

COURSE DETAIL

APPLIED STATISTICS

Country

United Kingdom - Scotland

Host Institution

University of St Andrews

Program(s)

University of St Andrews

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Statistics Mathematics

UCEAP Course Number

122

UCEAP Course Suffix**UCEAP Official Title**

APPLIED STATISTICS

UCEAP Transcript Title

APPLIED STATISTICS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course deals with the application of statistical methods to test hypotheses and draw inferences from data, using maximum likelihood methods. The course starts by developing general-purpose maximum likelihood methods, with interval estimation by means of the information matrix and the bootstrap. It goes on to develop generalized linear models, linear models and analysis of variance models as special cases of maximum likelihood methods. It covers diagnostic methods, including methods for selecting between models, checking assumptions and testing goodness-of-fit. It has an applied focus, with extensive use of R to give students practice in doing inference with real datasets, from problem formulation through to final conclusions.

Language(s) of Instruction

English

Host Institution Course Number

MT3508

Host Institution Course Title

APPLIED STATISTICS

Host Institution Course Details

https://www.st-andrews.ac.uk/subjects/modules/catalogue/?meta_semester_sand=2&m...

Host Institution Campus

Host Institution Faculty

Mathematics

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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