

Programme Information		
Programme Title	Programme Code	HECoS Code
Risk Management and Financial Engineering	N34G	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
MSc	1 calendar year (12 months)	Full Time	Annually in September	90	180

Ownership			
Awarding Institution	Imperial College London	Faculty	Imperial College Business School
Teaching Institution	Imperial College London	Department	Imperial College Business School
Associateship	N/A	Main Location(s) of Study	South Kensington Campus

External Reference	
Relevant QAA Benchmark Statement(s) and/or other external reference points	Master's Degrees in Business Management
FHEQ Level	Level 7
EHEA Level	2nd Cycle

External Accrator(s) (if applicable)			
External Accrator 1:	AMBA		
Accreditation received:	1987	Accreditation renewal:	2023
External Accrator 2:	EQUIS		
Accreditation received:	2006	Accreditation renewal:	2024
External Accrator 3:	AACSB International		
Accreditation received:	2012	Accreditation renewal:	2023
External Accrator 4:	Professional Risk Managers' International Association (PRMIA)		
Accreditation received:	2014	Accreditation renewal:	

Collaborative Provision			
Collaborative partner	Collaboration type	Agreement effective date	Agreement expiry date

N/A	N/A	N/A	N/A
Specification Details			
Programme Lead	Dr Lara Cathcart		
Student cohorts covered by specification	2021-22 entry		
Date of introduction of programme	October 06		
Date of programme specification/revision	October 21		

Programme Overview

The programme is run by Imperial College Business School and commences in September with examinations taking place at the end of each term.

In summary, the Programme comprises 10 taught units (6 compulsory* modules and 4 electives**) and the Applied Project or 9 taught units (6 compulsory modules and 3 electives) and an Individual Research Project.

You will also undertake a compulsory module in Foundations in Risk Management & Financial Engineering in September which you must pass successfully.

In addition, there is an on-line Accounting Primer, an online Ethics & Professional Standards in Finance module, an online Finance Careers Primer and a Career & Professional Development module. These modules do not, however, contribute to the calculation of the final award.

You will devote the summer term and the normal summer vacation period to working on your Project. You will be assessed by an individual Applied Project of 3,000 words and a short presentation. Students on approved work placements may, with the Programme Academic Director's approval, write a report which incorporates their learning from their placement. As an alternative to the Applied Project, you can, with permission from the Academic Director, write an individual Research Project which is an original piece of work not exceeding 10,000 words. Students who complete a Research Project will be required to take one less elective. The Research Project is particularly suited to those students wanting to do a PhD after their MSc programme.

You may also take the optional online modules Introduction to Maths, Introduction to Finance and C++.

Graduates from this programme typically progress to careers in; asset/ investment management, investment banking, consulting, risk management, sales/ trading, quant and financial engineering, general finance, fintech, banking, insurance and private equity.

*Compulsory modules are those which are designated as necessary to be taken as part of the programme syllabus. Compulsory modules can be compensated

** Elective modules are those which are in the same subject area as the field of study and are offered to students in order to offer an element of choice in the curriculum and from which students are able to select. Elective modules can be compensated.

Learning Outcomes

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes

The programme aims to provide quantitative and analytic skills that enable students to embark on a quant-oriented career in the financial services sector or to pursue further academic study (doctoral research).

Students who complete the programme successfully will be able to:

- Demonstrate a detailed knowledge of fundamental finance theories and models including their derivation and their use and context in the measurement and management of risk;
- Apply mathematical tools to complex financial problems relating to risk measurement, risk management and risk pricing;

- Use a range of programming tools to develop live implementations of financial models and use these implementations in practice;
- Analyse and evaluate investment decisions and data — students should be able to apply econometric theory and software to draw valid conclusions about data.

Entry Requirements

Academic Requirement	Normally a 2:1 UK Bachelor's Degree with Honours in a highly quantitative discipline such as Mathematics, Engineering, Science or Economics (or a comparable qualification recognised by the College). The Business School does not award credit for Prior Learning (Recognition of Prior Certified Learning (RPCL) or Recognition of Prior Experiential Learning (RPEL)).
Non-academic Requirements	When selecting candidates, the School uses a range of criteria: academic ability, future potential, and the commitment which students will bring to the programme. Candidate should have a well-researched career plan with clear short and long term goals.
English Language Requirement	<u>Higher requirement</u> IELTS score of 7.0 overall (minimum 6.5 in all elements).
Admissions Test/Interview	N/A

The programme's competency standards documents can be requested from the Business School's Education Quality Office.

Learning & Teaching Approach

Learning and Teaching Delivery Methods

- Lectures
- Practical classes
- Equipment/technique demonstrations (e.g. Bloomberg, Datastream)
- Seminars
- Workshops
- Case studies
- Group work exercises
- Formal presentations
- Pre-programme on-line modules
- On-line discussion forums
- On-line lecture materials
- Interactive content including video and module quizzes
- Work Placement Opportunity

Please refer to the Teaching Toolkit for advice on learning and teaching approaches:
www.imperial.ac.uk/staff/educational-development/teaching-toolkit

Overall Workload

Your overall workload consists of face-to-face sessions and independent learning. While your actual contact hours may vary according to the optional modules you choose to study, the following gives an indication of how much time you will need to allocate to different activities at each level of the programme. At Imperial, each [ECTS credit](#) taken equates to an expected total study time of 25 hours. Therefore, the expected total study time is 2250 hours per year.

Depending on the elective modules selected, you may spend approximately 20% of your total study hours on lectures, seminars and similar, and around 80% of your time on independent study.

Assessment Strategy

Assessment Methods

- Essays
- Continuous assessments
- Written Examinations/Tests
- Multiple Choice Tests
- Formal Presentations
- Reports
- Case Studies
- Participation

Academic Feedback Policy

The School aims to provide feedback to students on coursework within two weeks and to provide provisional examination marks six weeks from the examination date. With each returned coursework assignment, a written evaluation or assignment solutions will be provided. General feedback to the cohort is provided on examination performance. Students will be provided with a percentage mark. All percentage marks received during the year are deemed provisional until confirmed by the External Exam Board.

The College's Policy on Academic Feedback and guidance on issuing provisional marks to students is available at:

www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/

Re-sit Policy

The College's Policy on Re-sits is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

Mitigating Circumstances Policy

The College's Policy on Mitigating Circumstances is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

Additional Programme Costs

This section should outline any additional costs relevant to this programme which are not included in students' tuition fees.

Description	Mandatory/Optional	Approximate cost
Costs related to the international electives	Optional- if international elective is selected	£1000 - £1500

Programme Structure					
Year 1 – FHEQ Level 7					
Students study all compulsory modules. On the Applied Project route students select 4 electives. On the Research Report route students select 3 electives					
Code	Module Title	Compulsory/ Elective	Group*	Term	Credits
BUSI97080	Introduction to Maths	Optional		Pre- sessional	0.00
BUSI97081	Introduction to Finance	Optional		Pre- sessional	0.00
BUSI97052	C++	Optional		SP	0.00
BUSI97178	Plagiarism Awareness	Required		September	0.00
BUSI97177	Study Skills	Required		September	0.00
BUSI97155	Career & Professional Development	Required		September	0.00
BUSI97289	Accounting Primer	Required		Pre- sessional	0.00
BUSI97582	Finance Careers Primer	Required		Aug	0.00
BUSI97176	Ethics and Professional Standards in Finance	Required		SU	0.00
BUSI97592	Foundations in Risk Management & Financial Engineering	Compulsory		Sept	7.50
BUSI97151	Empirical Finance: Methods & Applications	Compulsory		SP	7.50
BUSI97149	Financial Engineering	Compulsory		SP	7.50
BUSI97138	Financial Statistics	Compulsory		AU	7.50
BUSI97141	Investments and Portfolio Management	Compulsory		AU	7.50
BUSI97148	Risk Management and Valuation	Compulsory		SP	7.50
BUSI97144	Stochastic Calculus for Finance	Compulsory		AU	7.50
BUSI97143	Advanced Financial Statistics	Elective	A	SU	7.50
BUSI97042	Advanced Options Theory	Key Elective	A	SU	7.50
BUSI97075	Applied Trading Strategies	Elective	A	SU	7.50

BUSI97059	Asset Allocation & Investment Strategies	Key Elective	A	SP	7.50
BUSI97069	Banks, Regulation & Monetary Policy	Elective	A	SU	7.50
BUSI97066	Big Data in Finance I	Elective	A	SP	7.50
BUSI97541	Big Data in Finance II	Elective	A	SU	7.50
BUSI97595	Blockchain and Applications	Elective	A	SP	7.50
BUSI97153	Computational Finance with C++	Key Elective	A	SU	7.50
BUSI70098	Corporate Finance for Practitioners (International Elective)	Elective	A	SU	7.50
BUSI97604	Corporate Governance and Stewardship	Elective	A	SU	7.50
BUSI97050	Credit Risk	Key Elective	A	SU	7.50
BUSI97156	Enterprise Risk Management	Elective	A	SU	7.50
BUSI97606	Entrepreneurial Finance	Elective	A	SU	7.50
BUSI97044	Fixed Income Securities	Key Elective	A	SU	7.50
BUSI97157	Insurance	Key Elective	A	SU	7.50
BUSI97045	International Finance	Elective	A	SP	7.50
BUSI97067	Introduction to Quantitative Investing (International Elective)	Elective	A	SU	7.50
BUSI97608	Machine Learning & Finance	Elective	A	SU	7.50
BUSI97139	Structured Credit and Equity Products	Elective	A	SU	7.50
BUSI97605	Text Mining for Economics and Finance	Elective	A	SP	7.50
BUSI97068	Innovation and Strategy in Fintech	Elective	A	SU	7.50
BUSI97063	Wealth Management & Alternative Investments	Elective	A	SU	7.50
BUSI97142	Applied Project	Elective	B	SU/SUP	7.50
BUSI97154	Applied Project (Work Placement)	Elective	B	SU/SUP	7.50
BUSI97137	Project	Elective	B	SU/SUP	15.00
Credit Total					90

* 'Group' refers to module grouping (e.g. a group of electives from which one/two module(s) must be chosen).

Progression and Classification

Award and Classification for Postgraduate Students

Award of a Postgraduate Degree (excluding MRes)

To qualify for the award of a postgraduate degree a student must have:

1. accumulated credit to the value of no fewer than 90 credits at level 7 or above of which no more than 15 credits may be from credit level 6;
2. and no more than 15 credits as a Compensated Fail;
3. met any specific requirements for an award as outlined in the approved programme specification for that award.

Classification of Postgraduate Taught Awards

The College sets the class of Degree that may be awarded as follows:

1. Distinction: The student has achieved an overall weighted average of 70% or above across the programme.
 2. Merit: The student has achieved an overall weighted average of above 60% but less than 70%.
 3. Pass: The student has achieved an overall weighted average of 50% but less than 60%.
- a. For a Masters, students must normally achieve a distinction (70%) mark in the dissertation or designated final major project (as designated in the programme specification) in order to be awarded a distinction.
 - b. For a Masters, students must normally achieve a minimum of a merit (60%) mark in the dissertation or designated final major project (as designated in the programme specification) in order to be awarded a merit
 - c. Modules taken at level 6 as part of the programme specification for a named postgraduate award will contribute to the determination of pass, merit or distinction for any taught postgraduate award and are included in the calculation of the overall weighted average.

Programme Specific Regulations

All modules are equally weighted except for the Research Project which carries a double weight and the Foundations in Risk Management & Finance Engineering module, which is zero weighted.

There are three module groups;

- Autumn Term Modules
- Spring Term Modules
- Summer Term Modules

Pass

- An average of 50% or above in each of the 3 module groups
- At least 70% of the largest individual component marks in each module being a minimum of 50%;
- At least 40% in each examination;
- At least 50% in coursework-only modules
- A pass mark in the Foundations in Risk Management & Financial Engineering module (an average of 50% or above across the assessments, with a minimum mark of 40% in each individual component)

Merit

- An average of 60% or above in each of the 3 module groups:
- At least 70% of the largest individual component marks in each module being a minimum of 60%
- ;
- At least 40% in each examination;
- At least 50% in coursework-only modules
- A pass mark in the Foundations in Risk Management & Financial Engineering module (an average of 50% or above across the assessments, with a minimum mark of 40% in each individual component)

Distinction

- An average of 70% or above in each of the 3 module groups:
- At least 70% of the largest individual component marks in each module being a minimum of 70%;

- At least 50% in all modules
- At least 40% in each examination
- At least 50% in coursework-only modules
- A pass mark in the Foundations in Risk Management & Financial Engineering module (an average of 50% or above across the assessments, with a minimum mark of 40% in each individual component)

Supporting Information

The Programme Handbook is available at: <https://www.imperial.ac.uk/business-school/programmes/programme-information/>

The College's entry requirements for postgraduate programmes can be found at: www.imperial.ac.uk/study/pg/apply/requirements

The College's Quality & Enhancement Framework is available at: www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance

The College's Academic and Examination Regulations can be found at: www.imperial.ac.uk/about/governance/academic-governance/regulations

Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".
www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/

Imperial College London is regulated by the Office for Students (OfS)
www.officeforstudents.org.uk/advice-and-guidance/the-register/

This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is primarily intended as a reference point for prospective and current students, academic and support staff involved in delivering the programme and enabling student development and achievement, for its assessment by internal and external examiners, and in subsequent monitoring and review.

Modifications

Description	Approved	Date	Paper Reference
N/A	N/A	N/A	N/A