

<b>Course title</b> <English>	交絡調整の方法 Intermediate Biostatistics		<b>Affiliated department, Job title, Name</b>	Graduate School of Medicine Professor, SATO TOSIYA Graduate School of Medicine Assistant Professor, YONEMOTO NAOHIRO Ministry of Health, Labour and Welfare MORI KAZUHIKO	
<b>Target year</b>	Professional degree students	<b>Number of credits</b>	2	<b>Course offered year/period</b>	2017/Second semester
<b>Day/period</b>	Tue.2	<b>Class style</b>	Lecture	<b>Language</b>	Japanese
<b>[Outline and Purpose of the Course]</b>					
<p>Confounding leads to bias which prevents a causal relationship between exposure and outcome in observational studies.</p> <p>This course 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, etc., 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.</p>					
<b>[Course Goals]</b>					
<ul style="list-style-type: none"> <li>- Understand the concept of confounding</li> <li>- Understand pros and cons of stratified analysis and regression modeling</li> <li>- Understand importance for study protocol and statistical analysis plan</li> </ul>					
<b>[Course Schedule and Contents]</b>					
<ol style="list-style-type: none"> <li>1. October 3 Confounding and standardization</li> <li>2. October 10 Estimation of common effect measures</li> <li>3. October 17 Comparison of means</li> <li>4. October 24 Advanced methods in comparison</li> <li>5. October 31 Introduction to regression modeling, Class exam 1</li> <li>6. November 7 Generalized linear models</li> <li>7. November 14 Survival analysis 1</li> <li>8. November 21 Survival analysis 2</li> <li>9. November 28 Handling missing data, Class exam 2</li> <li>10. December 5 Study protocol</li> <li>11. December 12 Statistical analysis plan</li> <li>12. December 19 Review of pharmaceutical products and pharmacovigilance (13:00-14:30 at the Seminar Room A)</li> <li>13. January 9 Variable selection, Class exam 3</li> <li>14. January 16 Advanced methods for confounding adjustment</li> <li>15. January 23 Presentation of statistical analysis plan (Discussion)</li> </ol>					
<b>[Class requirement]</b>					
<p>Elective</p> <p>All students in the course are expected to take "Fundamentals of Biostatistics"</p>					
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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.