FACULTY OF SCIENCE

DEPARTMENT OF MATHEMATICS AND STATISTICS

MATHEMATICS AND STATISTICS

Master of Science in Applied Mathematical Sciences
Postgraduate Diploma in Applied Mathematical Sciences
Postgraduate Certificate in Applied Mathematical Sciences

For regulations relating to admissions, duration of study, examinations, progress, final assessment, award and research elements of this degree, please refer to the General Academic Regulations - Postgraduate Research Degree Regulations.

For regulations relating to taught (compulsory/optional) modules, please refer to the General Academic Regulations - Postgraduate Taught Degree Programme Level.

Admission
1. The General Academic Regulations - Postgraduate Research Degree Regulations shall apply, subject to the following requirements. Applicants shall possess:

    i.   a degree (or in the case of direct entry to the degree of MSc, a first or second class Honours degree) from a United Kingdom university (in Mathematics or a closely related subject); or
    ii. a qualification deemed by the Programme Director acting on behalf of Senate to be equivalent to (i) above.

2. In all cases, applicants whose first language is not English, shall be required to demonstrate an appropriate level of English.

Mode of Study
3. The programmes are available by full-time and part-time study.

Curriculum
4. All students shall undertake an approved curriculum as follows:

    i.   for the degree of MSc no fewer than 180 credits
    ii. for the Postgraduate Diploma no fewer than 120 credits
    iii. for the Postgraduate Certificate no fewer than 60 credits

Module Code	Module Title	Level	Credits
MM502	Modelling and Simulation with Applications to Financial Derivatives	5	20
MM503	Applicable Analysis 3	5	20
MM504	Statistical Modelling and Analysis	5	20
MM505	Fluids and Waves	5	20
MM506	Finite Element Methods for Boundary Value Problems and Approximation	5	20

MM552	Applied Analysis and PDEs 1	5	20
MM554	Applied Mathematics Methods 1	5	20
MM560	Statistics 1	5	20
MM562	Probability 1	5	20
MM507	Applied Statistics in Society	5	20
MM508	Mathematical Biology and Marine Population Modelling	5	20
MM509	Mathematical Introduction to Networks	5	20
MM553	Applied Analysis and PDEs 2	5	20
MM561	Statistics 2	5	20
MM563	Probability 2	5	20
MM518	Topics in Numerical Analysis	5	20
MM916	Data Analytics in R	5	20
MM512	Optimisation: Theory and Practice	5	20
MM909	Medical Statistics	5	20
MM911	Effective Statistical Consultancy	5	10
MM915	Bayesian Spatial Statistics	5	10
MM550	Project*	5	60

*For the degree of MSc only

Or such other Level 4 and 5 modules as may be approved by the Programme Director.

Curriculum (Part-time Study)
5.   Students studying on a part-time basis will normally take modules amounting to at least 60 credits in each year.

Examination, Progress and Final Assessment
6.   See General Academic Regulations - Postgraduate Research Degree Regulations.

7.   The final award will be based on performance in the examinations, coursework and the Project where undertaken.

Award
8.   **Degree of MSc**: In order to qualify for the award of the degree of MSc in Mathematical Sciences, a candidate must have accumulated no fewer than 180 credits from the programme curriculum, of which 60 must have been awarded in respect of the Project MM550, including at least 150 credits at Level 5.

9. **Postgraduate Diploma**: In order to qualify for the award of the Postgraduate   Diploma in Mathematical Sciences, a candidate must have accumulated no fewer than 120 credits from the taught modules of the programme, including at least 100 credits at Level 5.

10. **Postgraduate Certificate**: In order to qualify for the award of the Postgraduate Certificate in Mathematical Sciences, a candidate must have accumulated no fewer than 60 credits from the taught modules of the programme, including at least 50 credits at Level 5.