FACULTY OF SCIENCE

DEPARTMENT OF MATHEMATICS AND STATISTICS

ADVANCED DATA SCIENCE

Master of Science in Advanced Data Science
Postgraduate Diploma in Advanced Data Science
Postgraduate Certificate in Advanced Data Science

These regulations are to be read in conjunction with General Academic Regulations – Postgraduate Taught Degree Programme Level.

Admission

1. Notwithstanding the General Academic Regulations – Postgraduate Taught Degree Programme Level applicants shall possess:

    i. a first or second class Honours degree with mathematical and/or statistical content from a United Kingdom university; 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.

Duration of study

3. Notwithstanding the General Academic Regulations – Postgraduate Taught Degree Programme Level the maximum period of study shall be as follows:

    i. Masters by full-time study 36 months
    ii. PG Diploma by full-time study 24 months
    iii. PG Certificate by full-time study 12 months

Mode of study

4. The programme is available by full-time study.

Place of study

5. On-campus or “face to face learning in an approved physical location” is the default Mode of Delivery.

Curriculum

6. All students shall undertake an approved curriculum as follows:

    i. for the degree of MSc no fewer than 180 credits including a 60 credit research project,
    ii. for the Postgraduate Diploma no fewer than 120 credits,
    iii. for the Postgraduate Certificate no fewer than 60 credits.

Compulsory Modules

Module Code	Module Title	Level	Credits
MM916	Data Analytics in R	5	20
CS989	Big Data Fundamentals	5	10

CS988	Big Data Tools and Techniques	5	10
MM954	Multivariate Analysis	5	10
MM521	Mathematics of Machine Learning	5	20
MM962	Data dashboards with RShiny	5	10
MM960	Statistical Machine Learning	5	10
MM9XX	Deep Learning	5	10

Optional Modules

Students should select 20 credits chosen from:

Module Code	Module Title	Level	Credits
MM509	Mathematical Introduction to Networks	5	20
MM909	Medical Statistics	5	20
MM911	Effective Statistical Consultancy	5	10
MM912	Survey Design and Analysis	5	10
MM915	Spatial Statistics	5	10
MM913	Quantitative Risk Analysis	5	10
CS825	Game Theory and Multiagent Systems	5	10
CS815	AI for Finance	5	20
CS990	Database Fundamentals	5	10

Or other modules approved by the Programme Director. Not all optional modules on this list will be available in each academic year.

Students for the degree of MSc only:

Module Code	Module Title	Level	Credits
MM550	Research Project	5	60

Progress

7. The General Academic Regulations – Postgraduate Taught Degree Programme Level shall apply.

8. The final award will be based on the student's performance in their assessments.

Award

9. **Degree of MSc**: In order to qualify for the degree of MSc in Advanced Data Science, a candidate must haveperformed to the satisfaction of the Board of Examiners and must have

accumulated no fewer than 180 credits, of which 60 credits must have been awarded in respect of the research project MM550.

10. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Advanced Data Science, a candidate must have accumulated no fewer than 120 credits from the modules of the programme.

11. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Advanced Data Science, a candidate must have accumulated no fewer than 60 credits from the modules of the programme.