MASTER OF FINANCIAL MATHEMATICS
PROGRAM CODE: 8161

The program is intended for students who have completed a Mathematics or Statistics degree in a Science and/or Mathematics program, or a degree in a related area, and who wish to further their knowledge of mathematical finance and statistics. The program offers intensive, high-level training in principles of financial modelling and its mathematical foundations, statistical techniques, risk assessment, and computational techniques of financial mathematics. The program was introduced in 2007 in order to provide students with a route to high quality careers in the financial industry and to provide the financial sector with a stream of highly trained specialists in Quantitative Finance.

Program Objectives and Graduate Attributes

Graduates will have acquired advanced disciplinary knowledge and skills, and an ability to apply these in a range of contexts;

Graduates will have developed an understanding of enquiry-based learning and demonstrate analytical skills;

Graduates will have developed advanced critical thinking and problem solving skills;

Graduates will be able to communicate effectively to a range of audiences, and be capable of independent and collaborative enquiry and working effectively with others.

Program Structure

Each candidate’s proposed program of study requires the approval of the Postgraduate Coordinator.

The total number of units of credit (UoC) required for the program is 72 (UoC) and is comprised of 6 compulsory core courses 36 (UoC) 4 elective courses 24 (UoC), and a supervised research project worth 12 (UoC).

Core Courses 36 (UoC)

The core set of compulsory courses, listed below, is designed to give a deep knowledge of the fundamentals of financial mathematics with the special emphasis on financial modelling and pricing of financial derivatives

MATH5335 Computation Methods for Finance 6 (UoC)
MATH5816 Continuous Time Financial Modelling 6 (UoC)
MATH5835 Stochastic Processes 6 (UoC)
MATH5965 Discrete Financial Modelling 6 (UoC)
MATH5975 Intro to Stochastic Analysis 6 (UoC)
MATH5885 Term Structure Modelling 6 (UoC)
The 12 (UoC) research project is compulsory for all students. Students typically enrol into the project in their third semester of study, and enrolment is subject to academic performance.

MATH5925 Project -12 (UoC)
Students seeking to enrol into a project are required to have the approval of the PG Coordinator and normally will be required to have attained a WAM of 70 or higher in the first eight (8) courses of the program.

Admission into a particular project is subject to appropriate research and supervision resources being available. The project will be supervised by an academic staff member of the School in an area agreed to by the student and supervisor. The project could include a literature survey and a critical analysis of the topic area; or could be a small research project.

Students should also seek the guidance from the School at an early stage of study to ensure that the study plan being followed is best suited to lead to the project.

Elective Courses 24 (UoC)
Students may choose the remaining courses from a list of elective graduate level courses from the School of Mathematics and Statistics. The courses to be offered in each year are described on the School’s web site.

Students are allowed to take up to 3 courses 18 (UoC) outside the School of Mathematics and Statistics provided that the courses are at a postgraduate level and approved by the PG Coordinator. Students are excluded from enrolling into MATH5846 and MATH5856 in this program

Fees
For information regarding fees for UNSW programs, please refer to the following website:

https://my.unsw.edu/student/fees/FeesMainPage.html

Admission Requirements
To gain entry to this program, students must:

• Have completed a Bachelor of Mathematics or a Bachelor of Science degree with a major in Mathematics or Statistics or a degree in a related area; and
• Have sufficient mathematical/statistical background, as indicated by an average above 65 in the relevant level III mathematics and/or statistics university courses.

Honours graduates in mathematics or statistics may receive advanced standing of up to a maximum of 24 (UoC) and may complete the degree with 48 (UoC), or within one year of full time study. In addition, students must have permission of the PG Coordinator.

Prospective international students should note they will need to meet the university English language requirements. Information regarding these requirements can be found www.unsw.edu.au/english-requirements-policy

Program Exit Provisions
Students enrolled in this program will be permitted to exit with a Graduate Diploma in Mathematics and Statistics (program 5659) or Graduate Certificate in Mathematics and Statistics (program 7659) subject to completing program requirements. Students who do not have the required WAM of 70 or higher to progress to the project will be permitted to transfer to the Graduate Diploma.

For further information please contact:
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