

MASTER OF SCIENCE IN COMPUTATIONAL FINANCE (3093)

B.364 ADMISSION

Unless Senate decides otherwise and subject to Rule A.2.4, candidates will be required to meet the following criteria to be enrolled for the degree: **Master of Science - MSc (Computational Finance)**

B.364.1 Participants admitted into the programme should be in possession of an Honours degree with an average of 60% in the relevant subject/field.

B.364.2 Departmental approval is subject to the availability of a suitable supervisor.

B.365 SELECTION

As only a limited number of students can be admitted to the programme, applicants will be subject to a selection procedure.

B.366 DURATION

Unless Senate decides otherwise, the minimum duration of the curriculum for full-time students shall be one year and two years for part-time students.

B.367 CURRICULUM

The programme is offered in three different modes. Student must select only one mode of study.

B.367.1 Mode 1 – Mini–thesis & Coursework

| Module Name | Alpha Code | Cred |
|------------------------------------------|-------------------|-------------|
| Compulsory | | |
| 1st Enrolment Code | | |
| Mathematics | MAM803 | |
| Statistics Mini - thesis 803 | STA803 | |
| 2nd Enrolment Code | | 120 |
| Mathematics | MAM804 | |
| Statistics Mini - thesis 804 | STA804 | |
| | Sub-total | 120 |
| Electives (select 4 modules) | | |
| Simulation 817 | COF817 | 15 |
| International Finance 818 | COF818 | 15 |
| Financial Computing 821 | COF821 | 15 |
| Theoretical Statistics 826 | COF826 | 15 |
| Financial Risk Management 827 | COF827 | 15 |
| Probability and Stochastic Processes 828 | COF828 | 15 |
| Time Series Analysis 829 | COF829 | 15 |
| Statistical Arbitrage 832 | COF832 | 15 |
| Credit Derivatives 835 | COF835 | 15 |
| Linear Financial Models 836 | COF836 | 15 |
| Advanced Financial Management 704 | MAN704 | 15 |
| Investment Management 705 | MAN705 | 15 |
| Profit Deter & Financial Analysis 706 | MAN706 | 15 |
| Small Business Dev & Entrepreneur 711 | MAN711 | 15 |
| Finance Seminar 742 | MAN742 | 15 |
| Advanced Management Accounting 745 | MAN745 | 15 |
| Principles of Management Accounting 753 | MAN753 | 15 |

| | | |
|--------------------------------|------------------|------------|
| Investment Analysis 780 | MAN780 | 15 |
| Statistics for Investments 787 | MAN787 | 15 |
| | Sub-total | 60 |
| | TOTAL | 180 |

B.367.2 Mode 2 – Research Project & Coursework

| Module Name | Alpha Code | Cred |
|------------------------------------------|-------------------|-------------|
| Compulsory | | |
| Research Project | STA839 | 90 |
| | Sub-total | 90 |
| Electives (select 6 modules) | | |
| Simulation 817 | COF817 | 15 |
| International Finance 818 | COF818 | 15 |
| Financial Computing 821 | COF821 | 15 |
| Theoretical Statistics 826 | COF826 | 15 |
| Financial Risk Management 827 | COF827 | 15 |
| Probability and Stochastic Processes 828 | COF828 | 15 |
| Time Series Analysis 829 | COF829 | 15 |
| Statistical Arbitrage 832 | COF832 | 15 |
| Credit Derivatives 835 | COF835 | 15 |
| Linear Financial Models 836 | COF836 | 15 |
| Advanced Financial Management 704 | MAN704 | 15 |
| Investment Management 705 | MAN705 | 15 |
| Profit Deter & Financial Analysis 706 | MAN706 | 15 |
| Small Business Dev & Entrepreneur 711 | MAN711 | 15 |
| Finance Seminar 742 | MAN742 | 15 |
| Advanced Management Accounting 745 | MAN745 | 15 |
| Principles of Management Accounting 753 | MAN753 | 15 |
| Investment Analysis 780 | MAN780 | 15 |
| Statistics for Investments 787 | MAN787 | 15 |
| | Sub-total | 90 |
| | TOTAL | 180 |

B.367.3 Mode 3 – Full Thesis

| Module Name | Alpha Code | Cred |
|------------------------------|-------------------|-------------|
| Compulsory | | |
| 1st Enrolment Code | | |
| Mathematics 801 | MAM801 | |
| Statistics MastersThesis 801 | STA801 | |
| 2nd Enrolment Code | | |
| Mathematics 802 | MAM802 | 180 |
| Statistics MastersThesis 802 | STA802 | |
| | TOTAL | 180 |

B.368 ASSESSMENT

Assessment is governed by Rule A.5 as stipulated in the University Calendar: General Information Part 1.

B.369 PROGRESS RULES

Registration for the following year of study will be recommended by the supervisor if in his/her opinion adequate progress has been made during the current year.

B.370 RENEWAL OF REGISTRATION

The renewal of registration will be governed by the Rule A.4, as stipulated in the University Calendar: General Information Part 1.

B.371 SPECIAL REQUIREMENTS FOR THE PROGRAMME

- B.371.1** A thesis dealing with an original research topic must be presented.
- B.371.2** Coursework may be included, as recommended by the Post-graduate Committee of the department, as a component of the programme when deemed necessary.
- B.371.3** Electives will be taught depending on availability of staff.
- B.371.4** Modules completed at Honours level may not be repeated at Masters Level.