

MPLS Divisional Board

Approved by the MSc in Mathematical and Computational Finance supervisory committee via circulation April 2018, MPLS Division TT19

Title of Programme/ Name of Regulation

MSc in Mathematical and Computational Finance

Brief note about nature of change:

Changes in the structure of the course they are:

- (i) the addition of another take-home project.
- (ii) the removal of the oral presentation.

Location of change

In *Examination Regulations 2018* : <http://www.admin.ox.ac.uk/examregs/2018-19/mosbcimandcompfina/administratorview/>

Effective date

For students starting from: in 2019-20

Detail of change

^{1.5}(i) Two written examinations, and one take-home project, which will cover the Michaelmas Term core courses in mathematical methods, data and numerical analysis, based on the schedule below. The written examinations will be organised within the department.

^{1.6}(ii) ~~Candidates will be assessed on either the 'Modelling' Stream (covering Hilary Term modelling courses) or the 'Data Driven' Stream (covering Hilary Term data driven courses). The 'Modelling' Stream will be assessed by a written examination. The 'Data Driven' Stream will be assessed by a written examination and a computer based practical examination. Further details will be specified in the Course Handbook on the Course Website.~~ Two written examinations, and one take-home project, which will cover the Hilary Term core and optional courses in mathematical methods, data and numerical analysis, based on the schedule below. The written examinations will be organised within the department.

~~1.7 (iii) Candidates will be assessed on a 'Tools' Stream (covering Hilary Term courses on tools). The 'Tools' Stream will be assessed by a written examination. Further details will be specified in the Course Handbook on the Course Website. The examination will be organised within the Department.~~

~~1.8 (iv) One course in Quantitative Risk Management which will be assessed by a take-home project.~~

~~1.9 (v) (iii) Two courses in Financial Computing with C++ which will be assessed by two practical assessments within the Department. The details will be specified in the Course Handbook on the Course Website.~~

~~1.10 (vi) (iv) A dissertation of between twenty-five and forty pages on a topic approved by the examiners.~~

~~1.13 6. Three copies of the dissertation must be delivered not later than noon on a date to be specified by the examiners which will normally be in late June, to the Examiners, M.Sc. in Mathematical and Computational Finance, c/o Examination Schools, High Street, Oxford OX1 4BG. A copy of the dissertation in pdf or other machine-readable format shall also be made available, in accordance with instructions which the examiners shall determine and notify candidates of. Candidates will also be required to give an oral presentation based on their dissertation.~~

~~1.15 8. A candidate who fails the examination will be permitted to retake it on one further occasion only, not later than one year after the initial attempt. In such a case the examiners will specify at the time of failure which components of the examination may or must be redone. A candidate who has failed to satisfy the examiners in the examination may enter again for the examination on one, but not more than one, subsequent occasion.~~

SCHEDULE

1.16 Mathematical methods including stochastic analysis, partial differential equations, probability and statistics.

1.17 Mathematical models of financial markets; associated topics in financial economics.

1.18 The numerical solution of ordinary, partial and stochastic differential equations.

1.19 Monte Carlo methods.

1.20 Numerical methods for optimisation.

1.21 Statistical analysis of financial data and machine learning.

Programming in appropriate languages, and use of relevant packages.

Explanatory Notes

The department has changed the structure of the course. The main changes are the addition of another take-home project and the removal of the oral presentation.