

Welcome to the EPSRC Centre for Doctoral Training (CDT) in the Mathematics of Planet Earth (MPE). You are now registered as PhD student in the Department of Mathematics at the Imperial College London within the MPE CDT. Most of you, who have just completed their MRes year, will already be familiar with many of the centre's procedures and activities. Even though you already know your way round, this booklet should act as a valuable resource giving you an overview of what to expect in the coming year and beyond.

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1. 2015 Cohort: 1st Year of the PhD phase

Students based at Imperial College London: Thomas Bendall; Goodwin Gibbins; Thomas Gibson Zoe Goss; Josephine Park; Michael Haigh; Matthew Garrod; Aythami Bethencourt De Leon; Oana Lang; Paulina Rowinska; Tasmin Symons; Riccardo Passeggeri **Students based at University of Reading:** Lea Oljaca; Jemima Tabeart

2. Important Dates and Links

October 2016

Monday 3	Monday 3 October					
10:30am 11:15am	PhD Mathematics Welcome Talk Prof Henrik Jensen – Director of PG Studies Dr Tony Bellotti – PG Welfare Tutor Prof Boguslaw Zegarlinski – Pure Section PG Tutor Dr Nick Heard – Statistics Section PG Tutor Dr Nick Jones – AMMP Section PG Tutor Dr Martijn Pistorius – Maths Finance Section PG Tutor	LT 340, Level 3, Huxley Building				
11:15am 11:30am	Office allocation Anderson Santos – PG Administrator	LT 340, Level 3, Huxley Building				
11:30am 12pm	Professional Skills Development Programme – Gradua School Dr Caroline Hargreaves	LT 340, Level 3, Huxley Building				
12pm 12:30pm	Centre for Academic English Dr Julie King – Director of CfAE Non-native speakers of English (only)	LT 340, Level 3, Huxley Building				
2pm 4pm	 SIAM Student Chapter Introduction College Campus Tour PhD students representative team Marina Amado Ferreira – AMMP section Matt Price-Williams – Statistics section Chiara Taranto – Pure section Arman Khaledian – Mathematics and Finance section SIAM Student Chapter committee Francesco Ferrulli – President Marco Francischello – Vice-President Jake Dunn – Secretary Johannes Pausch – Treasurer Simon Schöller – Communications Officer Preye Ayabina – Bio-Mathematics Representative Andrea Natale – Fluids Representative 	LT 340, Level 3, Huxley Building				

4pm open end		Maths Common Room, Level 5, Huxley Building				
Tuesday 4 October						
10am 11am	General Admin + <u>Expenses Claim</u> + <u>PWP</u> + <u>PhD Progression</u> Anderson Santos – PG Administrator	LT 340, Level 3, Huxley Building				
11am 12am	Safety Induction Health and Safety team	LT 213 (Clore), level 2, Huxley Building				
12pm 2pm	SIAM Lunch (optional social event) Divided by sections (each student pay for their own lunch) Meeting point: blue sofas Huxley level 3 concourse area	AMMP: h-bar Pure: h-bar Statistics: SCR Finance: EastSide				
2pm 2:30pm	Library Session Ann Brew	Library foyer				
2:30pm 4pm	<u>SIAM</u> JAMS Free nibbles (attendance by new and current PhD students)	LT 340, Level 3, Huxley Building				
Wednesday	5 October					
1pm 1:30pm	ICT + Security Duncan McLachlan (IT Support Specialist)	LT 213 (Clore), level 2, Huxley Building				
2pm 4pm	Graduate Teaching Assistant (GTA) Talk (for current and new PhD students) Prof Henrik Jensen – Director of PG Studies Prof David Evans – Director of UG Studies Dr Chris Ford – Senior Teaching Fellow in Applied Mathematic	LT 340, level 3, Huxley Building s				
4pm 6pm	SIAM Mingle Free food and drinks (attendance by new and current PhD stud	Maths Common Room, dent. Level 5, Huxley Building				
Thursday 6	October					
5pm open end	SIAM Pub Quiz Free food and drinks	Physics Common Room, Level 8 Blackett Building				
Friday 7 Oct	tober					
9am 11-12pm	SIAM Brunch Free food and drinks	Room to be confirmed				
4pm 5:30pm	Statistics Section InductionProf Niall Adams – Head of SectionDr Nick Heard – Section PG TutorAttendance by new Statistics students (only)	LT 130, level 1, Huxley Building				
5:30pm 8:30pm	Statistics Section new term party Attendance by Statistics students/staff	Maths Common Room, level 5, Huxley Building				
7pm	<u>SIAM</u> Movie Night Free nibbles (attendance by new and current PhD students)	Room to be confirmed				

Important Dates for 2016/17

• The Jamboree

20st – 22rd March 2017, South Kensington Campus, Imperial College London

Please make sure that you regularly check the MPE CDT Calendar for additional events and amendments: <u>www.mpecdt.org</u>

3. Introduction to Imperial College

Imperial College London is the only university in the UK to focus exclusively on science, medicine, engineering and business. As a postgraduate student you will be contributing to an expert community, whose research has a profound impact on society and the economy. From Fleming's discovery of Penicillin and Gabor's invention of holography, to Kibble's contribution to the Higgs boson and Stevens' work on rapid testing for AIDs and Malaria, Imperial's research has been changing the world for well over 100 years.

Imperial has the greatest concentration of high impact research of any major UK university, according to the Research Excellence Framework (REF) 2014. Our research crosses international boundaries and we are particularly known for our support of research that spans different subject areas. We offer funding, infrastructure and cultural encouragement to bring researchers together across the disciplines to explore different approaches to solving a problem. The result is a dynamic culture of discovery to which you will be an important part of.

We are committed to 'sharing the wonder' of what we do through public engagement events. Postgraduate students, alongside our academics and undergraduate students, make a significant contribution to these events, such as our annual Imperial Festival and our term- time Imperial Fringe events.

Doctoral Proposition

Imperial College London will:

Provide a world-class research programme:

- focused on performing cutting-edge research that makes a significant contribution to the knowledge base;
- 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

http://www.imperial.ac.uk/study/pg/graduate-school/about-us/doctoral-proposition/



Welcome from Professor Sue Gibson, Director of the Graduate School

Academic Departments, the Graduate School and the Graduate Students' Union work closely together to ensure opportunity is

provided for an excellent and internationally renowned research experience.

As part of this commitment to you, the Graduate School has developed a programme of professional skills courses, covering a broad range of themes, for

example, personal effectiveness, writing skills, presentation skills, project management and leadership skills, all of which have been tailored to suit the different stages of your research degree. The skills developed during these courses are highly valued in the job market.

Graduate School courses are free of charge to Imperial research students and I would encourage you to take as many as you can to supplement your academic training. The Graduate School works closely with the Graduate Students' Union (GSU) and is keen to respond to student needs so if there is an area of skills training, or an activity that you would like us to offer, but which is not currently provided, please do get in touch (graduate.school@imperial.ac.uk). You should regularly check the Graduate School's website and e-Newsletters to keep up to date with all the events and training courses available to you. The current programme can be viewed at:

http://www.imperial.ac.uk/study/pg/graduate- school/professional-skills/doctoral/

The Graduate School also runs a number of exciting social events throughout the year which are an opportunity to broaden your knowledge as well as to meet other students and have fun. Particular highlights include the Ig Nobel Awards Tour Show, the Chemistry Show, the 3 minute thesis competition as well as the Research Symposium. I would encourage you to take part in these activities – there are times when it can feel lonely as a research student and these events are an opportunity to be part of the wider research student community. In addition, many of the advances in science, engineering, medicine and business occur at the boundaries between disciplines and meeting students from other Departments and Faculties offers opportunity to enrich your research.

Finally, I hope that you enjoy your studies here at Imperial, and I wish you well.

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Sue Gibson



Welcome from Dr Janet De Wilde, Head of Postgraduate Professional Development

I would like to welcome you to the Graduate School programme for postgraduate professional development.

Our team of tutors come from a wide variety of experiences and we understand just how important it is to develop professional skills whilst undertaking postgraduate studies and research. Not only will this development improve

success during your time at Imperial, but it will also prepare you for your future careers.

We are continually working to develop the courses we offer and over this year you will see a range of new courses including face-to-face workshops, interactive webinars and online self-paced courses. I encourage you to explore and engage with the diverse range of opportunities on offer from the graduate school and I wish you well in your studies.

Janet De Wilde



The Graduate School's Mission Statement and Strategic Aims (2013-2018)

Mission

The Graduate School plays a key role in delivering the postgraduate student experience as well as with postgraduate education, policy and strategy development. The Graduate School enriches the postgraduate student experience by delivering a tailored programme of professional skills training which enhances the professional impact and helps to ensure personal ambitions are realised. In partnership with academics, students across the College and the Graduate Students' Union, the Graduate School provides opportunity for students to meet each other at a variety of social and academic events, promoting interdisciplinary knowledge exchange, encouraging collaborations and creating supportive global research communities and peer groups.

Strategic Aims

The Graduate School will support and enhance the postgraduate student experience by:

- Providing innovative professional skills courses for Master's and research students, informed by research and developed in response to feedback from students and staff and taking into account the changing needs of employers.
- Listening to the views of postgraduate students and providing forums to represent their voice throughout College.
- Enhancing opportunities for students to communicate their science to a variety of audiences and to engage with the public, recognising the multiple perspectives of communities.
- Providing opportunities for Outreach activities, in consultation with Student Outreach and Recruitment.
- Encouraging cross-disciplinary interaction and collaboration by hosting networking activities, social and academic events.
- Providing opportunities for researchers to develop their global perspectives via the provision of international summer schools.
- Working with academics and students to facilitate the development of student peer support groups or cohorts and providing tailored events and activities for cohort specific groups.
- Facilitating innovative ideas for showcasing student research.
- Providing clear and succinct information about College policies and procedures and progression through programmes of study.
- Continuing to develop online support for postgraduate students, including online skills courses and guidance.
- Supporting students with an interest in teaching, via the provision of a comprehensive programme for GTA training, in consultation with the Educational Development Unit.
- Collaborating with the Educational Development Unit to ensure that research supervisors are provided with a comprehensive training programme.



Welcome from the Graduate Students' Union

I am delighted to welcome you to Imperial, and to the Graduate Students' Union (GSU). I hope that your time here will be fulfilling and valuable, and the GSU is here to try and facilitate this.

Imperial College London is such a wonderful and transformative place that provides a unique and thrilling environment for research and for advanced studies, and the graduate students are a vital and valued part of the wider community of Imperial. Our graduate students are at the forefront of the research done.

Therefore, at the GSU we ensure that the experience here fosters both academic achievement and personal development in our students.

The GSU is a University-wide representative body for postgraduate students at Imperial. It promotes the interests and welfare of its members, provides social and recreational activities and advocate for you and your opinions to the University and bodies external to the university. I encourage you to become an active member of the GSU– through involvement in your departments and the many University societies, and through our representational and campaigning activities.

I wish you all a fantastic time here at Imperial. Please take advantage of our rich community, and hope to meet you all soon.

Ahmed Shamso gsu.president@imperial.ac.uk



4. Introduction to the Department of Mathematics

For the PhD Phase of the program the MPE CDT students will be provided with desks which are located in the Department of Mathematics (Huxley Building, South Kensington Campus).

The principal aim of the Department of Mathematics is to train professional mathematicians and statisticians to pursue the study of scientific and technological problems by mathematical methods, and to undertake research in various branches of the subject. A further important function is to provide instruction in Mathematics for students who require it as ancillary to courses of study in other departments of the college. The Mathematics Department has its own excellent library facilities. Substantial computing power is available to staff and postgraduates and the College has a responsive central IT advisory service, including a telephone helpline.

The Department acts as a unified whole in most respects, but for administrative convenience is organised into Sections with distinctive research directions: **Pure Mathematics, Applied Mathematics and Mathematical Physics (this Section includes Numerical Analysis), Statistics and Mathematical Finance.** <u>https://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/</u>





Welcome from Prof Richard Craster, Head of Mathematics Department

Dear Colleague

Welcome to the Department of Mathematics at Imperial College. I hope that your time here as a postgraduate student is both productive and fruitful.

Best wishes with your studies. Yours sincerely,

Prof Richard Craster 644 Huxley Building South Kensington Campus London SW7 2AZ 180 Queen`s Gate Tel: +44 (0) 20 7594 8554 <u>r.craster@imperial.ac.uk</u>



Welcome from Prof Henrik Jeldtoft Jensen, Director of Postgraduate Studies

Dear new PhD student,

Welcome to the Mathematics Department at Imperial. The Department is eager to help you make your years of study a satisfying period of learning and creativity.

Please read on. Your success and comfort will depend on your familiarity with the essentials of being a PhD student. I know you may experience a degree of information overload initially. But read at least this page and keep the handbook within reach for reference.

- 1. Engage: Mathematics and science are social activities. Your fellow PG students across the department and throughout the college are wonderful resources of help, friendship, inspiration and creative stimulation. A very efficient way to get involved, increase your understanding of mathematics and develop your CV is by acting as Teaching Assistance. The department seriously needs your assistance and you will benefit by being immersed in the tradition of transferring math from one generation to the next. So pleases sign up and make sure you attend the required training sessions.
- **2. Academic and administrative support**: The intention is that you develop a constructive, and hopefully friendly and fulfilling, relationship with your supervisor. First discuss all academic and admin issues with her/him. The section PG tutor is the first port of call after your supervisor. The PG administrator Mr Anderson Santos is available for admin enquiries.
- **3. Depth and breadth**: Good mathematics and science needs the right balance between depth and breadth. One inevitably needs a thorough knowledge of ideas, methods and techniques from as broad a field as practically possible. Through breadth one may become aware of existing approaches that can turn out to be helpful when working on specific problems. Breadth is also needed in order to know what today's interesting and important open problems are. On the other hand, depth is needed to ensure that one's level of understanding is sufficiently detailed to allow one to make creative contributions.

During your PhD study you'll have to keep this balance in mind. To help with this, it is required that you, together with your supervisor, select taught courses, seminars, reading groups, summer schools, conferences etc. (appropriately assessed) from subject fields that can complement your own main topic of specialisation. More details about this can be found under the sections concerning the Early and Late Stage Review.

4. The 4 years deadline: You need to be aware from the very start that 48 months can be a very short time. It is extremely difficult to be allowed to submit your thesis after the 4 years deadline. If at any time during your study, you experience difficulties in keeping up the appropriate progress, you must raise this with your supervisor. It may be possible to obtain interruption of study (though not in retrospect), but very difficult to extend the 48 moths deadline.

I sincerely wish the next few years may lead you to the insights and achievements you are hoping for,

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Prof Henrik Jeldtoft Jensen Room 1201, 12th floor, Electrical Engineering Building South Kensington Campus Tel: +44 (0)20 759 49853 Fax: +44 (0)207 594 8517 pgr.director@imperial.ac.uk

Faculty of Natural Sciences Structure http://www.imperial.ac.uk/natural-sciences/departments/

Department of Mathematics http://www3.imperial.ac.uk/mathematics

Staff Student Committee

The Staff-Student PGR Committee 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:

http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/goodprac_tice

Student input into teaching happens through a number of channels. On a formal basis there are Staff Student PGR Committee meetings two or three time per year.

In these meetings one PhD student representative from each section (Pure; AMMP; Statistics; Mathematics and Finance) make the opinions of the students known to academic staff in an informal and nonconfrontational environment. Any actions arising from these meetings are implemented by Senior Tutors, Director of PG Studies and the PG Administrator.

For list of committee members, please visit the <u>current PhD student page</u>.

A summary of actions taken to enhance doctoral programmes as a result of student feedback

We are 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.

There are normally three PGR Committee meeting. The student representative will bring your comments to be discussed at the meetings.

• We have performed a survey of our graduate cohort and the overwhelming issue identified was a sense of isolation: that their principal intellectual relationship with only with their supervisor; that very little communication was occurring outside their research group and negligible communication was occurring outside their departmental section.

From the students' feedback, we are incorporated a series of cohort building activities. These activities happen throughout the year and are organised by the students. The students' representatives, together with the <u>SIAM student chapter</u>, will contact all of the cohort of MRes and PhD students with further information about each month's events.

The activities range from movie night, field trip, pub quiz, live concert, summer BBQ, and more.

- Run department wide research poster days
- Sections run PG seminar days
- Maths Helpdesk a platform, managed by mathematics PhD students, which allows researchers from across the college to post any mathematical problems they might stumble upon in their research. The Maths Helpdesk team will match the problem up with a mathematician who might have the expertise to help solve it.

Please visit the <u>Maths Helpdesk page</u> and get involved as problem solver, or post your own problem

Academic Support

There are many formal and informal ways of obtaining support, help and advice. The formal sources open to you include, but are not limited to:

- your supervisor;
- your assessors;
- your departmental postgraduate tutor;
- your departmental Director of Postgraduate Studies;
- your departmental Safety Officer;
- your Head of Department;
- your departmental student representative;
- your faculty student representative.

The 'roles and responsibilities' documents on the Registry website may be a useful reference: <u>http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/goodprac</u><u>tice/rolesandresponsibilities</u>

List of key Academic/Administrative Staff in the Department of Mathematics

The team offer pastoral support and offer advice and if necessary they will direct you to an appropriate source of support. You can arrange to have a meeting with the postgraduate tutor at any time during your studies. Please note all meetings will be completely confidential.



Prof Henrik Jeldtoft Jensen

I am the Director of Postgraduate Studies (DPS). I chair PG committee meetings and I am responsible for interfacing with the college and EPSRC and overall strategic opportunities. I also assists the section PG tutors and the Welfare Tutor when needed. pgr.director@imperial.ac.uk



Dr Tony Bellotti

I am the Postgraduate Welfare Tutor in Mathematics. Please contact me if you have a nonacademic problem, such as medical or financial, which is troubling you and is affecting your research work.

pgr.welfare@imperial.ac.uk



Dr Martijn Pistorius

I am the Mathematical Finance PG Tutor. I am the first point of contact for Academic matters related to Mathematical Finance PhD studies. m.pistorius@imperial.ac.uk



Dr Nicholas Heard

I am a senior lecturer and the PG tutor for Statistics. I am the point of contact in the section for any queries about PhD study which specifically relate to statistics. pgstats@imperial.ac.uk



Prof Boguslaw Zegarlinski I am the Pure Mathematics PG Tutor. Please contact me for academic matters related to the Pure Mathematics section. b.zegarlinski@imperial.ac.uk



Dr Nick Jones I am the PG tutor for Applied Mathematics and Mathematical Physics. Please contact me for academic matters related to the this section. nick.jones@imperial.ac.uk



Anderson Santos - PG Administrator Please contact me for any administrative guidance. a.santos@imperial.ac.uk Office 651, level 6, Huxley building 0207 594 8381

PhD Student Representative Team

We are here to voice needs and concerns to the administration and help organise events for PhD students. Please feel free to approach us with any concerns or suggestions you might have for the department.



Luca Mingarelli Overall representative I.mingarelli13@imperial.ac.uk Office: 6M09, Huxley



Matt Price-Williams Statistics section representative <u>m.price-williams14@imperial.ac.uk</u> Office 537, Huxley



Chiara Taranto Pure Mathematics section representative <u>c.taranto13@imperial.ac.uk</u> Office: 613, Huxley



Marina Amado Ferreira Applied Mathematics and Mathematical Physics representative <u>m.amado-ferreira14@imperial.ac.uk</u> Office: 6M09, Huxley



Arman Khaledian Financial Mathematics representative <u>a.khaledian14@imperial.ac.uk</u> Office: 6M37, Huxley

Department research

The Department's overall research agenda is to identify the key scientific, economic and societal challenges to which Mathematics can contribute; make world-leading contributions across the spectrum of Mathematics and Statistics; solve outstanding open problems by developing fundamental new tools and, where appropriate, apply these tools to a wide range of real-world problems. This vision extends to fostering a creative and supportive culture where research students receive excellent training, postdoctoral researchers develop into outstanding independent scientists and staff at all levels realise their full potential.

The Department's research agenda is set with the broader College context in mind: the emphasis placed on translating the highest quality science into practice worldwide being a distinctive feature of the College ethos. Translational goals, therefore, also inform the process of developing new research directions to pursue. Effective translation demands close collaboration with other disciplines; therefore developing effective collaborations within the context of Imperial College—and more broadly—is another key feature of research within our Department.

Please visit the Mathematics Department Research webpage for full information in the various areas: <u>http://www.imperial.ac.uk/natural-sciences/departments/mathematics/research/</u>

Departmental facilities

HUXLEY BUILDING

Level 1 - Colour poster printer - room 132

Request ICT to install it on your machine: HP Designjet Z5200ps PS3 Ask the door code to the PG Administrator

Level 4 - Mathematics Learning Centre - 416

Level 5 - Common Room (tea, coffee, snacks) - 549 Level 6 - Staff mail room - 655A

Stationary cupboard – 649a (with Kalra or Rosie's permission) Level 6M - Student mail room – 6M52

Events, seminars and research days

College Term dates <u>http://www3.imperial.ac.uk/registry/currentstudents/termdates</u>

News

http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/news/

Link to Departmental research webpage

http://www.imperial.ac.uk/natural-sciences/departments/mathematics/research/

Departmental events

http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/events/

Departmental seminars

http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/seminars/

Staff and key contacts

Please follow this link to view a list of all staff and key contacts: <u>http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/people/</u>

Key College events

http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/eventssummary

Graduate School events

http://www.imperial.ac.uk/study/pg/graduate-school/events/

Cross-College Research Seminars

http://www3.imperial.ac.uk/graduateschool/events/researchseminar

Cohort building activities

Students are very strongly encouraged to participate actively in group meetings, section seminars, department colloquia, PG seminars and poster events.

The department offer a number of student cohort building activities. These events aim at creating a network of relationships inside the mathematics department, which in turn will facilitate information and skill sharing.

Details of cohort building activities are circulated to students in due course.

These are some webpages with more details:

- Imperial College London SIAM Student Chapter
- <u>Mathematics Department Seminars page</u>
- <u>Mathematics Department Events page</u>
- <u>Postgraduate Forum PhD annual poster competition</u>
- Graduate School Events dates
- <u>Cross-College Research Seminars</u>

Mathematics Learning Centre

Development of the new Mathematics Learning Centre was completed in October 2010 and is open in time for the start of the new term. The new state-of-the-art Learning Centre is located on Level 4 of the Huxley Building on the South Kensington Campus and houses 64 computers, two study desks fitted out with audiovisual facilities for project presentations and a range of additional study areas for Mathematics students. The space was originally occupied by the Department of Mathematics library, which has now been consolidated with the main College collections. Opening hours: Monday - Sunday 8am - 11pm. http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/mathematics-learning-centre/

Health and Safety Information

As a student at Imperial are responsible for your own and others' health and safety. The College guide to health and safety for staff and students can be found here: <u>http://www3.imperial.ac.uk/safety/subjects/management/safetyguide</u>

The College Safety Department

The Safety Department helps departments and individuals ensure effective safety management systems are in place throughout the College. <u>http://www3.imperial.ac.uk/safety</u>

Departmental Safety Officer

Your supervisor is the first point of contact for your health and safety enquiries and concerns. But if these cannot be addressed you should contact your Departmental Safety Officer (DSO).



Andy Pope

Department Safety Officer <u>a.pope@imperial.ac.uk</u> Room 131, 1st floor Huxley Building Tel: 020 7594 8544 (internal: 48544)

Please visit this page for up to date information: <u>http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/safety/</u>

Safety Contacts for the Maths Department

Faculty Safety Manager: **Julia Easton** Blackett 325 (Back of computer suite) Office: 020 759 47700 (internal: 47700) Mobile: 07714 051 270 (internal: 51270)

Department Safety Officer: **Andy Pope** Room 131, 1st floor Huxley Building Tel: 020 7594 8544 (internal: 48544) <u>http://www.imperial.ac.uk/natural-sciences/departments/mathematics/about-us/safety/</u>

5. Departmental Procedures – General

Health and Safety Information (use of equipment, training, etc)

As a student at Imperial are responsible for your own and others' health and safety. The College guide to health and safety for staff and students can be found here: http://www3.imperial.ac.uk/safety/subjects/management/safetyguide

The College Safety Department

The Safety Department helps departments and individuals ensure effective safety management systems are in place throughout the College.

http://www3.imperial.ac.uk/safety

Occupational Health requirements

The College Occupational Health Service provides services to protect health at work, assess and advise on fitness for work and to ensure that health issues are effectively managed. The Service promotes and supports a culture where the physical and psychological health of staff, students and others involved in the College is respected, protected and improved whilst at work. http://www3.imperial.ac.uk/occhealth

UKVI requirements for overseas students

The Government imposes a requirement on universities to monitor the attendance of Tier 4 student visa holders, and to report to UK Visas and Immigration (UKVI) any Tier 4 visa holders who cease to be in regular attendance. The College is required to notify the UKVI where a student visa holder has missed ten "expected interactions" with the College. It is therefore essential that students communicate any annual or sick leave to their supervisor(s) or designated departmental contact.

6. Doctoral Milestones & Departmental Requirements

Postgraduate English Requirement

The Centre for Academic English (<u>CfAE</u>) aim is to help international students and staff at Imperial College London participate effectively and confidently in the academic community.

Incoming PhD students need to be made aware that carrying out research and writing about it in at a high academic level is completely separate from, and has a different purpose to, the IELTS (or equivalent) which many students will have taken to meet the English language condition of their offer.

The PGR is an internal Imperial College assessment of a students' written English competence that relates to the academic language demands of producing a PhD thesis in <u>STEM subjects</u>.

If students are identified as lacking or having weaknesses in key competencies, then they will be directed to classes aimed at supporting them through the various stages of their research study. The classes will help students to develop their academic language and skills necessary for successful, independent completion of their PhD thesis.

Assessments and courses

In the new PGR system, all new non-native speaker PhD students are be required to take the first available English Assessment 1 (EA1), after registering for their PhD (assessments will take place in September/October, January, March and June).

This means not only all students who have had to provide evidence of their English language competence as part of their application, but also all students who have a Master's degree studied in the medium of English (including a Master's from Imperial) and who, therefore, have not had to provide evidence of English language competence.

This is to make sure that we assess as many students as possible, and identify, as early on in the thesis as possible, any students who need immediate English language support from the CfAE. Click here for detailed information and to register yourself

Exemptions

Students with a minimum English language proficiency of IELTS 8.0 overall (or equivalent test scores: TOEFL score of 110 overall or higher, Pearson PTE score of 76 overall or higher), or those who have studied a full undergraduate degree in a majority English-speaking country can request exemption from English Assessment 1 (and the Imperial College London postgraduate English requirement).

The CfAE will email all new non-native English speaking PhD students within two weeks of enrolment onto their PhD programme to inform them whether they have met the exemption criteria or need to take EA1. Students who are exempt will still be able to register for more advanced English courses if they so wish. Please <u>email the CfAE</u> if you have any further query.

Stage 1 – EA1

Students scoring below 30%

Very weak students (those scoring below 30% on EA1) are offered the opportunity to attend the course: 'Basics of Academic Writing'. This course will precede Academic Writing 1 and 2 and reviews and consolidates the basic and important grammar and sentence structures needed for science communication.

<u>Students scoring between 30% and 45% on EA1 will be required to attend two 8-week academic</u> writing modules during the 9-month ESA period.

These courses will run 4 terms a year and students are strongly encouraged to take advantage of this support. The courses are not only designed to develop the students' academic language and skills, but the syllabi have been developed to incorporate the language demands of producing the ESA report in terms of specific communicative functions, academic grammar, technical and non-technical vocabulary, cohesion, text organisation and structure.

Whilst the main focus of these modules is on academic writing, an integrated approach is taken so that classes will include the skills of academic reading, speaking and listening.

<u>Students scoring 45% to 60%</u> on EA1 will also be encouraged to attend classes, as these students would still benefit from continued language study.

Stage 2 – EA2

<u>Students who score below 45%</u> on EA1 will be re-assessed by the CfAE around the time of the departmental ESA. This English Assessment 2 will take place in September/October, December, March and May/June and will no longer be a pass/fail event but an assessment that determines the student's language proficiency and progress in relation to the stage of their PhD study.

If the student has not made sufficient progress, further courses, as well as further strategies for self-study, will be recommended. The CfAE aim to offer a range of courses suitable for students at this post-ESA stage as well as for students with a higher level of English.

Students can also sign up for 1:1 consultations with a CfAE tutor and for other CfAE courses or workshops that cover academic grammar, academic listening and speaking, and social English.

Fulfilling the requirement

The CfAE will report to departments and supervisors on student performance in the assessments, class attendance and assignments completed, progress made and position in relation to the rest of the cohort. A final report will also be sent to departments for their records once a student has taken EA2.

Other CfAE courses for PhD students

Writing

Apart from the courses specific to the PGR (Basics of Academic Writing, Academic Writing 1, Academic Writing 2) the CfAE offers the following courses to PhD students:

For students with a higher level of language proficiency, we offer:

- Academic Writing 1&2 (condensed) for students scoring 45-60% on EA1
- Advanced Academic Writing
- Writing a Research Paper

Speaking

We now offer three new speaking courses for PhD students:

- Effective Speaking 1
- Effective Speaking 2
- Effective Presentation Skills for PhD students

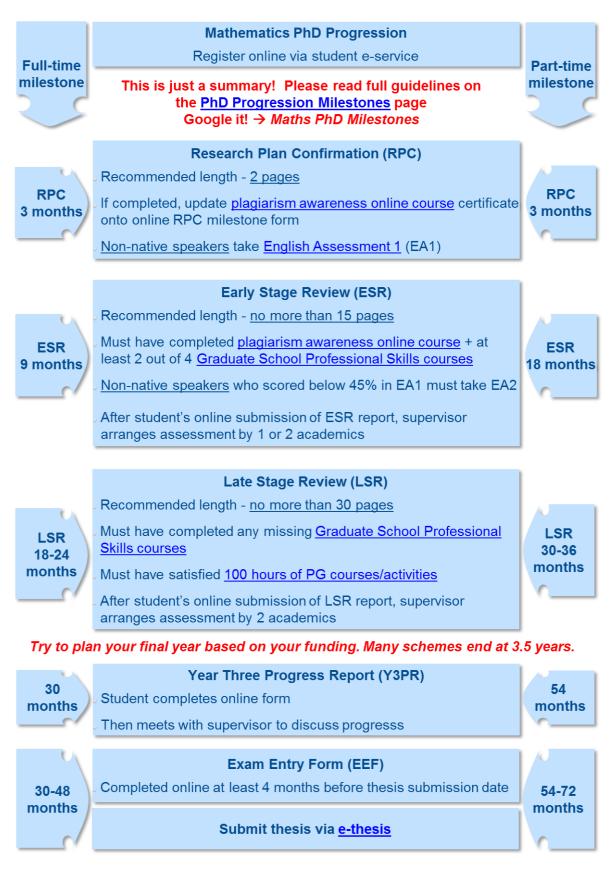
Effective Speaking 1 and 2 are aimed at students in the pre-ESA stage of their research, whilst Effective Presentation Skills for PhD students is for 2nd year students who may need support with a range of skills needed for presentations.

Students should visit the CfAE webpage for accurate and up-to-date information on the PGR and English language provision for PhD students:

www.imperial.ac.uk/academic-english/phd- students

Mathematics PhD Progression flowchart

Please note that the MPE CDT students are exempt from satisfying 100 hours of PG courses/activities for the Late Stage Review



Research Plan Confirmation Guidelines (3-month PhD milestone)

PhD students, whether part-time of full-time, are required to produce a Research Plan and have it assessed within 3 months of initial registration.

Students progressing from first year in the CDT will still need to complete the 2 items below, just like all other students (except, instead of uploading documents to the Maths PhD Milestone system, the CDT students will email the plagiarism certificate to the PG Administrator):

- 1. Non-native speakers are reminded to be following recommendations from the <u>Centre for</u> <u>Academic English</u> based on their results on the English Assessment 1 (EA1).
- 2. <u>Plagiarism awareness online course</u> is compulsory for all 1St year Doctoral Students and has to be completed prior to the ESA (those progressing from an MRes/MSc at Imperial are exempt)

Content

- a. Brief description of your research area which will be the topic of the thesis
- b. Length typically 2-4 pages. It is too early to write more. Too many pages will not be appreciated. It is a useful skill, not only in academic life, to write about a topic concisely. As your research develops, you may wish to develop this preliminary document into something more substantial. But you may end up solving a different problem, perhaps more interesting, that the one you began with.
- c. A list of mathematics <u>postgraduate courses/activities</u> and <u>Graduate School professional</u> <u>development skills courses</u> you plan to take in your first year.

Aim

- d. ensure communication between the student and the supervisor
- e. provide description of possible project
- f. assess potential of project

How does it work?

- g. Discuss your plan in detail with your supervisor(s).
- h. Submit the RPC through the Maths PhD Milestones online system (you will receive an auto-reminder email with the link to the system one month prior to the due date).
- i. Upload the online plagiarism certificate as PDF on the Maths PhD Milestones online system + indicate your status with regards to the EA1.
- j. The supervisor(s) and the Section Tutor will read it, and decide whether:
 - You are communicating well with your supervisor.
 - You have a clear idea, for this stage, of what you will be doing.
 - That the problem is of a reasonable level, neither trivial nor too difficult.
 - Whether the courses you plan to take are appropriate.

Possible outcomes

- k. Progress
- I. Re-submission (within a month of first submission)

Important notes!

- 1. <u>Plagiarism awareness online course</u> is compulsory for all 1st year Doctoral Students and has to be completed prior to the ESA (those progressing from an MSc or MRes at Imperial are exempt).
- 2. You must contact your supervisor and section tutor for feedback on your RCP.
- 3. Badly written or badly thought out reports will need to be improved and re-submitted.
- 4. It is the student responsibility to check that they have indeed passed this milestone, by checking their record on **<u>Student e-Service</u>**.

Professional development skills courses

All PhD students are expected to complete a programme of professional skills courses as prescribed by the Graduate School. Failure to complete the requisite training may result in a student's registration being transferred from PhD to MPhil or in a student being barred from entering the PhD (or MPhil) examination. See 4.2 of the <u>Regulations for the award of PhD and MPhil</u>.

Students must complete 4 courses, 2 by the Early Stage Review and another 2 by the Late Stage Review. See the <u>Graduate School Professional Development Skills</u> website for details.

If you have not completed this requirement, the College may transfer your registration to MPhil. If you subsequently fulfil the professional skills development requirement, and have otherwise successfully completed the Early Stage Assessment, the department may request a transfer of registration from MPhil to PhD. The date of PhD registration will, in this case, be taken as the date of your initial PhD registration.

Early Stage Review (ESR) Guidelines

The College requires that, following the Research Plan Confirmation (RPC), PhD students' progress must be formally monitored at two key stages after the date of initial registration:

- Early Stage Review 9 months (full-time students) | 18 months (part-time students)
- Late Stage Review 18-24 months (full-time students) | 30-36 months (part-time students)

Students must complete 4 Graduate School <u>professional development skill courses</u>: 2 by the Early Stage Review and another 2 by the Late Stage Review.

Content

- a. Gives a clear but concise account of the most relevant background material you have learned so far. This should include a survey of the literature on the topic you are working on.
- b. Describes the research problem which is to form the core of your thesis.
- c. Length typically 15-20 pages. A longer report is not needed at this stage. It is a useful skill, not only in academic life, to select the key facts which you need to explain, and to write about them concisely.
- d. Ideally the report can be made into an introductory chapter of your thesis, or even, perhaps with more work, turned into a published paper.
- e. The report need not be a complete account of all the background you have learned so far. Provided you make it clear what background your research is based on, and where the argument is intended to go, the assessors should conclude you have a fair idea, for this stage, of what you will need to do.

Writing a coherent account of a piece of research is the safest test for whether one understands it properly. If it is hard to explain part of an argument clearly, it can be because the argument itself isn't clear enough yet.

Aim

To show the student has:

- f. an understanding of the field of research
- g. a critical awareness of the relevant literature
- h. an understanding of the direction of their project
- i. the potential to pursue research.

Data may be minimal and more indicative of ability to perform.

How does it work?

- j. Submit the ESR report through the Maths PhD Milestones online system (you will receive an auto-reminder email with the link to the system, one month prior to the due date).
- k. Lists (on the Maths PhD Milestones online system) at least 2 <u>Graduate School Professional Skills</u> <u>courses</u> you have taken.

Note if for any reason you had not yet done this, you must make sure you complete 4 courses before your LSR; students who have not completed the 4 courses by LSR **will not be allowed to progress**. You may check which courses you have attended by emailing <u>graduate.schools@imperial.ac.uk</u>.

- I. Non-native speakers who scored below 45% in the <u>English Assessment 1</u> must have taken EA2. Please find details in the <u>Centre for Academic English</u> webpage.
- m. Your supervisor will appoint one or two assessors (your supervisor can be the second one) to meet you about your ESR. The assessor(s) will liaise with you to arrange the meeting.
- n. <u>Assessor(s)</u> will read your ESR report, and during the meeting with you they will decide:
 - To what extent you are in command of the background material you need to solve the problem;
 - Whether you yet understand the problem and are likely to be able to progress with it (if you have already obtained some results, even if preliminary ones, you should of course describe these);
 - Whether you can write clearly about a scientific topic.
- o. The assessor will complete their section on online system, which will then go your supervisor for their comments, and finally to the Section Tutor for final approval.

<u>Plagiarism awareness online course</u> – if you have not yet completed this online course at the RPC milestones, it is compulsory to complete by the ESR.

<u>Professional skills development training</u> – the Professional Skills courses on Scientific Writing should be a great help to students in understanding how scientific writing is put together, and the course on Scientific Presentations may give students confidence for the oral. The course on Information Retrieval will be helpful in doing a literature search, and compiling an accurate bibliography.

Possible outcomes

p. Progress

If the assessors do not approve the report, there are three possibilities:

- q. **Re-submit** full-time: within 2 months / part-time: within 4 months of original LSR due date, stated on **Student e-Service.**
- r. **Transfer to MPhil registration** alternatively, the College may transfer your registration to the degree of MPhil. The date of MPhil registration will, in this case, be backdated to the date of the initial PhD registration.
- s. **Fail/withdraw:** the College determines that your progress is such that you cannot continue; you may be required to withdraw from the College at this stage.

Important notes!

- 1. You receive an email confirmation after all parties have completed their feedback on the online system.
- 2. Badly written or badly thought out reports will need to be improved and re-submitted.
- 3. It is the student responsibility to check that they have indeed passed this milestone, by checking their record on **Student e-Service**.

4. Professional Skills Development Programme

The Graduate School courses on Scientific Writing and Writing a Thesis should be a great help to you in understanding how scientific writing is put together, and the course on Scientific Presentations may give you confidence for the oral.

The course on Information Retrieval will be helpful in doing a literature search, and compiling an accurate bibliography.

All PhD students are expected to satisfy the Graduate School's professional skills requirements. Failure to complete the requisite training may result in a student's registration being transferred from PhD to MPhil or in a student being barred from entering the PhD (or MPhil) examination. See 4.2 of the <u>Regulations</u> for the award of PhD and MPhil.

Late Stage Review (LSR) Guidelines

The College requires that, following the ESR, a student's progress during PhD registration must be formally monitored at one further stage. The Late Stage Review (LSR):

• 18-24 months (full-time students) | 30-36 months (part-time students)

Content

- a. You should describe the research problem which is to form the core of your thesis;
- b. You should also describe what you have achieved so far on this problem, and what you need to do to complete the work.
- c. Length typically 30 pages. A 'brain dump' of 50 or more pages will not be appreciated. It is a useful skill, not only in academic life, to select the key facts which you need to explain, and to write about them concisely.
- d. Ideally the report can be turned into a published paper, or into a chapter of your thesis.
- e. The report need not be a complete account of all the background you have learned, nor does it need to be a first draft of the final thesis. Provided you make it clear what background your research is based on, and where the argument is intended to go, the assessors should conclude you have a fair idea of what you will need to do.

How does it work?

- f. Submit the ESR report through the Maths PhD Milestones online system (you will receive an auto-reminder email with the link to the system, one month prior to the due date).
- g. Lists (on the Maths PhD Milestones online system) last 2 <u>Graduate School Professional Skills</u> <u>courses (</u>if any missing from the time you completed your ESR).
- h. If applicable, non-native speakers who have not achieved a minimum of 45% in English Assessment
 2 at their ESA, will have followed <u>Centre for Academic English</u> recommendations.
- t. Your supervisor will appoint two independent academics (your supervisor will not be in the panel) to meet you about ESR. The assessors will liaise with you to arrange the meeting.
- u. <u>Assessors</u> will read your LSR report, and after meeting you they will decide:
 - Whether you are in command of the material you need to solve the problem;
 - Whether you understand the problem and are likely to be able to solve it;
 - Whether you can write clearly about an advanced scientific topic;
 - Whether you can explain and defend the work in an oral examination;
 - Whether your plan for completing the work within the deadline is realistic.
- v. The assessor will complete their section on online system, which will then go your supervisor for their comments, and finally to the Section Tutor for final approval.

Possible outcomes

w. Progress

If the assessors do not approve the report, there are three possibilities:

- x. **Re-submit** (within 3 months of original LSR due date, stated on **<u>Student e-Service</u>**)
- y. **Transfer to MPhil registration and write up** students who transfer to MPhil at this stage must complete the MPhil within 3-6 months of their initial LSR. The date of MPhil registration will, in this case, be backdated to the date of the initial PhD registration.
- z. **Fail/withdraw:** the College determines that your progress is such that you cannot continue; you may be required to withdraw from the College at this stage.

Important notes!

- 1. You must contact your supervisor and section tutor for feedback.
- 2. Badly written or badly thought out reports will need to be improved and re-submitted.

3. It is the student responsibility to check that they have indeed passed this milestone, by checking their record on **Student e-Service**.

Information page for Mathematics PhD Students

http://www.imperial.ac.uk/natural- sciences/departments/mathematics/study/students/phd/

On this webpage you will find:

- Information for PhD Students Registered after 1 January 2011
- Latex style file for a PhD thesis (ZIP file, 23KB) Some theses using this style file have been accepted in the past and none have been rejected, however it does not have any official standing.
- PhD Exam Entry Forms
- Completing Research Status Writing-Up
- Thesis Submission and Vivas
- Research Degrees Website
- Plagiarism Advice for PhD Students
- Professional Skills Development Programme
- Academic and Examination Regulations

Taught courses for first and second year PhD students

- Pure and Applied Mathematics (held in H6M42)
- Statistics (held in De Morgan House, Russell Square)
- Mathematical Finance

Timetables

• Mathematics Department Timetables

Other

- Registry website
- Careers Information
- University of London List of Binders
- Internal Student Surveys
- Student Support Fund PhD Student List.

7. Other Relevant Information for Mathematics PhD Students

Graduate Teaching Assistants (GTAs)

PhD students have the opportunity to work as Graduate Teaching Assistants (GTAs) in the Department. Working as a GTA provides you with an opportunity to broaden your experience at Imperial, and develop further skills.

A roles and responsibilities document for GTAs can be found at: <u>http://www.imperial.ac.uk/study/pg/graduate-school/gtas/</u>

This is a training programme, in which the mathematics **department strongly encourage** all PhD students to get involved. The initial session takes place in the induction week. It will introduce the basics of teaching and learning activities to help you to plan your teaching.

This year's training will consist of one compulsory 2 hours training session (see induction timetable for details) and will cover:

- explanation of the role of the GTA;
- marking,
- taking questions,
- supporting the Undergraduates.

In addition to the training given by the department, the Graduate School also offers GTA training.

The benefits of the Graduate School GTA training programme include:

- Building your skills and knowledge in the areas of practical and small-group teaching, in which aspects of preparation, student learning and motivation, and assessment and feedback are all considered.
- Access to teaching specialists to help support your teaching.
- Awareness of resources.

Who is eligible for the programme?

GTA training is open to all PhD students who are registered in their department until (at least) April of the coming year.

You will need the permission of your supervisor and assurance from your department that you will have some opportunity to teach in the coming academic year.

However, enrolments on the programme will be at the discretion of your department's Director of Undergraduate Studies (or his or her relevant delegate).

Graduate Teaching Assistantship Training- HEA accreditation

It is recognised that our PhD students contribute significantly to undergraduate teaching activities. However the training provided to the GTAs across College is very variable. The GS together with the EDU are aiming to provide standardized set of training tools for our GTAs, to complement the training given in departments but not to replace it.

In addition, Imperial College has recently re-joined the Higher Education Academy (HEA) and we are developing an accredited framework that will provide an opportunity for PhD students who teach to obtain Associate Fellowship of the HEA (AFHEA), a transferable and increasingly valuable 'qualification'.

The Imperial Supporting Teaching Accreditation & Recognition (STAR) framework is NOT compulsory. It is flexible and will allow GTAs to use their teaching experience together with Graduate School &/or departmental training to work towards obtaining AFHEA recognition.

Supporting Teaching Accreditation & Recognition (STAR) framework

AFHEA recognition requires individuals to demonstrate appropriate knowledge of teaching and assessment in their particular subject area, to apply appropriate professional values to promoting learning and to be engaged in appropriate teaching, supervision and assessment.

Most GTAs who help with teaching will have enough engagement with teaching to achieve AFHEA recognition. However other forms of teaching including supervision of UG or Masters students, public

engagement activities, teaching in schools and sports coaching^{*} will also count. Importantly there is no minimum in terms of teaching contact required for the AFHEA.

Departmental/Faculty Level GTA training &/or Graduate School training &/or EDU workshops and support can be used in any combination to help GTAs demonstrate the appropriate knowledge of teaching and assessment in their particular subject area and the professional values required.

For further training information, please visit the Graduate School webpage:

http://www.imperial.ac.uk/study/pg/graduate-school/gtas/

Example routes to AFHEA^{*}

- 1. Departmental/Faculty Level GTA training + Teaching + Portfolio
- 2. Departmental/Faculty Level GTA training +GS/EDU courses + Portfolio
- 3. Departmental/Faculty Level GTA training +GS/EDU courses + Teaching + Portfolio
- 4. Public engagement training + public engagement event participation + Portfolio
- 5. External teaching/coaching activities + Portfolio

Applicants for AFHEA recognition will submit a short (approx. 1500 word) portfolio demonstrating their understanding of the appropriate areas together with two short (500 word max) references, one from a peer and the other from a mentor or supervisor familiar with their teaching role. These are then examined by two Imperial College assessors.

Important points

- 1. Existing training & support together with 'normal' departmental teaching & submission of an acceptable portfolio will fulfil the criteria for AFHEA.
- 2. The framework is flexible; any teaching support and experience can be counted. There is no minimum teaching contact required for AFHEA recognition.
- 3. The portfolio is achievable, is based on existing practice and will form the basis of ongoing development, recognition and reward of good teaching practice.

*These lists are not exhaustive

GTA Expectations Guidelines

Expectations on all GTAs:

- Be suitably experienced and capable to complete assigned work.
- Be up-to-date with lecture materials and problem sheets to be able to be of appropriate assistance to students.
- Complete demonstration and marking duties as assigned and to the level of expected quality and timeframes of the Department.
- When working with 1st and 2nd year courses, it is expected that students will both demonstrate and mark work for the course.
- Meet with students through the Meet Your Marker Scheme to improve upon feedback and support to students.
- When demonstrating, meet regularly with course lecturer to ensure appropriate feedback and information is provided to students.
- Report to the Lecturer any concerns/issues affecting the course.
- Be a positive role model and support for students.

Review of GTA performance:

- End of term review through student survey.
- Verbal/written comments from lecturer.
- Prizes awarded for top performing GTAs annually.
- At the end of PhD, certificate of achievements.

Expectations on the Department:

- Provide initial training and assistance and ongoing support to GTAs through meetings.
- Ensure lecturer's availability and support to GTAs.
- Ensure appropriate information and resources to GTAs to support work with course.
- Provide accurate letters to reflect teaching and training achievements at the end of the programme.

Payment through Casual Payroll:

To be paid through Casual Payroll for any GTA work, please ensure all appropriate documents are signed and returned to the Department by the dates required.

- All marking is paid by assignment.
- All Problem Solving sessions and meetings with the lecturer are paid by the hour/half an hour.
- All Departmental training sessions and discussions are paid at the training rate.

Employment during studies

The College advise students to work no more than 10-15 hours per week. Working in excess of these hours could impact adversely on a student's studies or health.

International students should be advised that most visas allow students to work no more than 20 hours a week. Some sponsors may not permit students to take up work outside their studies and others may specify a limit. Students considering part-time work during term time are strongly advised to discuss this issue with their supervisor or postgraduate tutor. International students should also seek advice from the International Office regarding visa limitations on employment.

Please refer to the policy on employment during studies: https://workspace.imperial.ac.uk/registry/Public/Procedures%20and%20Regulations/Policie s%20and%20Procedures/Student%20Employment%20During%20Studies.pdf

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 sciencebased hands-on activities, summer schools, mentoring programmes in schools, exciting lectures and schools visits to help raise awareness of Higher Education.

http://www3.imperial.ac.uk/outreach

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. http://www3.imperial.ac.uk/outreach/activities/mentoring/postgradambassadors

Professional Skills Development Programme http://www3.imperial.ac.uk/graduateschool/currentstudents/professionalskillsresearch/pro fessionalskillstraining

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 Training 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 there?

The programme is aligned with the three key phases in your doctoral studies –

- UNDERPINNING: the early stage (0-9 months)
- CONSOLIDATION: the mid stage (9-20 months)
- COMPLETION: the late stage (20+ months)

Within each of the key phases, workshops have been grouped into a number of different themes, or "domains", each addressing the personal and professional qualities, knowledge and skills most relevant to you as you progress through your doctoral research.

In addition, the ENRICHMENT section offers further workshops which are available at any stage and which will support you in your academic studies and beyond.

For full details of the workshops in each of the domains, please see:

www.imperial.ac.uk/graduateschool/currentstudents/professionalskillsresearch/professionalskillscourses

Academic Regulations

Academic and Examination Regulations

The College academic and examination regulations for the award of research degrees can be viewed here: <u>http://www.imperial.ac.uk/about/governance/academic-governance/</u>

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:

http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

Examination Procedures

Examination Entry:

Before you can submit your 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 would like to 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 if you are a full-time student, or 68 months after your start date if you are a part-time student.

Please note that submission of your 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:

<u>http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/</u>

The examination entry form must be signed by the Director of PG Studies.

Thesis Submission:

Once you have submitted your 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 a thesis without a valid examination entry. Please read the submission requirements carefully to ensure you submit in the correct format. 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 website www.ethesis.co.uk. Further details can be found here:

http://www.imperial.ac.uk/student-records-and-data/for-current-students/researchdegrees/examination-information/thesis-submission--vivas/

Viva:

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.

When your viva has taken place you may be informed of the outcome by the examiners. You will possibly be asked to make some minor 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.

http://www.imperial.ac.uk/students/success-guide/pgr/progression-and-feedback/thesis-submission-and-viva/

On line publication of thesis:

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:

http://www.imperial.ac.uk/admin-services/library/find-books-articles-and-more/theses/

E- theses: requesting an embargo

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 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: <u>http://www3.imperial.ac.uk/library/subjectsandsupport/spiral/etheses/embargo</u>

Please contact the Research Degrees Team if you have any queries regarding the e-theses policy or an embargo:

0207 594 6087

research.degree@imperial.ac.uk

Academic Matters - Policies and Procedures

UKVI requirements for overseas students

The Government imposes a requirement on universities to monitor the attendance of Tier 4 student visa holders, and to report to UK Visas and Immigration (UKVI) any Tier 4 visa holders who cease to be in regular attendance. The College is required to notify the UKVI where a student visa holder has missed ten "expected interactions" with the College. It is therefore essential that students communicate any annual or sick leave to their supervisor(s) and the PG Administrator.

Academic Integrity

As a student at the College you are expected to conduct all aspects of your academic life in a professional manner. A full explanation of academic integrity, including information on the College's approach to plagiarism is available on this page (Cheating Offences Policy & Procedure):

http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

Code of Practice for Research Students

Students are required to comply with Imperial College London degree regulations and other College procedures and regulations, including following College safety requirements and procedures. The College has developed a code of practice for research students, which gives advice on all stages of a research degree:

http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

and provides guidance about what you can expect from your supervisor and what your supervisor will expect from you.

http://www.imperial.ac.uk/students/success-guide/pgr/effective-research/working-with-your- supervisor/

Code of Student Discipline

The Code of Student Discipline provides for the hearing of complaints concerning breaches of discipline by students, and for rights of appeal where appropriate, and sets down the penalties that may be imposed, including termination of membership of the College.

http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters-statutes-ordinancesand-regulations/ordinances/students/

Complaints and Appeals Procedures

The College aims to give the highest specialised instruction and provide you with the training, resources and administrative support you need to succeed. We also have rigorous regulations in place to ensure assessments are conducted with fairness and consistency. We recognise however, that students may believe that they have grounds for complaint about academic or administrative services, or wish to appeal the outcome of an assessment or final degree. Accordingly we have laid out clear and consistent procedures through which complaints and postgraduate research student appeals can be investigated and considered:

http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/complaints- appealsand-discipline/

Copyright

Copyright guidance is available from the Library: <u>http://www.imperial.ac.uk/admin-services/library/learning-support/copyright-guidance/</u>

Guide to copyright – theses, dissertations and projects:

http://www.imperial.ac.uk/admin-services/library/learning-support/copyright-guidance/copyright- forresearchers/

Study Leave:

http://www.imperial.ac.uk/student-records-and-data/for-current-students/researchdegrees/administration/

It is possible that the course of study will require a student to collect or study material elsewhere than at the College; part of the time may need to be spent in other places. Your supervisor will need to apply using Form IC/D. Study leave is not permissible during the first or last three months of your study.

Adequate supervision must be in place where the student will be taking up their Study Leave prior to any application being approved. It is important to consider the risks involved.

Imperial has an "Off-Site Working" policy which the student's academic department will need to follow and which includes a specific approach ("placements") when a third party placement provider is involved".

Where Study Leave is undertaken inside the UK, tuition fees are charged at the full rate. Where Study Leave is undertaken outside the UK, tuition fees are charged at the full rate if the period of absence is less than 3 months. If the period of Study Leave outside the UK is 3 months or more, a reduced fee may be charged at the discretion of the department. The fee for the Study Leave period will be charged on a pro-rata basis at the rate for part-time students, with fees being charged on a pro-rata basis as normal for the period of full-time attendance at the College.

Where the placement is undertaken outside the UK additional support is provided in the <u>Placements</u> <u>Abroad Handbook</u>.

Ethics - Procedures for ethics approval, Home Office licences, etc

The Imperial College Research Ethics Committee (ICREC) website gives information about ethical approval for certain types of proposed research, and explains the avenues by which this approval can be obtained.

http://www3.imperial.ac.uk/researchethicscommittee

Good Research Conduct

The College expects that all research will be conducted with integrity. The Guidelines for Proper Scientific Conduct in Research describe practices that have been established by several professions and are generally accepted by members of academic staff in the College. Their purpose is to encourage the education and training of junior staff by senior colleagues and to ensure that the quality and integrity of

research is maintained in the College.

http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters-statutes-ordinancesand-regulations/policies-regulations-and-codes-of-practice/proper-scientific-conduct/

Investigation of Allegations of Scientific Misconduct

The College's policy on, and procedures for, the investigation of allegations of research misconduct is intended to satisfy the requirements of those who fund research at Imperial College that the College has proper mechanisms in place for the management of complaints of research fraud or misconduct. It is recognised that instances of misconduct are rare, and the procedures set out in this policy will consequently be implemented only in exceptional circumstances

http://www3.imperial.ac.uk/secretariat/collegegovernance/provisions/ordinances/d17

Research Misconduct

Regardless of discipline and institution, the fundamental factor in ensuring the quality of research and research practices has to be the honesty of the individual investigator. Investigators should be honest with respect to their own work, which means subscribing to proper scientific practices such as acknowledging the contributions of colleagues or collaborators, ensuring veracity of data, and acting with integrity in the depiction of results and conclusions. However, investigators are also expected to be honest in relation to the work of their colleagues and peers. Colluding in, or concealing, the misconduct of others is not compatible with an environment which encourages intellectual honesty and is, therefore, in itself misconduct.

Students should be aware of the <u>College Guidelines for Proper Scientific Conduct in Research</u>, and the <u>Policy</u> and <u>Procedures for Investigation of Allegations of Scientific Misconduct</u>

Intellectual Property Policy

Where students generate IP in the course of their study or research they will own that IP in their own right unless one of the following applies:

- they generate IP which is subject to governing terms or an agreement with an external organisation whereby the IP vests with College or a third party; or
- they generate IP which builds upon existing IP generated by College Employees or Associates; or
- they generate IP jointly with College Employees or Associates; or
- they are, or have the status of, College Employee (in which case they are treated by College and the law as employees).

In the above listed circumstances, students will be required to assign IP to College and, in respect of revenue generated by that IP, the student will be treated on the same basis as College Employees under the Reward to Inventors Scheme.

For further guidance, contact the Research Office.

http://www3.imperial.ac.uk/researchsupport/contractsandip/ippolicy

Leave

Annual leave:

Annual leave is dependent on the student's status, and each student should discuss this at the start of their research degree with their supervisor. All annual leave must be requested from and approved by the supervisor and students must provide adequate notice.

Sick leave:

Students must notify their supervisor as soon as possible if they are absent due to illness or injury and a medical certificate must be produced after seven days.

Interruption of Studies:

This should be requested when a personal emergency or other circumstance arises which means that a student needs to take a break from their studies. No fees are payable for such a period, during which a student's research registration is effectively suspended. It is vital that an interruption of studies is applied for immediately, so that the student's registration and timeline can be suspended until they return and they do not unnecessarily exceed the maximum registration period, assessments and thesis submission deadlines.

Interruption of Studies (IOS) should be put in place for any compassionate leave, maternity and paternity leave, personal emergency, lack of funding, etc. **Students can apply for Interruption of Studies by discussing it with their supervisor; then, email <u>Prof Henrik Jensen</u> the <u>Director of PG Studies</u> – copying the supervisor + the <u>PG Administrator</u>, with proposed dates and reason for interruption.**

For fee-paying registrations, no fees are payable for such a period although it should be borne in mind that registered student status, and the payment of any stipend, will also be suspended for the duration.

Where an interruption of studies is taken on health grounds, a condition of the interruption being granted is that you will be required to provide medical evidence as to your fitness to return to your studies and you will need to arrange to be seen by the College Health Centre prior to your return.

If you are an international student on a Tier 4 student visa, you will have to leave the UK for the period of your interruption. An exception to this would be if you had been declared unfit to travel. Please see further information for international students on how your visa may be affected by an interruption of studies. <u>https://workspace.imperial.ac.uk/international/Public/Resits%20and%20Interruptions.pdf</u>

Note – only in exceptional circumstances can registration be suspended retrospectively.

Mitigation / Extenuating Circumstances Policy and Procedures: http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

Plagiarism

It is important that students learn about how to properly attribute and acknowledge the work, data and ideas of others. Plagiarism is scientific misconduct, and students whose thesis can be shown to contain plagiarism are subject to penalties as outlined in the College's Cheating Offences Policy and Procedures which can be found at this url:

http://www.imperial.ac.uk/about/governance/academic-governance/regulations/

However, in the case of PhD theses there are issues as to what should count as plagiarism. In particular, is a student permitted to re-use their own work (for example material from a previous publication that they have written)? There are considerable grey areas, that require academic judgement, but this document is intended to provide guidelines for students, supervisors and examiners.

In general it is acceptable academic practice for a PhD student to include in their thesis material that has been previously written and published by themselves (including figures and text): they should make it clear that they themselves have published this previously and reference appropriately. However, they must not include material written by others (including their supervisor) without proper attribution, even if they are authors on the publication.

Students should note that reproduction of published work may infringe copyright, as discussed in http://www.imperial.ac.uk/admin-services/library/learning-support/copyright-guidance/

It is not acceptable to reproduce material that has been submitted for an examination at Imperial or another university (for example from the student's Master's thesis). It is acceptable for students to reproduce text and figures that they have previously written and submitted as part of their early or late stage assessment and/or other reports to funders or other bodies. Any documents that are publicly accessible should be appropriately referenced. It must be remembered that a thesis is more than a collection of publications. There may be considerable similarity between sections of a thesis and a publication, however, the level of detail and the nature of the discussion in a thesis is different than that in a journal publication.

It is good practice to indicate that parts of the thesis have been previously published, for example by including a statement like "Some of the work described in this thesis has been previously published in **** and ***."

There are some sections of a thesis that frequently show high similarity when put through TurnitinUK or similar programmes. For example, the Material and Methods of theses from the same discipline often show similarity. This may be because there are only a limited number of ways in which a particular method can be accurately described. While it is not good practice to simply cut and paste methods into a thesis, students should not contort their text simply to avoid similarity with another publication. Plagiarism is misappropriation of another person's original ideas, thoughts or data. While it is important to cite those that have developed the methodologies used in a thesis, similarity in describing those methodologies is usually acceptable.

TurnitinUK Plagiarism Detection Service at Imperial College

TurnitinUK is an online plagiarism detection service that enables plagiarism comparison. <u>www3.imperial.ac.uk/ict/services/teachingandresearchservices/elearning/plagiarism</u>

Plagiarism advice for postgraduate research students can be found on the Library website at <u>http://www3.imperial.ac.uk/library/subjectsandsupport/plagiarism/phdstudents</u>

Plagiarism Awareness Online Course

The Graduate School, in conjunction with the Library, has developed an online course designed to provide you with guidance and information about proper citation and attribution in writing. After completing the course you should be able to explain what plagiarism is, be familiar with the concept of academic integrity, be able to explain how to avoid plagiarism and learn what the College's policy concerning plagiarism is.

http://www.imperial.ac.uk/study/pg/graduate-school/professional- skills/doctoral/onlinecourses/

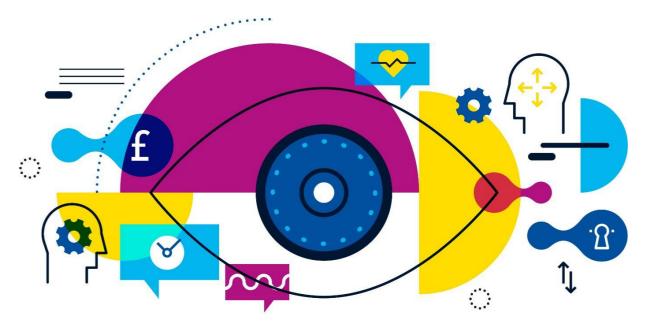
Wellbeing and Advice

New Students

Information on how to settle in and find your way around. <u>http://www3.imperial.ac.uk/students/newstudents</u>

Student Space

The Student Space website is the central point for information on health and well-being. <u>www.imperial.ac.uk/student-space</u>



Director of Student Support

The Director of Student Support has overall responsibility for all matters relating to student support and well-being.

www.imperial.ac.uk/people/d.wright

Departmental support and College tutors

Your Department has a system of academic and pastoral care in place to make sure you have access to the appropriate support throughout your time here. This includes:

Postgraduate tutor

The Department's postgraduate tutor can offer pastoral support and advice. You can arrange to have a meeting with him/her at any time during your studies – what you discuss will be completely confidential. If necessary they will direct you to an appropriate source of support.

Dr Tony Bellotti Postgraduate Welfare Tutor	Office 522 Level 5, Huxley Building South Kensington Campus +44 (020) 7594 8521 pgr.welfare@imperial.ac.uk	
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College tutors

College tutors operate outside of any department. They provide guidance and assistance to students in regard to welfare issues and are also involved in College disciplinary matters involving students. For more information see:

www.imperial.ac.uk/student-space/here-for-you/college-tutors-and-departmental- support

Advice services

The tutor system is complemented by a College-wide network of advice and support. This includes a number of specialist services.

The Graduate School

Every postgraduate student at Imperial is a member of the Graduate School. In partnership with academics, students across the College and the <u>Graduate Students' Union</u>, the Graduate School provides opportunities for students to meet each other at a variety of social and academic events, promoting interdisciplinary knowledge exchange, encouraging collaborations and creating supportive global research communities and peer groups. The Graduate School runs a Professional Skills Development programme for doctoral students

http://www3.imperial.ac.uk/graduateschool

Registry

Registry: http://www3.imperial.ac.uk/registry

Research Degrees:

http://www3.imperial.ac.uk/registry/researchdegrees

Student online services:

http://www3.imperial.ac.uk/registry/currentstudents

Records

The Records section is responsible for the administration and maintenance of student records including: enrolments, interruptions of studies and withdrawals. The team also deals with examination results, progression and the issuing of statements of attendance, transcripts and degree certificates. The Records section is also responsible for the administration of Research Degree Examinations.

Student Records and Examinations

records@imperial.ac.uk or +44 (0)20 7594 7268

Research Degree Examinations research.degree@imperial.ac.uk or +44 (0)20 7594 6087

Degree Certificates certificates@imperial.ac.uk or +44 (0)20 7594 8037

Careers Service

The Careers Service has strong links to your Department and you will have a named Careers Consultant and Placement and Internship Adviser who will run both group sessions and individual meetings within your Department. You can arrange to meet with your linked Careers Consultant or Placement and Internship Adviser either in your Department or centrally on Level 5 Sherfield where the Careers Service is based. Visit the Career Service's website to:

- Book a careers appointment
- Find resources and advice on successful career planning

www.imperial.ac.uk/careers

Counselling and Mental Health

The Student Counselling and Mental Health Advice Service offers short-term counselling to all registered students. The service is free and confidential. Counsellors are available at the South Kensington, Hammersmith and Silwood Park Campuses.

www.imperial.ac.uk/counselling

Financial support and tuition fees

If you've got any questions about student financial support (loans, scholarships and research council studentships, US and Canadian loans) then contact the Student Financial Support team: 020 7594 9014

student.funding@imperial.ac.uk

If you suddenly find yourself in financial difficulties or experience an unexpected change in circumstances, you may be eligible to apply for emergency financial help through the Student Support Fund. The Fund offers a one-off payment of up to £2,000 to cover such emergencies as last minute accommodation and travel necessities, equipment and childcare. It does not have to be repaid.

www.imperial.ac.uk/students/fees-and-funding/student-support-fund

Imperial College Union (ICU) Advice Centre

Imperial College Union runs the Advice Centre independently of the College with advisers on hand to provide free, confidential, independent advice on a wide range of welfare issues including housing, money and debt, employment and consumer rights, and personal safety. www.imperialcollegeunion.org/advice

Student Hub

The Student Hub represents a single point of contact for all key administrative information and support. The Student Hub team can help you with enquiries about:

- Accommodation (including checking contracts for private accommodation)
- Admissions
- International student enquiries
- Research degrees
- Student financial support
- Student records
- Tuition fees

Level 3, Sherfield Building, South Kensington Campus 020 7594 9444

student.hub@imperial.ac.uk

www.imperial.ac.uk/student-hub

Health services

NHS Health Centre and finding a doctor

Even if you're fit and healthy we recommend that you register with a local doctor (GP) as soon as you arrive in London. For help finding your nearest GP see the Student Space website:

www.imperial.ac.uk/student-space/here-for-you/find-a-doctor

There is an NHS Health Centre on our South Kensington Campus which you may visit during clinic hours if you're feeling unwell. Students living within the practice catchment area are encouraged to register with the Centre.

www.imperialcollegehealthcentre.co.uk

NHS Dentist (based in the Health Centre)

Imperial College Dental Centre offers a full range of NHS and private treatment options. <u>www.imperial.ac.uk/student-space/here-for-you/dentist</u>

Disability support

Disability Advisory Service

The Disability Advisory Service provides confidential advice and support for all disabled students and students with specific learning difficulties.

If you think you may have dyslexia or another specific learning difficulty but have never been formally assessed, the Disability Advisory Service offers initial screening appointments.

Room 566, Level 5, Sherfield Building, South Kensington Campus 020 7594 9755

disabilities@imperial.ac.uk

www.imperial.ac.uk/disability-advisory-service

Departmental Disability Officers

Departmental Disability Officers are the first point of contact within your department. They can apply for additional exam arrangements on your behalf, and will facilitate support within your Department.

More information on Departmental Disability Officers is available at: www.imperial.ac.uk/disability-advisory-service/support/ddos

More information on procedures for the consideration of additional exam arrangements in respect of disability is available at:

www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academicgovernance/public/academic-policy/exam-arrangements-and-re-sits/Exam-arrangements-in-respect-ofdisability.pdf

Library and IT

Information and Communications Technologies (ICT)

If you're having problems with technology (including computers, laptops and mobile devices), you can get help from ICT's Service Desk.

020 7594 9000

www.imperial.ac.uk/ict/service-desk

Software shop

The Software shop offers a variety of general and subject specific software programs and packages for free or at a discounted price for Imperial students.

www.imperial.ac.uk/admin-services/ict/shop/software

Library services

The Central Library at South Kensington is open around the clock pretty much all year. Make sure you find out who your departmental librarian is as they'll be able to help you find resources for your subject area. Also, don't forget to check out the Library's range of training workshops and our other campus libraries for access to specialist medicine and life sciences resources. Alongside these physical spaces and resources, the Library provides over 170,000 electronic books, journals and databases available both on and off campus and a free document delivery service to help you source books and articles from around the UK and the rest of the world:

www.imperial.ac.uk/library

	Central Library	
Ms Ann Brew	South Kensington Campus	Alles
Liaison Librarian for	+44 (020) 7594 5736	
Mathematics and Physics	ann.brew@imperial.ac.uk	

Religious support

The Chaplaincy Multi-faith Centre has chaplains from many different religions, as well as prayer rooms and information on places of worship. In addition, it runs meditation classes and mindfulness workshops for stress management. There is a student-run Islamic prayer room on campus and separate areas available for male and female Muslims.

www.imperial.ac.uk/chaplaincy

Support for international students

English language support

The Centre for Academic English provides free in-sessional English courses for international students while they are studying. These include classes and workshops on academic language, social language, the four skills of reading, writing, listening and speaking, 1-1 consultations with a tutor to work on a piece of academic writing or an oral presentation, self-study resources in the VLE Blackboard, and the Conversation Project, which partners students with a native-speaker volunteer to practise social and conversational English.

www.imperial.ac.uk/academic-english

Centre for Academic English

The Centre for Academic English helps international students to participate effectively and confidently in the academic community. The Centre provides a range of English language support for international

students. http://www3.imperial.ac.uk/academic-english

International Student Support team

Students from outside the UK make up around half of our student population, so our International student Support team offers year-round support to help our international students settle into Imperial life. This includes UK visa and immigration advice and trips to different places of interest. www.imperial.ac.uk/study/international-students

Work-life balance

The pace and intensity of postgraduate study at Imperial can be demanding so it's important to find time for outside interests.

Imperial College Union

The Union's range of 340+ student-led clubs, societies and projects is one of the largest of any UK university, opening up lots of ways for you to enjoy your downtime. www.imperialcollegeunion.org/about-us

Graduate Students' Union

The Graduate Students' Union is the postgraduate arm of Imperial College Union. The GSU works alongside the Imperial College Union President to ensure that the requirements of postgraduate students are catered for. It also organises a number of academic and social events during the year. www.union.ic.ac.uk/presidents/gsu

Sport

Beginners and semi-professionals alike will receive a warm welcome in our sports clubs, which are subsidised by Imperial College Union to make it a little bit cheaper to keep doing a sport you love.

Access to swimming facilities, including sauna, steam room and spa at Ethos sports centre, is completely free from your very first day. Gym facilities across all campuses are also free after you've completed a fitness orientation for a one-off charge (£40 in 2016–17).

www.imperial.ac.uk/sport

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.

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 (ICU) website.

www.imperialcollegeunion.org/your-union/your-representatives/academic- representatives/overview

Staff-Student Committee

The Staff-Student Committee 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:

www.imperial.ac.uk/about/governance/academic-governance/academic-policy/student-feedback

The **Department of Mathematics PGR Committee** takes place 3-4 time per year. It includes sections tutor, student representatives and the postgraduate administrator. Please see the full committee list on this page: http://www.imperial.ac.uk/mathematics/study/students/phd/

Any member of the panel is always open for opinions and suggestions from students. Make your voice heard.

Student Surveys

Your feedback is important to your department, the College and Imperial College Union.

Student Experience Survey (SES)

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 Union's Student Experience Survey (SES) which will be run at the end of the Autumn Term. This is the only College-wide survey in which research students will be asked to participate. The survey will cover your induction, welfare, pastoral and support services experience. When the survey is open you will receive an email in your Imperial College account with a link to it.

Postgraduate Research Experience Survey (PRES)

Imperial also participates in the national, biennial, Postgraduate Research Experience Survey (PRES) run by the Higher Education Academy (HEA). This survey is important as it allows the College to benchmark itself against other UK higher education institutions. PRES covers topics such as supervision, research community, progress and assessment, opportunities and research skills. It also includes a few extra questions about issues that are particularly important to us at Imperial such as graduate teaching activities and professional development.

The survey takes place every two years and the College will next participate in PRES 2017. For further information on PRES see:

http://www3.imperial.ac.uk/registry/proceduresandregulations/surveys/pres

For further information on surveys please contact the Registry's Surveys Team on surveys.registrysupport@imperial.ac.uk

Alumni Services

When you graduate you will be part of a lifelong community of over 190,000 alumni, with access to a range of alumni benefits including:

- discounts on further study at the College and at Imperial College Business School
- alumni email service
- networking events
- access to the Library and online resources
- access to the full range of careers support offered to current students for up to three years after you graduate
- access to our Alumni Visitor Centre at the South Kensington Campus, with free Wifi, complimentary drinks, newspapers and magazines, and daytime left luggage facility

Visit the Alumni website to find out more about your new community, including case studies of other alumni and a directory of local alumni groups in countries across the world.

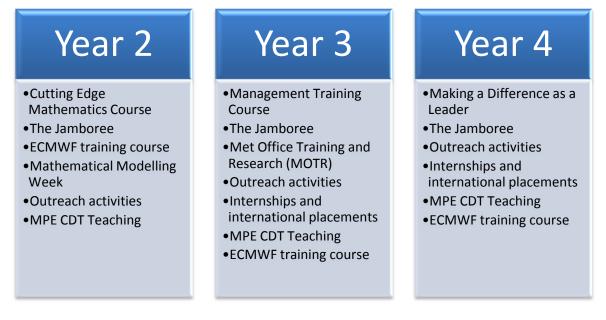
www.imperial.ac.uk/alumni

8. The MPE CDT Specific Content

Bespoke the MPE CDT Training and Events for Years 2-4

The main activity in years 2-4 is of course research on the PhD project. There are also a number of extra training events and activities to develop students as research mathematicians in the climate/oceans/weather area.

The MPE CDT training events and activities



Cutting Edge Mathematics Course

This is a biennial event for Year 2 students, built around a series of lectures from an invited speaker on an area of cutting edge mathematical research that looks set to become applicable to climate/weather/ocean science.

MPE CDT teaching

Students will be encouraged to assist with teaching on the MPE MRes, particularly leading tutorials on MPE Wednesdays, and assisting with computer laboratories in the core courses.

Met Office Training and Research (MOTR)

This is a 10-week programme, hosted by the Met Office in Exeter. Two weeks of lectures given by worldleading scientists (including from the Met Office) are followed by research internships, where students work in teams of 2 or 3 with Met Office staff, along with presentations and seminars through the period. The programme exposes the students to an applied research project outside their PhD topic and further supports peer-to-peer learning, sharing of expertise, tackling problems by team work, and critical assessment and communication of scientific findings.

Management Training Course

This is a week-long residential course hosted at Imperial College.

Making a Difference as a Leader

A three-day bespoke programme delivered by Henley Business School.

CDT outreach

Our CDT outreach and associated cohort-building activities include:

- hosting the recently created open source Mathematics of Planet Earth Exhibition (imaginary.org) at Imperial and Reading, initially in November 2015;
- the creation of virtual MPE exhibits on the mpecdt.org website through an annual competition for teams of year 2--4 PhD students;
- an annual MPE outreach (and recruitment) week, in significant part centred around i) and ii).

ECMWF training course

A week-long training course will be offered each year jointly with ECMWF, alternating between the topics of numerical methods, data assimilation, and predictability, and bringing our students into closer contact with real-world applications and practitioners. Students can take this course during Years 2-4 depending on the topic of most relevance to their research.

Internships and international placements

To promote international networking and expose students to industrial and commercial research challenges, students are encouraged to undertake during years 2-4 either:

- a 3-week international placement with our academic partners; or
- an industrial internship with our commercial partners.

Mathematical Modelling Week

Mathematical Modelling Week held at the University of Reading. Using the OpenIFS or other project platforms, students will perform intensive research projects in teams (e.g. examining the effect of dynamic boundary conditions on the Hadley circulation), and report on their results to each other at the end of the week.

The MPE CDT Transferable Skills Courses Programme

The MPE CDT Transferable Skills Courses Programme has been specifically designed to:

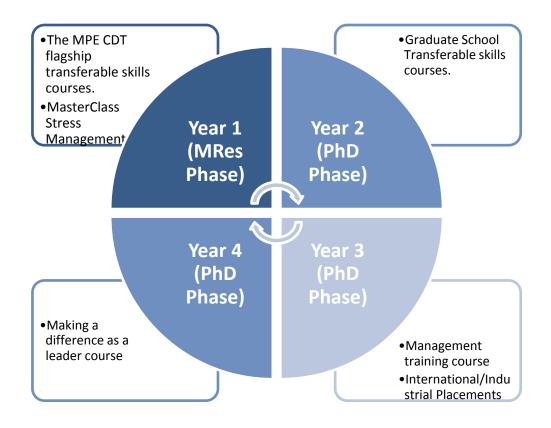
- Meet the diverse needs of the MPE CDT students, providing them with a range of opportunities throughout the duration of their research to continue their personal, professional and career management skills development.
- Facilitate cohort formation, networking opportunities and provide training to underpin multidisciplinary research.
- Recognise all career paths.
- Aim to enhance students' skills and competencies for current and future roles within academia and other employment sectors.

The Programme is coupled with a choice of transferable skills pathways that build upon Science Communication or Entrepreneurship skills. This will be complemented by the student selection of International/Industrial Placements.

Detailed the MPE CDT transferable skills schedule.

Year 2	Graduate School Transferal skills courses for Imperial-bas	This is coupled with a choice of two transferable sk
	students (in first 9 months).	Research Skills & Development course (coveri
		planning, project management, creativity in researc
		communication skills, group dynamics, networking a
		developing self-awareness),
		Academic Writing course.
		• Stress Management: The PhD and Beyond
		or:
		Academic Writing,
		• Becoming an Affective Researcher,
		• Science in Context: Science Communication,
		• Time Management.
		Stress Management: The PhD and Beyond
Year 3	The MPE CDT flags	• Management training course (1 week resident
transferable skills courses		course taken at Imperial College)
		International/Industrial Placements
Year 4	The MPE CDT flags	• Making a difference as a leader (1 week resident
transferable skills courses		course taken at Henley Business School)

General overview the MPE CDT transferable skills schedule



Please note: All PhD students are expected to complete a programme of professional skills development training as prescribed by the Graduate School. Failure to complete the requisite training may result in a student's registration being transferred from PhD to MPhil or in a student being barred from entering the PhD (or MPhil) examination. See 4.2 of the Regulations for the award of PhD and MPhil. For students registered on or after 29th September 2012, the Early Stage Assessment (at 9 months) must ask whether a student has completed the professional skills development training. See the Graduate School Professional Development Skills website for details:

https://www.imperial.ac.uk/study/pg/graduate-school/professional-skills/research/

The MPE CDT Students' Budget

Each MPE CDT student has travel budget over the entire PhD. It may be spent on conference travel and accommodation, conference fees, summer schools etc. Good record keeping is essential; please keep a spreadsheet with your expenses claimed.

The budget is held by Anna and if you want to claim for your travel, please fill in an expense claim form and hand it to Anna with receipts (not older than 3 month).

The MPE CDT Website

www.mpecdt.org

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