Course Name	Biostatistics in Practice
Course Number	OATHA13
Credits	1.0 Credits
Adaptation years	1 Year
Class hold days	SprAB Wed5,6
Instructor	Kazushi Maruo, Masahiko Gosho, Ryota Ishii
Overview	This course aims to teach concepts and techniques to analyze various data from biomedical studies, using the SAS OnDemand for Academics, a free online software for statistical analysis.
Remarks	Lectures are conducted in English.
Course Type	lab works, practical
Relation to Degree Program Competences	Generic Compitence: Knowledge application competence Specific Competence: Core area 2 of public health sciences: an ability for application of biostatistics skills
Course Objectives (Learning Outcomes)	Upon completion of this course, students will be able to manipulate their data, do basic statistical analysis, and interpret output of the SAS software.
Class Schedule	1. 4/19: Software installation, operation and basic syntax 2. 4/26: Create and manage datasets 3. 5/1: Descriptive statistics and visualization (1) 4. 5/10: Descriptive statistics and visualization (2) 5. 5/17: Statistical test and group(s) comparison 6. 5/24: Linear regression model 7. 5/31: Categorical data analysis 8. 6/7: Logistic regression model 9. 6/14: Survival analysis 10. 6/21: Additional topics and summary Online course (on-demand). See the orientation slide to be uploaded to manaba later for details.
Course Prerequisites	
Grading Philosophy	Written report.
Course Hours Breakdown and Out-of-Class Learning	Lecture(20%),Practice(80%)
Textbooks, References,and Supplementary Materials	1. 竹内啓(監修),SASによるデータ解析入門第3版. 東京大学出版会. 2. SAS OnDemand,https://www.sas.com/ja_jp/software/on-demand-for-academics.html
Office Hours and Contact Information	As needed. Make an appointment by e-mail in advance. Kazushi Maruo maruo at md.tsukuba.ac.jp Ryota Ishii rishii at md.tsukuba.ac.jp
Other(Behavioral expectations and points to note for students during coursework)	This class is hands-on seminar. Please bring your own laptop (at least 1GB RAM, either Windows or Mac OS) from the first lecture. Theories on statistical analysis methods used in this course are explained in the “Biostatistics, Basic”
Relation to Other	OATHA12 Biostatistics, Basic

Courses	
Teaching Fellow and/or Teaching Assistant	
Course Keywords	statistical analysis, Software, program, SAS