COURSE DETAIL

MATHEMATICAL STATISTICS

Country
Singapore

Host Institution
National University of Singapore

Program(s)
National University of Singapore

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Statistics

UCEAP Course Number
132

UCEAP Course Suffix

UCEAP Official Title
MATHEMATICAL STATISTICS

UCEAP Transcript Title
MATH STATISTICS

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course introduces the theoretical underpinnings of statistical methodology and concentrates on inferential procedures within the framework of parametric models. Topic include: random sample and statistics, method of moments, maximum likelihood estimate, Fisher information, sufficiency and completeness, consistency and unbiasedness, sampling distributions, $x2$-, t- and F distributions, confidence intervals, exact and asymptotic pivotal method, concepts of hypothesis testing, likelihood ratio test, and Neyman-Pearson lemma. The course has a prerequisite of Probability and Statistics.

Language(s) of Instruction
English

Host Institution Course Number
ST2132

Host Institution Course Title
MATHEMATICAL STATISTICS

Host Institution Course Details
https://nusmods.com/courses/ST2132/mathematical-statistics

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Statistics and Data Science

Course Last Reviewed
2024-2025

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