Course title <English>	交絡調整の方法 Intermediate Biostatistics	Affiliated department, Job title,Name	Graduate School of Medicine Professor,SATO TOSIYA Ministry of Health, Labour and Welfare MORI　KAZUHIKO

Grade alloted	Professional degree students	Number of credits	2	Course offered year/period	2016/Second semester

Day/period	Tue.2	Class style	Lecture	Language	Japanese

[Outline and Purpose of the Course]

Confounding leads to bias which prevents a causal relationship between exposure and outcome in observational studies.
This program is designed to provide statistical methods for adjustment of confounding. Stratified analysis and regression modeling are introduced. Related topics, such as survival analysis, missing data, and propensity score s, are included.
For conducting an epidemiologic or clinical research, developing a study protocol and a statistical analysis plan is necessary. We provide an essence for a protocol and a analysis plan.

[Course Goals]

- Understand the concept of confounding
- Understand the assessment of confounding by graphical methods
- Understand pros and cons of stratified analysis and regression modeling
- Understand importance for study protocol and statistical analysis plan

[Course Schedule and Contents]

October 4　Confounding and standardization
October 11　Estimation of common effect measures
October 18　Comparison of means
October 25　Introduction to regression modeling, Class exam 1
November 1　No class
November 8　Generalized linear models
November 15 Survival analysis 1
November 22 Survival analysis 2
November 29 Handling missing data, Class exam 2
December 6　Study protocol
December 13 Review of pharmaceutical products and pharmacovigilance
(13:00-14:30 at the Seminar Room A)
December 20 Statistical analysis plan
January 10　Variable selection, Class exam 3
January 17　Advanced methods for confounding adjustment
January 24　Presentation of statistical analysis plan (Discussion)

[Class requirement]

Elective

All students in the course are expected to take "Fundamentals of Biostatistics"

Continue to 交絡調整の方法(2)↓↓↓

交絡調整の方法(2)

[Method, Point of view, and Attainment levels of Evaluation]

Class examinations - 3 times

[Textbook]

『Distributed materials in "Fundamentals of Biostatistics"』

[Reference books, etc.]

（Reference books）

Rothman KJ, Greenland S, Lash TL. 『Modern Epidemiology, 3rd ed.』（Lippincott Williams & Wilkins, 2008）

[Regarding studies out of class (preparation and review)]

Fundamentals of Biostatistics

（Others (office hour, etc.)）

*Please visit KULASIS to find out about office hours.