

COURSE DETAIL

STATISTICAL MODELS

Country

Hong Kong

Host Institution

University of Hong Kong

Program(s)

University of Hong Kong

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Statistics

UCEAP Course Number

127

UCEAP Course Suffix**UCEAP Official Title**

STATISTICAL MODELS

UCEAP Transcript Title

STATISTICAL MODELS

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course examines fundamental concepts in probability and mathematical statistics, including probabilistic modelling, limiting results, estimation and hypothesis testing. Topics include random variables and vectors, distribution and quantile functions, covariance and correlation matrices, strong law of large numbers, central limit theorem, estimators and their (asymptotic) properties, parametric estimators (maximum likelihood, method of moments), (asymptotic) confidence intervals (mean and variance of a normal, difference of means of two normals, ratio of means of two normals), hypothesis tests (theory, power function, p-value, asymptotic tests, likelihood ratio tests).

Language(s) of Instruction

English

Host Institution Course Number

STAT3902

Host Institution Course Title

STATISTICAL MODELS

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

2024-2025

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