case and group activity: Assignment guidance - Environment and child development (G-Lab, M&D Tower 8F) | Hissaki Nishimura Takeo Fujiwara Nobutoshi Nawa Ayako Morita Yui Yamaoka |
| 5 | February 6, 2024 | 8:50-10:20 | <u>Lecture:</u> Environment and child development (On-demand video) | Shoji Nakayama |
| 6 | | 10:30-12:00 | <u>Lecture:</u> Q&A sessions (G-Lab, M&D Tower 8F) | |
| 7 | | 13:00-14:30 | <u>Lecture:</u> Climate change and vector-borne disease (G-Lab, M&D Tower 8F) | Seposo Xerxes |
| 8 | | 14:40-16:10 | <u>Lecture:</u> Assessing health impacts of air pollution (G-Lab, M&D Tower 8F) | Kayo Ueda |
| 9 | February 8, 2024 | 8:50-10:20 | <u>Lecture:</u> Occupational toxicology and policy implication (G-Lab, M&D Tower 8F) | Brian Schwartz |
| 10 | | 10:30-12:00 | | |
| 11 | | 13:00-14:30 | | |
| 12 | | 14:40-16:10 | | |
| 13 | February 9, 2024 | 8:50-10:20 | <u>Lecture:</u> Air pollution in Asia - from evaluation to interpretation of its impacts on health (G-Lab, M&D Tower 8F) | Kazunari Onishi |
| 14 | | 10:30-12:00 | | |
| 15 | | 13:00-14:30 | Case and group activity: Preparation for the presentation (G-Lab, M&D Tower 8F) | Hissaki Nishimura Takeo Fujiwara Nobutoshi Nawa Ayako Morita Yui Yamaoka |
| 16 | | 14:40-16:10 | Case and group activity: Presentation (G-Lab, M&D Tower 8F) | |