MRes Doctoral Programme 2016-17
Programme handbook
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Introduction to studies at Imperial College London

Imperial College London will make the following commitments to ensuring that your programme will be a success.

Provide a world-class research programme
- focused on performing cutting-edge research that makes a significant contribution to the knowledge base in your chosen domain
- throughout which internationally-acclaimed academics support, inspire and challenge you as you develop into an independent researcher
- in a vibrant and diverse community united by the aims of advancing the frontiers of science, technology, medicine and business, and addressing key economic and societal challenges

Provide innovative and effective professional development
- equipping you with skills to increase your research and personal effectiveness
- that gives you an insight into a wide range of career opportunities
- helping to ensure that you have the necessary attributes to excel in your chosen career

Deliver outstanding networking opportunities
- providing access to the elite international research community
- that arise from our extensive engagement with industry and business
- by organising a wide range of interdisciplinary meetings and social events within the College

Offer life-long membership of the Imperial community
- supporting you as a student and afterwards as an alumna/us
- enabling you to share your professional advice and experience with future students

Our principles

The guiding principles of the Imperial community were developed by academic and support staff in partnership with undergraduate and postgraduate students. These principles are defined below.

Imperial will provide through its staff
- A world class education embedded in a research environment
- Advice, guidance and support
- The opportunity for students to contribute to the evaluation and development of programmes and services

Imperial will provide students with
- Clear programme information and assessment criteria
- Clear and fair academic regulations, policies and procedures
- Details of full course costs and financial support
- An appropriate and inclusive framework for study, learning and research
Imperial students should:
  - Take responsibility for managing their own learning
  - Engage with the College to review and enhance provision
  - Respect, and contribute to, the Imperial community

The Imperial College Students' Union will:
  - Support all students through the provision of independent academic and welfare assistance
  - Encourage student participation in all aspects of the College
  - Provide a range of clubs, societies, student-led projects and social activities throughout the year
  - Represent the interests of students at local, national and international level
Welcome from the Programme Director

Welcome to the Business School and to the 2016 cohort of research students. I hope to meet each of you over the course of your induction.

The School is proud of its large and successful doctoral programme. It plays a major role in sustaining the research culture of the School. The Business School’s mission is to be the Business School of choice for practising and aspiring leaders worldwide, sought for our cutting-edge research, innovative thinking and excellent delivery. We hope that you enjoy your time here and find it stimulating and rewarding.

You will receive and have to take in a lot of information in the next few days and weeks, but I would like to highlight the importance of this handbook both now and throughout the time of your study. An up-to-date copy is always available on your Virtual Learning Environment, the Hub. It contains essential information and useful guidance and references for you all. Please ensure that you read it carefully in the next few days and refer to it as appropriate after that. Unlike other forms of study, you have considerable responsibility for managing your affairs during a research degree.

You will need to see your Research Department Coordinator at the earliest opportunity to agree your initial programme of work and establish which modules you will attend as part of the compulsory training element of the MRes programme. In addition, please do not hesitate to ask other research students for help and advice.

Once again, I hope very much that you will enjoy your time in the Business School and good luck!

Professor Tommaso Valletti
Doctoral Programme Director
Welcome from the Chair of the Student-Staff Committee

Welcome to the doctoral programme at Imperial College Business School! My name is Mobeen Iqbal and I am the Chair of the Student-Staff Committee (SSC) for our programme. As a researcher, I am based in the finance group and study anomalies in the FX market and the interaction of such anomalies with macro-prudential regulation.

As Chair of the SSC, I am a member of the Dean’s Advisory Council and work across the Business School with the help of our SSC members to contribute towards achieving the Business School student body’s goals of community and communication. The doctoral programme SSC is also responsible for organising a range of events for doctoral students - mainly so that no one is stuck at their desk all week staring at a textbook - as well as acting as a voice for you in the programme, school, and even across the college. My role includes managing the SSC and taking issues brought to me further up the chain - so if you have any suggestions, issues, complaints about anything in the school that you would like me to take forward, please feel free to reach out to me in person, by email, or any other way you see fit!

Our SSC strives to be the best we can be and we welcome all feedback - good and bad - and, more importantly, we welcome you to contribute as much as possible! If you would like to join the SSC, please keep an eye out for announcements and come speak to me whenever you get a chance to do so.

Separately, I have been based in London for the past seven years and I am a keen foodie - if you’re new to London or if you’re interested in exploring some hidden food gems, let me know and I can get you started! I look forward to meeting all of you soon and hearing your suggestions on how to improve the Business School and the doctoral student experience.

Kind regards,

Mobeen Iqbal

Chair of the Student-Staff Committee 2016-2017
Important things to do at the beginning of the MRes

- **Read this Programme Handbook**, note essential deadlines and action points. This handbook should be read in conjunction with the Business School Student Information Guide and the Guide to Regulations. There may be revisions to this handbook and you will always find the most up to date copy on The Hub.

- Register, if you haven't already, via the Student e-service. If you don't register, your bursary won't be paid!

- Log in to [The Hub](#). This is your online area and where you can access the current handbooks (including this one), view module information, key deadlines and assessment details.

- Get in touch with your [Research Department Coordinator](#) to agree which course modules to attend this year and confirm these to the Programme Team via the form on The Hub.

- Make friends with your fellow MRes and PhD students. During your first year, you will be taking classes with each other, but it is also important to get to know PhD students from previous intakes – they can provide useful tips and advice on how to manage your studies. The Student-Staff Committee organises social gatherings, but the best way to meet the other PhDs is at the department seminars.

- Get to know the administrative staff. They provide you with day-to-day support and know the right people. They work hard for you behind the scenes, so be nice to them and keep in touch!

- Orientate yourself. While the Imperial South Kensington campus isn’t huge, it is good to know where you are going and where things, like lectures, the bank, food, the pub and library, are.

- Ensure that the College, your Research Department Coordinator and Doctoral Programme Office have your up-to-date contact details. We need to be in touch with you on a regular basis.
### The Doctoral Programme Team at the Business School

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Contact Information</th>
<th>Additional Services</th>
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<tbody>
<tr>
<td><strong>Tommaso Valletti</strong>, Programme Director</td>
<td>Tanaka Building, 2nd floor, +44(0) 20 7594 9215</td>
<td>&gt;Contact Tommaso for:&lt;br&gt;  - Academic issues&lt;br&gt;  - Problems with supervision&lt;br&gt;  - Discussion of your participation in the programme (e.g., interruptions)</td>
<td></td>
</tr>
<tr>
<td><strong>Katherine Campbell</strong>, Programme Manager</td>
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<td></td>
<td>&lt;br&gt;<strong>Katherine Campbell, Programme Manager</strong>&lt;br&gt;Tanaka Building, 2nd floor, open plan offices&lt;br&gt;+44 (0) 20 7594 9203&lt;br&gt;Email&lt;br&gt;<strong>Contact Katherine for:</strong>&lt;br&gt;- Budget queries&lt;br&gt;- Course feedback&lt;br&gt;- Student-staff committee&lt;br&gt;- Thesis submission extensions&lt;br&gt;- Bursaries&lt;br&gt;- GTA opportunities</td>
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<tr>
<td><strong>Catherine Lester</strong>, Programme Coordinator</td>
<td>Tanaka Building, 2nd floor, open plan offices, +44 (0) 20 7594 7850</td>
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<td>&lt;br&gt;<strong>Catherine Lester, Programme Coordinator</strong>&lt;br&gt;Tanaka Building, 2nd floor, open plan offices&lt;br&gt;+44 (0) 20 7594 7850&lt;br&gt;Email&lt;br&gt;<strong>Contact Catherine for:</strong>&lt;br&gt;- Conference/training funding&lt;br&gt;- Desks/facilities&lt;br&gt;- Administration for taught courses including exams and assignment submissions&lt;br&gt;- Early Stage Assessments, Late Stage Reviews, thesis submission and exam entry&lt;br&gt;- Booking travel and accommodation for conferences/training</td>
</tr>
<tr>
<td><strong>Namrata Malhotra</strong>, Senior Tutor</td>
<td>Tanaka Building, 2nd floor, Room 274, +44 (0) 20 7594 9214</td>
<td></td>
<td>&lt;br&gt;<strong>Namrata Malhotra, Senior Tutor</strong>&lt;br&gt;Tanaka Building, 2nd floor, Room 274&lt;br&gt;+44 (0) 20 7594 9214&lt;br&gt;Email&lt;br&gt;<strong>Contact Namrata for:</strong>&lt;br&gt;- General welfare issues&lt;br&gt;- Pastoral care</td>
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Research Department Coordinators

Contact your department Coordinator for:
- Research seminars
- Further academic career advice
- Department-specific taught courses/activities support
- Final MRes project choices and PhD project approval

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<thead>
<tr>
<th>Coordinator</th>
<th>Department</th>
<th>Contact Details</th>
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| Franklin Allen | Finance Research Department | 53 Princes Gate, Room 2.05D  
+44 (0) 20 7594 9195 |
| Paola Criscuolo | I&E Research Department | Tanaka Building, Room 318  
+44(0) 20 7594 1582 |
| Markus Perkmann | I&E Research Department | Tanaka Building  
+44 (0)20 7594 1955 |
| Sankalp Chaturvedi | Management Research Department | Tanaka Building, Room 287  
+44 (0) 20 7594 1232 |
| Marisa Miraldo | Management Research Department | Tanaka Building, Room 281  
+44 (0) 20 7594 9764 |
# Your Lecturers

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<tr>
<th>Name</th>
<th>Course</th>
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<tr>
<td>Franklin Allen</td>
<td>Corporate Finance</td>
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<tr>
<td>Rustam Ibragimov</td>
<td>Econometrics 1</td>
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<tr>
<td>Erkko Autio</td>
<td>Systematic Reviews</td>
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<tr>
<td>Katrin Tinn</td>
<td>Microeconomics</td>
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<td>Yuri Mishina</td>
<td>Strategic Management</td>
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<td>Jonathan Pinto</td>
<td>Organisational Behaviour &amp; HR</td>
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<td>Bruno Biais</td>
<td>Corporate Finance</td>
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<tr>
<td>Harjoat Bhamra</td>
<td>Data Analysis Tools/Asset</td>
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<tr>
<td>Mirjam Tuk</td>
<td>Research Design</td>
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<td>Paola Criscuolo</td>
<td>Research Design</td>
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<tr>
<td>Andrea Buraschi</td>
<td>Asset Pricing</td>
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<td>Markus Perkmann</td>
<td>Qualitative Research Methods</td>
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<td>Anne ter Wal</td>
<td>Innovation Management</td>
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<td>Ileana Stigliani</td>
<td>Qualitative Research Methods</td>
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<td>Walter Distaso</td>
<td>Time Series</td>
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<td>Anu Wadhwa</td>
<td>Entrepreneurship</td>
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<td>Rajesh Bhargave</td>
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<td>Olajumoke Okoya</td>
<td>Organisational Behaviour &amp; HR</td>
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*Email* links are provided for contact information.
The programme

The Doctoral programme is a full-time, five-year programme consisting of two parts: formal modules to provide you with a theoretical grounding and thorough research training for a solid foundation for your academic career (the MRes) and the PhD thesis, which, under the guidance of your supervisors, will give you the opportunity to conduct a substantial piece of original research.

Aims

The MRes and doctoral programme aims:

- To develop and broaden the student’s literacy with the received knowledge base within economics, finance and management research, and to master pertinent theories and research methods that will provide a solid foundation for students to continue onto their doctoral studies.

- To develop an ability to locate and to critically assess and summarise salient research pertaining to the research question and to the subject domain.

- To help the doctoral student to develop original and creative approaches in the research undertaken.

- To develop skills in formulating and testing hypotheses and exploring research questions, in developing new theory and in designing and conducting research to discover new facts or contribute new insights and understandings.

- To develop the ability of the doctoral student to communicate research findings, through writing, oral presentation and other means.

- To develop a set of transferable skills to enhance the employability and future career prospects of the student.

- To facilitate the integration of the doctoral student into the international research community within the subject domain.

Objectives

The five year MRes and PhD programme has been designed to equip students with knowledge and skills required to produce new scientific knowledge in their research domains. A research degree is very different from ‘taught’ degrees such as Bachelor’s and Master’s degrees (e.g., a BSc, MSc, or MBA degree). In taught degrees the student receives teaching in the chosen topic and develops skills to apply knowledge developed by others. The objective of research degrees is to equip students with skills required to produce new scientific knowledge. Thus, whereas in taught degrees the students tend to be recipients of knowledge in order to apply it, in research degrees the students will be responsible for producing new knowledge: it is them and not the teacher who will be sitting in the driver’s seat.

This difference may sound small, but it has important implications. In a taught degree it will be the teacher who decides which knowledge content is required and how this is communicated to the student. In a research degree this responsibility rests mostly with the doctoral student, and the role
of the supervisor is to support the doctoral student in his or her learning endeavour and facilitate skills development. In research degrees, the teacher-student relationship familiar from taught programmes is transformed into a mentoring relationship, where a senior colleague seeks to support and assist a junior colleague in skills and career development.

Many of the difficulties students face during their research studies can be traced back to this difference. When entering a research degree programme, most students will only have had experience from taught programmes. Being required to sit in the driver’s seat is a new experience. Some students experience difficulty in transitioning from the traditional student’s role into that of a junior colleague, particularly during the doctoral stage. Most students lack experience in managing a prolonged research project. Because of this, they often allocate their effort poorly, do not plan ahead, and sometimes make unrealistic time estimates.

While a rewarding and uplifting experience especially when looking back after completion, a doctoral programme can sometimes be quite a lonely endeavour for the student. Developing new scientific knowledge can be demanding and stressful, and many students find this task, at times, to be an uphill struggle. Leading the production of new scientific knowledge (with the responsibility of actually being the one who produces the knowledge) is very different from absorbing knowledge produced by others. Most, if not all, doctoral students experience bouts of uncertainty: Can I come up with new ideas? Are my ideas any good? Am I re-inventing the wheel here? What will others think about my ideas? Such questions are completely natural, and most academics continue to occasionally wrestle with such self-doubt throughout their careers. It is important for students to recognise this as an unavoidable aspect of new knowledge production. It is in moments of self-doubt where the guidance and insight of the supervisor is the most valuable. The supervisors are there to share their experience and guide and support the student through the inevitable difficult periods. Although demanding and stressful, such periods are an inalienable part of becoming an academic.

To help address some of the challenges students experience, Imperial College has introduced a new MRes into the doctoral programme since 2015/16.

The five year programme is designed to equip the students with transferable skills in addition to domain knowledge and method skills. Transferable skills are career skills that students will need throughout their careers. These skills include time management, project management, presentation skills, reading skills and skills in initiating and managing research projects. Transferable skills courses are taught by the Imperial College’s widely acclaimed Graduate School, and most transferable skills courses have participants from all faculties of the College.

This Student Handbook provides advice and support in managing the five-year journey towards your doctoral degree. This handbook clarifies expectations of what is involved and required. It contains some very useful information which is relevant now even though it may appear not to be that way as yet. For example, the formal requirements of a thesis should form the basis of what you plan to achieve.

**Learning outcomes**
The Programme has been developed to prepare individuals for a fruitful career in research. To achieve this the programme aims to:

- Attract motivated, high calibre students who are passionate about pursuing a career in research
Develop students’ ability to present technical work to a wide audience
Introduce students to the research techniques and tools necessary to undertake effective qualitative and quantitative research in Finance, Economics and Management.
Provide students with breadth and depth of knowledge in discipline-specific theory and literature.
Train students to identify important problems within their chosen area of research and to be able to design a research project that effectively sets out to solve these problems.
Provide an environment that is intellectually stimulating and inspiring, that fosters a student's curiosity and creative thinking in their chosen field.
Provide students with a good foundation to continue on to the PhD Programme at the Business School and undertake high quality doctoral research

Students who have successfully completed the programme will be able to:

- Demonstrate knowledge and skills in social science research methods and techniques
- Demonstrate understanding of how these research methods and techniques are applied to specific areas in Finance, Economics and Management and applying this to their own research projects, assignments and exams
- Demonstrate knowledge of theory and current work in their chosen area of research, identifying issues and new research opportunities

Skills and other Attributes

In addition, the programme will enable students to:

- Acquire a comprehensive mastery of research techniques and skills applicable to their own intended independent research
- Develop a conceptual understanding that enables them to critically evaluate current research and advanced scholarship in a research topic and to carry out original research in that topic.
- Assimilate and understand a large body of complex concepts
- Critically evaluate current research and offer new perspectives
- Recognise commonalities and patterns in data and draw logical conclusions
- Identify questions of research that would contribute to and design a research project, using appropriate tools and techniques to answer that question
- Carry out extended investigative work in Finance, Economics or Management through an extended research project
- Carry out investigative project work
- Design research projects and identify the methods, techniques and software tools necessary to carry out this research
- Carry out independent research using available literature
- Communicate effectively by listening carefully and presenting complex, technical information in a clear and concise manner orally, in writing and via presentation tools (i.e. tables, charts, graphs)
- Use analytical skills, paying attention to detail and using technical language correctly, to manipulate and precise and intricate ideas to construct logical arguments
- Use IT skills for communication and analysis
- Use own initiative to work independently in an organised way in order to meet deadlines and plan effectively for longer term projects
- Work in groups, interacting with and providing constructive feedback to others.

Students who have successfully completed the programme should have knowledge of:
• Problem solving strategies and methods
• Effective development of research ideas and design
• A wide range of social science research techniques utilised in the fields of Finance, Economics and Management, including quantitative and qualitative research methods and research design
• Programming software packages commonly utilised in Finance, Economics and Management research.
The programme structure and milestones

The programme consists of taught elements and research elements. In the beginning, taught elements tend to dominate. This is the case during the first two years and particularly throughout the MRes. Below we outline the main content of the MRes and doctoral programme.

Year 1: Masters of Research (MRes)

Details of what will be studied and assessment for each MRes module can be accessed in the MRes and Doctoral Programme section of The Hub, your virtual learning environment.

Introductory modules

Completion of two introductory modules is compulsory for all students, however only one of these (Data Analysis Tools) is formally assessed, with either a pass or fail mark. The Introductory modules must be completed to progress to the PhD but do not count towards the overall MRes mark.

- Data Analysis Tools (BS1230)
- Systematic Literature Reviews (BS1217)

During September, students are also able to attend Analytics for Applied Economics and Business (BS1721) which is part of the MSc Economics and Strategy for Business programme, in preparation for the Econometrics module in the MRes. This module is available subject to capacity and provides an overview of basic data analysis tools used in economics.

Elective modules

Students must choose elective modules that will be taken over the Autumn and Spring Terms; three Research Methods modules and three Specialist Modules from the modules listed below. Depending on whether you are within the Finance, Management or Innovation and Entrepreneurship streams, there will be a suggested module pathway. All of these elective modules will be assessed as part of the overall MRes award. Module outlines are available within your Programme Area on the Hub (under the Documents section).

You must confirm your module selections to the Programme Team by 25th September to ensure you have access to the correct modules.

Research Methodology modules available in 2016/17
- Research Design
- Econometrics
- Qualitative Research Methods
- Empirical Corporate Finance
- Empirical Asset Pricing

Specialist modules available in 2016/17
- Microeconomics
- Consumer Behaviour
- Corporate Finance
- Organisational Behaviour and Human Resource Management
- Strategic Management
Subject to demand, we also offer additional training in Time Series.

**MRes elective module pathways**

During your studies you will be aligned with one of the following Business School Departments:

- Finance
- Innovation and Entrepreneurship
- Management

Depending on your department and your chosen field, there are module pathways for the MRes, below. Pathways can be altered/amended subject to approval from the Research Department Coordinators. During your first week of induction, you can discuss any queries about these modules with the Research Department Coordinators and then must confirm your selection to the Doctoral Programme Team by the end of your first week.

<table>
<thead>
<tr>
<th>Department</th>
<th>Pathway</th>
<th>Research Methods elective (3)</th>
<th>Specialist elective (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>Finance</td>
<td>Econometrics  (Au)</td>
<td>Asset Pricing (Sp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empirical Asset Pricing (Sp)</td>
<td>Corporate Finance (Au)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empirical Corporate Finance (Sp)</td>
<td>Microeconomics (Au)</td>
</tr>
<tr>
<td></td>
<td>Entrepreneurship</td>
<td>Econometrics  (Au)</td>
<td>Entrepreneurship (Sp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualitative Research Methods (Sp)</td>
<td>Any 2 specialist electives</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td>Econometrics  (Au)</td>
<td>Innovation Management (Sp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualitative Research Methods (Sp)</td>
<td>Any 2 specialist electives</td>
</tr>
<tr>
<td></td>
<td>Economics</td>
<td>Econometrics  (Au)</td>
<td>Microeconomics (Au)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empirical Corporate Finance (Sp)</td>
<td>Any 2 specialist electives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Design (Au)</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>Marketing</td>
<td>Econometrics  (Au)</td>
<td>Consumer Behaviour (Au)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empirical Corporate Finance (Sp)</td>
<td>Any 2 specialist electives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Design (Au)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organisational</td>
<td>Econometrics  (Au)</td>
<td>OB &amp; HR Management (Au)</td>
</tr>
<tr>
<td></td>
<td>Behaviour</td>
<td>Qualitative Research Methods (Sp)</td>
<td>Any 2 specialist electives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Design (Au)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strategy</td>
<td>Econometrics  (Au)</td>
<td>Strategic Management (Sp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qualitative Research Methods (Sp)</td>
<td>Any 2 specialist electives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Design (Au)</td>
<td></td>
</tr>
</tbody>
</table>
MRes research project

During the year you will work on your MRes project. This will be the work that you submit for your MRes dissertation, which will be formally assessed and count towards your overall MRes mark.

For more in-depth guidance, you should read the MRes Research Project Guidance available on the Hub within the Research Project module area. The below provides an overview of the process.

You should submit your proposed research project title and a brief outline (using the form available on The Hub, under Documents) to the Research Department Coordinators for approval by the end of January.

Research Department Coordinators are there to provide guidance and support, but it is expected that you will find other supervisors from within the department’s academic staff. It is a students’ responsibility to approach academic staff to discuss the proposed project. Subject to successful progression into the PhD, it is likely that in many cases this supervisor will then support students throughout the PhD.

In May you should submit a Progress Report to the Programme Team, outlining your progress to date with the thesis, which should be copied to your supervisor. The form is available on the Hub, under Documents.

During the Summer Term you will submit your MRes dissertation. This will be followed by an oral exam. There is no requirement to submit a bound copy of your MRes dissertation, and the formal submission of your project will be electronically.

The submission deadline for your MRes dissertation is early July 2017, with an oral examination in late July 2017. Exact dates are subject to confirmation and will be posted on The Hub.

Once your dissertation has been submitted and you have completed the oral examination, all of the MRes components and assessment marks will be ratified by a Board of Examiners before your project and overall MRes marks can be confirmed. It is expected that the examiners will ratify the MRes marks during September.

Once you have completed your MRes dissertation, you should be focusing on refining your PhD project with your supervisor.

Before the start of your second year, you must submit your project title, your proposed PhD supervisors, and provide an abstract of your PhD project to the Research Department Coordinators and the Doctoral Programme Team by 15th September. Any feedback you receive on your project choice must be addressed when you commence the PhD in October of Year 2 and inform your research and training plan.
## Module List

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Title</th>
<th>Core/Elective</th>
<th>Total Hours</th>
<th>% Written Exam</th>
<th>% Course-work</th>
<th>% Practical</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS1230</td>
<td>Data Analysis Tools</td>
<td>Core</td>
<td>75</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>3</td>
</tr>
<tr>
<td>BS1231</td>
<td>Research Design</td>
<td>Elective – Research Methods</td>
<td>200</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
<td>8</td>
</tr>
<tr>
<td>BS1221</td>
<td>Econometrics 1</td>
<td>Elective - Research</td>
<td>200</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
<td>8</td>
</tr>
<tr>
<td>BS1241</td>
<td>Empirical Asset Pricing</td>
<td>Elective - Research</td>
<td>200</td>
<td>0%</td>
<td>70%</td>
<td>30%</td>
<td>8</td>
</tr>
<tr>
<td>BS1242</td>
<td>Empirical Corporate Finance</td>
<td>Elective - Research</td>
<td>200</td>
<td>0%</td>
<td>80%</td>
<td>20%</td>
<td>8</td>
</tr>
<tr>
<td>BS1232</td>
<td>Qualitative Research Methods</td>
<td>Elective - Research</td>
<td>200</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>8</td>
</tr>
<tr>
<td>BS1227</td>
<td>Time Series</td>
<td>Elective - Research</td>
<td>200</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
<td>8</td>
</tr>
<tr>
<td>BS1233</td>
<td>Consumer Behaviour</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>0%</td>
<td>70%</td>
<td>30%</td>
<td>6</td>
</tr>
<tr>
<td>BS1204</td>
<td>Corporate Finance</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>75%</td>
<td>25%</td>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>BS1202</td>
<td>Microeconomics</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>BS1234</td>
<td>Organisational Behaviour &amp; Human Resource Management</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>0%</td>
<td>70%</td>
<td>30%</td>
<td>6</td>
</tr>
<tr>
<td>BS1201</td>
<td>Asset Pricing</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>BS1235</td>
<td>Entrepreneurship</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>BS1236</td>
<td>Innovation Management</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>BS1237</td>
<td>Optimisation and Decision Models</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>75%</td>
<td>25%</td>
<td>0%</td>
<td>6</td>
</tr>
<tr>
<td>BS1238</td>
<td>Strategic Management</td>
<td>Elective - Specialist</td>
<td>150</td>
<td>0%</td>
<td>90%</td>
<td>10%</td>
<td>6</td>
</tr>
<tr>
<td>BS1239</td>
<td>Research Project</td>
<td>Core</td>
<td>1125</td>
<td>0%</td>
<td>80%</td>
<td>20%</td>
<td>45</td>
</tr>
</tbody>
</table>
MRes module weighting
The components of the MRes will be marked and their contribution to the overall weighting of the MRes is as follows:

<table>
<thead>
<tr>
<th>Programme Component</th>
<th>ECTS</th>
<th>% Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Analysis Tools Module</td>
<td>3</td>
<td>0% (pass/fail)</td>
</tr>
<tr>
<td>3 x elective ‘research training’ modules (all equally weighted)</td>
<td>24</td>
<td>40%</td>
</tr>
<tr>
<td>3 x elective specialist ‘content’ modules (all equally weighted)</td>
<td>18</td>
<td>30%</td>
</tr>
<tr>
<td>Research Project</td>
<td>45</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>90</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Marking and Exam Papers
All examination scripts will be marked in detail by the Module Leader with a second marker undertaking sample check marking to ensure that the mark awarded by the Module Leader is appropriate. A sample of scripts is then sent to an External Examiner from another institution to ensure that the standard of marking at Imperial College Business School is commensurate with elsewhere in the UK. External Examiners also approve draft examination questions prior to the examination being set. Past examination or sample examination papers or specimen questions are provided to guide students on content only. The format is subject to change and the Module Leader will provide full information during the module.

External Examiner
Professor Alessandro Gavazza – London School of Economics

Please note: Details provided will be for information only. It is not appropriate for students to contact external examiners directly regarding their studies. Any issues that you have in relation to your assessment should be raised internally with your Programme Team in the first instance or with the College Registry, if necessary.
Marking schemes and criteria

At Imperial College Business School, all postgraduate work is marked to the following scheme:

<table>
<thead>
<tr>
<th>Marks</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>85+</td>
<td>Marks represent an exceptional distinction performance</td>
</tr>
<tr>
<td>70 – 84%</td>
<td>Marks represent a distinction performance</td>
</tr>
<tr>
<td>60 – 69%</td>
<td>Marks represent a merit performance demonstrating a clear grasp of the relevant concepts and facts</td>
</tr>
<tr>
<td>50 – 59%</td>
<td>Marks represent a pass performance demonstrating an adequate grasp of most of the relevant concepts and facts</td>
</tr>
<tr>
<td>40 – 49%</td>
<td>Marks represent a fail performance but it is considered a conditioned pass. Students who receive a mark in this boundary in any exams are not required to resit provided they achieve an average of 50% overall for their electives.</td>
</tr>
<tr>
<td>30 – 39%</td>
<td>Marks represent a fail performance (with significant shortcomings). Students are automatically required to resit any exams for which they receive a mark in this boundary regardless of the overall grade they achieve for the module.</td>
</tr>
<tr>
<td>0 – 29%</td>
<td>Marks represent a fail performance (with major shortcomings). Students are automatically required to resit any exams for which they receive a mark in this boundary regardless of the overall grade they achieve for the module.</td>
</tr>
</tbody>
</table>

At the end of each term you will receive marks based on the above scheme, which you can access under My Grades, on the Hub. These are indicative marks only and may be subject to change as they are not yet ratified.

In addition, the following guidance is provided to staff in relation to projects:

<table>
<thead>
<tr>
<th>Marks</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% +</td>
<td>A mark of this level corresponds to a distinction</td>
</tr>
<tr>
<td></td>
<td>The Report indicates exceptional success in tackling the Project. All the Project’s objectives have been met as fully as could reasonably be expected. The student has shown initiative and been rigorous in the collection and use of data. Where appropriate, relevant literature has been critically evaluated. The standard of the Report presentation is very high. A mark of this level should be reserved for Reports of exceptional merit which has something extra and which surprises. The supervisor will be required to justify why a distinction has been awarded in the section provided.</td>
</tr>
<tr>
<td>60 - 69%</td>
<td>The student has tackled the problem conscientiously and logically and has produced sound conclusions. Presentation is of good standard. A mark of this level corresponds to a merit.</td>
</tr>
<tr>
<td>50 – 59%</td>
<td>The student’s work has been no more than moderate overall or would have deserved a higher grade but for areas of significant weakness.</td>
</tr>
<tr>
<td>&lt; 50%</td>
<td>The student’s work has failed to reach a satisfactory standard. A mark below 50% should be used to indicate a “fail” in the Project.</td>
</tr>
</tbody>
</table>

The programme specific marking scheme is:

Pass
- An average of 50% or above in each of the four programme components
- At least 40% in each assignment and examination;
- At least 50% in the research project

**Merit**
- An average of 60% or above in the following programme components
  - Elective 'research training' modules
  - Elective specialist 'content' modules
- Research Project
  - An average of 50% in the 'Data Analysis Tools' module
  - At least 40% in each assignment and examination;
  - At least 60% in the research project

**Distinction**
- An average of 70% or above in the following programme components
  - Elective specialist ‘research training’ modules
  - Elective specialist ‘content’ modules
- Research Project
  - An average of 50% in the ‘Data Analysis Tools’ module
  - At least 40% in each assignment and examination;
  - At least 70% in the research project
Prizes
Prizes are awarded each year to reward excellent performance on the doctoral programme. Programme specific prizes are:

- MRes Business - Project Prize
- PhD - Outstanding Doctoral Thesis
- PhD – Teaching Assistant of the Year

There are also a number of School wide awards, details of which are announced during the year and posted on the Hub.

Plagiarism and cheating
Plagiarism is the presentation of another person’s words, ideas, judgement or data as though they were your own. For example:

- not referencing the source of your ideas or arguments when they are derived from your reading,
- taking verbatim the words of someone else’s work and putting it into your work without quotation marks and referencing,
- taking whole sections out of books, articles, lecture notes, other reports or students’ work, and including them in your report uncited.

When submitting your assessed coursework, via the Hub or in hardcopy, you will be required to confirm that you have read and understood the definition of plagiarism. Submitting the assignment will certify that the work presented is entirely your own, except where indicated. This includes your final project or essay as well as all other assessed work.

In relation to group work, you should be aware that you have a collective responsibility for the integrity of the piece of group work submitted for assessment. This means that if part of the work is plagiarised, all group members will be held accountable unless proof can be provided by each member of their contribution. You should, therefore, retain an audit trail of your contribution for this purpose.

The College has an online plagiarism module which has been designed to teach you everything you need to know about how to reference correctly and therefore avoid plagiarism. This is a compulsory module and we ask you to take this in the first term so that you reference correctly in your very first set of assignments. This online module contains such important information in helping you to avoid plagiarism that students who have not completed the module by the end of the first term will have their exam results for all modules withheld until the plagiarism module is successfully completed. There are a number of different penalties for plagiarism, dependent on the severity of the case and the weighting of the piece
of work. Full information on plagiarism and cheating can be found in the Academic Regulations and Policies document on the Hub.

We strongly advise that you attend the Library referencing sessions and read the Harvard Referencing Guide. Additional support and guidance is available from the Business Library Team (libbpd@imperial.ac.uk)

### Online plagiarism awareness course

All students must complete the online Plagiarism Awareness course during Year 1 and this should be completed by **30th October 2016**. It is important to know what plagiarism is and how to avoid it in your work. As such, plagiarism i.e., the act of presenting someone else’s work and ideas as your own original work and ideas – constitutes academic misconduct, and serious cases can result in the termination of your registration on the MRes and doctoral programme. The plagiarism awareness courses are designed to help students recognise the difference between own, original work and plagiarism, and thus help the student avoid potentially serious mistakes. All students should note that all their submitted assignments will be run through the College’s plagiarism detection software, and anyone who is found to have committed plagiarism will be subject to the College’s Cheating Offences Policy and Procedures. This course can be found in the Doctoral Programme area on The Hub.

### Module Excellence Surveys (MODES)

At the end of every module you will receive a survey (either by e-mailed link or paper hard copy), asking you to provide feedback on the content, instructor, learning environment and module overall. The School issues a survey per instructor and at the end of each term students are also asked to score and comment on the term as a whole.

The MODES feedback is taken very seriously and is used to identify examples of good practice and highlight areas that could be improved. The School really appreciates your support in completing the surveys. If only a small number of students respond, the feedback will not truly reflect the general thoughts of the cohort and therefore be less valid. MODES results are passed onto the lecturers, Programme Directors, Programme Managers, Department Heads, the Dean and the Associate Dean. Your feedback is completely anonymous and is not given to Faculty until they have completed and submitted their marking, so you can be assured that the feedback you provide will have no influence on the grades you receive. Once they have received the feedback, your Programme Director will post a response to the themes and issues raised in the MODES on the Hub.

At the end of each term the programme with the highest average response rate across the modules will be awarded a prize, details of which will be passed on by the Programme Team during the term.
# MRes Modules Skills Mapping Matrix

<table>
<thead>
<tr>
<th></th>
<th>Written</th>
<th>Presentations</th>
<th>Spreadsheets/ Numerical Software</th>
<th>Analytical &amp; Critical Reasoning</th>
<th>Verbal</th>
<th>Teamwork</th>
<th>Personal Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introductory Modules</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Analysis Tools</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Systematic Literature Reviews</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Electives – Research Methods modules</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Design</td>
<td>✓</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Econometrics 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Econometrics 2</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empirical Asset Pricing</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Empirical Corporate Finance</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualitative Research Methods</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Series</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electives – Specialist modules</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Pricing</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Finance</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Organisational Behaviour &amp; HR Management</td>
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<td>✓</td>
<td></td>
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</tr>
<tr>
<td>Consumer Behaviour</td>
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<td>✓</td>
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</tr>
<tr>
<td>Innovation Management</td>
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<tr>
<td>Microeconomics</td>
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<tr>
<td>Strategic Management</td>
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<tr>
<td>Entrepreneurship</td>
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<td></td>
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</tbody>
</table>
Here at Imperial College Business School you have the opportunity to develop a wide range of professional skills through a variety of different mediums. These skills will not only aid your personal development but also make you more competitive within the marketplace. Importantly, this involves more than just workshops. It involves a blend of learning through both curricular and non-curricular activities. In order to rationalise the approach to developing these skills we have created a matrix outlining the different categories and the methods in which you will learn them.

| **Individual Project** | ✓ | ✓ | Depends on topic | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

---

Progression from the MRes to the PhD

The MRes programme is designed to lead into the PhD in Year 2.

A PhD at Imperial College London is a demanding academic qualification. We therefore look for evidence of strong and consistent academic performance and expect students to have achieved high grades, including a strong dissertation.

This means that for transition from the MRes to PhD registration students are typically required to achieve a mark of 60% or higher in the MRes overall to meet this requirement. This must include achieving a mark of at least 60% in the dissertation module.

Students who do not achieve the overall progression requirement by one module are able to progress into Year 2 and PhD registration, but will subsequently need to re-sit and pass the assessment element that is required to the necessary standard to continue their PhD registration.

Students who do not achieve the progression requirement by more than one module are required to pass those modules to the necessary standard before PhD registration can be considered.

Students who fail the MRes dissertation will be provided with the opportunity to re-submit. The requirements to re-submit to an oral examination component will be at the discretion of the examiners. Unlike re-sit examinations, resubmissions of the thesis due to academic failure can only take place in the following academic year.

If there are mitigating circumstances that may affect assessment or progression, then please refer to the guide to the regulations within the Exams information pages on the Hub for further details.
Years 2 – 5: PhD Programme

This is the official start of the PhD. Students will begin the autumn term having already identified their supervisors and PhD research project and must have formally submitted these to the Doctoral Programme Team. During the next 4 years of the PhD, there are milestones to complete and additional training and skills development to support your research, working towards the final submission of your thesis.

Following on from successful completion of the MRes in Year 1, doctoral students should submit their thesis for examination within 4 years from the start of the PhD. In some cases it may be earlier subject to agreement with your supervisor(s).

First year of the PhD

Initial research plan

All students must complete a research and training plan, with the help of your supervisor, within the first six weeks of registration on the PhD programme. The purpose of the plan is to:

- Create an initial research proposal, including a bibliography of key texts
- Create a detailed timeline of key milestones to be reached throughout the period of study
- Identify any additional courses or training you will undertake to ensure you possess the requisite knowledge to perform effective research in your specific area. This includes the Business School Professional Skills courses as well as any external courses/workshops you and your supervisor feel would be beneficial for your training

The research and training plan is not intended to be a static document. It should be updated as circumstances change, both to record new evidence of achievement, and to identify new skill needs that emerge as the project – or your intentions and ambitions – changes. You and your supervisor(s) should therefore review the training plan regularly, and have a formal review meeting at six-month intervals. You should make notes of these meetings and share copies of your notes with the Doctoral Programme team.

It is the responsibility of the student to ensure that:

- they develop a draft training plan, to be agreed with their supervisor
- the final training plan is submitted to the Doctoral Programme office
- the training is completed in time
- new training needs are identified and resulting teaching requirements recorded
- appropriate evidence of satisfactory achievement of the teaching and research milestones is recorded and promptly share with the supervisor.

It is the responsibility of the supervisor to ensure that:

- a satisfactory research plan is developed
- prior experience of the student is taken into account when identifying training needs
- appropriate training has been completed satisfactorily.
**Early Stage Assessment**

The Early Stage Assessment (ESA) should be taken by the end of the ninth month of your registration on the Doctoral Programme in Year 2. The Early Stage Assessment normally takes place in June of the second academic year of the five year programme.

The Early Stage Assessment should include:

- An identification and critical discussion of the relevant literatures, debates and theories – preferably
- An identification of the research gap, the main idea or question proposed, or the problem to be addressed
- A consideration of the research design and methods which could be deployed to address the research question
- A detailed timetable of work-to-date and plan, with milestones, for the following years
- Details of training taken to date (including Graduate School courses) must be outlined, with plans for future training

The deadline for submitting the ESA report is the **end of May**.

**Early Stage Assessment presentation**

After submitting your ESA report to the programme office, you will give a presentation* to two independent assessors as well as the Programme Director and PhD Department Co-ordinator. These constitute the Panel who will decide whether you should continue on the PhD track, or whether you should be recommended to submit for an MPhil or to withdraw from the Programme. The presentation consists in a 15-20 minute presentation, followed by 5-10 minutes Q&A. In the case of the panel finding issues with the ESA report and presentation, a second opportunity to present a paper will be given, normally in August/September (typically 2-3 months after the first presentation). Any decision to begin to follow the College regulations to relegate the student to an MPhil track or to request the student to withdraw on the grounds of insufficient academic progress must be approved by the Director of the Doctoral Programme. For more information on the Early Stage Assessment, see the College’s guidance notes.

The ESA presentation usually takes place in **June**.

*Please note all PhD students and faculty members are invited to attend these presentations.*

**Advanced modules**

In the second year, all students are expected to attend and pass advanced modules relative to their research field.

Within the Business School we will offer some advanced courses that we expect students to take, but as you have varied research interests, it would be challenging to offer all subjects in-house. We encourage you to discuss with your supervisors what courses, within Imperial and externally, would specifically help your research. Historically we have had students undertake
modules at UCL, LSE, Cass and LBS, but this is really up to what your field is and what courses your supervisor recommends. When we receive any information on available courses that may be useful, we will circulate this.

**Additional courses**

Before the [Early Stage Assessment](#), doctoral students must have taken two courses offered by the [Graduate School Professional Skills Development programme](#) and two by the Late Stage Review in the second year of the PhD (Year 3). Typically the Graduate School courses last up to a half day. There is also a three day [residential course](#) for doctoral students wishing to focus on their professional skills development more intensively. Topics include planning, project management, creativity in research, communication skills, group dynamics, networking and developing self-awareness.

Students are free to attend courses in subsequent years of study, as agreed by their supervisor and outlined in their research and training plan. These may be courses offered by the Master’s programmes* at the Business School or at external institutions. There is a budget to support students in attending training, subject to approval. Any requests must be made to the Doctoral Programme Team, using the form available to download on The Hub.

One of the key courses will be the [Graduate Teaching Assistant training](#) offered by the Graduate School, to prepare students for any teaching responsibilities in subsequent years. This course is mandatory for those funded by a Graduate Teaching Assistant (GTA) scholarship to enable teaching in Years 3 and 4.

*Subject to capacity. In order to get approval to join a course at the Business School, you should first contact the Coordinator of that Programme. Contact details can be found here.*

**Second and Third Year of the PhD**

You will focus on your research and be looking towards completion. In the third year of the PhD, you should have one paper polished and ready for presentation at conferences. You will also hold a seminar within your research department where you present your work to fellow students and faculty. This is an excellent way to get feedback on your work and gain experience presenting and defending your thesis.

For students receiving Graduate Teaching Assistant (GTA) scholarships, there is a requirement to take on teaching responsibilities from the second year of the PhD. To undertake this teaching, students must have completed the GTA training in Year 2 as mentioned above, alongside the Business School teaching induction.

**Late Stage Review**

The Late Stage Review (LSR) milestone in the second year of the PhD is designed to ensure that students are on track to successfully completing their PhD studies. The LSR includes:

- An advanced, complete or near-complete literature review
- Final statement of the research question(s)
• The potential contribution to knowledge of the thesis outlined in detail
• A detailed schedule towards completion
• Fully developed plan for the collection and analysis of any empirical data
• (Where appropriate) a working paper version of one of the chapters of the PhD thesis

The deadline for submitting the LSR report is the **end of May**.

**Late Stage Review presentation**
After submitting your LSR report to the programme office, you will give a presentation* to two independent assessors as well as the Programme Director and the PhD Department Coordinator. These constitute the Panel who will decide whether you should continue on the PhD track, or whether you should be recommended to submit for an MPhil or to withdraw from the programme. The presentation consists in a 20 minute presentation, followed by 10 minutes Q&A. In the case of the panel finding issues with the LSR report and presentation, a second opportunity to present a paper will be given (typically 2 months after the first presentation). Any decision to begin to follow the College regulations to relegate the student to an MPhil track or to request the student to withdraw on the grounds of insufficient academic progress must be approved by the Director of the Doctoral Programme. For more information on the Late Stage Review, see the College’s guidance notes.

The LSR presentation will usually take place in **June**.

*Please note all PhD students and faculty members are invited to attend these presentations.*

**Confirmation of Continuing Research Stage**
At the end of the third year of your PhD, you must submit your Confirmation of Continuing Research Stage. This will take the form of a brief written report of work done to date as well as a timeline of work to be completed over the next year. The purpose of this Confirmation of CRS is to ensure you are on track to complete and submit your thesis by the deadline. This must be endorsed by your supervisor and submitted to the Doctoral Programme office no later than month 48 of PhD registration.

<table>
<thead>
<tr>
<th><strong>Milestone</strong></th>
<th><strong>Deadline</strong></th>
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</thead>
<tbody>
<tr>
<td>Confirmation of Continuing Research Stage</td>
<td>Month 36 of PhD registration</td>
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</tbody>
</table>

**Final Year**
Year 4 of the PhD is considered the “**Continuing Research Stage**” where you are expected to be finalising your thesis for submission. For students, this is the final push for their research and the time they are on the academic job market, so this is often a very intense period of the doctoral studies.

<table>
<thead>
<tr>
<th><strong>Milestone</strong></th>
<th><strong>Deadline</strong></th>
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</thead>
<tbody>
<tr>
<td>Examination entry form</td>
<td>Month 44 of PhD registration</td>
</tr>
<tr>
<td>Thesis submission</td>
<td>Month 48 of PhD registration</td>
</tr>
<tr>
<td>Viva</td>
<td>To be confirmed by supervisor</td>
</tr>
<tr>
<td>Final submission</td>
<td>Following outcome of viva</td>
</tr>
</tbody>
</table>
These timescales are found within the Academic Regulations for PhD and MPhil students.

In order to help prepare you for the job market, you will give a “job talk”, as part of your research department’s seminar series, where you will receive feedback on your paper.

PhD thesis submission and examination

Academic regulations
The College academic and examination regulations for the award of research degrees can be viewed here.

Regulations for Students
All registered students of the College are subject to the provisions of these Regulations for Students, the College Academic Regulations, and such other Regulations and Instructions for Students as the College may from time to time approve. The Regulations for Students can be viewed here.

Examination entry for the PhD
Before you can submit your PhD thesis or be examined on it you, your supervisor and your department will need to complete examination entry forms. You should aim to submit your examination entry forms at least four months before you submit your thesis, or four months before your final submission deadline. This means submitting your forms no later than 44 months after your start date of your PhD.

All PhD exam entry forms should be submitted to Catherine Lester, Doctoral Programme Coordinator by the 44-month deadline.

Please note that submission of your PhD thesis is not permitted until you have completed the minimum registration period. Before you submit the examination entry forms you should ensure that you have completed all your milestones and that the Registry has received all relevant documentation. Further details can be found here.

PhD thesis submission
Once you have submitted your PhD examination entry forms you will be told when your entry has been processed and you are able to submit your thesis. You will not be able to submit your thesis without a valid examination entry. Please read the submission requirements carefully to ensure you submit in the correct format - please refer to the submission checklist for further details. When you submit your thesis, you should make sure that you also email a copy of the Thesis Declaration Form directly to the Registry. Your thesis must be submitted electronically via the eThesis. Further details can be found in the submission checklist.
PhD Job Market
The Business School is committed to supporting all students into their chosen field once their studies have been completed. During the Doctoral Programme students will develop their research and gain critical academic skills necessary to progress into top academic institutions.

For students, one of the most crucial experiences on this journey will be the Job Market, and your PhD thesis should include your job market paper. Each year, PhD students in their final year submit their finalised job market paper to institutions who are recruiting. A number are then invited to the job market meetings (usually in the US) where they will meet with the institutions, with most of the top academic institutions in attendance.

As a rough indication of timescales, job market papers are usually submitted around October to the institutions you wish to target and candidates usually hear if they have been invited for interviews in November/December. Meetings and job talks usually take place in January. Candidates may also be invited for a fly-out visit to specific institutions which can last a whole day.

Refining your paper will take longer than expected, and it is important to have your supervisors and other academic staff within the department provide you with guidance along the way, which means you need to be prepared well in advance. We would recommend that you are in discussions with your supervisors and seriously refining your paper from the early summer before the meetings take place.

Some of the places to look for suitable job market postings in your field are:

- American Economic Association Job Openings for Economists (JOE)
- Econjobmarket
- European Economic Association
- Association for Public Policy Analysis and Management (APPAM) job bank
- Chronicle of Higher Education
- American Finance Association (annual meeting is usually January)
- Social Science Research Network
- Royal Economic Society
- Academy of Management (annual meeting is usually in August)

There are numerous guides on how to prepare for the job market available (both for the paper and the meetings), some we think you will find useful as a starting point include:

- Harvard University Job Market Guide:
  http://economics.harvard.edu/pages/job-market-information
- Royal Economic Society PhD job market overview and advice (Jan 2015):
Once you have submitted your thesis the Registry will ensure that copies are provided to your examiners, in advance of your viva examination. Your supervisor, or another member of staff in your department, will be responsible for organising the viva and making all the necessary arrangements.

“Passing Your Viva” DVD – this film has been created by the Graduate School and Dandylion Films to support research students with viva preparation.

When your viva has taken place you will be informed of the outcome by the examiners. You may be asked to make some minor or major corrections to your thesis before submitting the final copy and being awarded your degree. Once you have submitted the final thesis and your examiners have agreed that they are satisfied, the Registry will write to you confirming the award of your degree. Your degree certificate will be issued after this date.

Your final thesis must be submitted online by uploading to Spiral (the College’s digital repository). Please note that your submission will be checked by Research Degrees before being released to the Spiral team in the library, and your thesis will only be made available publicly on expiry of any agreed embargo. Information on how to prepare your thesis for electronic publication on Spiral can be found here.

The College recognises that theses contain unpublished work created for examination and that in some circumstances it may be necessary to delay their public release. This is referred to as an embargo. An embargoed thesis will not be available for the public to read, on Spiral or in print, until an agreed date. Students should discuss with their supervisor whether their thesis should be embargoed and tick the appropriate box on the Thesis declaration form.

For information on open access to research degree theses, and on how to apply for an embargo, please visit this site.

Please contact the Research Degrees Team if you have any queries regarding the e-theses policy or an embargo.
The Doctoral Programme community

Student-Staff Committee
The Student-Staff Committee (SSC) is comprised of current students and staff from the programmes team, and quality and teaching office. It is a platform for students to be represented in their concerns, ideas and suggestions regarding the programme. The SSC meets formally once per term, but students are, of course, free to meet with the programme team at any time during the year to discuss pertinent issues.

The SSC is also responsible for organising sports and social events for students on the programme, and is given an annual budget with which to do so. The second year doctoral students of the SSC are in charge of organising these events.

With each new intake, new representatives will be required. Those who are interested in becoming a committee member should email Catherine Lester to register your interest.

Personal webpage
Each doctoral student is given a Personal Web Page (PWP) on Imperial College's website. Your PWP is an important marketing tool for your research and invaluable to your academic career, as this is how people in the academic community, and potential employers, will find out about who you are and what sort of research you are doing. Therefore, please keep your PWP updated and remember that you are responsible for maintaining and updating your webpage.

We will organise a photography session each year so that each student has a professional photograph to use for their PWP and the Business School website.

To activate your PWP:

1. To access your unpublished PWP, access the URL: http://www.imperial.ac.uk/people/x.xxxxx (change x.xxxxx to your Imperial email prefix e.g. s.smith)
2. Click on the ‘login’ text on the entry screen. If you are the owner of the PWP you'll be able to login using your College account username and password (please enter your username using only lowercase text). Once logged into your PWP, you can use the ‘Edit this profile’ button on the grey bar at the bottom of the browser window to open the edit menu. Here you can access the administration, home edit and research edit tabs.
3. Towards the bottom of the form there is a setting "Show the above information in external directories"
4. This must be set to Y for Yes for the PWP to appear online.
5. If it's not a Y change to Y.

To update your PWP:
1. Login to your PWP as above (it’s a good idea to save this page as a bookmark so you can access it easily).
2. The login link is in the footer of the page, so scroll down and click on the login link. Use your email credentials to access (please only use lower case text for your username
when you login). You’ll now see a grey edit bar at the bottom of your browser, click on ‘Edit this profile’ to access the editable content on these pages.

3. Edit your page. There is a guidebook that will help you in designing and formatting your PWP.

If you require any technical help, please contact ICT Service Desk.

**Facilities**

**Student study space**
All students are provided with a workstation, including a desktop computer, drawer pedestal and access to a printer. Doctoral students are located in different areas around the College, including the 3rd floor of the City and Guilds Building, ACEX Building, and 2nd floor of the Tanaka Building (Business School) – see campus map.

**Room Bookings**
The Business School provide the following bookable Vaults and Discussion rooms to aid with group coursework and projects.

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Capacity</th>
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</thead>
<tbody>
<tr>
<td>Business School Student Discussion Room 1-5</td>
<td>Lower Ground Forum, Tanaka Building</td>
<td>5</td>
</tr>
<tr>
<td>Business School Student Discussion Rooms 1-4</td>
<td>Level 1, Sherfield Building</td>
<td>4</td>
</tr>
<tr>
<td>Business School Student Vault 3-9</td>
<td>Lower Ground Forum, Tanaka Building</td>
<td>7</td>
</tr>
<tr>
<td>Business School Student Vault 11-20</td>
<td>Lower Ground Forum, Tanaka Building</td>
<td>10</td>
</tr>
</tbody>
</table>

To make a booking you should include the relevant vault or discussion room in your meeting request through your Microsoft Outlook account via the Calendar: New appointment → Add time/date and event title details → Click Scheduling Assistant → Add rooms → Select room name eg. Business School Student Discussion Room → Click ‘Room’ to add your selected room and OK → Check on the display grid if your selected time is free and adjust if necessary → Select Appointment at the top to get back to your original appointment window → Check details and click send to request the room.

Please note that bookings are only confirmed when you receive an “Accepted” meeting response from the relevant vault or discussion room. Current students from the Business School are able to make and manage their own bookings providing the following rules are followed:

- Bookings can be made for use of the vault and discussion rooms between 8AM and 11PM
• Each booking can be up to a maximum of 2 hours per day and be made up to 90 days in advance.
• Bookings cannot conflict with another meeting held in the same Vault or Discussion room.
• Bookings should be cancelled if the Vault or Discussion room is no longer required.
• Reoccurring bookings will automatically be declined. Each occurrence must be booked separately.

We ask that you kindly follow a fair use policy and do not block book vaults and discussion rooms. If you require the vault or discussion room for more than 2 hours please contact your Programme Team to make special arrangements. All bookings are subject to cancellation for teaching needs, maintenance and/or when abused. If your bookings are cancelled, you will be notified.

ICT support
You can access information on how to set up your ICT access (activating your account, email access, Wi-Fi and more) here.

If you have an IT problem, please email ICT Service Desk - problems are logged and dealt with in rotation.

Email
• Outlook email is the main method of communication within the Business School. You will have been issued with a College account and computer login details prior to arriving at the College. These will enable you to access the Hub. The same username and password should be used for your Outlook account.

Accessing email off-site
• Email accounts can also be accessed off-site through the internet at the following address: https://exchange.imperial.ac.uk.
• Please check your email account on a regular basis, as all important information is sent via this method of communication. We recommend that you check your Imperial account at least once every day.
• Students’ attention is drawn to the Conditions of Use of Information Technology (IT) Facilities.
• When emailing members of staff within the School, you should add an email signature which includes your name, surname, programme and contact details – e.g. your mobile phone number.
• You are reminded that you must not forge email signatures, or initiate or forward chain, junk or harassing email.

Laptop and smartphone registration
• If you use a WiFi (wireless) network you do not need to register your laptop. As long as you have an Imperial College username and password you should be able to log in to the Imperial College WiFi network (the name of which is Imperial WPA).
• For a LAN (wired) network you should connect your laptop to the LAN network and open a web browser. It will then automatically take you to a laptop registration page, and you will need to log in with your Imperial College credentials. The site will then take you through the registration procedure.
For more information and how to connect your Smartphone to the wireless network, please visit this page.

If you have any problems connecting to the Imperial College network please contact the ICT Service Desk.

Printing and photocopying
All students are furnished with unlimited printing and photocopying credits (note student ID cards are required to use the photocopiers and some of the printers). If a printer or photocopier is out of toner or paper, please email Reprographics.

Stationery
The School does not provide stationery items for students – you will need to buy your own desktop items such as staplers, scissors etc. You should not use the School’s headed paper without asking permission – please see the Doctoral Programme Manager in the first instance. If you are given permission to use it, you must identify yourself as a PhD student in any correspondence.

Post
Please only have post related to your studies sent to the Business School, and be sure that ‘Doctoral Programme Student’ appears in the address – the Business School has hundreds of students and unless you identify your status we cannot guarantee that mail will reach you in good time.

Please notify your change of address to all concerned (e.g., College, the PhD Programme Office, your supervisor) and, when you leave the Business School, it is your responsibility to inform your correspondents.

Business cards
We provide all students with a set of Business cards once they start the PhD. Please contact Catherine Lester about this.

Key Business School facilities contacts

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities Manager</td>
<td>Afrey Edes</td>
<td>Email +44 (0) 20 7594 9152</td>
</tr>
<tr>
<td>Business Librarians</td>
<td>Heather Lincoln Email</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rosemary Russell</td>
<td>Email +44 (0) 20 7594 8611</td>
</tr>
</tbody>
</table>
Campus access
You may come into College buildings during evenings and weekends, but you are not allowed to remain on the premises after 11 p.m. College Security will check the buildings and may request to see your ID. *They have every right to do so, and for the benefit of all personnel in College, you must always co-operate with them.*

University campuses are open access areas. As such, they tend to present an attractive opportunity for pickpockets and petty thieves. Please do not let strangers into any College building at any time, but particularly out of normal hours and during weekends. If someone cannot show a College ID card and you don’t know them, ask them to contact the Security Office for access to College buildings. It is not uncommon for thefts to occur in open access areas, so please do not leave any valuables unattended. If you are in any doubt about a security issue, please contact the Security office on extension 48910. In the case of emergency, call 4444 or 020 7589 1000. You can also email the College Security Office – just look up Security in the Outlook global address book – and you will get an immediate response.

At the end of your Completing Research Stage (i.e., when you have made your final thesis submission), you will be required to return your key cards and College IDs. At this time you should also make arrangements to remove or dispose of all your papers and other personal possessions. Any personal items left behind are at risk of being disposed of. Please make sure that you return all filing cabinet and desk keys so that they can be used by others. The same applies to library and other borrowed books. Failure to return the former could delay your Graduation!

Security
Please note that for any kind of fire, security or other emergency issue on College premises you should call Security Control Room as soon as possible and give as informative and accurate a brief as you can.

<table>
<thead>
<tr>
<th>Campus/Building</th>
<th>Internal Phone</th>
<th>External/Mobile Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Kensington</td>
<td>4444</td>
<td>020 7589 1000</td>
</tr>
</tbody>
</table>

Please put the external number for Security Control Room into the contacts list of your phone in case you need it.

Library
The Imperial College Library offers a wide range of resources for your research. This includes journals (print and online), core texts, databases, articles, as well as training sessions to help you perform your research effectively. See the library’s Business section on their website for more information. Business database training and support is also on offer.

Financial Times
The Library has premium access to FT.com. For access details see the Business subject pages.

The Premium access subscription includes the following:
- Unlimited FT.com access
- 5 year company financial archive
- The 6am Cut
- The LEX column
- ePaper access
- Exclusive ‘letter from the editor’

We also have access to The Economist and others.
**Academic Development**

As a doctoral student, you are primarily responsible for your own development. The Business School supervisors, faculty and staff are there to support you in this endeavour.

**Research seminars**

As thriving and leading research communities, the School and College have various regular and ad hoc research seminars, presented by both current and visiting faculty.

As part of this, each research department (Finance, I&E and Management) hosts their own weekly seminars. These are an invaluable opportunity for you to learn more about current research, to develop your understanding of your field and to interact with faculty from the Business School and from other research institutions.

As a doctoral student, you are **required** to attend these seminars each week (attendance will be taken by the research department coordinator). In some cases, they may be of clear and direct relevance to your own research while in others they may provide an insight into another area of your chosen discipline. Even seminars in a field not strongly connected to your own will be of value in your education, as you will learn about different research questions, appropriate research designs, and also, about how to present your research and evaluate and critically assess that of others.

**Graduate Teaching Assistant (GTA) opportunities**

As part of your doctoral training, it is important to gain teaching experience and expertise as you pursue an academic career.

For those funded by a Business School GTA scholarship, it is indeed a compulsory element of your studentship and training from the second year of your PhD. All students will complete the GTA training in the first year of the PhD. There are many opportunities to participate in teaching in the Business School, and we encourage all of our doctoral students to take advantage of such opportunities. You should discuss teaching and feedback you receive with your supervisor as part of your academic development.

The Graduate School has launched a GTA Framework, training and resources to support PhD students teaching across Imperial. For those pursuing an academic career, we would also encourage you to gain formal recognition of your teaching experience, via the Higher Education Academy Fellowship and Imperial can support you through this process.

Once you have completed the training, you will then need to provide information on your research interests and teaching experience for departments to consider when allocating Teaching Assistants. More information will be posted on the Doctoral Hub under Materials.

**Conferences and training**

Students are encouraged to research the proceedings of academic conferences in their field in order to become familiar with current debates and the work of leading academics. In addition, once an appropriate level of expertise has been reached, you are encouraged to
present your own work as conference papers. This enables you to develop your writing skills and arguments, perhaps in collaboration with your supervisor, as well as develop social networks in your chosen field.

The experience of presenting your research at conferences is an invaluable part of your academic development.

**Conference and consumable funding**

**Conference funding**
If you have applied to present your paper at a conference, you can apply for funding from the Doctoral Programme Office via an application form (available on The Hub with the full funding policy). Please note you can only submit a form after your paper has been accepted at a conference and before any expenditure is incurred - retrospective claims may not be accepted. You need to state the conference fees and your best detailed estimate of the most economical form of travel. **It is very important that you are aware that all travel bookings must be made through the College’s approved travel agent, via the Doctoral Programme Coordinator.** The College will normally not reimburse air travel costs made by any other method.

The expenses which the Programme is potentially able to cover are: a) conference fees; b) travel; c) basic accommodation. Other expenses cannot be covered.

**Before applying, please bear in mind the following:**

- The School will not always cover the entire cost of your trip, but may give a contribution. Applications for large sums (i.e., £1,000+) are unlikely to be fully funded.
- The budget is limited so you should think carefully about which conference you want funding for.

Preference may be given to fourth year students who are presenting advanced papers.

**Consumables and other funding**
In addition to conferences, the School will accept applications for funding to attend specialist workshops and courses that aim at developing the student’s expertise in their specific area of
research and are not available at the College. The same procedure and rules apply to funding for training as those to conferences (see above).

Please note that students are able to apply for up to £1,000 per year to cover all consumables, including training and conferences (unless already in receipt of other consumables funding eg Research Council funding such as EPSRC or other studentship with consumables funding not via the Business School).

Areas covered are limited to:
- Training course fees
- Summer Schools
- Software
- Books
- Accommodation
- Air travel
- Conference fees
- Fees for visa applications, where necessary (when required for overseas travel)
- Local travel via public transportation*

Applications must be made at least 2 weeks before funding required (ie before the deadline for early registration). Retrospective requests will not be approved under any circumstances.

Three Minute Thesis Competition

Three Minute Thesis (3MT®) is a research communication competition developed by The University of Queensland. The exercise challenges PhD students to present a compelling oration on their thesis topic and its significance in just three minutes. 3MT develops academic, presentation, and research communication skills and supports the development of research students’ capacity to effectively explain their research in language appropriate to a non-specialist audience.

Each year, The Business School organises heats to select PhD students to then compete in the Graduate School’s Three Minute Thesis competition alongside PhDs from each faculty at Imperial. The winner then represents Imperial at the national competition held annually in the UK.

Getting data

If you require a specific dataset for your research, it is best to speak to your Research Department Coordinator in the first instance to see if it is available via the research department. If not, please get in touch with the Doctoral Programme Manager to discuss the possibility of acquiring the data. Please do not sign any agreements over data without discussing these agreements with the Programme Team first who will be able to sign post you to the appropriate support.
Student feedback and representation

Feedback from students
The College and Union is committed to continually improving your education and wider experience and a key part of this is your feedback. Feedback is thoroughly discussed by your student representatives and staff.

Graduate Students’ Union
The Graduate Students’ Union is the postgraduate arm of Imperial College Union, and is concerned primarily with the affairs of all postgraduate students at Imperial.

Imperial College Union
Imperial College Union is devoted to the educational interests and welfare of its members. All students at Imperial are members of Imperial College Union.

Student Representation
Student Representatives are recruited from every department to gather feedback from students to discuss with staff. More information about the role, and instructions on how to become an academic representative, are available on the Imperial College Union website. To be supplemented with department/division specific information if applicable.

Staff-Student Committee
The Staff-Student Committee (SSC) is designed to strengthen understanding and improve the flow of communication between staff and students and, through open dialogue, promote high standards of education and training, in a co-operative and constructive atmosphere. College good practice guidelines for staff-student committees are available here.

Details of who your Doctoral Programme Staff-Student Committee representatives are is available in the Doctoral Programme Area on the Hub, where you can also view previous meeting minutes. Each year we will require new representatives from the MRes intake. The SSC is your opportunity to feed back to the Programme Team and Faculty about any aspect of your course or student experience.

Student surveys
Your feedback is important to your department, the College and Imperial College Union. Whilst, there are a variety of means to give your feedback on your Imperial experience, don’t miss your opportunity to express your views via the ICU’s Student Experience Survey (SES) in autumn and the national Postgraduate Research Experience Survey (PRES) in spring.

Student Experience Survey (SES)
Imperial College Union’s Student Experience Survey (SES) which will be run at the end of the Autumn Term. The survey will cover your induction, welfare, pastoral and support services experience. During December you will receive an email in your Imperial College account with a link to the survey.
Postgraduate Research Experience Survey (PRES)

PRES is an important survey for the College; it asks you for your views on your supervision, your research community, your progress and assessment, your opportunities and research skills. As it is a national survey it allows the College to benchmark itself against other UK higher education institutions.

For further information about either of these surveys please contact the Registry’s Surveys Team via their website.

Personal development opportunities for research degree students

Imperial outreach

Imperial has a long established reputation for delivering excellent outreach activities to school and college students. Opportunities on offer range from open days for prospective students, inspirational science-based hands-on activities, summer schools, mentoring programmes in schools, exciting lectures and schools visits to help raise awareness of Higher Education.

Outreach Postgraduate Ambassadors (OPA)

The Outreach Postgraduate Ambassadors Scheme provides enthusiastic postgraduates with training and the opportunity communicate their research or experiences to school-aged audiences. Talks and demonstrations can take place in schools or at events on campus including Demonstration Lectures, Taster Days and summer schools. There are no restrictions or requirements other than a willingness to inspire and delight a young and captivated audience! You can do as much or as little as you want. The emphasis is on fitting it flexibly around your work and study commitments.

Professional Skills Development programme

The Graduate School Professional Skills Development programme is one of staged learning to ensure that you acquire basic research skills at the start of your doctoral studies and continue to develop as a well-rounded researcher, gaining the skills and experience to successfully complete your research degree and move on. The programme is an integral part of your research degree and you should use it to support your personal development. The courses vary in length and format, from one-hour lectures to three-day interactive workshops. There are also online courses for you to complete or use as an information resource in your own time. The Programme is regularly reviewed and updated and new courses added throughout the year. Courses are free but there is a cancellation policy.

Why have a Professional Skills Programme?

Developing generic research, personal and professional skills is an important part of postgraduate training. The skills gained from the programme will assist your personal development and will improve your ability to undertake focused research and to present your work to a variety of audiences. They will also help you to develop an understanding of the role of science in the wider world. They will encourage you to reflect on the commercial possibilities of your research, as well as any ethical implications. The programme offers skills relevant to both your research and to your life and career beyond Imperial. The professional skills programme also has a social benefit and offers an opportunity for students to interact with...
others from different departments and divisions, who you may not otherwise meet in the ordinary course of your studies.

**What kind of courses are they?**

For full details of the workshops available, please see the [website](#).

**Writing, presentation & careers helpsheets**

Some online [help sheets](#) have been developed as back up to workshops provided by your Department and the Graduate School. These help sheets provide general, generic guidance and some tips for getting started. However, they do not replace the detailed and practical information given in workshops, by tutors or supervisors.

**Online resources: web streamed videos**

Web streamed [videos](#) to offer advice on presenting and passing your viva have been created by the Graduate School and Dandylion Films. Both videos feature academics who provide advice on common questions and concerns and they also feature enacted examples. These videos are available on request from the Graduate School.

**Work during your PhD**

The doctoral programme is full time. We recognise that some students may take on additional paid work, although we would advise discussing this with your supervisor. For all students, we would strongly advise against taking on any work during the MRes year as it is very intensive.

Students on a tier 4 visa have restrictions on the number of hours they can work. The Home Office permits Tier 4 students to work during their studies but state in the [Tier 4 Policy Guidance](#):

> "The main purpose of the Tier 4 visa route is for you to come to the UK to study. Where you are permitted to work, the intention is that this should be to supplement your income whilst studying (which in most cases we expect this to be taking a part-time role for an established business/organisation) or as part of a work placement provided it is an integral and assessed part of your course."

For PhD students, there are no defined terms of study, so students cannot work full time during the summer period as some undergraduate/masters students can, until their final thesis is submitted (post viva). It is important that students are aware of restrictions on working hours (these are stated on your visa or Biometric Residence Permit) and do not breach these. Teaching or Research Assistant opportunities count towards your work hours. Please be aware that any breach of your student/Tier 4 student visa (such as working more hours per week when you are not permitted to do) is considered a serious immigration offence. Breaches of your visa conditions can lead to removal from the UK and also has implications for the University as your visa sponsor.

If you have questions about your visa and any restrictions, please contact the [International Student Support Team](#). Advice on their [web pages](#) will be updated regularly.
Part 2 - General guidance for the Doctoral thesis

You can improve the likelihood of successful and timely completion of your doctoral thesis by taking a systematic and proactive approach. In particular, your ability to work well with your supervisor(s) is going to be a key factor in your progress. Please read the College publication: "A Code of Practice for Successful PhD Completion for Research Students and Supervisors". This can be found on the College website.

Attendance

Doctoral students are expected to be in attendance, on a full-time basis, at College throughout their course of study. A doctoral degree programme is a full-time study programme, with consequent attendance requirements. Students should not take on paid work without first agreeing this with their supervisors.

It is important for doctoral students to realise that they are required to be in attendance even outside term times. Term times apply to taught programmes only. Research degree students are subject to normal College holiday rules. Students must notify their supervisors and the Doctoral Programme office in advance if they plan to take a holiday or other form of absence, and be available at other times.

Supervisors (first, second, joint)

Students should normally have two supervisors, one of whom would normally lead. However, a student can have two joint supervisors. The first and sometimes both supervisors are agreed at the time of registration, although it is possible for the second supervisor to be agreed during the research as the need arises.

Typically the roles of joint supervisors are clarified at the start (and you should try and ensure that this happens – see below). For example, one may be an expert in the field of study and another in the methodological approaches.

Clarify and agree mutual expectations

The student-supervisor relationship typically varies, depending on individuals, subject areas and the stage of research you are in. Nevertheless, it is very important to establish a good working relationship by clarifying, agreeing and periodically reviewing mutual expectations.

The following framework is not appropriate to all relationships. Indeed, it has been adapted for the Business School from use in the context of a natural science PhD. However, it might be a useful starting point as a basis of an early discussion with your supervisor(s). It also provides some indication of what is expected of you and supervisors more generally.

Expectations of a PhD and supervision

As your supervisor I expect you to:

1. Take responsibility for your thesis - in the end it is your work and I am here to help you accomplish your research objectives
2. Work hard - PhDs cannot be accomplished with only a 9-5 effort. Imperial College London is a world-leading University, and we expect that students will strive to accomplish outstanding work

3. Display initiative - ultimately, the person who drives the process and strives to understand the research area is you. We expect you to be curious about your work and to think about how other ideas and work can have an impact on the work you are doing. In the light of this, it is expected that you attend courses and seminars regularly, especially the core training programme, even if they do not appear directly or immediately relevant

4. Write one or two conference papers before you submit your thesis and try to have one paper published. The process of writing enables you to develop writing skills which are useful when writing up your thesis and the fact that you have had papers refereed and accepted by journals helps satisfy the external examiner that you have what it takes!

5. Be self-critical of your own work and results, in terms of statistical significance, validity, theoretical consistency, and insight, and use these skills in developing a critical understanding of the literature

6. Keep up with the literature in your field through an initial full search and then every few months by reading current papers

7. Write progress reports every 6 months detailing your results - to this end, you should be conscientious about keeping a research notebook and regularly recording all your ideas and data

8. Be aware of ethical issues and act accordingly. Ensure that you consult your supervisor if you have any doubts about ethical issues

9. Develop your skills and learn new ones by attending the transferable skills courses and lectures provided by the Graduate Schools

In return, as a student you can expect me, as your supervisor, to:

1. Be supportive of you both intellectually, and, if possible, personally

2. Be available to talk about research problems at relatively short notice although, at certain times, I may need some notice

3. Help and guide you extensively in your first year; help you in your second year; and be a sounding board in your third and fourth years. The help is tapered as you develop confidence in your own abilities and research skills, to enable you to learn to work more on your own and to make more of your own decisions

4. Help develop your skills in technical writing, oral presentations, problem definition, data analysis and critical literature reviews

5. Support and possibly co-write one conference paper and support your attendance if possible
6. Read your work and thesis and make constructive comments on both style and intellectual content

7. If required, support you in future publications, including as a co-author

8. Periodically, your experience of supervision will be reviewed. However, this is primarily a general monitoring process and you should not rely on this to resolve difficulties. If you find that you are having problems with your supervisor relationship, the best thing to do first is to raise it with him/her/them if possible. If this is not possible or difficulties persist, then you should contact the Programme Director or one of a number of people listed as contacts in the Student Handbook

Written notes of meetings
When you meet your supervisor, the Doctoral Review Committee or any ad hoc review group, you should make notes and immediately after the meeting write up these notes summarising what was talked about and any conclusions reached. You should keep a copy in your file and provide copies of all notes to your supervisor and Committee if relevant to them. If you have a number of quick "question and answer" contacts with advisers, you may wish to summarise the significant ones periodically. The essential point is that you should take the responsibility for documenting the deliberation, decisions and action taken by your Supervisor and other counsellors.

Progress reports
Most supervisors are busy with diverse duties besides thesis supervision and so are unlikely to be persistent in day to day checking of progress. A short written progress report each month helps to keep the topic fresh in your supervisor's mind and copies of these reports form a useful addition to the diary discussed in the next section.

Provide outlines and issue summaries with all materials you and your supervisor (or doctoral committee) is asked to read.

If you hand your supervisor a 50-page manuscript to read, with no outline and no indication of what issues are important, it is understandable if he or she puts off getting to grips with it. A better approach is to provide the following set of materials:

i) **Transmittal note** - listing what is being given and a gentle reminder of the date by which your supervisor has agreed to discuss and/or return with comments; fix a date there and then if needed

ii) **Issue summary** - a short statement of the contents of the batch of materials and a short description of each issue to which the reader should direct his/her attention, or for which you would especially like comments

iii) **Outline of each chapter showing the major headings** - if only one or two chapters are being provided, it is helpful to attach the outline of all chapters, so the reader can keep the material in context
iv) Try to break the material to be read into sections and sub-sections - Always type it with double spacing and with pages numbered. You should keep a control copy and let the readers write notes on the copies provided to them.

Meeting with your supervisor

Agenda
Before meeting with your supervisor, you should prepare and email an agenda, so that you have a structure to follow during your meeting, which allows for the most efficient use of your time.

Post-meeting summary
Maintaining a summary of what was discussed in a meeting with your supervisor is good practice as it gives you structure and focus of your work plan and informs the agenda for the subsequent meeting.

Feedback
You may be asked to give confidential reports on your progress, and on the quality of your supervision. These are important opportunities for us to review the Programme and identify important issues to you as an individual and as part of a group. Issues can be raised at any time with your Supervisor, Programme Director and Programme Manager.

Working on the thesis

Time management
One of the problems with knowledge development work, such as a doctoral thesis, is that structured activities will generally take precedence over the unstructured. You will find it easy to: attend a seminar, help with an in-house project, meet a tutorial group, join others for lunch, meet your supervisor, go shopping or have an evening at the theatre. These are all specific structured activities at given times. Yet at the end of a full working week your project has not advanced. The task of self-discipline and self-management is to put enough structure and timetabling into the thesis activity itself, that it assumes a priority over the less important, albeit sometimes more seductive, activities.
You will receive instruction on time management, but one way is to spend time at the beginning of each week (month and year) planning tasks for the week (month and year), and estimating times for each of them. A greater number of tasks than can actually be completed should be outlined, putting priority on their completion. The extra tasks provide alternatives that can be worked upon if any planned priority task cannot be accomplished for some reason. Ideally, as tasks are completed, actual times taken should be recorded. At the planning session at the beginning of the following week (month and year), the actual times can be compared with estimates and decisions made with respect to work-effectiveness and the amount of time needed for activities in the coming week (month and year).

Teaching practice, consultancy, book reviewing, etc. are often important, but the time allocated to them should not be allowed to eat into research time. Indeed, there are restrictions as to the amount of time you are allowed to devote to non-research activities, all of which should be discussed with your supervisor. If you are a full time student, 9-5, five days a week is not usually sufficient. A regular note of the amount of time spent on research activities compared with the time spent on all other matters might alert you to question whether your major resource (time) is being allocated to achieve your objectives.

It is very important to note that Doctoral Programme students do not have terms or semesters in the same way that Masters students have – research students are expected to be in attendance throughout the year. Students should always report their holiday arrangements to their supervisor in advance. In accordance with the rules laid down by the Research Councils, no more than eight weeks, *including public holidays*, may be taken in each year. In particular, students must be present for the Early Stage and Late Stage Reviews in June/early July of the first and second year and so should not book holidays at this time. The presentations must be treated seriously as examinations and students must be available at the time assigned to them.

**Formulating a proposal**

The process of preparing a thesis proposal is *iterative*. You prepare an initial proposal and obtain reactions from your supervisor and other interested members of staff and colleagues.
Based on these comments and your reflections on them, you revise your proposal. Further comments will result in further revisions. The process should continue until the thesis proposal is a clear, crisp definition of the research project.

Usually, you will initially consider several possible thesis topics or alternative approaches to the same problem before making your final choice. The various possible topics should be analysed as early as possible as to their suitability for a thesis. A student who talks vaguely about doing a thesis on "decision-making in organisations" does not have a topic, because within that general area one can construct a hundred doctoral theses. The problem is to identify a few good topics and choose the best. The alternatives act as a catalyst for bringing out fresh ideas from those with whom you discuss your area of proposed investigation.

The topic analysis
The topic analysis is essentially a first proposal, providing a rough outline of factors relating to the research. You may well have already supplied a topic analysis when you first applied for use in early discussions. Its major components are:

- Problem, hypothesis or question
- Importance of research (why is it worthy of doctoral research?)
- Significant prior research
- Possible research approach or methodology
- Potential outcomes of research and importance of each.

Problem, Hypothesis or Question
This states what the thesis will deal with. If hypotheses are appropriate, they should be stated. If the topic is not amenable to statement as a hypothesis, then the problem or question should be clearly stated.

Importance of Research
This concerns whether the research is sufficiently important or significant to justify your efforts. If there is some statement by an authority as to the need for this research, or if it can be demonstrated that this research is useful in the context of a major industrial problem, then these or other appropriate reasons should be concisely stated in a short paragraph. The thesis need not be earthshaking, but no thesis should deal with a trivial or inconsequential topic. This section should identify the 'research gap' or the possible 'added value' of the PhD in terms of knowledge or current debates in the literature.

Significant Prior Research
This essentially discusses the major preceding research. It needs not be exhaustive, but you should make a short investigation (a few days) to look at the major research works on the topic.
Possible Research Approach or Methodology
This aspect of topic analysis is extremely important because it outlines broadly how you propose to approach the research itself. Is it to be via questionnaire, case studies, action research, simulation, re-examining existing data, algorithm solution or how else? This should be described and, most importantly, explained as precisely as possible, but may still be in a tentative form. Alternative methodologies which you are considering should also be included and your final choice justified.

Potential Outcomes and Their Importance
The contents of this section are vital to any assessment of the thesis proposal. For each research approach, the different possible outcomes should be described. For example, if a topic analysis proposes a project to collect quantitative evidence by a questionnaire and analyse the questionnaire results statistically to determine if there is a positive correlation between perceived behaviour and the responses to questions, the potential outcomes might be:

- A significant positive correlation demonstrating the relationship
- A significant negative correlation demonstrating the reverse of what was expected
- A lack of correlation (probably proving nothing)
- An inability to obtain satisfactory responses on the questionnaire

In this particular case, perhaps only one of the potential outcomes might be expected to result in an acceptable thesis. But it may be possible to structure data collection and analysis in such a way that a negative correlation might also prove acceptable.

Topic analysis has the objective of assisting you to elicit helpful comments and alternative suggestions from all who read and assess it. Therefore, if there are viable alternatives, these should either be included or prepared in a separate topic analysis.
Thesis proposal

The proposal is a plan for you to follow. It also provides the Review Committee and supervisor with information on which they can approve or suggest modifications to the project. Approval does not, of course, mean automatic approval of the thesis. If the proposal is explicit, approval implies that, if and when the proposed work is properly executed and clearly documented in a thesis, there is a good probability of the thesis being accepted.

See an excellent article about “Writing Tips for PhD students” written by John Cochrane of the University of Chicago’s Graduate School of Business. It is specifically aimed at PhD’s in economics; however most of the wisdom is applicable to all business PhD students.

Refining a proposal

The first proposal is not usually the final proposal. There will follow an iterative process by which reviews, critical comments and suggestions by supervisors are incorporated into revised drafts which are further reviewed. The end result of the review and rewriting (and perhaps sometimes starting again with a new proposal) is a complete, crisply-defined proposal. However, it is a crucial document as it is the basis of the papers you will present for your first and second year Reviews.

The process of moving from an idea for a thesis to a concise, well-defined proposal is frequently the most difficult task of the entire thesis. It is not unusual for students to take six, eight or more months to get a topic defined. There is no simple recipe for approaching the process, but some hints may prove helpful.
Narrowing the scope
Almost every student starts with a project that is too broad. One way to narrow the thesis topic is to attempt to subdivide it into more than one thesis. The sub-theses are each analysed as a topic. The result may be to choose only one of the sub-topics, and this will usually prove to be smaller and more manageable.

You might also consider what you are trying to accomplish, what you hope to get as a result. If this is difficult to define, a useful technique is to imagine (not dream!) that the thesis is complete and the final chapter with summary and conclusions is being written. What will be the conclusion? What might be the main points of the results? By trying to draft the conclusions, the main thrust of the thesis may become clearer and this may help to narrow the scope.

Defining the purpose of the research methodology
You should try to avoid a “fishing” approach to research. Students who collect a mass of data and then apply multiple regression techniques to see what they can find, are not likely to be able to differentiate between spurious and real correlation, and are unlikely to have collected all the relevant data. This is perhaps obvious, but students who want to get busy collecting data without a clear idea of objectives usually commit the same crime and suffer the consequences.

One way to define the objectives of the research methodology is by the statement of hypotheses. By such a listing, the data collection methodology and analysis procedures can be related to the factors thought to be important. Some topics are not amenable to hypotheses statements, but in these cases the research methodology can be clarified and defined by restating the topic in terms of a research question and a set of objectives for the research.

Methodological assistance
Research students frequently need technical assistance with such matters as statistical analysis, computer processing and questionnaire design. While formal training is available, you will usually find a member of staff or fellow research student who has special expertise and who is willing to help. However, they are likely to be willing and indeed able to give more practical advice if you show you have thought about the problem by giving advance notice with a written specification of your needs, rather than merely relying on chance contact and a verbal request.

Students often design their questionnaires and data collection forms without any regard to the problems of coding. This may present substantial difficulties and delays whilst data is transcribed into a form suitable for analysing. If you do not have prior experience, you are well advised to examine the process by which data is coded, and discuss it all very carefully prior to designing the questionnaire or data collection form. You should always take steps to control the quality of the coding and input to the computer.

In your thesis examination, you may be required to show how you determined that the results of the computer analysis were correct. This can be tested for reasonableness, for example by running the problem in several ways to provide a cross check of the results.
Keeping research records
The doctoral thesis is a major project extending over a considerable period of time and, therefore, accurate and complete records need to be maintained. The Supervisor and External Examiner have the right to request access to the data if they need to satisfy themselves that it is 'real' and therefore data needs to be stored in good order. At the time you get an idea or read something in a periodical, you may think that you will not need to record it, that you will remember it, but the result is that many good ideas are lost and many journal citations have to be searched for again. Two key suggestions on research records are a Diary and a Coding and Filing system.

The diary
You should keep a diary of your research investigations. Notes should be made of work performed or decisions taken and of suggestions made by your supervisor or other counsellors. These notes and suggestions will form the basis for some of the written communications with your supervisor. The Diary thus forms a chronological record of work that has been performed, together with ideas, suggestions and comments that are important to the thesis. Even more importantly, it should contain notes on the reasons for major decisions which you may make on, for example, research methodology, or analytical approaches. These can prove invaluable when you are writing up.

A coding and filing system
You will immediately be faced with the task of creating a database for coding and filing the information which you accumulate. A logical system for coding and filing is by major sub-topics within the thesis. For example, if the thesis consists of six chapters and within these chapters there are 20 major sub-titles, each of these sub-titles can be the basis for classification of references, ideas and other information as it is collected. Each idea, quotation, or data analysis is coded according to the section under which it falls. It is usually a good idea to have a general section for each chapter which can be used for information which does not fall in any of the sub-topics, but is relevant to the chapter as a whole. The information collected should be clearly labelled as a source and the date it was obtained. A reference date is especially important for information obtained from personal interviews. It is, therefore, vital that you attend classes on database creation in the first and second terms.

Irrespective of the method of filing used, it is essential to adopt the standard bibliographic and reference style. Putting all bibliographic references in the standard format will ensure that all reference information is obtained, and that it will not be necessary to rearrange component parts of references when drafts are written. (If this is not done, an enormous amount of time will be required later to do the referencing properly). In particular, don't forget to include page numbers and place of publication.

It is possible to lose drafts of thesis chapters - briefcases are lost, letters go astray, colleagues delete the hard disc of the computer you have been using... Whenever a university building burns there is always the news story of Professor X or student Y whose entire work of several years has been destroyed. You should always preserve one copy of all significant drafts, preferably in a location separate from the rest of your work, so that the entire work will not be lost in the case of fire or any other disaster. Loss of manuscripts or laptops happens
infrequently, but the cost of a back-up file is not substantial and the peace of mind is worth the cost.

Proposal seminars
Proposal seminars (either formal or informal) can subject the proposal to the ideas of a larger group. Such a seminar/presentation should be made as soon as a fairly complete proposal is written rather than waiting until the research work is well underway. You may get so close to a problem that you cannot see it in perspective and a review session may help you to clarify the proposal. The comments of the participants should assist you to evaluate and further define the proposed topic that you are investigating. More generally, you should seek out comments informally on all your written work where this is possible. This is not a reflection of weakness on your part. Most established academics seek out comments from their peers on papers before submitting for publication.

Research methodology bibliography

All the references listed below are to be found in the library unless otherwise noted. An asterisk indicates that the publication is out of print and/or can be ordered through inter-library loan. The list is not exhaustive and you may well find other and recent sources.

Section 1: Introduction to research


Creswell J.W. 1994 Research Design: Qualitative and Quantitative Approaches Sage Publications


DiMaggio P.J. 1995 "Comments on 'What Theory is Not'" Administrative Science Quarterly 40, 391-397


Howard K. and Sharp J. 1983 The Management of a Student Research Project Aldershot, Gower


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Weick K. 1995 What Theory is Not, Theorizing is" Administrative Science Quarterly 40, 385-390

**Section 2: Research Design**

**a. Selecting the appropriate design**


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Centre for Applied Social Surveys, Question Bank - reference source for question formats and wordings used on major social surveys. webpage

Coulon, Alain 1995 Ethnomethodology Qualitative Research Methods Series No. 36, Sage Publications: California


Easterby-Smith M. and Malina D. 1999 “Crosscultural collaborative research: toward reflexivity” Academy of Management Journal Vol. 42, No. 1, 76-86

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