

## REPORT ON EXAMINATIONS 2014-15

### M.Sc. in Mathematical and Computational Finance

#### Part I

#### A. STATISTICS

##### (1) Numbers and percentages in each class/category

##### (a) Classified examinations

Class	Number			Percentage (%)		
	2014/15	2013/14	2012/13	2014/15	2013/14	2012/13
Distinction	8	7	7	26	23	25
Pass	22	22	20	74	73	71
Fail	0	1	1	0	3	4

##### (2) If vivas are used:

No candidates were examined viva voce.

##### (3) Marking of scripts

The four written examinations were set and marked by lecturers on examined courses, and checked by a D.Phil. student.

Mini projects were double marked by two Assessors independently and discrepancies were reconciled by Assessors/Examiners.

The two C++ practical exams were marked by a lecturer and checked by a D.Phil student.

All dissertations were read and marked independently by one Examiner and one Assessor with discrepancies resolved by the Examiners. Each presentation of a dissertation was assessed by the Examiner who marked the dissertation and an assessor.

#### B. NEW EXAMINING METHODS AND PROCEDURES

This was the first year of the revised course and there were some changes to the examination structure from that used for the previous year. In particular more options were offered to the students.

The examination consisted of three components

1. Four written examination papers worth 50%

2. Two c++ examinations and an essay on Quantitative Risk Management worth 20%
3. A dissertation worth 30%

As part of the written examinations we had a take home statistics assessment to be done over 48 hours. We also had a computer based examination for the c++ courses and for half of the data driven optional stream written examination.

**C. Please list any changes in examining methods, procedures and conventions which the examiners would wish the faculty/department and the divisional board to consider.**

The new procedures worked well for this year.

**D. Please describe how candidates are made aware of the examination conventions to be followed by the examiners (Please attach a copy of the conventions and any other relevant documentation to the report.)**

Candidates were addressed by the Course Director in Michaelmas Term and details of marking conventions were posted on the web. The handbook had been updated to include more information on plagiarism and there was more focus on this during the student's induction.

## **Part II**

### **A. GENERAL COMMENTS ON THE EXAMINATION**

The examination process worked well for the revised course. Procedures will be even smoother with the experience of the first year.

At the final examiners meeting we felt that the weightings allowed the component worth 20% too much influence over the distinction pass borderline. We have proposed a change to the distinction criteria which will reward those who do well on both written examinations and in the dissertation.

### **B. EQUAL OPPORTUNITIES ISSUES AND BREAKDOWN OF THE RESULTS BY GENDER**

There were 10 female candidates and 20 males. Among the 10 females, 3 received distinctions one being top of the year, the next one ranking third in the year and the next sixth, and the weakest is in bottom 5—10.

### **C. DETAILED NUMBERS ON CANDIDATES' PERFORMANCE IN EACH PART OF THE EXAMINATION**

The written papers required some small amount of scaling from raw marks to USMs. Papers A and B were sat in January, papers C, D1 and D2 in April. The standard of papers was comparable to past years.

Paper A: 10 Distinction level performances and 3 fail

Paper B: 11 Distinction level performances and 0 fail

Paper C: 12 Distinctions and 2 fail

Paper D1: 9 Distinctions and 0 fail (14 of the 30 candidates took this paper)

Paper D2: 11 Distinctions and 0 fail (16 of the 30 candidates took this paper)

There was 1 mini project offered to the students, Quantitative Risk Management in addition to the compulsory C++ course.

16 dissertations achieved a Distinction level mark, the top mark was 80.

#### **D. COMMENTS ON PAPERS AND INDIVIDUAL QUESTIONS**

The overall standard of work this year was high. In general the written papers were well done and the quality of dissertations was very good.

#### **F. NAMES OF MEMBERS OF THE BOARD OF EXAMINERS**

Professor Ben Hambly (Chairman)  
Professor Mike Giles  
Professor Sam Howison  
Dr Mike Tehranchi (External, Cambridge)