Syllabus 2017 Human-Social Information Sciences
Data Science Basic

Japanese

■Basic information

held this year:	yes
instructor(s)	Prof. Nobuaki OBATA, Assoc.Prof. Etsuo SEGAWA, Assis.Prof. Takeo URAMOTO, Assis.Prof. Shun KATAOKA, Assis.Prof. Naho ORITA
room	GSIS 5F lecture room
schedule	The latter period (Friday) 14:40-16:10
begins on:	10/06

■Objectives and outline

We learn elementary foundations which need for studying data sciences. In particular, we study elementary parts of the following topics by five lectures: ①Foundations in Regression Analysis ②Bayesian Statistics ③ A Rudimentary Knowledge of Multivariate Analysis ④Computability theory ⑤Computational linguistics

■Class plan

① Foundations in Regression Analysis
1) Review on statistical model and its distribution
2) Regression analysis
Lecturer：Etsuo SEGAWA
10/06, 10/13

② Bayesian Statistics
1) Introduction to the statistics
2) Bayesian statistics (foundation)
3) Bayesian statistics (application)
Lecturer: Shun KATAOKA
10/20, 10/27, 11/10

③ A Rudimentary Knowledge of Multivariate Analysis
1) Random vectors and multi-dimensional distributions
2) Statistical inference
3) Normal Linear Models
Lecturer; Nobuaki OBATA
11/17, 11/24, 12/01

④ Introduction to computability theory
1) the concept of computability
2) formal language theory
Lecturer: Takeo URAMOTO
12/08, 12/15, 12/22

⑤ Computational linguistics
1) Text mining
2) Simulating vocabulary explosion
Lecturer: Naho ORITA
01/12, 01/19, 01/26

■Evaluation

reports

■Textbook(s)

■Web site

■Office hours

■Other information

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