

# FACULTY OF SCIENCE

## DEPARTMENT OF MATHEMATICS AND STATISTICS

### QUANTITATIVE FINANCE

Master of Science in Quantitative Finance  
Postgraduate Diploma in Quantitative Finance  
Postgraduate Certificate in Quantitative Finance

*These regulations are to be read in conjunction with the [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).*

#### Admission

1. See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).

#### Duration of Study

2. See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).

#### Mode of Study

3. The programme is available by full-time study only.

#### Curriculum

4. All students shall undertake an approved curriculum as follows:
  - i. for the Postgraduate Certificate no fewer than 60 credits
  - ii. for the Postgraduate Diploma no fewer than 120 credits
  - iii. for the degree of MSc no fewer than 180 credits including MM908 Research Project.

#### Compulsory Modules

Module Code	Module Title	Level	Credits
AG910	Principles of Finance	5	20
AG912	International Financial Markets and Banking	5	20
MM914	Foundations of Probability and Statistics	5	20
CS982	Big Data Technologies	5	20
MM904	Financial Stochastic Processes	5	10
MM908	Research Project*	5	40

\*For the degree of MSc only

#### Optional Modules

50 credits with students choosing 20 credits of modules from each of Lists A and C and 10 credits from List B.

#### List A

Module Code	Module Title	Level	Credits
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AG916	Behavioural Finance	5	10
AG924	Portfolio Theory and Management	5	10
AG925	Derivatives and Treasury Management	5	20
AG937	Fixed Income Analysis	5	20

### **List B**

Module Code	Module Title	Level	Credits
MM917	Networks in Finance	5	10
MM905	Financial Econometrics	5	10
MM960	Statistical Machine Learning	5	10

### **List C**

Module Code	Module Title	Level	Credits
CS971	Evolutionary Computation for Finance	5	20
CS952	Database and Web Systems Development	5	20
CS985	Machine Learning for Data Analytics	5	20

Not all optional modules on these lists will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

With the approval of the Programme Director, students may substitute other Level 5 modules offered by the University for one or more of the optional modules listed above.

### **Examination, Progress and Final Assessment**

- See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).
- The final award will be based on performance in the examinations, coursework and the research project MM908 where undertaken.

### **Award**

- Degree of MSc:** In order to qualify for the award of the degree of the MSc in Quantitative Finance, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits, of which 40 must have been awarded in respect of the research project MM908.
- Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Quantitative Finance, a candidate must have accumulated no fewer than 120 credits from the modules of the programme.
- Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Quantitative Finance, a candidate must have accumulated no fewer than 60 credits from the modules of the programme.