Category （科目区分）	Cluster common basic subjects		
Course Title （授業科目名）	Medical statistical epidemiology basics / practices		
Instructors （担当者名）	Kyoko Nomura	Academic Year （配当年次）	1st
Required Course / Elective Course （必修/選択）	Required Course	Credits （単位数）	2
Class Format （授業形態）	Web Class: Lecture・Practice 1-7, practice 8-10		
Schedule （開講期間）	Late April 2025 - January 31, 2026		
Class Date/Period （開講曜日・時間）	Every 3rd Wendsday of the month, 13:30-15:00		

Course Outline/ Course Objectives（授業の概要・到達目標）

Purpose of the class: To understand clinical epidemiology and medical statistics through practices.
Course Objectives: The goal is to acquire and practice methods of clinical epidemiology and medical statistics through practices.

Course Outline: The basis of evidence-based medical care (EBM) refers to the results obtained from epidemiology, not from animal experiments. Therefore, it is necessary to understand clinical epidemiology and medical statistics, and to be able to estimate causal relationships from the data of human populations by themselves. Multivariation analysis from basic statistics is carried out by lectures and computer practices. And, clinical epidemiology is a science which performs the prediction in individual patients by measuring the incidence of clinical events in patients with similar diseases using strict scientific methods. The purpose of this study is to develop and apply clinical observation methods to draw reasonable conclusions by avoiding systematic errors and accidental judgments.

Course Planning（授業計画）

	Course Outline/ Course Objectives（授業の概要及び到達目標） （Contents of Class）　（（授業内容））	Instructor （担当教員名）	Department（講座名） Class Room〔実施場所〕
1	Introduction	Kyoko Nomura (Professor)	Department of Environmental Health Science and Public Health, Akita University Graduate School of Medicine
2	Comparison of continuous quantity data (t test, Wilcoxon test)		
3	How to summarize data		
4	Comparison of count data (χ 2 test), logistic regression		
5	Correlation and regression, Multiple regression analysis		
6	Analysis of variance, Multiple comparison methods		
7	Multivariate logistic regression analyses, survival analyses		
8	Work: Demonstration		
9	Work: Extendedd exercise		
10	Work: Survival analysis		

Grading Criteria （成績評価の基準と方法）

On-demand video watching and practical training 45 hours + self-study 45 hours, which accounts for total 90 hours and 2 credits.

Contact Information（問い合わせ先(氏名，メールアドレス等)）

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Comment （その他特記事項）

We will provide on-site English lecture series with international students for both Master and PhD course.