## **COURSE DETAIL**

## THEORY OF STATISTICAL INFERENCE

**Country** United Kingdom - Scotland

**Host Institution** University of Edinburgh

**Program(s)** University of Edinburgh

**UCEAP Course Level** Upper Division

UCEAP Subject Area(s) Mathematics

UCEAP Course Number 103

**UCEAP Course Suffix** 

UCEAP Official Title THEORY OF STATISTICAL INFERENCE

UCEAP Transcript Title STAT INTERFERENCE

**UCEAP Quarter Units** 4.00

UCEAP Semester Units 2.70

## **Course Description**

This course covers: -Parametric families and likelihood -Sufficiency, Neyman factorisation, minimal sufficiency, joint sufficiency -Elements of statistical decision theory -Estimation, minimum variance unbiased estimators, Cramer-Rao lower bound, Bayes and minimax estimators -Hypothesis testing, pure significance tests, optimal tests, power, Neyman-Pearson lemma, uniformly most powerful tests -Confidence intervals, relationship to hypothesis testing -Selected topics in modern statistics.

## Language(s) of Instruction

English

Host Institution Course Number MATH10028

Host Institution Course Title THEORY OF STATISTICAL INFERENCE

Host Institution Campus University of Edinburgh

Host Institution Faculty

Host Institution Degree

**Host Institution Department** 

School of Mathematics

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