COURSE DETAIL

MATHEMATICAL STATISTICS
Country Korea, South
Host Institution Yonsei University
Program(s) Yonsei University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics
UCEAP Course Number 100
UCEAP Course Suffix
UCEAP Official Title MATHEMATICAL STATISTICS
UCEAP Transcript Title MATH STATISTICS
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

Have you heard of Big Data or AI? What about Data Science? Data Science is the field of study that deals with data acquisition, data analysis, and decision making with domain knowledge. In the discipline of Data Science, data refer to either structured or unstructured data, which is commonly referred to as Big Data. Tools for analyzing Big Data in Data Science are called machine learning that is a sub-field of Statistics, and machine learning is known as a workhorse of AI. This mathematical statistics course is designed to provide a comprehensive introduction to the mathematical study of statistics (or machine learning). Without the knowledge of mathematical statistics, you cannot fully understand machine learning algorithms including Deep Learning. Topics include probability, random variables, univariate or multivariate distributions, elementary statistical inference, and limiting distributions. Emphasis is on the theoretical development and practical implementation of each topic, including definitions, theorems, proofs, computer programming, and simulations.

Prerequisites: STA1001. Introduction to Statistics (or equivalent course), STA1002. Calculus (or equivalent course)

Language(s) of Instruction
English

Host Institution Course Number
STA3126

Host Institution Course Title
MATHEMATICAL STATISTICS

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Statistics

Course Last Reviewed
2023-2024

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