COURSE DETAIL

STOCHASTIC METHODS IN FINANCE II

Country
United Kingdom - England

Host Institution
University College London

Program(s)
University College London

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Statistics

UCEAP Course Number
115

UCEAP Course Suffix

UCEAP Official Title
STOCHASTIC METHODS IN FINANCE II

UCEAP Transcript Title
STOCHASTIC METHODS

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course aims to explore advanced topics in finance via mathematical and statistical methods in order to gain a better understanding of optimal decision making, risk management and derivative pricing techniques. It is primarily intended for third and fourth year undergraduate students and taught postgraduate students registered on the degree programs offered by the Department of Statistical Science, or jointly with other departments. The academic prerequisite for such students is STAT0013. On successful completion of the course, a student should be able to: define the concepts of risk aversion and stochastic dominance, and apply them to manage risk in, and rank capital projects; understand how dynamic programming can be used to make optimal decisions under uncertainty; understand how to apply mathematical and statistical modelling techniques to credit risk modelling, value-at-risk measurements and capital adequacy assessments; understand a range of modelling techniques used in derivative pricing, and the concepts and assumptions that underpin them; criticize and understand the limitations of these techniques as they are used in the modern finance industry.

Language(s) of Instruction
English

Host Institution Course Number
STAT0018

Host Institution Course Title
STOCHASTIC METHODS IN FINANCE II

Host Institution Course Details

Host Institution Campus
University College London

Host Institution Faculty

Host Institution Degree

Host Institution Department

Statistical Science

Course Last Reviewed

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