MSc in Mathematics and Finance, 2015-2016

Department of Mathematics

Imperial College London

Monday 5 October 2015
WHO IS WHO?

- Imperial College President: Prof. Alice Gast (Chemical Engineering)
- Imperial College Provost: Prof. James Stirling (Theoretical Particle Physics)
- Dean of the Faculty of Natural Sciences: Prof. Tom Welton (Sustainable Chemistry)
- Head of Mathematics Department: Prof. Richard Craster (Applied Mathematics)
- Heads of the Mathematical Finance Section: Prof. Brigo (d.brigo@imperial.ac.uk) and Prof. Cont (r.cont@imperial.ac.uk)
- MSc Course Director: Dr Jacquier (a.jacquier@imperial.ac.uk). Office 6M12
- MSc Deputy Course Director: Prof. Brigo (d.brigo@imperial.ac.uk). Office 6M24
- MSc Administrator: Ms Louise Rowlands (l.rowlands@imperial.ac.uk). Office 652
- CFM-Imperial Institute of Quantitative Finance Administrator: Ms Marta Guzzon (m.guzzon@imperial.ac.uk).

Any queries should be addressed to director.mscmathfin@imperial.ac.uk.
COURSE STRUCTURE

To obtain the degree of MSc in Mathematics and Finance you must:

- Take examinations in at least 9 subjects, at most 10 subjects.
- Achieve an overall average of at least 50% in the course examinations
- Pass (mark of 50% or more) at least 7 courses out of 9 offered for examination
- Achieve at least 40% in each examination
- Submit and pass the Thesis

*Note: if you take 10 examinations, the above criteria apply to your best 9 results.*

MSc degree classifications: Distinction, Merit, Pass, and Fail.

For Distinction (Merit), you must pass, at the first attempt, all 9 examinations, with an overall average of at least 70% (60%), and be awarded a mark of at least 70% (or 60%) for the Thesis.

- The nine courses taken must include the seven core modules
- The remaining two modules can be selected from the available electives
- One elective, 'Structured Credit and Equity Products', is available from the Business Schools MSc programme in Risk Management and Financial Engineering

- MSc Project Thesis: May-September 2016
COURSE STRUCTURE...

Further Particulars:

- Assessed coursework must be submitted by the announced deadline
- Attendance at examinations is compulsory
- Thinking the unthinkable: Resits

Planning:

- Week 1 (this week): Two non-assessed four-hour introductory short courses: Mathematical Analysis (Dr Barnett), Statistical Methods (Prof. Bingham)
- Week 2 (October 12): Autumn Term. Timetable available here.
- Student Surveys: SOLE...
**MSC THESIS AND PROJECT**

- **Substantial component of the MSc; written in LaTeX**
- **Original and Quantitative** work undertaken by you under the direction of an external project (potentially internal) supervisor
- Most projects are carried out within a financial institution (bank, hedge fund, software provider, consultancy,...)
- In London, Paris,...
- The topic must be validated by the MSc Director!!!
- **MSc Prizes:** Natixis and Palgrave Macmillan

**Timeline**

- Project allocation starts in Spring Term
- We shall endeavour to do our best to achieve satisfactory arrangements
- Before: **Be proactive!!!** (see also [Careers in Quantitative Finance])
- Project theses must be submitted by 4pm on Friday 9 September 2016

**Note:** Only MSc students who have achieved an acceptable level of academic competence will be offered as a candidate to an external sponsor
ACADEMIC CONDUCT AND PLAGIARISM

• Exam Cheating: FORBIDDEN

• Plagiarism: *to use another person’s ideas or work and pretend that it is your own* (Cambridge Dictionary)

• MSc thesis plagiarism: FORBIDDEN

• Very good software: Turnitin

• Examples:
  • Copy/paste whole paragraphs of a book or an existing paper (even if referenced)
  • Copy/paste whole paragraphs of a book or an existing paper (not referenced)
CAREERS IN QUANTITATIVE FINANCE

COMPULSORY

• (Almost) every week, on Thursdays: presentation by banks/hedge funds...

• A unique opportunity to meet practitioners in an informal environment

• Forthcoming:
  • October 22: BNP Paribas
  • October 29: Goldman Sachs
  • November 5: British Petroleum
  • November 19: Squarepoint Capital
MATHEMATICAL FINANCE SEMINARS

- **Finance and Stochastics seminars**: every Wednesday, 5.30pm, Huxley 139

- **London Quantitative Finance seminars**: once a month, on Thursdays

**Objectives:** Familiarise yourself with up-to-date academic and practitioners’ advances in the area of mathematical finance.
WORKING ENVIRONMENT

Computing Environment:
- MSc Mathematical Finance Website
- Mathematical Finance Section Website
- LinkedIn Group for the Alumni of the MSc Mathematics and Finance
- Email address
- Huxley 215 student computer room (No misuse of computer rooms!!)
- Softwares: Microsoft Visual Studio (needed for the C/C++ modules) and Matlab

Working Environment:
- Huxley 413: MSc Maths Finance-dedicated room (code from Ms Louise Rowland)
- Lockers on Huxley Level 1
- Huxley Level 4: Mathematics Learning Centre
- Imperial College Library: books, journals.
- Imperial College Card: see Ms Louise Rowland
• Student Representative: to be elected by Monday 19 October

• Student Well-being and Student support

• Hyde Park, Ethos,…

• For full details, see the MSc Handbook.
IMPORTANT **COMPULSORY DATES**

- **Wednesday 7 October**: Personal Tutor meetings (tutors allocated today). Please contact your designated tutor. Tutors should be met at least twice per term.

- **Monday 12 October, 6pm**: MSC Mathematics and Finance Welcome Reception (Tapestry Room, The Gore Hotel (190 Queen’s Gate, SW7 5EX))

- **Wednesday 25 November, 6.30pm**: **MSc Alumni Reception**: (Holford & Orchid Suite at The Dorchester Hotel (53 Park Lane, W1K 1QA))