Course name	Introduction to Statistics of Disability Sciences
Course Number	CE11091
Credits	2.0
Year	2
Term, Weekday and Period	Spr. AB Thu 3,4
Instructor	Hitoshi DAIROKU
Course overview	The students will learn the nature of figure and data and correct selection of statistical method based on such understanding. The students will learn the basic knowledge on statistics and become able to read an introductory book without many difficulties.
Remarks	
Teaching method	Lecture
Attainment target	The students will learn the characteristics of numerical values or data and proper selection of statistical method based on such understanding. The students will learn the basic knowledge on statistics and become able to read introductory books about statistics without many difficulties.
Teaching schedule	Day 1: Course overview - Why we need statistics Day 2: Determination of scale - ratio scale, interval scale, ordinal scale, nominal scale Day 3: Handling of interval scale and ratio scale data (1) data display - average, standard deviation, etc. Day 4: Handling of interval scale and ratio scale data (2) data analysis - logic of statistical tests Day 5: Handling of interval scale and ratio scale data (3) data analysis - analysis of variance Day 6: Experimental design and analysis of variance - multiple comparison Day 7: Experimental design and analysis of variance - interaction, analysis of covariance Day 8: Handling of interval scale and ratio scale data (4) data analysis - data conversion Day 9: Summary of processing of interval scale and ratio scale data Day 10: Handling of nominal scale data (1) cross tabulation, Fisher's exact test, $\chi 2$ test Day 11: Handling of nominal scale data (2) $\chi 2$ test and residual analysis Day 12: Handling of ordinal scale data - median, U test, signed rank sum test Day 13: Analysis of correlation - scatter plot, correlation coefficient, partial correlation Day 14: Multiple regression analysis Day 15: Factor analysis - in case of exploratory Day 16: Other multivariate analysis Day 17: Determination of scale and selection of statistical tests - parametric and non-parametric Day 18: Reliability and validity of a psychological scale Day 19: Analysis of qualitative data Day 20: Overall summary
Course conditions	
Evaluation	Evaluation based on the results of attendance record, report and semester final examination
Homework	The students are requested to steadily complete the assignments.
Text Book	
Reference	
Office hours	
Expectation for student	The students are requested to bring in writing instruments, ruler, a computer or calculator (that can calculate $\sqrt{}$).
Keywords	Statistics, survey and experimental data