

# Biostatistics II

Code: 31-3305      1st year      2units  
Course ID: GP-b3305L

## 1. Instructor(s)

Takeo Fujiwara, Professor, Department of Global Health Promotion  
Hisaki Nishimura, Assistant Professor, Department of Global Health Promotion  
Ayako Morita, Associate Professor (Career Track), Department of Global Health Promotion

## 2. Classroom/Lab

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## 3. Course Purpose and Outline

### Course Purpose

This course covers statistical procedures used in current empirical research with hands-on activities.

### Outline

This course surveys current topics in public health research with a focus on statistical methods. Throughout the course, students will have opportunity to perform these analysis using statistical softwares.

## 4. Course Objective(s)

By the end of this course, students will be able to choose appropriate statistical analyses, perform them using statistical software (STATA), and interpret results.

## 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

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## 7. Grading System

Grades will be based on the following elements:

Participation 20%

Final report 80%

## 8. Prerequisite Reading

None.

## 9. Reference Materials

To be specified in the class.

## 10. 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.

Prerequisite: Biostatistics I

### **1 1 . Availability in English**

All classes are taught in English.

### **1 2 . Office hours**

Please contact Prof. Fujiwara ([fujiwara.hlth@tmd.ac.jp](mailto:fujiwara.hlth@tmd.ac.jp))

### **1 3 . Note(s) to students**

1. During the course, you will be asked to log onto the library computer, zoom, Webmail, WebClass, and Microsoft365. Please make sure that you know Togo-ID/password and user IDs and passwords for each tool before the course week starts.

- Zoom login: <https://zoom.us.signin#login>

- Webmail login/ <https://webmail.tmd.ac.jp/cgi-bin/index.cgi>

- Webclass login: <https://lib02.tmd.ac.jp/webclass/login.php?rnd=a4481&language=ENGLISH>

- Microsoft 365 login: <https://login.microsoftonline.com>

\*In case that you forgot your Togo-ID password, please ask for help from IT help desk ([ithelp@ml.tmd.ac.jp](mailto:ithelp@ml.tmd.ac.jp)). They cannot reset a password in a day so please ask for help beforehand.

2. The library computer will be automatically reset at the end of the day so you cannot save your work (report, modified dataset etc.) on the computer. Please bring your USB.

Schedule

No	Day	Time	Topics / Venue	Instructor
1	October 7, 2024	8:50-10:20	<u>How to analyze and report data (1): Develop research question</u> (Library Information Search Room 1, M&D Tower 4F)	Takeo Fujiwara Hisaaki Nishimura
2		10:30-12:00	<u>How to analyze and report data (2): Select covariates (DAG)</u> (Library Information Search Room 1, M&D Tower 4F)	
3		13:00-14:30	<u>How to analyze and report data (3): Use stata for Table 1</u> (Library Information Search Room 1, M&D Tower 4F)	
4		14:40-16:10	<u>Hands-on activity (1): Develop Research Questions and Table 1</u> (Library Information Search Room 1, M&D Tower 4F)	
5	October 8, 2024	8:50-10:20	<u>How to analyze and report data (4): Define analytic sample and missing values</u> (Library Information Search Room 1, M&D Tower 4F)	Takeo Fujiwara Hisaaki Nishimura
6		10:30-12:00	<u>How to analyze and report data (5): Deal with missing values for statistical analysis</u> (Library Information Search Room 1, M&D Tower 4F)	
7		13:00-14:30	<u>How to analyze and report data (6): Deal with similar covariates</u> (Library Information Search Room 1, M&D Tower 4F)	
8		14:40-16:10	<u>Hands-on activity (2): Develop Table 2</u> (Library Information Search Room 1, M&D Tower 4F)	
9	October 10, 2024	8:50-10:20	<u>How to start statistical analysis (7): Developing questionnaire, part I</u> (Library Information Search Room 1, M&D Tower 4F)	Ayako Morita
10		10:30-12:00	<u>How to start statistical analysis (8): Developing questionnaire, part II</u> (Library Information Search Room 1, M&D Tower 4F)	
11		13:00-14:30	<u>How to start statistical analysis (9): Consider other methods: sensitivity analysis</u> (Library Information Search Room 1, M&D Tower 4F)	Takeo Fujiwara Hisaaki Nishimura
12		14:40-16:10	<u>Hands-on activity (3): Develop Table 3</u> (Library Information Search Room 1, M&D Tower 4F)	
13	October 11, 2024	8:50-10:20	Hands-on activity (4): Prepare presentation for research question and Table 1-3 (Library Information Search Room 1, M&D Tower 4F)	Takeo Fujiwara Hisaaki Nishimura
14		10:30-12:00		
15		13:00-14:30	Presentation & Discussion (Library Information Search Room 2, M&D Tower 4F)	
16		14:40-16:10		