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Welcome to the College

Congratulations on joining Imperial College London, the only university in the UK to focus exclusively on science, medicine, engineering and business.

From Fleming’s discovery of Penicillin to Gabor’s invention of holography, Imperial has been changing the world for well over 100 years. You’re now part of this prestigious community of discovery and we hope you will take this opportunity to make your own unique contribution.

We’re committed to providing you with the very best academic resources to enrich your experience. We also provide a dedicated support network and a range of specialist support services to make sure you have access to the appropriate help, whether that’s further training in an academic skill like note taking or simply having someone to talk to.

You’ll have access to an innovative range of professional development courses within our Graduate School throughout your time here, as well as opportunities to meet students from across the College at academic and social events – see page 6 for more information.

We actively encourage you to seek out help when you need it and try to maintain a healthy work-life balance. Our choice of over 340 clubs, societies and projects is one of the largest of any UK university, making it easy to do something different with your downtime. You also have free access to gym (following a one-off orientation fee of £40 in 2016) and swimming facilities across our campuses.

As one of the best universities in the world, we are committed to inspiring the next generation of scientists, engineers, clinicians and business leaders by continuing to share the wonder of what we do through public engagement events. Postgraduate students, alongside our academics and undergraduate students, make a significant contribution to events such as our annual Imperial Festival and our term-time Imperial Fringe events – if you’re interested in getting involved then there will be opportunities for you to do so.
Welcome
Professor Sue Gibson,
Director of the Graduate School

The Graduate School has several roles but our main functions are to provide a broad, effective and innovative range of professional skills development courses and to facilitate interdisciplinary interactions by providing opportunities for students to meet at academic and social events. Whether you wish to pursue a career in academia, industry or something else, professional skills development training will improve your personal impact and will help you to become a productive and successful researcher.

Professional skills courses for Master’s students are called “Masterclasses” and they cover a range of themes, for example, presentation skills, academic writing and leadership skills (see page 6 for more information).

All Masterclasses are free of charge to Imperial Master’s 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 (see page 6).

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 and the 3-minute thesis competition. 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.

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

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 your success during your time at Imperial, 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.
The Graduate School

You automatically become a member of the Graduate School when you register as a postgraduate student at Imperial.

The Graduate School has been set up to support all postgraduate students at the College through:

- Training and development courses
- Networking activities, social and academic events to encourage crossdisciplinary interaction
- Forums to represent the views of postgraduate students throughout the College

‘Masterclass’ professional skills courses

You can see the full range of free professional skills courses for postgraduate students on the Graduate School website:

www.imperial.ac.uk/study/pg/graduate-school/professional-skills/masters

All courses can be booked online.

Contact us

Level 3, Sherfield Building, South Kensington Campus
020 7594 1383
graduate.school@imperial.ac.uk
www.imperial.ac.uk/graduate-school

Imperial Success Guide

The Imperial Success Guide is an online resource with advice and tips on the transition to Master’s level study. More than just a study guide, it is packed with advice created especially for Imperial Master’s students, including information on support, health and well-being and ideas to help you make the most of London.

www.imperial.ac.uk/success-guide
Introduction from the President of 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
1. Introduction to the Department

Welcome from the Head of 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.

Prof Richard Craster

Welcome from the Director of Postgraduate Studies
Dear New MSc Students,

Welcome to the Mathematics Department at Imperial. The Department is eager to help you make your year 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 an MSc student. I know you may experience a degree of information overload initially. But read at least this page and keep the welcome pack within reach for reference.

(1) Engage: Mathematics and science are social activities. Your fellow students across the department and throughout the college are wonderful resources of help, friendship, inspiration and creative stimulation, so get involved.

(2) Academic and administrative support: The intention is that you develop a constructive, and hopefully friendly and fulfilling, relationship with the lecturers of the courses and your project supervisor.

(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 MSc study it is a good idea to attend seminars and the department colloquia, participate in discussion groups, etc. and in general feed your curiosity.

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

Prof Henrik Jeldtoft Jensen
Welcome from the Programme Director

I am very happy to welcome you to the Mathematics Department of Imperial College London, one of the top research departments in the UK. We have strong research groups in analysis, algebra and combinatorics, geometry and number theory. In the UK research rating REF 2014 the department was named third for research among the mathematics departments. I hope that you will have an enjoyable and productive year. Please email me for an appointment whenever you want to talk about anything related to this programme.

### Academic and administrative staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Location</th>
<th>Telephone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Craster</td>
<td>Professor of Applied Mathematics</td>
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</tr>
<tr>
<td>Tony Bellotti</td>
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</tr>
<tr>
<td>Louise Rowland</td>
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<td>Email <a href="mailto:l.rowland@imperial.ac.uk">l.rowland@imperial.ac.uk</a></td>
</tr>
</tbody>
</table>

### English language requirement

If you are not a native English speaker you must meet the College’s English language requirements.

See the Admissions website for details:
For information on English language support available while you’re here, see page 29.

**Attendance and absence**
You must inform your Course Adviser if you are absent from the College for more than three days during term. If the absence is due to illness you must produce a medical certificate after seven days. If you miss an examination through illness you must produce a medical certificate immediately.

The Registry will be informed of all student non-attendances as the College is obliged to report the non-attendance of students on Tier 4 visas to the Home Office.

**Key dates 2016–17**

**Term dates**
- Autumn term: 1 October–16 December 2016
- Spring term: 7 January–24 March 2017
- Summer term: 29 April–30 June 2017

**Closure dates**
- Christmas/New year: 26 December 2016–2 January 2017
- Easter holiday: 12 April – 18 April 2017
- Early May bank holiday: 1 May 2017
- Spring bank holiday: 29 May 2017
- Summer bank holiday: 28 August 2017

**Key events**
- Imperial Festival and Alumni Festival: 6–7 May 2017
- Monday 3- Friday 7 October 2016: Welcome week programme
  Election of the Pure Mathematics MSc student representative
- May 2017: Examinations Spring term
- Mid June 2017: Release of informal results
- 13 and 14 September 2017: Project Oral Presentations
4pm 15 September 2017: Final deadline handing in MSc Thesis
Mid-late October 2017: Final meeting Board of Examiners
Early-mid November 2017: Results released by Registry
May 2018: Graduation Ceremony

Imperial Mobile app
Don’t forget to download the free Imperial Mobile app for access to College information and services, including your course timetable, College emails and a library catalogue search tool.

[link]

www.imperial.ac.uk/imperialmobile
2. Programme information

Choice and approval of courses and the project

On enrolment each student is assigned a **Course Adviser** who will advise on the choice of courses (to be approved by the Programme Director), the subject of project and the **Project Supervisor**. You need to make arrangements to meet with your Course Adviser at least twice per term.

MSc students can take the following types of courses:

- The Pure Mathematics courses with an M5 coding (which can also be taken by final year undergraduate MSci students) listed below and on the website (with course description) [http://www.imperial.ac.uk/mathematics/study/admissions/postgraduate/msc/msc-in-pure-mathematics/pure-mathematics-course-list/](http://www.imperial.ac.uk/mathematics/study/admissions/postgraduate/msc/msc-in-pure-mathematics/pure-mathematics-course-list/). The department reserves the right not to run courses if the numbers of students registered do not make them viable.
- Coding Theory course taught in the MSc in Communications and Signal Processing run by the Electrical Engineering department.
- In exceptional cases courses given by Imperial College faculty at the Taught Course Centre (TCC) [http://tcc.maths.ox.ac.uk](http://tcc.maths.ox.ac.uk). This must be approved by the Programme Director beforehand.
- Courses from other MSc programmes at Imperial College London, subject to approval of the host Department and the Programme Director.
- Other courses approved by the student's Course Adviser and the Programme Director.
- We have created a form for students to complete if they wish to take a course that is outside of the programme, available [here](#).

The **timetable of courses** can be found at [www.imperial.ac.uk/natural-sciences/departments/mathematics/study/students/msc](http://www.imperial.ac.uk/natural-sciences/departments/mathematics/study/students/msc)

**Students must take 7 courses** (usually four in the first year and three in the second year for part-time students) including **at least 3 core courses**. The core courses are marked with a (*) below. The other 4 courses can be other core courses or other approved courses. The courses chosen should not overlap in a substantial way and together should form a coherent program. Students with a degree from Imperial College London will not be allowed to repeat a course they already attended as undergraduates. Please discuss your choice of courses with your Course Adviser as soon as possible. At the very latest you must confirm your choice of courses by the time you complete the examination entry form (the end of January).
Pure MSc Course List

Analysis
M5P18 Fourier Analysis and Theory of Distributions Term 2
M5P19 Measure and Integration Term 1
M5P41* Analytic Methods in Partial Differential Equations Term 1
M5P47* Stochastic Filtering Term 2
M5P6 Probability Theory Term 2
M5P60 Geometric Complex Analysis Term 1
M5P62* Random Matrices Term 2
M5P7 Functional Analysis Term 2

Geometry
M5P20 Geometry I: Algebraic Curves Term 1
M5P21 Geometry II: Algebraic Topology Term 2
M5P33* Algebraic Geometry Term 2
M5P5 Geometry of Curves and Surfaces Term 1
M5P51* Riemannian Geometry Term 2
M5P52* Manifolds Term 1
M5P54* Differential Topology Term 2
M5PA50 Introduction to Riemann Surfaces and Conformal Dynamics Term 2

Algebra and Discrete Mathematics
M5P10 Group Theory Term 1
M5P11 Galois Theory Term 1
M5P12 Group Representation Theory Term 2
M5P17 Algebraic Combinatorics Term 2
M5P36* Representations of Symmetric Groups Term 2
M5P46* Lie Algebras Term 2
M5P55* Commutative Algebra Term 1
M5P61* Infinite Groups Term 2
M5P63* Algebra IV Term 1
M5P8 Algebra 3 Term 1

Number Theory
M5P14 Number theory Term 1
M5P15 Algebraic Number Theory Term 2
M5P32* Elliptic Curves Term 1
M5P58* Modular Forms Term 1

Work on the project

In addition to the taught courses students are required to work on a project, submit a written report and have an oral examination. The project is the study of a mathematical topic in one of the core areas of analysis, algebra, combinatorics, geometry or number theory at the postgraduate level. The written report is the student's own work in the sense that the student gives an original account of the material, but it does not always contain new mathematical results. The work on the project is done under the direction of a Supervisor, who need not be the Course Adviser. A student interested in doing a project in a particular area should ask a faculty member with an expertise in this area to act as a Supervisor. Students unable to find a Supervisor should seek the help of their Course Adviser. All students are expected to have
a Supervisor at the start of the second term. Students without a Supervisor by week 2 of the second term must report the matter to the Programme Director.

You should arrange a meeting with your supervisor in early January to discuss your project in detail. After this meeting you should aim to prepare a provisional project plan, including target dates for the various steps of your work. Usually you will do preliminary work during the Easter vacation, discuss with the Supervisor during the Summer term, and do most of the writing-up after the end of the written examinations. You are advised to spend at least one month writing up and revising the report. Work on the project and writing of the project report should account for about a third of the student's total study time.

Supervisions will take place by arrangement with the supervisor. Supervision meetings are generally more regular at the start of the project. You are expected to meet your Supervisor once every two weeks for about one half hour. By July you should be able to work largely independently on your project. You are warned that the Summer supervisors will often be away attending conferences and taking their annual leave.

If you are unable to attend an agreed meeting with your Supervisor, please email him or her at least 24 hours in advance (unless you are very unwell or there is some emergency). If your supervisor needs to cancel a supervision, then she or he should give you at least 24 hours’ notice by email. So please check your email before leaving home in the morning before traveling to Imperial for a meeting with your supervisor.

The same project can often be tackled in different ways starting from different backgrounds. The Supervisor will give you a reading list based on what you know. The purpose of the project is to give you a chance to explore in depth a particular area of pure mathematics and help you to acquire the skills for an independent research work. Supervisions are not the same as private tutorials. It is not the job of the Supervisor to teach you the material, but rather to give general guidance and to point you in the right direction by providing a reading list and recommending resources. The Supervisor cannot be expected to provide a list of all the individual results that should go in the report, although a few major items will probably be mentioned. Generally speaking, it will be you who ”drives” the supervisions, not your supervisor. Please come prepared to each meeting with some idea of what you want to discuss in that supervision. When you encounter particular difficulties, your supervisor will give you more specific help as necessary.

Written report

The written report contains a detailed exposition of the work that you have done. The style of the report is largely the same as in mathematical textbooks and research papers. You are expected to give precise definitions, theorems, lemmas, proofs, examples, and any new results or computations, where relevant. You are encouraged to be original in your presentation, the choice of examples and a review of published literature, should explain the context of your work in the introduction, and perhaps discuss possible further work and open question in the conclusion. The introduction should contain a description of the structure of the written project and its main results. You should aim to present your dissertation so that it can be understood by a mathematician who is not necessarily an expert in the particular
area of your project. So please recall the necessary background, results and methods that you use, for the convenience of the reader. Keep these explanations reasonably concise, and in any case do not reproduce in detail the contents of undergraduate mathematical courses that you rely upon. (Any such basic material should be explained in a few paragraphs or pages, ideally with a reference to a standard textbook.)

The body of the written report should normally be between 7,000 and 15,000 words, or approximately between 25 and 40 pages of typewritten text and formulas on A4 paper at 1.5 or double line spacing using font size of 12 point. These are not strict rules for the volume of your written project but only rough guidelines: the appropriate length depends on the project itself and its subject matter. (The depth of a mathematical result is not always reflected in the number of pages it takes to write it down!) The printed copy should be in a simple binding; a ring or spring-back binder is sufficient. The following points are here for your guidance:

- Your dissertation should contain a title page, giving the following information only: the title of project, the student’s name, the student’s college number, the year (2016/17), the supervisor’s name.
- A separate page should contain an abstract of between 50 and 300 words, summarising the key points of your dissertation.
- Another separate page should contain a signed declaration that the work is entirely your own and that all sources have been fully acknowledged. You should be aware that plagiarism is a serious offence.
- As an option you can include a page with acknowledgements and/or a dedication.
- You can include a table of contents.
- The title, abstract and declaration pages, along with any tables and charts, the table of contents page, appendices and bibliography are excluded from the page count as indicated above.
- All pages of your dissertation should be numbered.
- The total number of pages should not exceed 50. Substantial deviation from this rule can be penalised.
- Include a detailed bibliography (list of references), giving full details of all books, papers and online resources cited anywhere in your dissertation. You are encouraged to use the style of mathematical journals, e.g. the Journal of the London Mathematical Society. Each reference should be complete, allowing the resource to be easily and unambiguously identified. A reference should be cited in the text of your project each time you use it.
- Appendices, if any, should contain material that supports the main body of the text, but which does not have to be read in detail in order not to interrupt the flow of the argument.
- Do not use fancy font styles. Use wide margins (minimum 2cm for top, right and bottom, 4cm for left-hand side to allow room for the binding).
- Substantial credit will be given for a professional presentation. You are strongly advised to use LaTeX and not Microsoft Word, especially if your dissertation contains many mathematical equations.
- Submit by email to your supervisor before the deadline all of your source code for any programs that you have written. This is required for anti-plagiarism detection and to allow cross-checking of your results. This source code need not be included verbatim in your dissertation if such programmes are essentially a `means to an end'. Your dissertation should still, of course, describe what your programmes do and all the algorithms involved. On the other hand, if you have developed a novel or fast algorithm that, in itself, constitutes a major achievement (and for which you want specific credit), then the relevant code should be included verbatim in the...
dissertation, possibly as an appendix. Any such code will be expected to meet high programming standards, including proper commenting.

In your dissertation you should make it completely clear which results are your own and which are obtained by others. Any results mentioned in your dissertation that are not your own should be properly referenced. You should also acknowledge any books, journal papers, lecture notes, research notes, other people's MSc/PhD theses, websites, third-party computer programs, etc. that you use during the course of your work, even if you do not directly incorporate material from these sources into your dissertation.

Please submit a printed draft of your dissertation to your Supervisor at least two weeks before the final deadline. The Supervisor will comment on the format, the style and may point out any major mathematical errors. The correctness of your project is your responsibility.

Submission of the written report

One hard copy and one electronic copy of the report must be submitted to the MSc Administrator Louise Rowland, room 652 by 4pm Friday the 15 September 2017. Late submission will normally delay the marking of the report to the following year.

3. Assessment

Examination

The full-time course is examined in two sections:

- The lecture courses are examined by written exam papers, one for each course, in May or June (exceptionally in January). Copies of examination papers and worked solutions for the past three years are kept in the Central Library of the College. You will need to fill in the Postgraduate Examination Entry Form in the last two weeks of January. (A reminder will be sent.) Candidates absent without good cause from any examination for which they are entered will normally fail the MSc course. For some lecture courses, the written paper may be supplemented by a coursework. If you fail to hand in coursework on time, you must file a Request for Mitigation Form with the Programme Director or the Postgraduate Director. This form can be found at http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/examinationassessment
- The project is examined by a written report and an oral presentation.

A part-time student will normally sit the written examinations in two parts, one part after the first year and another part after the second year. The project report must be submitted by the 14 September 2018.

How Module Examination Marks are Determined

Most modules are examined by a written paper in May or June, though some modules are examined purely by project. Written examinations for MSc students consist of 5 questions,
which are each scored out of 20 marks. In order to reward complete questions over fragments, bonus marks are added automatically to your mark for a question with 13/20 or above:

<table>
<thead>
<tr>
<th>Mark</th>
<th>Bonus</th>
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<tr>
<td>13</td>
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The maximum possible raw mark on an MSc examination paper is 120.

If assessed coursework is part of the module, this is incorporated into the raw mark using the specified weighting (typically coursework carries a 10% weighting).

The raw marks are considered by a departmental panel in order to ‘level the playing field’. In particular, the Distinction/Merit, Merit/Pass, and Pass/Fail borders are set, where module lecturer input is taken into account. A typical Distinction/Merit border is a raw mark of 75 while a typical Pass/Fail border is a raw mark of 30. The difficulty of the examination is taken into account when setting these parameters, and the set borders will be different for each module. For instance, if an examination is deemed to be relatively easy, these borders can be significantly increased.

The raw marks are then scaled with these parameters. For instance, papers right at the Distinction/Merit, Merit/Pass, and Pass/Fail borders will receive scaled marks of 70%, 60%, and 50% respectively. These scaled marks are used to determine the title of the degree as outlined in the Class Criteria section below.

**Marking of the written report**

Your written report will be marked by your supervisor and at least one other member of the Imperial College academic staff, who will agree an overall mark for your project. The report will also be scrutinised by the Examination Board (including the External Examiners) for consistency of marking.

**Oral presentation**

In addition to submitting a written report, students will be required to give an oral presentation. **Oral presentations will take place on the 13 and 14 September 2017.** This is an integral part of the project work and is worth 10% of the project mark. It is a 20-minutes talk followed by a brief questions and answers session. For the oral presentation, you will be able to give a computer presentation, use an overhead or data projector or the white-board. If you plan a computer presentation, it is best if you save your presentation in PDF format in your College computer account where it can easily be accessed from the computer in the lecture room. The audience will consist of two faculty members (other than your Supervisor). You are advised to prepare your oral presentation with great care; this is an important part of your training. Note that your talk lasts only 20 minutes and that you should not expect the
audience to be experts in the area of your project. The primary purpose of the oral is not to
test your technical mastery of the material, but rather to see how you convey its flavour to a
general mathematical public.

Plagiarism

Plagiarism is the presentation of another person’s thoughts, words, images or diagrams as
though they were your own. Another form of plagiarism is self-plagiarism, which involves
using your own prior work without acknowledging its reuse.

Plagiarism is considered a cheating offence and must be avoided, with particular care on
coursework, essays, reports and projects written in your own time and also in open and
closed book written examinations.

Where plagiarism is detected in group work, members of that group may be deemed to have
collective responsibility for the integrity of work submitted by that group and may be liable for
any penalty imposed, proportionate to their contribution.

For further information, please refer to the Cheating Offences Policy and Procedures section
on page 23 of this handbook.

All Masters students are required to undertake an online course in plagiarism awareness.
More information about the course and to enrol is available at:

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

Title of degree

Successful candidates will be awarded the degree of MSc in Pure Mathematics. This degree
is awarded only once each year, following the final Meeting of Examiners, usually held in the
third week of October. (Preliminary marks on the written papers are available in the first
week of July. These results are not official until after the final Meeting of Examiners.)

Class criteria

Sufficient conditions for a Pass mark are:

- Register for, and take the examination in, 7 course papers.
- A pass mark (i.e., at least 50%) in 6 papers, with no mark below 40%. (A student who
  receives a mark below 40% in a course paper will have to re-sit that paper.)
- The average mark over all 7 papers should be at least 50%.
- A pass mark (i.e., at least 50%) in the project.

Sufficient conditions for a Merit mark are:

- A pass mark in each of 7 papers.
- The average mark of at least 60% over all 7 papers.
- A mark of at least 60% for the project.
Sufficient conditions for a Distinction mark are:

- A pass mark in all 7 papers.
- The average mark of at least 70% over all 7 papers.
- A mark of at least 70% for the project.

Borderline candidates

If a student does not meet the relevant sufficient condition they can still be considered for promotion to pass, merit or distinction at the discretion of the Board of Examiners. College regulations 2016/17 on the examination of Master degrees state:

*Candidates should only be considered for promotion to pass, merit or distinction if their aggregate mark is within 2.5 per cent of the relevant borderline.*

The aggregate mark is defined as 2/3 of the average mark over 7 papers plus 1/3 of the project mark. The promotion is always at the discretion of the Board of Examiners and never automatic.

**Re-sit rights**

A full-time candidate who at first entry fails in either the written examination or the report, may re-enter once, a year later, in the failed section (or in both failed sections). There are no further resit rights. A part-time candidate taking the examination in two parts who fails an examination in part one may normally re-sit the examination one year later, at the same time as part two. There are no further resit rights for part one. A candidate failing an examination in part two may re-sit the examination or the written report (or both) a year later, with the part one marks being carried over. There are no further re-sit rights. Any resit that requires further attendance of the College is subject to the approval of the College. A full-time candidate who fails the written examination and intends to re-sit, should proceed with the report and submit it by the standard project deadline. A part-time candidate must submit the project by the standard project deadline of the second year. Resit marks are capped at the pass mark (i.e. 50%).

### 4. Board of examiners

**Board of Examiners**

This includes the Programme Director, all faculty involved in lecturing an MSc course or supervising an MSc project, as well as the external examiners.

**External examiners**

Prof Leonard Soicher (Queen Mary, University of London)

Prof Tony Carbery (University of Edinburgh).

It is common for Master’s level students to have some form of academic or social interaction with their external examiners at some point during or after their studies as well as during the assessment process itself.
It is inappropriate for you to submit complaints or representations direct to external examiners or to seek to influence your external examiners. Inappropriate communication towards an examiner would make you liable for disciplinary action.

External examiners reports can be found here:


5. Location and facilities

Imperial has a number of campuses in London and the South East. All have excellent travel links and are easily accessible via public transport.

Your main location of study will be:

📍 Huxley Building
180 Queen`s Gate
London - SW7 2AZ
This is based on the South Kensington Campus.

Facilities in the Huxley Building

Level 2
MSc Student computer room - 215

Level 4
Mathematics Learning Centre – 416 contains 64 computers, two study desks fitted out with audiovisual facilities for project presentations and a range of additional study areas.

Level 6
MSc Administrator Office – 652 open Monday-Friday 9:00-17:00

Maps

Campus maps and travel directions are available at:

[www.imperial.ac.uk/visit/campuses](www.imperial.ac.uk/visit/campuses)

Accessibility

Information about the accessibility of our South Kensington Campus is available online through the DisabledGo access guides:
6. Working while studying

If you are studying full time, the College recommends that you do not work part-time during term time. If this is unavoidable we advise you to work no more than 10–15 hours per week, which should be principally at weekends and not within normal College working hours.

Working in excess of these hours could impact adversely on your studies or health.

If you are here on a Tier 4 visa you can work no more than 20 hours a week during term time. Some sponsors may not permit you to take up work outside your studies and others may specify a limit.

If you are considering part-time work during term time you are strongly advised to discuss this issue with your supervisor or Postgraduate Tutor. If you are on a Tier 4 visa you should also seek advice from the International Student Support team regarding visa limitations on employment.

Please refer to our policy on working while studying:

7. Health and safety

You are responsible for looking after your own health and safety and that of others affected by your College-related work and leisure activities. You must:

- comply with all local and College policies, procedures and codes of practice and with the arrangements which the College has in place to control health and safety risks.
- ensure that your activities do not present unnecessary or uncontrolled risks to yourself or to others.
- attend appropriate induction and training.
- report any accidents, unsafe circumstances or work-related ill health of which you become aware to the appropriate person.
- not interfere with any equipment provided for Health and Safety.
- inform your supervisor or the person in charge of the activity in cases where you are not confident that you are competent to carry out a work or leisure activity safely, rather than compromise your own safety or the safety of others.

The College’s Health and Safety Policy can be found at:


Your Departmental safety contact is:

- Andy Pope
- 131 Huxley
- 020 7594 8544
- a.pope@imperial.ac.uk

The College Safety Department

The Safety Department offers a range of specialist advice on all aspects of safety. This includes anything which you feel might affect you directly, or which may be associated with teaching, research or support service activities.

The College’s activities range from the use of hazardous materials (biological, chemical and radiological substances) to field work, heavy or awkward lifting, driving, and working alone or late.

All College activities are covered by general health and safety regulations, but higher risk activities will have additional requirements.

The Safety Department helps departments and individuals ensure effective safety management systems are in place throughout the College to comply with specific legal requirements.

Sometimes the management systems fail, and an accident or a near-miss incident arises; it is important that we learn lessons from such situations to prevent recurrence and the Safety
Department can support such investigations. All accidents and incidents should be reported online at:

- [www.imperial.ac.uk/safety](http://www.imperial.ac.uk/safety)

To report concerns or to ask for advice you should contact your programme director, academic supervisor or departmental safety officer in the first instance. You may also contact the Safety Department directly.

**Occupational Health requirements**

The College Occupational Health Service provides services to:

- protect health at work
- assess and advise on fitness for work
- 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.

- [www.imperial.ac.uk/occupational-health](http://www.imperial.ac.uk/occupational-health)

8. **College policies and procedures**

**Regulations for students**

All registered students of the College are subject to the Regulations for Students, the College Academic and Examination Regulations and such other regulations that the College may approve from time to time.

- [www.imperial.ac.uk/about/governance/academic-governance/regulations](http://www.imperial.ac.uk/about/governance/academic-governance/regulations)
- [www.imperial.ac.uk/students/terms-and-conditions](http://www.imperial.ac.uk/students/terms-and-conditions)

**Appeal and complaints procedures**

We have rigorous regulations in place to ensure assessments are conducted with fairness and consistency. In the event that you believe that you have grounds for complaint about academic or administrative services, or wish to appeal the outcome of an assessment or final degree, we have laid out clear and consistent procedures through which complaints and appeals can be investigated and considered:

- [www.imperial.ac.uk/about/governance/academic-governance/academic-policy/complaints-appeals-and-discipline](http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/complaints-appeals-and-discipline)
Academic integrity
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 the Student Records and Data website:


Cheating offences policy and procedures
It is important that you learn how to properly attribute and acknowledge the work, data and ideas of others. Plagiarism is scientific misconduct, and students whose assessments can be shown to contain plagiarism are subject to penalties as outlined in the College’s Cheating Offences Policy and Procedures – see Appendix 3 of the Examination Regulations which can be found here:

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

Intellectual property rights policy
For further guidance on the College’s Intellectual Property Rights Policy, please contact the Research Office:

www.imperial.ac.uk/research-and-innovation/research-office/ip

Use of IT facilities
View the Conditions of Use of IT Facilities:

9. Well-being and advice

**Student Space**
The Student Space website is the central point for information on health and well-being.

- [www.imperial.ac.uk/student-space](http://www.imperial.ac.uk/student-space)

**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](http://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 welfare officer**
The Department's postgraduate officer can offer pastoral support and advice. You can arrange to have a meeting with him 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.

**Mathematics Department PG Welfare Officer**
Dr Tony Bellotti
522 Huxley
[pgr.welfare@imperial.ac.uk](mailto:pgr.welfare@imperial.ac.uk)
**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](http://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.

**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](http://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](http://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](mailto: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

For tuition fees queries, contact the Tuition Fees team:

020 7594 8011
tuition.fees@imperial.ac.uk

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](http://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](http://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.

[www.imperial.ac.uk/student-space/here-for-you/dentist](http://www.imperial.ac.uk/student-space/here-for-you/dentist)

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](http://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.

Mathematics Department Disability Officer
More information on Departmental Disability Officers is available at:

- [www.imperial.ac.uk/disability-advisory-service/support/ddos](http://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:


## 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](http://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](http://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](http://www.imperial.ac.uk/library)
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

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
10. Student Records and Data

The Student Records and Data team are responsible for the administration and maintenance of the student records for all students studying at the College. This includes enrolments, programme transfers, interruption of studies, withdrawals and processing of examination entry for research degree students. The team also use this information to fulfil reporting duties to the Student Loans Company, Transport for London and the UKVI, as well as other external bodies.

The team is currently responsible for the processing of student results and awards on the student record system as well as the production and distribution of academic transcripts and certificates of award.

Student Records and Data produce a variety of standard document requests for both current and previous students including council tax letters, standard statements of attendance and confirmation of degree letters.

Appeal administration also sits within the team, as does the responsibility for confirming qualifications via the Higher Education Degree Datacheck service.

**Student records and examinations**

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

**Degree certificates**

📞 +44 (0)20 7594 8037  
📧 certificates@imperial.ac.uk
11. 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](http://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](http://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](http://www.imperial.ac.uk/sport)
12. 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](http://www.imperialcollegeunion.org/your-union/your-representatives/academic-representatives/overview)

In the first week in College you will elect an MSc student representative. She or he will attend the Departmental Teaching Strategy Committee and Staff-Students Committee. If you have an urgent issue that affects your cohort, the most effective way forward is for your representative to bring it up with the Programme Director.

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](http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/student-feedback)
13. Student surveys

Your feedback is important to your department, the College and Imperial College Union. Whilst there are a variety of ways to give your feedback on your Imperial experience, the following College-wide surveys give you regular opportunities to make your voice heard:

- PG SOLE lecturer/module Survey
- Student Experience Survey (SES)
- Postgraduate Taught Experience Survey (PTES) – next due to run in spring 2018

The PG SOLE lecturer/module survey runs at the end of the autumn and spring terms. This survey is your chance to tell us about the modules you have attended and the lecturers who taught them.

For PG SOLE your lecturers will receive their individual numerical results and comments shortly after the survey closes. To make the most of your opportunity to give your feedback, please do not use offensive language or make personal, discriminatory or abusive remarks as these may cause offence and may be removed from the results. Whilst this survey is anonymous, please avoid self-identification by referring to personal or other identifying information in your free text comments.

The Student Experience Survey (SES) is another opportunity to leave your views on your experience. This survey will cover your induction, welfare, pastoral and support services experience.

The Postgraduate Taught Experience Survey (PTES) is the only national survey of Master’s level (MSc, MRes, MBA and MPH) students we take part in. This is the only way for us to compare how we are doing against the national average and to make changes that will improve our Master’s students’ experience in future. PTES covers topics such as motivations for taking the programme, depth of learning, organisation, dissertation and professional development. PTES last ran in spring term 2016 and will run again in spring 2018.

All these surveys are anonymous and the more students that take part the more representative the results so please take a few minutes to give your views.

The Union’s “You Said, We Did” campaign shows you some of the changes made as a result of survey feedback:

[www.imperialcollegeunion.org/you-said-we-did](http://www.imperialcollegeunion.org/you-said-we-did)

If you would like to know more about any of these surveys or see the results from previous surveys, please visit:

[www.imperial.ac.uk/students/academic-support/student-surveys/pg-student-surveys](http://www.imperial.ac.uk/students/academic-support/student-surveys/pg-student-surveys)

For further information on surveys, please contact the Registry’s Surveys Team at:

[surveys.registrysupport@imperial.ac.uk](mailto:surveys.registrysupport@imperial.ac.uk)
14. And finally

**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](http://www.imperial.ac.uk/alumni)

**Opportunities for further study**
After you have completed your MSc in Pure Mathematics, you may choose to do a PhD in Imperial College London or another university in the UK or abroad. You will need to apply early in the year: October or November is not too early to start this process!