Faculty of Natural Sciences
Department of Chemistry

MRes in Catalysis: Chemistry and Engineering
STUDENT HANDBOOK
2017–18
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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 2017-18) 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.
Our Principles

In 2012 the College and Imperial College Union agreed ‘Our Principles’ a series of commitments made between students and the College. The Principles are reviewed annually by the Quality Assurance and Enhancement Committee and changes recommended for Senate approval.

Imperial will provide through its staff:

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

Imperial will provide students with:

- Clear programme information and assessment criteria
- Clear and fair academic regulations, policies and procedures
- Details of full programme costs and financial support
- An appropriate and inclusive framework for study, learning and research

Imperial students should:

- Take responsibility for managing their own learning
- Engage with the College to review and enhance provision
- Respect, and contribute to, the Imperial community

The Imperial College Students’ Union will:

- Support all students through the provision of independent academic and welfare assistance
- Encourage student participation in all aspects of the College
- Provide a range of clubs, societies, student-led projects and social activities throughout the year
- Represent the interests of students at local, national and international level
Welcome from the Graduate School

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 opportunity 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 (http://www.imperial.ac.uk/study/pg/graduate-school/professional-skills/masters/). 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 (graduate.school@imperial.ac.uk).

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 Master's 360 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.

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 College, 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 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 cross-disciplinary interactions
- 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](http://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](http://www.imperial.ac.uk/graduate-school)
Welcome from the Graduate Students’ Union (GSU)

I am delighted to be able to welcome you to Imperial College and to introduce you to the Graduate Students’ Union (GSU). The GSU ultimately serves to represent you as a postgraduate student and to ensure you have the most fulfilling and enjoyable time possible at Imperial.

The GSU is a university-wide representative body for postgraduate students with a committee comprised of democratically elected postgraduate students. The GSU works to support students on welfare fronts, represent students on educational matters by working with you to voice your concerns to College/departments, whilst also hosting recreational events throughout the year.

Imperial College London is undoubtedly a world-class institution with unique strengths in both teaching and research. Having been an Imperial student for 5 years myself I can fully appreciate that the university is nothing more than the people that comprise it – you’re among some of the brightest minds in the world and Imperial welcomes your contributions and enthusiasm in every sense! I encourage you to make the most of being a valued member of the Imperial community.

I hope you have a fantastic time here at Imperial and manage to take advantage of the richness of opportunity that awaits you. If you have any questions at this stage, then please do get in touch.

Luke McCrone, GSU President 2017/18

gsu.president@imperial.ac.uk

www.imperialgsu.com
1. Introduction to the Department

Welcome from the Programme Director

Welcome to the MRes in Catalysis: Chemistry and Engineering! We hope you have a stimulating, productive and enjoyable time studying here in the Department.

The first part of this Handbook provides details that are common to all MRes courses within the Chemistry Department and provides information to help you make the most of your time at Imperial College and to know where to get help if needed.

The second part of the Handbook provides specific information on this MRes course and includes details of the structure, the assessments and dates for submission and feedback.

The Department was the first in College to be awarded the prestigious Athena SWAN Gold award and one of the first departments in the UK. This recognises the work done by the Department towards the advancement of gender equality and diversity in academia.

We hope you find the information useful and please do let us know if there are any errors or omissions or if you have a suggestion of information to be included for future years.

Academic and Administrative staff

- **Dr James Wilton-Ely**
  - Director of MRes Studies, Department of Chemistry
  - Room M220, RCS1 Building, South Kensington Campus
  - 020 7594 9718
  - j.wilton-ely@imperial.ac.uk

- **Dr Mike Ray**
  - MRes Programme Coordinator, Department of Chemistry
  - Room 249b, C2 Building, South Kensington Campus
  - 020 7594 2678
  - michael.ray@imperial.ac.uk
**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:

[www.imperial.ac.uk/study/pg/apply/requirements/english](http://www.imperial.ac.uk/study/pg/apply/requirements/english)

For information on English language support available while you’re here, see page 23.

**Attendance and absence**
You must inform your Programme Director or Dr Mike Ray 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 contact your Programme Director or Dr Mike Ray on the day and provide a medical certificate within five working days.

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.

Attendance for all assessed components (e.g., exams, Journal Club, group presentations, oral exams, end of year presentations) is compulsory and your failure to attend could result in a mark of zero if you do not inform the Programme Director or MRes Programme Coordinator. During the research project, regular (usually daily) attendance is expected. Attendance will be recorded as required.

**Key College dates 2017-18**
Dates specific to your course can be found later in this document.

**Term dates**

<table>
<thead>
<tr>
<th>Term</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Autumn term:</td>
<td>30 September - 15 December 2017</td>
</tr>
<tr>
<td>Spring term:</td>
<td>6 January - 23 March 2018</td>
</tr>
<tr>
<td>Summer term:</td>
<td>28 April - 29 June 2018</td>
</tr>
</tbody>
</table>

**Closure dates**

<table>
<thead>
<tr>
<th>Holiday</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>Christmas/New year:</td>
<td>22 December 2017–1 January 2018</td>
</tr>
<tr>
<td></td>
<td>(College reopens on 2 January 2018)</td>
</tr>
<tr>
<td>Easter holiday:</td>
<td>28 March–3 April 2018</td>
</tr>
<tr>
<td></td>
<td>(College reopens on 4 April 2018)</td>
</tr>
<tr>
<td>Early May bank holiday:</td>
<td>7 May 2018</td>
</tr>
<tr>
<td>Spring bank holiday:</td>
<td>28 May 2018</td>
</tr>
<tr>
<td>Summer bank holiday:</td>
<td>27 August 2018</td>
</tr>
</tbody>
</table>

**Key events**

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate Awards Ceremonies:</td>
<td>May 2018 (exact date to be confirmed)</td>
</tr>
<tr>
<td>Imperial Festival and Alumni Festival:</td>
<td>May 2018 (exact date to be confirmed)</td>
</tr>
</tbody>
</table>
2. Programme Information

**Imperial Mobile app**

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

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

**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](http://www.imperial.ac.uk/success-guide)
3. Assessment

Instruction to Candidates for Examinations

Students who are candidates for examinations are asked to note that all examinations are conducted in accordance with the College’s Academic Regulations, the Regulations for Programmes of Study and the Examination Regulations.

Instructions for exam candidates can be found here:


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 Academic Misconduct Policy and Procedures section on page 18 of this handbook.

4. Board of Examiners

Board of Examiners

Prof. George Britovsek (Programme Director)

External Examiners

Prof. Ian Fairlamb (University of York)

It is common for Master's level students to have some form of academic interaction with their external examiners at the end of their studies. However, 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.

A summary of External examiners reports from the previous academic year can be found here:

www.imperial.ac.uk/staff/tools-and-reference/quality-assurance-enhancement/external-examining/information-for-staff
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(s) of study will be:

- **South Kensington Campus**
  Imperial College Road, London SW7 2AZ

- **White City Campus**
  Wood Lane, London W12 0BZ

Facilities

Computer access is available on any machine available to students at either campus, using your College log in details. Printing is available at the Imperial College Library, South Kensington Campus and in the Molecular Sciences Research Hub.

Shuttle bus

A free shuttle bus runs between our South Kensington, White City and Hammersmith Campuses on weekdays. Seats are available on a first-come, first-served basis. You need to show your College ID card to board. Download the timetable at:

- [www.imperial.ac.uk/estates-facilities/travel/shuttle-bus](http://www.imperial.ac.uk/estates-facilities/travel/shuttle-bus)

Maps

Campus maps and travel directions are available at:

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

Accessibility

Information about the accessibility of our South Kensington Campus is available online through the DisabledGo access guides:

- [www.disabledgo.com/organisations/imperial-college-london-2](http://www.disabledgo.com/organisations/imperial-college-london-2)

Smoke-Free Policy

All Imperial campuses and properties are smoke-free. This means that smoking by staff and students is not permitted on or within 20 metres of College land. The policy covers all College properties, including student accommodation and sports grounds.

- [www.imperial.ac.uk/smoke-free](http://www.imperial.ac.uk/smoke-free)
6. Placements

The College defines a placement as:

“work experience, assessed project work, a period of course-based study or a period of research (for which academic credit is awarded and/or where the student remains subject to College student regulations during the relevant period) and where there is a transfer of direct supervision of the student to a third party (i.e. where a member of staff at the third party acts as the day-to-day supervisor/manager) for a period of two weeks or more.”

Academic departments are responsible for managing any study or work placement which forms part of your degree programme. It is expected that you will contribute to the process of planning your placement.

For guidance on this, see the College’s Placement and Learning Policy and associated good practice:

www.imperial.ac.uk/about/governance/academic-governance/academic-policy/placement-learning

For more information on placements visit the Placements website:

www.imperial.ac.uk/placements

If you are considering/planning a placement outside the UK you should also refer to the Placement Abroad Handbook:

www.imperial.ac.uk/placements/information-for-imperial-college-students

7. 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 Personal/Senior Personal 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.
8. 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 Statement can be found at:


Your Departmental safety contact is:

- Stefan Hoyle
- Room 518, Sir Alexander Fleming (SAF) Building, South Kensington Campus
- 07872 850 018
- s.hoyle@imperial.ac.uk

You may be required to complete inductions and attend training sessions to safely complete this course. These include:

- Laboratory Safety Training course (in October for all new starters)
- Fire Safety Training
- Local Area Lab Induction (carried out by your research group)
- Other courses as required for your research (Laser Safety etc.)

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

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 (Stefan Hoyle, details above).

**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
9. 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
www.imperial.ac.uk/students/terms-and-conditions

Academic Feedback Policy
We are committed in providing you with timely and appropriate feedback on your academic progress and achievement, enabling you to reflect on your academic progress. During your study you will receive different methods of feedback according to assessment type, discipline, level of study and your individual need. Further guidance on the Policy of Academic Feedback can be found on the Academic Governance website:

http://www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academic-governance/public/academic-policy/academic-feedback/Academic-feedback-policy-for-taught-programmes.pdf

Feedback will be provided within two weeks for small pieces of coursework (journal clubs, poster project) and within three weeks for larger assessments (research proposal, bespoke courses). For lectures courses attended alongside final year UG (MSci) students, feedback will be provided at the same time as for the MSci students. In all cases, you will be provided with information on when you can expect the feedback to be provided. If there is any delay, you will be informed. For further information on submission and feedback deadlines, see the Departmental Section below.

Provisional Marks Guidance
Provisional marks are agreed marks that have yet to be ratified by the Board of Examiners. These results are provisional and are subject to change by the Board of Examiners. The release of provisional marks is permitted except in certain circumstances. Further information can be found in the Guidelines for Issuing Provisional Marks to Students on Taught Programmes:


Late Submission Policy
You are responsible for ensuring that you submit your coursework assessments on time and by the published deadline. Any piece of assessed work which is submitted beyond the published deadline (date and time) would be classed as a late submission. Further guidance on Late Submission of Assessments can be found on the Academic Governance website:

http://www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academic-governance/public/academic-policy/marking-and-moderation/Late-submission-Policy.pdf

All students must submit coursework assessment by the published deadline (date and time). The College policy is that work submitted up to one day (24 hours) after the assessment deadline (date and time) will be marked but capped at the pass mark (50%). Work submitted more than one day (24+ hours) late will not be accepted as a valid attempt and mark of zero will be recorded. If you need an extension, you must contact the Course Director in advance of the deadline, stating your reasons for the request. This policy means that planning your time to ensure that your coursework is submitted on time is vital and this is an extremely important transferable skill. See the Departmental pages below for further details.
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 College website:


Academic Misconduct 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 Misconduct Policy and Procedures.

www.imperial.ac.uk/about/governance/academic-governance/academic-policy/complaints-appeals-and-discipline

MRes Code of Practice
The Code of Practice for MRes programmes is available here:


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

Student Disciplinary Procedure
The College has the right to investigate any allegation of misconduct against a student and may take disciplinary action where it decides, on the balance of probabilities, that a breach of discipline has been committed. The general principles of the Student Disciplinary Procedure are available on the College website:

www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/ordinances/students/

Intellectual Property Rights Policy
For further guidance on the College’s Intellectual Property Rights Policy is available on the College website:

www.imperial.ac.uk/students/enterprising-students/intellectual-property/

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

http://www.imperial.ac.uk/admin-services/ict/self-service/computers-printing/staff-computers/conditions-of-use-for-it-facilities/
10. 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)

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**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 Tutors**
In addition to your Programme Director(s) and the MRes Programme Coordinator, the Department’s Postgraduate Tutor can offer pastoral support and advice. You can arrange to have a meeting with them at any time during your studies – what you discuss will be completely confidential.

If necessary the Postgraduate Tutors below will direct you to an appropriate source of support:

Dr Rob Davies  
E-mail: r.davies@imperial.ac.uk  
Building C1 461A  
Tel.: 020 7594 5754

Professor Keith Willison  
E-mail: keith.willison@imperial.ac.uk  
Building C1 266  
Tel.: 020 7594 5807

**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

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.

http://www.imperial.ac.uk/students/fees-and-funding/financial-assistance/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

National Health Service (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 the Imperial College 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 Imperial College 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

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. For the Department of Chemistry, the contact is:

Prof. Mike Bearpark
E-mail: m.bearpark@imperial.ac.uk

Building C1 265
Tel.: 020 7594 5727
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:


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

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](http://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](http://www.imperial.ac.uk/study/international-students)

11. 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 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.

The Student Records and Data Team 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.

Student records and examinations
+44 (0)20 7594 7268
records@imperial.ac.uk

Degree certificates
+44 (0)20 7594 8037
certificates@imperial.ac.uk
12. **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 375+ 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.imperialgsu.com](http://www.imperialgsu.com)

**Physical Activity Sport**

Imperial College has a wide range of sports and activities on offer that cater for all standards and abilities. We have a recreational activity offer, competitive sports teams and an elite sport programme. We are dedicated to ensuring we have a diverse, inclusive and exciting offer for all.

After a one off induction fee of £40 you will get free use of the gym and swimming facilities on our campuses.

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

13. **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. The MRes Programme Directors meet the students on their courses regularly throughout the year and can be contacted as required. In addition, at the start of the year, Student Representatives will be chosen for each MRes course and they will represent the other students on their course at Departmental and Faculty Staff-Student Committee meetings (held each term). The Director of MRes studies will be present at these meetings and can coordinate the response to feedback in conjunction with the Programme Directors. The minutes of these meetings will be recorded on the Department’s Sharepoint site.
**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)

The selection process for the MRes courses in Chemistry is usually done in the first few meetings at the beginning of the academic year. If you are interested in being a Student Representative for your course, please contact your Programme Director.

**Staff-Student Committee**

Staff-Student Committees are 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)

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**14. 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 or departmental equivalent
- Student Experience Survey (SES)
- Postgraduate Taught Experience Survey (PTES) – Spring 2018

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

For PG SOLE (or equivalent survey) 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 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.

As a result of feedback to previous surveys, we have modified or removed lecture courses, changed assessment methods and adjusted timetabling and deadlines so as to avoid clashes.

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

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

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

surveys.registrystandard@imperial.ac.uk

15. 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
Some Important Dates

The MRes Catalysis course runs until the end of September 2018

Saturday 30th September 2017
17:30 – 19:00     PGT Welcome and Welfare Talk (The Great Hall, Sherfield Building)
19:00 – 20:00     PGT Network & Reception Event (Queen Tower Rooms, Level 1, Sherfield Building)
19:00-            PG & UG – The lite mingle (JCR, level 2, Sherfield Building)

Sunday 1st October 2017
11:00 – 12:00     President’s welcome event for PG International Students, with the Director of the Graduate School (The Great Hall, Sherfield Building)
12:00 – 17:00     Student Hub open for all Student enquiries (Sherfield Building, level 3)

Monday 2nd October 2017
10:00 – 12:00     Meeting with Course Director Prof. George Britovsek (Flowers Bld, G47B)

Tuesday 3rd October 2017
11:00 – 16:00     The Freshers Fair (Imperial College Union)
17:00 - 19:00     The Freshers Fair After Party (Metric, Imperial College Union)

Friday 6th October 2017
Departmental PG Welcome Event

Saturday 7th October 2017
19:00             PG mingle (Imperial College Union, Beit Quad)

Friday 20th October 2017
Deadline 12.00    Submission of 5 project choices in order of preference to the MRes programme coordinator Dr Mike Ray by email (michael.ray@imperial.ac.uk).

Wednesday 13th December 2017
Deadline 12.00    Submit Research Proposal:
1) One electronic copy of Research Proposal by email to Dr Mike Ray by email (michael.ray@imperial.ac.uk)
2) One electronic copy of your Research Proposal (as word or pdf format) on Blackboard Virtual Learning Environment

Monday 8th January - Friday 12th January 2018
Exam Week – Exam dates and times to be confirmed.

Thursday 23rd August 2018
Deadline 12.00    Submit:
1) One electronic copy of Final Research Report by email to Dr. Mike Ray by email (michael.ray@imperial.ac.uk)
2) One electronic copy of your Final Research Report (as word or pdf format) on Blackboard Virtual Learning Environment

Tuesday 11th September 2018 (Various Rooms in SAF Building)
All day          MRes Symposium – project presentations
Attendance Compulsory

Wednesday 12th September – Friday 21st September 2018
External Examiners meeting (date and location to be confirmed)
You may be called to a viva by the external examiners so you must be present in college for the whole day.
Attendance Compulsory
Important note: All dates and times can be subject to change at short notice and you are thus well advised to check your college email account regularly (daily), as we will use this to notify you of any changes to the above arrangements.
MRes in Catalysis at Imperial College

The MRes course in Catalysis at Imperial College is a multidisciplinary one-year course featuring the involvement of several world-class departments. Taught modules cover topics as diverse as Green Chemistry, Palladium catalysis, Catalysis in Chemical Engineering, environmental chemistry, Green solvents, Applications of inorganic chemistry in industry, water treatment and Inorganic mechanisms & catalysis. In addition to lectures, you will spend nine months working on a cutting edge research project, typically with supervisors from at least two different departments.

Graduates of this course can expect to have all the necessary skills and experience to apply Catalytic techniques and technologies in either commercial or academic laboratories, the research project in particular equipping them admirably for PhD studies.
Contacts

Prof. George Britovsek  
Programme Director  
RCS1, Room 314  Ext 45863  g.britovsek@imperial.ac.uk

Dr. Mike Ray  
MRes Coordinator  
Chemistry, Room 258  Ext 42678  michael.ray@imperial.ac.uk

Dr. James Wilton-Ely  
Director of MRes Studies  
RCS1, Room M220  Ext 49718  j.wilton-ely@imperial.ac.uk

Useful Links

- The MRes Catalysis Website:
  http://www.imperial.ac.uk/chemistry/postgraduate/mres-courses/catalysis/

- Health and safety information (Occupational Health requirements, vaccinations, use of equipment, training etc):
  http://www3.imperial.ac.uk/estatesfacilities/about/healthandsafety

- Imperial Study Guide / Imperial Study Guide for Master’s Students:
  http://www.imperial.ac.uk/students/success-guide/

- New Postgraduates Students website:
  http://www.imperial.ac.uk/students/new-students/postgraduates/

- MRes Code of Practice:
  http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/codesofpractice/codeofpracticeformresprogrammes

- Information about the Graduate School:
  http://www.imperial.ac.uk/study/pg/graduate-school/

- Transferable Skills Training:
  http://www.imperial.ac.uk/study/pg/graduate-school/professional-skills/

For other useful links see page 55
Welcome to Imperial College

The welcome talks for new Master’s students will take place on Saturday 30th September 17:30 in the Great Hall, Sherfield Building. The welcome talks will be led by the Provost and will last approximately 45 minutes and include welcomes from the Director of the Graduate School and Imperial College Union (ICU) and the Graduate Students’ Association (GSA).

Open Day for those interested in further study at Imperial which will take place on Wednesday 3rd December 2016 from midday in the Great Hall, Sherfield Building.

The Student Union
You are reminded that all new students should have the opportunity to attend the following events:

Tuesday 3rd October - Fresher’s Fair: 11.00hrs – 16.00hrs
Saturday 7th October - Postgraduate Mingle: from 19.00

See the Welcome Week Timetable for more information:

http://www.imperial.ac.uk/students/new-students/

MRes in Catalysis: Energy and the Environment – Timetable

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<td>Lecture Courses</td>
<td>Proposal</td>
<td>Journal Club</td>
<td>Research Project</td>
<td>Dissertation</td>
<td>Presentation</td>
<td>Viva</td>
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Overview of the course

How the course is constructed:
70% research and 30% taught. Actual breakdown:
Research: Research Proposal (10%), Dissertation (50%), Viva (5%), Oral Presentation (5%)
Taught: Exams (20%), Journal Club (10%)

On arrival in October, a list of projects (with abstracts) will be provided for the students to look through. They should then contact the relevant supervisors to discuss their favourite potential projects. The students submit their top 5 projects in order and the Course Director will aim to assign the projects according to these wishes. Once the research projects have been assigned a list of literature projects will be distributed and the topics chosen in the same manner.

Research proposal
This will be on the research project topic chosen by the student and is based on the EPSRC proposal format. The deadline is at the end of the 1st term. These will be marked and second marked by supervisors of Catalysis students.

Dissertation
Students start their projects in December or January and are embedded in their respective groups. The Dissertation is 60-80 pages in length and must be handed in by the deadline of first week of September. These are marked and second marked by supervisors of Catalysis Students.

Viva
This is an oral exam on the topic of your research and will be conducted with a member of staff and an external assessor.

Oral Presentation
This is an oral presentation base on your dissertation and research work. You will present your work as part of a symposium where all MRes in Catalysis students will present their research work.

Journal Club
This is an assessed transferable skills course, which aims to develop presentation skills, whilst encouraging scientific debate, and providing the opportunity to broaden scientific knowledge.

Lecture Courses
MRes students must attend the lecture courses listed below:

CHEM70002 Advanced Catalysis (12 Lectures, Dr Chris Cordier and Prof George Britovsek, Term 1).
CHEM70013 Sustainable Chemistry (12 Lectures, Prof George Britovsek, Prof Tom Welton, Dr Jason Hallett, Dr Charles Romain, Term 1).
CHEM70005 Renewable Energy (12 Lectures, Prof Anthony Kucernak and Prof James Durrant, Term 1).
CHEM60001 Materials Chemistry (8 lectures, Prof Milo Shaffer and Dr Andreas Kafizas, Term 1).
CE2-04 Reaction Engineering 1 (15 lectures, Dr Andreas Kogelbauer, Chemical Engineering, Term 1).
CE2-10-1 Industrial Chemistry, 24 lectures, Dr. Roberto Rinaldi, Chemical Engineering, Term 2).

Industrial Applications of Chemistry (7 lectures, various industrial speakers, not assessed but compulsory attendance required).

Past exam papers and guide answers are available on Blackboard. Guide answers are NOT written for students, but are written for the External Examiner who reviews our questions and for the second markers to provide a guideline for marking. As such, they are sometimes lacking in detail, they occasionally contain mistakes that only come to light when the marking starts,
and there may be more than one way to answer a question. You should not treat them as anything other than a guide as to how a question should be answered.

Students must attain 50% overall for the taught component of the course. If they need to retake a failed exam, retakes normally take place in August.
The students can have a provisional letter grade for their exams, which will be ready in late February/early March and June.
The students can answer 3 questions in the 3 hrs or 4 questions if they wish.
Each course has their individual mode of assessment, which can be written exams or other modes such as coursework, presentations or essays. The Sustainable Chemistry course is assessed by an essay and the Advanced Catalysis course is examined by a presentation. Other courses are assessed by exams in January and May.

**Oral presentation**
A symposium of short presentations (15 minutes, including discussion) by the whole cohort will be held in late September. This is given in front of peers and marked by the supervisors and other members of staff.

![Image of students in a classroom](image1)

The Presentations Day gives the students a chance to present to fellow students and their supervisors

**Weekly meetings**
One hour meetings are held every week (from January) in which students present their research. Organisation of these meetings are taken over by the students as the course progresses. Tea, coffee and biscuits are provided.

![Image of students in a conference room](image2)

Weekly meeting provide a chance to meet and hear about the research members of the group are doing

**Additional Seminars**
Links will be provided so that MRes Catalysis students can attend non-compulsory seminars and lectures in the Chemistry Department or other departments such as the Chemical Engineering Department and the Manufacturing Futures Lab.
Site visits
In order for the students to play a full part in the programme, they are encouraged to suggest and plan site visits to Industrial sites, biorefineries etc. Financial support will be provided.

Conferences
Students are encouraged to attend the UK Catalysis conference, held every year at the beginning of January in Loughborough. Registration, travel and accommodation costs will be covered by the course.

Overall Mark for MRes
The MRes degree has the following classifications: 50% Pass, 60% Merit, 70% Distinction.

As explained above, the course is divided into research (70%) and taught (30%) components. The actual breakdown is:

**Research:**
- Research Proposal (10%)
- Dissertation (50%)
- Viva (5%)
- Oral Presentation (5%)

**Taught:**
- Exams (20%)
- Journal Club (10%)

In order to obtain a Distinction, both taught and research components of the course must be passed at the 70% level or higher. For a Merit, taught and research components must both be awarded overall marks between 60-69%. If both taught and research components are in the range 50-59%, a pass will be awarded.

If a student scores 72% on the research component but only 65% on the taught component, a Merit will be awarded. Similarly, if a student achieves 56% on the research component and 65% on the taught component, they will receive a Pass. Some latitude may be shown at the discretion of the External Examiner if students are close to a borderline, e.g., 69% in the taught component and 72% in the research component. In these cases, the External Examiners may wish to interview the student to determine whether they should be promoted to the higher classification.

Feedback
Meetings are held every week and the Course Directors will often be present. In addition to the chance to hold presentations in front of the whole group, this is an opportunity to ask questions and receive general feedback for the whole group. Marks will be communicated privately by the MRes programme coordinator and discussion of them can be arranged with the course directors as desired. Since the student’s supervisors are first markers for all project assessments, they should be approached initially. A summary of comments by the independent marker can be obtained from the Course Directors. A meeting can be arranged with the Course Directors if the student wishes to discuss a mark further. Outline answers are released soon after the exams have been taken and this provides feedback to students to see where they may have lost marks.

Safety
The department, in conjunction with the Graduate School runs induction activities for all new MRes students in October each year. These include the mandatory Primary Induction session and the Basic Lab Safety Lecture (which details the department’s requirements for safe practice in your research). Details of this induction programme will be given to you by the MRes Programme Coordinator, Dr Mike Ray.

Further details of departmental safety procedures and waste disposal can be found on our website or by contacting the faculty safety manager, Stefan Hoyle.

http://www.imperial.ac.uk/chemistry/about/safety/

s.hoyle@imperial.ac.uk
There are two other courses that are mandatory for all new PG students;

1. **Risk Assessment Foundation Training (RAFT)** - This is run as a Blackboard course and test for PG students. RAFT is a realistic and practical way to learn about the College’s risk assessment process via video scenarios based on one’s own work environment. After an introduction on why risk assessments are required, the learner is taken through the process of risk assessment before engaging with a series of video scenarios representative of their own work environments.

2. **Fire Prevention and Fire Safety at Work** – This course will be organised for you and should be completed in the first term prior to you starting in the lab for your research projects. The course is aimed at reducing the likelihood of fires starting and what action to take in the event of a fire. The course covers; How fires start and spread, Steps to take to prevent fires, Methods of extinguishing fires, Types of fire fighting equipment and their uses, Smoke and gas hazards produced by fires, What to do in the event of discovering a fire and When not to tackle a fire.

You must undertake your research in accordance with safety regulations and procedures, as agreed with your supervisor (who is responsible for your health and safety). If you have any doubts about any safety aspects of your work or work environment, you should discuss these with your supervisor.
There are a number of individuals in the Dept. you can contact about specific health and safety issues, they are listed below:

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Safety Officer</td>
<td>David Mountford</td>
<td><a href="mailto:d.mountford@imperial.ac.uk">d.mountford@imperial.ac.uk</a></td>
<td>020 7594 7177</td>
</tr>
<tr>
<td>Laser Safety Officer</td>
<td>Alastair McIntosh</td>
<td><a href="mailto:a.mcintosh@imperial.ac.uk">a.mcintosh@imperial.ac.uk</a></td>
<td>020 7594 5447</td>
</tr>
<tr>
<td>Biological Safety</td>
<td>Stefan Hoyle</td>
<td><a href="mailto:s.hoyle@imperial.ac.uk">s.hoyle@imperial.ac.uk</a></td>
<td>078 7285 0018</td>
</tr>
<tr>
<td>X-Ray Radiation Protection Supervisor C1/C2</td>
<td>Nick Brooks</td>
<td><a href="mailto:nicholas.brooks@imperial.ac.uk">nicholas.brooks@imperial.ac.uk</a></td>
<td>020 7594 2677</td>
</tr>
<tr>
<td>X-Ray Crystallography Radiation Protection Supervisor</td>
<td>Andrew White</td>
<td><a href="mailto:a.white@imperial.ac.uk">a.white@imperial.ac.uk</a></td>
<td>020 7594 2015</td>
</tr>
<tr>
<td>Heavy &amp; Mechanical Lifting assessor/Advisor</td>
<td>Lee Tooley</td>
<td><a href="mailto:l.tooley@imperial.ac.uk">l.tooley@imperial.ac.uk</a></td>
<td>020 7594 7877</td>
</tr>
<tr>
<td>Electrical Safety Technician</td>
<td>Stefanos Karapanagiotidis</td>
<td><a href="mailto:s.kapa@imperial.ac.uk">s.kapa@imperial.ac.uk</a></td>
<td>020 7594 5746</td>
</tr>
<tr>
<td>Chemical Control, Disposal &amp; Technical Systems Specialist.</td>
<td>Dianna Nguyen</td>
<td><a href="mailto:d.nguyen@imperial.ac.uk">d.nguyen@imperial.ac.uk</a></td>
<td>020 7594 5746</td>
</tr>
<tr>
<td>First Aid Co-ordinator</td>
<td>Simon Mann</td>
<td><a href="mailto:s.mann@imperial.ac.uk">s.mann@imperial.ac.uk</a></td>
<td>020 7594 5814</td>
</tr>
<tr>
<td>Display Screen Equipment (DSE) Assessor</td>
<td>Sara Thayamal</td>
<td><a href="mailto:j.saradambal@imperial.ac.uk">j.saradambal@imperial.ac.uk</a></td>
<td>020 7594 5814</td>
</tr>
<tr>
<td>Ladder &amp; steps Inspector</td>
<td>Chris Wood</td>
<td><a href="mailto:c.wood@imperial.ac.uk">c.wood@imperial.ac.uk</a></td>
<td>020 7594 5814</td>
</tr>
<tr>
<td>Centrifuges coordinator</td>
<td>Andrew Coulson</td>
<td><a href="mailto:andrew.coulson@imperial.ac.uk">andrew.coulson@imperial.ac.uk</a></td>
<td>020 7594 5746</td>
</tr>
<tr>
<td>Faculty Safety Team</td>
<td>Stefan Hoyle</td>
<td><a href="mailto:s.hoyle@imperial.ac.uk">s.hoyle@imperial.ac.uk</a></td>
<td>078 7285 0018</td>
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</tbody>
</table>

Faculty Safety Team [http://www.imperial.ac.uk/natural-sciences/staff/health-and-safety/](http://www.imperial.ac.uk/natural-sciences/staff/health-and-safety/) Chemistry Office 242
When in laboratories you are expected to apply **Safe Lab Practice** as described below:

### Preparation for lab work

**DO:**
- Wear clothing which minimises potential for skin exposure
- Remove dangling jewellery and items that can get contaminated or caught in equipment
- Wear sensible shoes which cover your feet completely
- Tie back long or loose hair

**DON'T:**
- Wear clothing that is loose enough to drag over bench or floor surfaces
- Wear clothing you care about
- Wear expensive jewellery as it may get tarnished if it comes into contact with chemicals
- Wear sandals or lip flops or similar in the lab
- Wear contact lenses, use prescription glasses with safety glasses or prescription safety glasses

### General rules when working in the lab

**DO:**
- Ensure personal items are stored outside of the laboratory or in the containers provided
- Check the safety signs on lab entry doors to identify the personal protective equipment required
- Cover cuts or abrasions on the hands with suitable water resistant covering
- Change your lab coat if it gets contaminated or dirty
- Wash your hands before leaving the laboratory
- Maintain clear passages to lab exits
- Ensure waste bins are emptied regularly

**DON'T:**
- Leave any personal items on lab benches or outside of the containers
- Eat, drink, smoke or apply cosmetics in the laboratory
- Wear lab coats and gloves in any “clean areas” such as offices, toilets, seminar room/lecture theatres, or for handling items such as phones and door handles.
- Chew pens or pencils, rub the eyes or face with gloved hands.
- Use mobile phones in the laboratory.
- Wear any equipment that will interfere with hearing audible alarms.

### Housekeeping

**DO:**
- Keep your lab workspace in a tidy state and wipe down lab benches and other work surfaces after use.
- Clear up spillages in the lab and inform others working in the area of the spill.
- Know the locations of the emergency showers and exits.
- Dispose of used consumables and waste in the appropriate waste bin.

**DON'T:**
- Leave any sharps (needles, scalpels etc) exposed on work surfaces
- Reuse disposable lab gloves
- Leave experiments unattended without suitable label including name, date, hazards and your emergency contact number
- Ignore warning alarms associated with equipment

### Accidents

Generic emergency procedures will be explained on induction.
Specific emergency procedures are detailed in risk assessments.
Accidents and near misses must be reported, this is done via the College on line incident reporting system, Salus: 
http://www3.imperial.ac.uk/safety/subjects/reportingaccidents/reportinganincident.
Salus can be accessed via the Department safety web pages; 
http://www3.imperial.ac.uk/chemistry/safety or via the college Safety Dept. Web pages: 
http://www3.imperial.ac.uk/safety

Disclosure of vulnerability
If you have any health condition or are taking treatment that could cause you to lose consciousness, affect your alertness or for which you might require emergency assistance, you should let your senior tutor or your supervisor know so that they can be in a position to organise help for you if ever needed and ensure appropriate precautions are put in place if necessary to ensure your safety. For health conditions for which you might require emergency help it is also worth letting a couple of friends know as well, so they can know what to do if you needed help away from the Department. All students should register with a doctor in London as soon as possible. This is particularly important if you have any health problems that require regular treatment. All students living in central London Halls can and should register with the College Health Centre. Students living outside halls may also be able to register. Check the Health Centre website for information:

www.imperialcollegehealthcentre.co.uk

PLAGIARISM
The Department and College take plagiarism very seriously. Do not plagiarise. Plagiarism is defined as the theft of another's thoughts or writings and presenting them as the plagiarist’s own. Plagiarism also encompasses submitting the same piece of work for more than one unit as assessment. Plagiarism will not be tolerated in the Department and if it is detected in a student's work presented for assessment, it will be reported, together with the evidence, to the course supervisor, Head of Teaching Section and the Director of Undergraduate Studies who will take appropriate action. The penalty for proven cases can vary from loss of marks to expulsion by the University. Always cite your sources. For details of the College policy re-plagiarism see:

https://www.imperial.ac.uk/admin-services/library/learning-support/plagiarism-awareness/masters-students/
Educational aims of the course

1. Learning outcomes

The programme aims to:
- Produce science postgraduates equipped to pursue careers relating to sustainable technologies,
  in academia, industry, the public sector and non-governmental organisations;
- Develop the ability to undertake research in multidisciplinary teams;
- Develop knowledge of a range of basic and advanced concepts focused around catalysis;
- Develop research and analytical skills related to sustainable technology research
- Develop oral and written scientific presentation skills
- Attract the most motivated science and engineering graduates from both within the UK and from overseas;
- Develop new areas of teaching in response the advance of scholarship and the needs of vocational training.

Considering the above aims, the main outcome of the programme is to provide opportunities for postgraduate students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:

a) Knowledge and understanding of:
- Core concepts in catalysis – introduction to the roles played by catalysis, key catalytic targets, the right catalyst for the process, the role engineering plays and how this translates to industry;
- Research techniques, including information retrieval, experimental design, chemical synthesis, process modelling, reactor design and laboratory safety;
- Detailed knowledge and understanding of the essential facts, concepts, principles and theories relevant to the student's project; management and communication skills, including problem definition, project design, decision processes, teamwork, written and oral reports, scientific publications.

Teaching/learning methods and strategies
- Acquisition of the above knowledge and understanding (15.A-15.C) is through a combination of lectures, seminars, coursework and research.
- Throughout, the students are encouraged to undertake independent reading both to supplement and consolidate what is being taught / learnt and to broaden their individual knowledge and understanding of the subject.
- Assessment of the knowledge base is through assessed project work (15.A-15.C).

b) Intellectual skills. To be able to:
- Analyse and solve catalytic challenges using an integrated multidisciplinary approach
- Integrate and evaluate information
- Formulate and evaluate hypotheses using appropriate experimental design and statistical analysis
- Plan, conduct and write up a programme of original research

c) Practical skills
- Plan and execute safely a series of experiments
- Use laboratory–based methods to generate data
- Analyse experimental results and determine their strength and validity
- Prepare technical reports and give technical presentations
- Use the scientific literature effectively
- Use computational tools and packages
d) Transferable skills
- Communicate effectively through oral presentations, computer processing and presentations, written reports and scientific publications
- Management skills: decision processes, objective criteria, problem definition, project design and evaluation, risk management, teamwork and coordination
- Integrate and evaluate information from a variety of sources
- Transfer techniques and solutions from one discipline to another
- Use information and communications technology
- Manage resources and time
- Learn effectively for the purpose of continuing professional development
**Student responsibilities**

The MRes course is a postgraduate assignment and as such is not following undergraduate timing. There is no term-free time in this course. Students should be aware that their course is full-time employment up to the end of September. Any holidays or sick-leave will have to be taken at the discretion of the supervisors, but should under no circumstances be taken in the examination periods of January and May.

It is mandatory to attend all scheduled lectures, seminars, courses and exams. Missing an exam without any support from a doctor's letter for the day of the exam will count as failure. It is the responsibility of the student to ensure that sufficient time is allocated for the exam and write-up preparation.

Students should contact the Course Directors for discussion of all matters concerning problems with the supervision of the projects or other pastoral difficulties.

Students are expected to organise, conduct and present their research project in an independent fashion. The supervisory role is to guide and advise the student intellectually as well as technically, but it is not the supervisor’s responsibility to do the thinking or the work for the student. All projects will have at least two supervisors. Both supervisors should be approached for guidance. It is the student’s responsibility to make an effort and seek contact with their supervisors on a regular basis.

In order to pass the course successfully students have to pass all assessed components of the course. This includes the written exams, the research proposal, journal club, the dissertation and the oral presentations.

At the end of the course an external examiner will assess the examination process. All students have to be available on this day unless instructed otherwise. Students that are either at boundaries between marks (i.e. pass/failure or merit/distinction) or have failed one or more components of the course may get an additional oral examination (viva) that will determine their final mark.

Students should seek guidance with respect to their write-up and Research Proposal from their corresponding supervisors, since they will be involved in the marking. After completion of the Research Proposal students should seek feedback from their corresponding supervisors to help improve the quality of their final Dissertation.

Students are required to submit an electronic version of the Dissertation to their supervisors. Additionally, they must hand over all notes, lab-books, results, computer programmes etc. to their supervisors at the end of the course.
Professional Development for Master’s students

Introduction
An Imperial College Master’s degree provides students with high quality, discipline specific training. To complement this we wish to ensure that all Master’s students obtain generic skills training with a view to providing skills relevant both for their degree and for future employment. It is recognised that there is excellent practice with respect to professional development skills embedded within many Master’s courses. In addition, many Master’s courses make use of the current MasterClasses provided by the Graduate School while others benefit from the professional development skills courses developed for our doctoral students. However what is currently lacking is a formalised College-wide approach to the generic skills training for all our Master’s students. Following the recent College review of transferable skills it has been decided that all Master’s students at Imperial should receive professional development training with a view to particularly developing:

- Reflective independent learning
- Critical thinking
- Communication of complex ideas
- Interdisciplinary awareness
- Project and time management
- Flexibility and ability to manage complexity
- Networking skills

Professional development skills requirement
As mentioned above it will be Course Directors’ responsibility to ensure that the professional skills component is embedded into each Master’s course. It is also expected that all students are given the opportunity to further develop their generic skills within their Master’s course, for example by giving poster and oral presentations. It is important that students are receiving feedback on such existing professional development elements. Clear statements should be made in course handbooks so that the professional development content is evident to students. The professional development components of Master’s Programmes will be assessed by the Master’s Quality Committees through annual monitoring.

Embedding the professional development skills components
Course Directors will be responsible for ensuring that the different components are embedded within their respective courses. Support will be given in the provision of Master’s training by the Postgraduate Development Unit (Head: Elaine Walsh). Two new staff members, a teaching fellow and an e-learning technologist, with responsibility for development and delivery of Master’s training courses, have been appointed to start in August. The Postgraduate Development Unit (PDU) will support Course Directors for example by outlining the professional development skills requirement, providing course materials and providing guidance on ensuring adequate feedback on generic skills training. In addition we aim to disseminate examples of good practice and generate links between individual courses with a view to encouraging the sharing of existing training resources where possible.

Currently Master’s students may attend appropriate Graduate School professional skills courses and this will still be possible during the 2016-2016 academic year. Where there are Master’s Programmes which have a requirement for their students to attend specific Graduate School professional development course(s), we will be able to maintain existing arrangements for 2016-2016, but will move away from this model over the next few years and embed all required training within the Master’s course itself. As described above, help and support will be provided to facilitate this transition.
MasterClasses
Currently the Graduate School runs a series of MasterClasses at the South Kensington, Hammersmith and Silwood Park Campuses. These are normally in the form of 90 minute lectures held over lunchtime. The current MasterClasses are:

- Note-taking and Efficient Reading
- Research Skills and Reference Management
- Preparing and Writing a Literature Review
- Stress Management
- Academic Writing
- Developing your Career through Networking
- Interview Skills
- Job Search with a Difference
- Informational Posters - Layout and Design.
- Interpersonal Skills
- Negotiating Skills

E-learning tools
The Graduate School is in the process of setting up a dedicated website for Master’s students. This will contain information on the courses available to Master’s students as well as links to information on the support and advice available for Course Directors. This site will also contain links to existing e-learning tools which are of relevance to at least some of our Master’s students. There is an excellent online maths and statistics tool which will be available on Blackboard and additional courses are being developed. In addition the Masters e-learning technologist will be developing specific tools on plagiarism. New e-learning tools may be developed in consultation with specific Course Directors. We also have two DVDs covering presentation skills and oral examination skills.

Although the PDU is able to help substantially in the development and delivery of generic skills course, it will be the responsibility of the Course Director to arrange training in skills specific to a particular Master’s programme.

Careers Advisory Service (CAS)
Each year in October and again in January, the CAS hold a lunchtime talk aimed mainly at incoming Master’s students on “Working in the UK”. In addition, there are some specific whole day workshops for Master’s students to provide last minute help and advice on job hunting. The CAS also provides bespoke careers advice sessions to individual Master’s courses which are delivered at different College campuses. If a Course Director feels their students could benefit from such a course then they can contact the CAS directly to arrange a session.

Updates to the programme
New developments and updates to the programme will be disseminated in the Graduate School’s newsletter to Course Organisers.
Frequently Asked Questions

1. Is the MRes in Catalysis a taught or a research masters programme?

   The course consists principally of research (70%) with a mixture of core and optional lecture courses on relevant topics making up the remaining 30%. Lectures are not confined to the Chemistry Department but also include ones offered by the Centre for Environmental Policy and the Sustainable Energy Futures course. Research projects commence in January after a proposal has been devised between student and supervisor. The projects can be based in one department or jointly between supervisors in various departments across the University such as Chemistry, Chemical Engineering, Materials, Physics, Maths and Biochemistry.

2. When do I need to choose a supervisor for my research project?

   Contact is made between students and supervisors once the course has started. A range of projects will be offered and you will have the chance to talk to those offering projects and your choices will be used to allocate projects in the first term.

3. How much are living costs in London?

   It is recommended that you budget £14,000 per annum for living costs in London.

4. Is it possible to do a part-time job while attending the course?

   The course is full time so we only suggest that, if you wish to work while attending the course, you only take a part-time job at weekends.

5. Can I get help with my English language skills?

   Yes, the Centre for Academic English offers classes to students who are not native speakers of English. The majority of these courses are free of charge. Further information can be found at:

   http://www3.imperial.ac.uk/humanities/englishlanguagesupport
MRes GUIDANCE FOR WRITING A RESEARCH PROPOSAL

FORMAT OF PROPOSAL:
A research proposal should be clear, concise and not cluttered with technical jargon. Try to convey what it is that is exciting about the research. You need to convince the reader about the value of your project. Provide a convincing case for the originality of your proposal and describe your objectives clearly and succinctly.

Your research proposal should adhere to EPSRC guidelines as far as possible (see: http://www.epsrc.ac.uk/funding/apprev/preparing/Pages/documents.aspx). This means that the proposal should be composed of the main proposal (maximum 6 sides of A4) and a diagrammatic work plan (maximum 1 side of A4):

1. **Main proposal.** This should comprise:
   - **Background:** Introduce the topic of research and explain its academic and industrial context. Demonstrate a knowledge and understanding of past and current work in the subject area in the UK and abroad.
   - **Programme and Methodology:** Identify the overall aims of the project and the individual measurable objectives against which you would wish the outcome of the work to be assessed. Detail the methodology to be used in pursuit of the research and justify this choice. Explain why the proposed project is of timeliness and novelty. Describe the programme of work, indicating the research to be undertaken and the milestones that can be used to measure its progress.
   - **Relevance to Beneficiaries:** Identify the potential impact of the proposed work. Show who is likely to benefit from the proposed research. If the benefits do not directly relate to wealth creation and/or to improving the quality of life, give details of other beneficiaries and explain their importance; other research workers are legitimate beneficiaries.
   - **Dissemination and Exploitation:** Indicate the proposed dissemination and technology transfer routes and explain how the transfer of knowledge will take place to beneficiaries and the general public.

2. **Diagrammatic work plan.** This should be a diagrammatic indication of the project plan, for example, a PERT or Gantt chart.

3. **PLAGIARISM**
The Department and College take plagiarism very seriously. Do not plagiarise. You must read and comply with the Chemistry Department Policy on Plagiarism: http://www3.imperial.ac.uk/chemistry/teaching/undergraduate/teaching/materials/plagiarism

COVER PAGE FORMAT:
All research proposals must provide the following information on the cover:

- The title
- Your name, course and year (e.g. Tom Jones, MRes Catalysis)
- The type of report: e.g. Research Proposal.
- *Your examination (candidate) number*
- The name of your supervisor(s)
- The place where the work is to be carried out, if not at Imperial
- The date of submission (month and year)

ASSESSMENT:
The report will be assessed by your supervisor and an independent assessor (another member of staff) using the criteria shown in the attached guidelines. Where the independent assessor and supervisor disagree about the merit of the report, the report will be returned to the coordinator who will commission further independent assessors and/or arbitrate.

SUBMISSION DEADLINE:
Three hard copies of the Research Proposal must be handed in to Dr Mike Ray by the specified date and time (see page 2 of this Handbook). An identical electronic (pdf) version must be e-mailed to him and the same file must be uploaded onto the Blackboard site, both by the stated deadline. This file should be named as follows:

Surname[CIDnumber]prop.pdf

*e.g.* jones00788951prop.pdf

This pdf electronic copy of your report will be scanned for evidence of plagiarism.

Late submission will be penalised: All students must submit coursework assessment by the published deadline (date and time). The College policy is that work submitted up to one day (24 hours) after the assessment deadline
(date and time) will be marked but capped at the pass mark (50%). Work submitted more than one day (24+ hours) late will not be accepted as a valid attempt and mark of zero will be recorded. If you need an extension, you must contact the Course Director in advance of the deadline, stating your reasons for the request. This policy means that planning your time to ensure that your coursework is submitted on time is vital and this is an extremely important transferable skill.

**FEEDBACK ON PROPOSAL:**
Once your proposal has been marked by your supervisor and an independent assessor you can ask your supervisor for verbal feedback on its content, structure, presentation etc. Please contact your supervisor directly for this. Bear in mind that he/she will not be able to do this until marking by both assessors is complete.
GUIDANCE FOR THE ASSESSMENT OF RESEARCH PROPOSALS

<table>
<thead>
<tr>
<th>No.</th>
<th>Criterion</th>
<th>Factors</th>
<th>Supervisor</th>
<th>Maximum Marks</th>
<th>Independent Assessor</th>
<th>Maximum Marks</th>
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<tr>
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<td>Lit Survey</td>
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<td>√</td>
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<td>25</td>
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<tr>
<td>2</td>
<td>Understanding of background</td>
<td>Insight, critical analysis</td>
<td>√</td>
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<td>3</td>
<td>Planning and assessment of viability</td>
<td>Fallback options, appreciation of risk</td>
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<td>4</td>
<td>Presentation</td>
<td>Structure, clarity, written style, quality of English</td>
<td>√</td>
<td>25</td>
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Total 100 100

DETERMINATION OF FINAL MARKS

For MRes research project proposals:
Supervisors mark for proposal 50%
Independent Assessor’s mark for proposal 50%

CRITERIA FOR MARKING APPLIED TO MRes RESEARCH PROPOSALS (with comparison to degree classification)

Clear Fail (40%):
1) Literature survey (coverage & context) - poor coverage of topic; little evidence of structure.
2) Understanding of background (insight, critical analysis) - very limited grasp of key scientific issues; little evidence of critical analysis.
3) Planning & assessment of viability (fallback options, appreciation of risk) - very limited concept of scope of project; no fallback options indicated.
4) Presentation (structure, clarity, written style, quality of English) - minimal organisation of material; difficult to follow; unclear; poor English.

Fail/Merit Borderline (50%):
1) Literature survey (coverage & context) - acceptable coverage; somewhat illogical composition.
2) Understanding of background (insight, critical analysis) - some comprehension of scientific issues; attempts to apply reason-based analysis.
3) Planning & assessment of viability (fallback options, appreciation of risk) - basic scope of project adumbrated; some indications of priority and fallback avenues.
4) Presentation (structure, clarity, written style, quality of English) - apparent structure into sections; English acceptable; some text to scheme links.

Pass/Merit Borderline (60%):
1) Literature survey (coverage & context) - good coverage; logical selection of literature citations.
2) Understanding of background (insight, critical analysis) - appreciation of key issue; some insight and analysis into key aspects.
3) Planning & assessment of viability (fallback options, appreciation of risk) - coherent picture of scope of project conveyed; priorities and fallbacks alluded to.
4) Presentation (structure, clarity, written style, quality of English) - English good; clear organisation of material into logical sections; Good, clear style.

Merit/Distinction Borderline (70%):
1) Literature survey (coverage & context) - comprehensive coverage; carefully chosen & evaluated references.
2) Understanding of background (insight, critical analysis) - clear awareness of scientific background; logical and insightful analysis.
3) **Planning & assessment of viability (fallback options, appreciation of risk)** - clear description of project scope; objectives prioritised and fallbacks clearly identified.

4) **Presentation (structure, clarity, written style, quality of English)** - essentially error free; clear logical construction; balanced presentation of message.

**Clear Distinction (~85%)**:

1) **Literature survey (coverage & context)** - highly accomplished précis of subject area; publishable quality.

2) **Understanding of background (insight, critical analysis)** - lucid presentation of complex ideas; mature, critical analysis.

3) **Planning & assessment of viability (fallback options, appreciation of risk)** - Research Council quality planning; clear, concise, reasoned and justified.

4) **Presentation (structure, clarity, written style, quality of English)** - flawless English; clear, logical structure; engaging style; clear developed message.
MRes GUIDANCE FOR JOURNAL CLUB

All MRes Catalysis students are required to attend all Journal Club sessions (a register will be taken) as the marks will count towards your final degree grade. Two weeks before each session a primary research paper will be circulated.

The presenting group will present for a strict maximum of 30 mins, with up to 30 minutes questions to follow; you do not have to use the full time allotted, but each group member is expected to present a roughly equal proportion of the material. The grouping of students is above. Please let us know as soon as possible if there is any problem with the groupings as given.

Both groups will be expected to have read the paper on which the session is based. One group presents and the other is expected to prepare some questions in advance and lead the Q&A session. Those questioning will be marked on their questioning so make sure that you all have input into this.

In addition to the key content of the paper (results, methods, etc.) you are expected to present the background and put the paper into context in its field (e.g. unique features, advance on previous work, competing techniques, conflicting data, papers that have cited the paper since it was published, etc.), as well as critically assess the conclusions and data. You must present the paper at a level suited to the MRes Catalysis cohort as a whole.

To give an example of the potential scope, a presentation from another MRes course will be provided along with the paper on which it is based. However, you are encouraged to use whatever format you feel is most appropriate.

Your performance will be assessed by the Course Director present and one other academic at the session and counts towards your final MRes mark. Each person presenting will be assessed (equal weighting) by the two members of staff present on presentation (e.g. slides, delivery, timekeeping), science (e.g. pitched at an appropriate level, awareness of context), integration (e.g. evidence of teamwork, organisation, even division of material between the group) and critical analysis (e.g., how well the claims are assessed and probed).

Some additional advice based on where people have wanted to improve in previous years:
Speak up during your talk, and during questions & answers – everyone in the room must be able to hear. Ask audience to repeat a question if it is not loud enough for the whole audience to hear (or repeat it yourself for the whole audience) before you answer.
Consider unconventional ways to present the paper; you don’t have to allocate each person to a separate section of intro, results, discussion, and you can present results in a different order from the paper. Consider breaking the paper into two or three related themes that build on each other, so that each person can provide an intro, results & discussion part to their respective theme. Be as creative as you wish in order to entertain your audience!
Avoid a dry summary of data – the Journal Club is all about interpretation and clear presentation. You should be discussing the results as you go along, each result should be introduced with the reason behind the experiment, explanation/interpretation of the data, and a summary of what the data mean for the paper (and perhaps the field as a whole).
Avoid text-heavy slides; practise your talk so that you can present large clear images uncluttered by blocks of text, and use your voice to provide the context.
Do the work of interpretation for your audience, don’t make them struggle to interpret the raw data from scratch!
Create your own figures where possible to provide optimal interpretation for your audience. Figures directly from a paper are designed to be studied at leisure, but the slides in a talk may only be visible for a minute or two, so you usually need to simplify and focus the information.
MRes GUIDANCE FOR CARRYING OUT A RESEARCH PROJECT, WRITING A DISSERTATION & MAKING AN ORAL PRESENTATION

CARRYING OUT THE PROJECT:
The lab-based research project should be carried out in collaboration with your designated research supervisor. The laboratory work will be carried out in a lab designated by your supervisor. You are expected to work in your supervisor's lab during normal working hours (9 am – 5 pm) whenever you do not have lectures and allowing of course for a one hour lunch break. The project lasts from the first week of the Autumn term to mid-September in the Summer term. Holidays/revision breaks are arranged with your supervisor.
Throughout the project, you should meet regularly with your supervisor to update him/her on what progress you are making. If you are having problems or difficulties with the work you should let your supervisor know as soon as possible. If for some reason you are unable or unhappy about doing this please contact the Directors of the MRes Catalysis programme or the Director of Postgraduate Studies.

Safety: You MUST attend a lab safety talk prior to starting laboratory work and abide by the Departmental safety procedures at all times. See: http://www3.imperial.ac.uk/chemistry/safety.

Lab book and primary data retention: During the course of your project you must keep a dated lab book in which details of all the experiments/investigations you carry out. This lab book is the property of the Department and must be retained by your supervisor once the project has finished. Additionally, you will generate primary spectroscopic and computational data from various instruments/systems that relate to your findings (e.g. spectroscopic data, computational output etc.). This primary data, in whatever form (electronic or paper etc.) is also the property of the Department and must be given to your supervisor once the project has finished. It is your responsibility to ensure that happens. This is of paramount importance as this will be required as evidence in the event that it is necessary to check the validity of the data reported.

FORMAT OF THE DISSERTATION:
Your Dissertation should be written in an accepted RSC style (i.e. Dalton, Faraday or Org. Biomol. Chem.). Start with Introduction and Aims and Objectives sections setting out why you are doing the work, i.e., why it is important, what you were expecting to achieve at the outset, and referring to any relevant publications. These are followed by Results and Discussion and Experimental sections - the order varies with the style. The References come at the end.
The length should be no more than 60-80 pages (A4 typed; 1.5 or double spaced) and may well be shorter than this as the scientific approach is to be concise.
The Results and Discussion chapter presents your experimental results, including the things that didn't work as well as those that did - this is important, as it allows the markers to judge how much you did during your time. Remember that much scientific research is unsuccessful! The discussion should explain the significance of your results and suggest avenues of future research. The Experimental chapter describes concisely the experimental techniques and procedures you used. It is not necessary to describe standard techniques in detail, but you should mention any special techniques, precautions or difficulties. When you have finished, write an Abstract of not more than one page - this goes at the front of your report.
Your research supervisor should be able to help you with the format of your report - it is important not to leave writing up too late so that he/she can see the first part in draft. Another reason for starting to write-up well before the deadline is that you may well think of a finishing touch that would round off your experimental work. It is the content rather than the number of pages that counts.

COVER PAGE FORMAT:
All Dissertations must provide the following information on the cover:
- The title
- Your name, course and year (e.g. Tom Jones, MRes Catalysis)
- The type of report: e.g. Dissertation
- Your examination (candidate) number
- The name of your supervisor
- The place where the work was carried out, if not at Imperial
- The date of submission (month and year)

SUBMISSION DEADLINE:
Three hard copies of the Dissertation must be handed in to Dr Mike Ray by the specified date and time (see page 2 of this Handbook). An identical electronic (pdf) version must be e-mailed to him and the same
file must be uploaded onto the Blackboard site, both by the stated deadline. This file should be named as follows:

Surname[CIDnumber]res.pdf
e.g. jones00788951res.pdf

This pdf electronic copy of your report will be scanned for evidence of plagiarism.

Late submission will be penalised: All students must submit coursework assessment by the published deadline (date and time). The College policy is that work submitted up to one day (24 hours) after the assessment deadline (date and time) will be marked but capped at the pass mark (50%). Work submitted more than one day (24+ hours) late will not be accepted as a valid attempt and mark of zero will be recorded. If you need an extension, you must contact the Course Director in advance of the deadline, stating your reasons for the request. This policy means that planning your time to ensure that your coursework is submitted on time is vital and this is an extremely important transferable skill.

The presentations must be prepared in time for the appropriate MRes Catalysis Presentation Day. Failure to show up will result in zero marks being assigned. All MRes students making presentations MUST attend the ENTIRE Presentation Day. A viva will also be conducted on the research work carried out. Failure to attend will result in zero marks.

FORMAT OF THE ORAL PRESENTATION:
Discuss the format of this with your supervisor and preferably have a number of practice sessions prior to the Departmental presentation. In all cases, your talk should:

• be a clear and concise summary of your research.
• provide a non-specialist audience with sufficient background information to place your research contribution in perspective.
• be prepared using Powerpoint or similar presentation software using a font that is easily readable in a lecture theatre (i.e. > 14 point, preferably sans-serif: e.g. Helvetica or Arial).
• start with a slide displaying clearly your project title, your name & your supervisor’s name as well as the College Logo.
• last no more than 15 min, including discussion.

Be imaginative! There will be prizes for best presentations.

An identical electronic (pdf) version of the presentation must be uploaded onto Blackboard Learn by the stated deadline. This file should be named as follows:

surname(CID number)talk.pdf
e.g. jones(00258951)talk.pdf

This pdf electronic copy of your report will be scanned for evidence of plagiarism.

Late submission will be penalised: At the discretion of the Course Director, 20% of the awarded mark will be deducted for submission up to 24 hr late; an additional 5% will be deducted for each subsequent day.

ASSESSMENT:
Assessment of this assignment has four components:

1. Your performance in carrying out the research project – this is assessed by your research supervisor using the criteria shown in the attached guidelines.
2. Your Dissertation – this is assessed by your supervisor and an independent member of staff using the criteria shown in the attached guidelines. Where the independent assessor and supervisors disagree about the merit of the dissertation, it will be returned to the Course Director who will commission further independent assessors and/or arbitrate.
3. Your research presentation – this is assessed by a panel of staff (excluding your supervisor) at the Catalysis Presentation Day.
4. Your performance in discussing your research work in the Viva.

For the division of marks between these categories, see the guidelines below.
GUIDANCE FOR THE ASSESSMENT OF RESEARCH PERFORMANCE

These criteria should be combined with the definitions of degree classification given overleaf in making an assessment of the students' performance.

<table>
<thead>
<tr>
<th>No.</th>
<th>Criterion</th>
<th>Factors</th>
<th>Supervisor</th>
<th>Maximum Marks %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Skill</td>
<td>technical competence</td>
<td>√</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Originality</td>
<td>independence, initiative</td>
<td>√</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>productivity &amp; achievement</td>
<td>output, time management</td>
<td>√</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>commitment</td>
<td>diligence, motivation</td>
<td>√</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>record keeping</td>
<td>Clarity, accuracy</td>
<td>√</td>
<td>15</td>
</tr>
</tbody>
</table>

Total: Supervisor 100

GUIDANCE FOR THE ASSESSMENT OF DISSERTATION

These criteria should be combined with the definitions of degree classification given overleaf in making an assessment of the report.

<table>
<thead>
<tr>
<th>No.</th>
<th>Criterion</th>
<th>Factors</th>
<th>Supervisor</th>
<th>Maximum Marks</th>
<th>Independent Assessor</th>
<th>Maximum Marks %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>background &amp; introduction</td>
<td>quality of coverage &amp; context</td>
<td>√</td>
<td>20</td>
<td>√</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>understanding &amp; analysis</td>
<td>scientific awareness, justification</td>
<td>√</td>
<td>30</td>
<td>√</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>quality of experimental</td>
<td>volume &amp; accuracy</td>
<td>√</td>
<td>30</td>
<td>√</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>presentation</td>
<td>structure, clarity, written style, quality of English</td>
<td>√</td>
<td>20</td>
<td>√</td>
<td>20</td>
</tr>
</tbody>
</table>

Total: Supervisor 100 Independent Assessor 100
GUIDANCE FOR THE ASSESSMENT OF ORAL PRESENTATION AND VIVA

The criteria for these are based on the same aspects above, however, at the Presentations Day it will be the delivery and presentation of the research rather than the content which will be marked. The Viva seeks to reveal the student’s fundamental understanding of the project, background knowledge and context.

CRITERIA FOR MARKING APPLIED TO FINAL YEAR RESEARCH PROJECTS
(degree classifications provided for comparison)

Clear Fail (40%):
Research Performance:
1) Skill (technical competence) - a just passable level of skill; implemented some ideas but misunderstood some.
2) Originality (independence, initiative) - did have some ideas but mainly irrelevant and impractical.
3) Productivity and achievement (output, time management) - poor attendance; poor time management, minimal progress achieved.
4) Commitment (diligence, motivation) - expended minimal effort to progress the project.
5) Record keeping (clarity, accuracy) - very poor record of experiments; many critical details not recorded.

Dissertation:
1) Background and introduction (quality of coverage & context) - scientific aims and background poorly conveyed; absent key references/concepts.
2) Understanding and analysis (scientific awareness, justification) - very limited grasp of key scientific issues; little evidence of critical analysis.
3) Quality of experimental (volume and accuracy) - few meaningful results obtained; presentation of data imprecise/inaccurate.
4) Presentation (structure, clarity, written style, quality of English) - minimal organisation of material; difficult to follow; unclear; poor English.

Fail/Pass Borderline (50%):
Research Performance:
1) Skill (technical competence) - competent but required significant help with complex tasks/experiments.
2) Originality (independence, initiative) - some ideas which contributed to advancement of the project.
3) Productivity and achievement (output, time management) - lacking in commitment; most experiments conducted in a satisfactory fashion.
4) Commitment (diligence, motivation) - showed some interest in progressing the project but easily distracted.
5) Record keeping (clarity, accuracy) - most necessary experimental details recorded; some ambiguity apparent.

Dissertation:
1) Background and introduction (quality of coverage & context) - most scientific aims identified; some confusion relating to prioritisation and relevance.
2) Understanding and analysis (scientific awareness, justification) - some comprehension of scientific issues; attempts to apply reason-based analysis.
3) Quality of experimental (volume and accuracy) - some useful data; format and presentation non-ideal.
4) Presentation (structure, clarity, written style, quality of English) - apparent structure into sections; English acceptable; some text to scheme links.

Pass/Merit Borderline (60%):
Research Performance:
1) Skill (technical competence) - able to carry out most techniques; receptive to ideas which were then implemented.
2) Originality (independence, initiative) - contributed most ideas to advance the project.
3) Productivity and achievement (output, time management) - effective use of time and good number of reliable results.
4) Commitment (diligence, motivation) - diligent work pattern; keen to achieve progress.
5) Record keeping (clarity, accuracy) - sufficient details recorded to allow repetition; some non-optimal formatting.

Dissertation:
1) Background and introduction (quality of coverage & context) - coherent narrative; style slightly derivative; almost all aims adumbrated.
2) Understanding and analysis (scientific awareness, justification) - appreciation of scientific challenges; reasoned justification of strategic decisions taken.
3) **Quality of experimental (volume and accuracy)** - useful data collected; most important details documented; some inconsistencies.

4) **Presentation (structure, clarity, written style, quality of English)** - English good; clear organisation of material into logical section; Good, clear style.

**Merit/Distinction Borderline (70%):**

**Research Performance:**
1) **Skill (technical competence)** - very good skills from outset.
2) **Originality (independence, initiative)** - required minimal assistance; high level of critical judgement.
3) **Productivity and achievement (output, time management)** - a substantial volume of results generated.
4) **Commitment (diligence, motivation)** - excellent motivation; voluntarily exceeded expectations.
5) **Record keeping (clarity, accuracy)** - precise and clear records with all details noted.

**Dissertation:**
1) **Background and introduction (quality of coverage & context)** - scientific aims clearly identified; clear comprehension of background; all key refs. cited.
2) **Understanding and analysis (scientific awareness, justification)** - clear awareness of scientific challenges; logical approach to problem solving.
3) **Quality of experimental (volume and accuracy)** - good volume of high quality, publishable results; format largely adheres to convention.
4) **Presentation (structure, clarity, written style, quality of English)** - essentially error free; clear logical construction; balanced presentation of message.

**Clear Distinction (~85%):**

**Research Performance:**
1) **Skill (technical competence)** - excellent technical ability; publishable quality of output.
2) **Originality (independence, initiative)** - excellent grasp of concepts; innovative lines of enquiry self-generated.
3) **Productivity and achievement (output, time management)** - excellent productivity and professional level of output.
4) **Commitment (diligence, motivation)** - tenacious; single minded dedication to advancing the project.
5) **Record keeping (clarity, accuracy)** - model record keeping including insightful observations and perceptive annotations.

**Dissertation:**
1) **Background and introduction (quality of coverage & context)** - clear display of subject mastery; precise, coherent, structured; all key refs. cited.
2) **Understanding and analysis (scientific awareness, justification)** - lucid presentation of nub of challenges faced; mature, reasoning-based analysis.
3) **Quality of experimental (volume and accuracy)** - outstanding volume of high quality, publishable results; substantial project progress made.
4) **Presentation (structure, clarity, written style, quality of English)** - flawless English; clear, logical structure; engaging style; clear developed message.
Imperial College London
Research Student Assessment: MRes Mid-Project Progress Report Form
MRes in Catalysis

Student name:
Project Title:
Supervisors:
Date:

Evaluation to be completed by the Supervisor (please circle as appropriate, if starred response please give details/agreed action in space provided)

- Attendance: Excellent / good / satisfactory / unsatisfactory*
- Commitment: Excellent / good / satisfactory / unsatisfactory*
- Awareness of Literature: Excellent / good / satisfactory / unsatisfactory*
- Presentation skills (written and oral): Excellent / good / satisfactory / unsatisfactory*
- Overall Progress: Excellent / good / satisfactory / unsatisfactory*

Supervisor’s comments on project progress to date. Please highlight any successes and problems and comment on the agreed targets for the second half of the project (please continue overleaf if required).

Student’s General Comments, including identification of any issues which need to be addressed (please continue overleaf if required).

Student's signature ........................................ Date .................................
Supervisor’s signature ................................. Date .................................
Imperial College London
MRes Mid-Project Progress Report Form - Student Evaluation
MRes in Catalysis

Name: 
Project Title: 
Supervisors: 
Date: 

Evaluation to be completed by the Student (please circle as appropriate, if starred response please give details/agreed action in space provided)

Quality of Supervision: Excellent / good / satisfactory / unsatisfactory*
Overall Project Progress to date: Excellent / good / satisfactory / unsatisfactory*

Please highlight successes/problems encountered during the project to date, and detail any changes made to the research plan in light of these. Use this opportunity to identify any issues which need to be addressed in the coming weeks/months.

Student's signature ................................................................. Date .........................
Imperial College London, South Kensington campus

It is suggested that you use the tunnel connecting South Kensington Underground station with Imperial College Road. After coming through the ticket barriers in the station, turn right (do not go to street level) and walk down the tunnel to the very end (5 mins). Ascend the stairs at the end and turn left where you will find the start of Imperial College Road.

Buildings whose wheelchair access is not possible at this time:

1. Belt Quadrangle
2. Imperial College Union
3. College House
4. Ethos Sports Centre
5. Student Accommodation Office
6. Garden Hall
7. Blackett Laboratory
8. Roderic Hill Building
9. Bone Building
10. Royal School of Mines
11. Aston Webb
12. Bessemer Building
13. Goldsmiths Building
14. Health Centre, Dentist
15. Huxley Building
16. ACE Extension
17. William Penney Laboratory
18. Electrical Engineering
19. Tanaka Business School
20. 53 Prince’s Gate
21. Linstead Hall
22. Sherfield Building
23. Faculty Building
24. 5B Prince’s Gate
25. Conference Link
26. 170 Queen’s Gate
27. Imperial College and Science Museum Libraries
28. Queen’s Tower
29. 53 Prince’s Gate
30. Institute for Mathematical Sciences
31. Southside (under construction)
32. Biochemistry Building
33. Flowers Building
34. Chemistry Building
35. Sir Alexander Fleming Building
36. Chemistry RCS
Instructions on submitting your Literature Report or MRes Manuscript on Blackboard Learn

1. Go to Blackboard Virtual Learning Environment homepage [https://bb.imperial.ac.uk](https://bb.imperial.ac.uk) and log in using your College username/password

2. Select your MRes course, i.e **Chemical Biology of Heath & Disease** from the Course List shown.
3. Select **Course Content** and left click the **view/complete** link (circled) for the report you need to submit, in this example **MRes final manuscript 2014**. This will take you to ‘Turnitin UK’.

4. Ensure ‘**single file upload**’ is selected under “Choose a paper submission method”. Enter your ‘**first and last name**’
Enter the ‘**submission title**’ – this is your Literature Report or Manuscript Title
Select ‘**Browse**’ and locate your Manuscript and select it
Press ‘**Upload**’
5. Press ‘submit’ once your report has been uploaded onto the system.

6. You will receive a notification if the document has been successfully submitted.

7. You can now log out of Blackboard.