COURSE DETAIL

INTRODUCTION TO STATISTICAL LEARNING
Country Taiwan
Host Institution National Taiwan University
Program(s) National Taiwan University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics
UCEAP Course Number 106
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO STATISTICAL LEARNING
UCEAP Transcript Title STATISTCAL LEARNING
UCEAP Quarter Units 3.00
UCEAP Semester Units 2.00

Course Description

Statistical learning is the process of extracting regularities from data using statistical models with the goal of finding a predictive function based on existing data to be able to make prediction on unseen data of similar type. The course introduces the concepts and analytical tools of statistical learning, it emphasizes “learning by doing“ with the use of R programming language to perform analysis on empirical data. The first part of the course starts with a refresher on the fundamentals of statistics—mean, variance, distribution, probabilities—before proceeding to more specialized topics. The first part of this course also gives a gentle introduction to R programming, during which issues of dimensionality and balance are discussed with their diagnostic and preprocessing tasks implemented in R. The second part of the course introduces families of binary, penalized, discriminant, and mixture models, along with performance evaluation metrics. The course concludes with the trendy topic on text mining, that is, drawing inference from text data.

Language(s) of Instruction
English

Host Institution Course Number
PS5696

Host Institution Course Title
INTRODUCTION TO STATISTICAL LEARNING

Host Institution Course Details
https://nol2.aca.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=322%20U2...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Statistics

Course Last Reviewed
2022-2023

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