IMPERIAL

Faculty of Engineering

Department of Materials

MSc Advanced Materials Science and Engineering

Student Handbook
2024–25

Contents

Welcome to Imperial

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 very much a part of this community of discovery and we hope you will take this opportunity to make your own unique contribution. At Imperial, we expect all members of our community, whether students or staff, to share and demonstrate our values of respect, integrity, collaboration, innovation and excellence in all we do and strive to achieve.

Imperial provides 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 the Early Career Researcher Institute 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 360 clubs, societies and projects is one of the largest of any UK university, making it easy to do something different with your downtime. Access to the gym and other sporting facilities will be dependent on government guidance. We are working to ensure that you have access to a variety of resources online to support your health and wellbeing if there are restrictions.

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 Imperial and Imperial College Union agreed 'Our Principles'. This series of commitments was developed by academic and support staff in partnership with undergraduate and postgraduate students and Imperial College Union.

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 university 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 university.
- 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 Early Career Researcher Institute

Welcome to Imperial and to the Early Career Researcher Institute!

The Early Career Researcher Institute works closely with Imperial College Union to enhance your experience and to ensure that when decisions are being made which affect your time at the university, your voice is heard.

Another important aspect of our role is to provide you with a free and exciting programme of professional development opportunities, delivered through a range of modes, so you can access these wherever you are in the world.

Our staff have a variety of research and other career experiences. Our professional development opportunities are designed to support you as you progress through your programme, but also to help you improve your personal impact, and be prepared for your chosen career, whether that is within academia, industry, government or something completely different!

Importantly, by attending our courses and workshops, you will meet students from other academic departments, enabling you to start building your research connections. We also deliver exciting competitions throughout the year which are an opportunity to broaden your knowledge as well as to have some fun!

Our primary way to communicate with you will be through our monthly e-newsletter and our weekly professional skills email bulletins. However, do check our website, blog and social media platforms to keep up to date with all the latest activities available to you.

Finally, Imperial is an extremely exciting, stimulating and diverse environment in which to work, to study and to research. Do make the most of all that the university and your programme has to offer.

Please note that the Early Career Researcher Institute was formerly known as the Graduate School. We are working hard to update all our resources with our new name, so please bear with us as we continue to work through this task. For now, you can find out more about us via the website:

🖥️ www.imperial.ac.uk/students/academic-support/graduate-school/

Introduction from the President of Imperial College Union

Welcome to Imperial! To begin with, a huge congratulations on joining us here at Imperial– this is where you belong! This is a globally renowned institution and offers much more than just the degree you are looking to leave with. You will come across countless opportunities and meet an array of compelling people amongst your peers, accomplished academics and the wider university community. Imperial attracts the best talent from around the world - making it here is already a testament to your academic zeal and ambitious character. Now, what you make of your experience at Imperial has the potential to shape your future.

Being located in London is a true perk of being an Imperial student. Right on our west London doorstep are landmark museums and iconic venues, including the Royal Albert Hall which has hosted Imperial graduations for over 60 years. Beyond our campuses, the city has something for everyone; be that the West End, sporting arenas or diverse cuisines. I strongly encourage you to explore where and when you can – London is a fantastic place for your university memories to call home.

You will likely have chosen to come to Imperial for its academic reputation as an outstanding university, and it will deliver on this. The facilities for research and your learning are terrific. To accompany this, there are hundreds of student-led societies and events available to you outside of your degree. These are overseen by your students' union – Imperial College Union. The Union is led by students, for students. The four deputy presidents and I have all been democratically elected to work full time on improving your student experience at Imperial. We have a large team of permanent staff behind us, running the many functions of the Union such as supporting clubs and training student representatives.

The Union also runs the Advice Service, where guidance and support can be provided on issues such as life in halls, complaints, and academic appeals. This is a free and confidential service that is independent from the university. You can access this by emailing advice@imperial.ac.uk.

University is a new stage of life. For many, this stage presents itself with newfound freedom and control over what you do. As daunting as it may seem, take advantage of it! Immerse yourself in your degree, your extra-curricular activities and in the connections you make.

No matter what problems you have or opportunities you're looking for, we're here to help. Our office is on Level 2 in Beit Quadrangle, and you can check out our website for more information.

Wishing you an incredible year ahead, Camille Boutrolle

Imperial College Union President 2024-25

union.president@imperial.ac.uk
imperialcollegeunion.org

1.   Introduction to the Department

Welcome from MSc Course Director

On behalf of all members of the academic and support staff I would like to welcome you to the MSc in Advanced Materials Science and Engineering. We hope you will enjoy your year with us and will benefit from the opportunities our programme offers.

By studying in the Department of Materials at Imperial College, you have become a member of the oldest and largest department of its kind in the UK. We are proud of our internationally leading research programmes in the synthesis, processing, characterisation, and modelling of a broad range of materials (metals, ceramics, semiconductors, glasses, ceramic-matrix composites, polymers and functional materials). The research is applied to a wide range of contemporary problems: nuclear power, battery technology, aerospace engineering, biomedical innovations, automotive engineering, communications, electronics, and more. Please feel free to talk to the academics about their research. By carrying out a research project during your time here, you will be making your contribution to our shared success.

The MSc is a stand-alone qualification designed to:

1. Provide you the core skills needed to pursue research and development in materials and related areas.
2. Provide you up-to-date knowledge of major themes in materials.
3. Prepare you for a wide range of careers in materials.

We aim to achieve these goals by:

1. Teaching you about materials characterisation and modelling, offering research seminars for you to attend and giving you a research project.
2. Allowing you to select a number of options, so you can decide what areas you wish to specialise in.
3. Providing you with transferrable skills courses and opportunities for industry engagement.

This handbook is designed to inform and help you: time taken now to have a read and familiarise yourselves with its contents will make life easier later. If you have a question about the course, please check the handbook: it should have the answer. Of course, if you think we have missed something, please let us know.

I wish you all the best during your time with us.

Professor Johannes Lischner
Course Director

Academic and administrative staff

Prof Johannes Lischner

MSc Course Director

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Projects Coordinator

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Olly Swanton

Departmental Student Wellbeing
Adviser
Departmental Disability Officer

Room: RSM G03c

+44 20 7594 7357

o.swanton@imperial.ac.uk

The Student Office staff will be your first point of contact for any learning enquiries and day to day queries:

Mrs Raj Adcock

Teaching Operations Manager

Oversees all administration of undergraduate (BEng/MEng) and taught postgraduate (MSc) programmes.

Room: G03A

+44 20 7594 6728

materialsstudentoffice@imperial.ac.uk

Miss Harpreet Rajbans

Interim Senior Student Office Administrator

Based in the Student Office, supports the efficient administration of all taught programmes in the Department of Materials. Responsible for:

▪Timetabling/Celcat Management
▪Options management (internal and external)
▪Exam organisation
▪Panopto Management

Alongside other day-to-day administration including general student support.

Room: G03A

+44 20 7594 6768

materialsstudentoffice@imperial.ac.uk

Miss Emily Harper

Student Office Administrator

Based in the Student Office, supports the efficient administration of all taught programmes in the Department of Materials. Responsible for:

▪Locker Management
▪Attendance monitoring.
▪Assist with admissions applications.
▪Assist with exam organisation.
Alongside other day-to-day administration including general student support.

Room: G03A

+44 20 7594 7277

materialsstudentoffice@imperial.ac.uk

Mr Jamie Watt

Student Office Administrator

Based in the Student Office, supports the efficient administration of all taught programmes in the Department of Materials. Responsible for:

▪Coursework management
▪Blackboard Learn Management
▪Work Placements/UROPs
▪Student exchange programmes (including Erasmus)
▪Student laptop loan scheme
Alongside other day-to-day administration including general student support.

Room: G03A

TBC

materialsstudentoffice@imperial.ac.uk

Departmental Information

Information about the department can be found on the departmental webpage
https://www.imperial.ac.uk/materials/.

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

For information on English language support available while you're here, please refer to the

section on Effective communication in English, see page 22.

Attendance and absence

You must inform your MSc Senior Tutor if you are absent from the university for more than three days during term. If the absence is due to illness, you must produce a medical certificate after seven consecutive days. If you miss an examination or the deadline for any other assessment (including lab work, in class tests, coursework or presentations) due to illness or other unforeseeable and unavoidable circumstances you must follow the Mitigating Circumstances Policy and Procedure. Please note that all claims for mitigation must be submitted within 10 working days of the examination or assessment deadline. If you are unable to provide evidence at the time you must submit the claim and indicate what evidence will follow and when it can be provided. Claims without evidence will normally be rejected. Please see the section on mitigation.

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

If you do not engage satisfactorily with your studies, Imperial will consider what action is necessary to support your continued study under the Unsatisfactory Engagement Policy:

🖥 www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academic-governance/public/regulations/2022x2f23/Unsatisfactory-Engagement-Policy-and-Procedure.pdf

Attendance monitoring

All small-group exercises (laboratories, in-person assessments etc.) and examinations are monitored for attendance. This is done through class list recording. If you miss any of these sessions, you will need to complete mitigation. For students attending remotely, we will monitor connection to the sessions via Teams and students missing sessions will still be required to file for mitigation.

Attendance will also be monitored through submissions on Blackboard and other systems.

Key dates 2024–25

Please note that academic activities will take place from the beginning of each term and can run to the last day of term. Therefore, do not plan travel inside the term dates.

You are required to be present from the start to the end of all listed term dates. It will normally not count as mitigation if you book travel during term time. Please refer to the below dates:

Term dates

Autumn term:	28 September 2024 – 13 December 2024
Spring term:	04 January 2025 - 21 March 2025
Summer term:	26 April 2025 – 27 June 2025

Closure dates

Christmas/New Year:	23 December 2024 - 01 January 2025 (Imperial reopens on 02 January 2025)
Easter Holiday:	17 April 2025 – 22 April 2025

	(Imperial reopens on 23 April 2025)
Early May Bank Holiday:	05 May 2025
Spring Bank Holiday:	26 May 2025
Summer Bank Holiday:	25 August 2025

(Please note as MSc students your summer term ends at the end of September, and you are expected to remain on Campus until this date. Term dates listed on the College website refer to undergraduate degree programmes only)

Closure dates

Please refer to the link below for college closure dates:

College closures | Administration and support services | Imperial College London

Some students undertake an internship within a company during their vacations to develop skills, gain industrial insights, and earn money. You should only undertake an internship that starts after the formal end of term to ensure there is no clash with academic studies. In addition, if you hold a student visa, the type and amount of work that you can do is restricted. It is essential that you are aware of these restrictions so that you do not breach your student visa conditions. Please visit the International Student Support webpage for further details and note that only undergraduate students can undertake an internship during the summer vacation.

www.imperial.ac.uk/students/international-students/visas-and-immigration/working-in-the-uk/work-rules-during-your-studies/

Module Option changes request

Spring term (Spring term options only):   06 January 2024 – 10 January 2025

Student-Staff Committee dates

Tuesday 5th November 2024	12:30pm-14:00pm
Tuesday 3rd December 2024	12:30pm-14:00pm
Tuesday 21st January 2025	12:30pm-14:00pm
Tuesday 4th March 2025	12:30pm-14:00pm
Tuesday 6th May 2025	13:00pm-14:30pm

Key events

http://www.imperial.ac.uk/whats-on/

http://www.imperial.ac.uk/admin-services/registry/term-dates/

Provisional Examination Timetable

For confirmed times/dates please refer **only** to your Celcat timetabled exam events, which will be **confirmed by an official email from the Materials Student Office at the end of Spring term**. No travel should be booked based on these times nor should other commitments be agreed to. Mitigation due to assumed dates from this timetable will not be accepted for problems attending examinations that are moved for any reason.

2. Programme information

The MSc is made up of a combination of taught modules and a research project. The optional taught modules are shared with the MEng and BEng students in Materials Science and Engineering, while the compulsory modules are specific to the MSc.

There are four compulsory taught modules (Characterization of the Structure of Materials, Theory and Simulation of Materials, Art of Research and the Research Project), in addition to which you must take four optional modules. The research is organised in stages. The Art of Research module provides some training and includes the creation of the research project plan and attendance at research seminars, one of which you will present together with your study group. After the summer exams, the research project is carried out, for which you need to write a report and give a presentation.

The available modules are listed below. Note: if you have enrolled in one of the two MSc specialisations ("Materials for the Energy Transition" and "Theory and Simulation of Materials"), your option choices are restricted, please refer to the programme specifications for further details: [Programme specifications | Staff | Imperial College London](#)

In addition to the **compulsory modules 4 optional** courses must be taken from the following list.

(O01) MATE70006: Biomaterials
(O02) MATE70007: Engineering Alloys
(O03) MATE70008: Ceramic and Glass
(O04) MATE70010: Optoelectronic Properties
(O05) MATE70011: Surfaces and Interfaces
(O06) MATE70012: Nanomaterials
(O07) MATE70013: Advanced Engineering Alloys
(O08) MATE70014: Advanced Nanomaterials
(O09) MATE70015: Advanced Structural Ceramics
(O10) MATE70016: Advanced Tissue Engineering
(O11) MATE70017: Electroceramics
(O12) MATE70018: Advanced Biomaterials
(O13) MATE70019: Nuclear Materials
(O14) MATE70020: Modelling Materials with Density Functional Theory
(O15) MATE70025: Quantum Mechanics
(O16) MATE70026: Machine Learning
(O17) MECH70002: Nuclear thermal Hydraulics
(O18) MECH70001: Nuclear Reactor Physics
(O19) CENG60013: Nuclear Chemical Engineering

Transferable skills seminars will be offered by the graduate school, one of which is compulsory, and you need to attend one more of your choosing. You will also meet regularly with your project supervisor in the autumn and spring terms to discuss your project and to write your project plan. A full-time independent research project will run from the end of the exam period until the beginning of September; there is a research ethics course at the beginning whose attendance in mandatory. Projects will be assessed by a final written report and an oral presentation.

MSc Specialisations

If you have enrolled in one of the two MSc specialisations ("Materials for the Energy Transition" and "Theory and Simulation of Materials"), your degree certificate will have the following extra annotation: "Specialising in Materials for the Energy Transition"/ "Specialising in Theory and Simulation of Materials".

ECTS summary

Compulsory modules (not project related) = 15 ECTS
Compulsory modules (project related) = 55 ECTS
4 x Assessed options = 20 ECTS
Total = 90 ECTS

For the ECTS for each module, please refer to the programme specification under the Faculty of Engineering Post Graduate for further details: [Programme specifications | Staff | Imperial College London](#)

Thematic Strands

To support coherent course choices that work together and promote learning of more specific aspects of materials the course options are grouped into themes, as outlined below:

Compulsory courses
These courses must be studied by all students regardless of the strand or combination of courses they select.

MATE70001: Characterization of the Structure of Materials (Autumn)
MATE70002: Theory and Simulation of Materials (Autumn)
MATE70003: The Art of Research (Autumn-Summer)
MATE70004: Research Project (Autumn-Summer)

Ceramics and Glasses
MATE70008: Ceramics and Glass (Yr3 Spring)
MATE70015: Advanced Structural Ceramics (Yr 4 Autumn)
MATE70017: Electroceramics (Yr4 Autumn)
MATE70011: Surfaces and Interfaces (Yr3 Spring)

Structural Materials
MATE70007: Engineering Alloys (Yr3 Autumn)
MATE70015: Advanced Structural Ceramics (Yr 4 Autumn)
MATE70013: Advanced Engineering Alloys (Yr4 Spring)
MATE70011: Surfaces and Interfaces (Yr3 Spring)

Functional Materials
MATE70012: Nanomaterials (Yr3 Autumn)
MATE70010: Optoelectronic Materials (Yr3 Spring)
MATE70011: Surfaces and Interfaces (Yr3 Spring)

MATE70020: Modelling Materials with Density Functional Theory (Yr4 Autumn)

Nanotechnology
MATE70012: Nanomaterials (Yr3 Autumn)
MATE70014: Advanced Nanomaterials (Yr4 Spring)
MATE70010: Optoelectronic Materials (Yr3 Spring)
MATE70018: Advanced Biomaterials (Yr4 Spring)

Biomaterials
MATE70006: Biomaterials (Yr3 Autumn)
MATE70012: Nanomaterials (Yr3 Autumn)
MATE70016: Advanced Tissue Engineering (IDX - Friday AM) (Yr4 Spring)
MATE70018: Advanced Biomaterials (Yr4 Spring)

Theory and Simulation of Materials
MATE70026: Machine Learning for Materials (Yr 4 Spring)
MATE70025: Mathematics and Quantum Mechanics (Yr 3 Spring)
MATE70020: Modelling Materials with Density Functional Theory (Yr4 Autumn)
MATE70012: Nanomaterials (Yr3 Autumn)

Materials for the Energy Transition
MATE70010 Optoelectronic Materials (Yr3 Spring)
MATE70011 Surfaces and Interfaces (Yr3 Spring)
MATE70017 Electroceramics (Yr4 Autumn)
MATE70019 Nuclear Materials for Reactor Systems (IDX - Friday PM) (Yr4 Autumn)
CENG60013 Chem Eng Nuclear Chemical Engineering* (IDX – Friday PM) (Yr3 Spring)
MECH70002 Mech Eng Nuclear Reactor Physics* (IDX – Friday AM) (Yr4 Spring)
MECH70001 Mech Eng Nuclear Thermal Hydraulics* (IDX – Friday AM) (Yr4 Autumn)

These modules are run by other engineering department not Materials

This information is accurate at date of publication, with reference to central registry systems, however it may be updated due to unforeseen circumstances.

Study Groups

Learning can be greatly enhanced by talking with your fellow students about ideas being taught, and problems being solved for coursework. We thus assign you to study groups with about 5-6 students each. They will be set up once you have selected your options, so that we can put people with similar interests in the same group. Each group will have a study group mentor who is a member of the academic staff. The study group mentor will meet the study group for lunch twice in the autumn and spring term. During these lunches, you can ask your study group mentor any question you might have about your studies, research or life at Imperial.

To help support the study groups the Department offers lunch vouchers for each group to go to lunch on campus twice in the first and second terms. Each study group will designate a team leader who is responsible for collecting the vouchers from the student office. You will be able to collect these from the student office on the **Monday before each date** below:

Term 1: Wednesday 23rd October 24 Wednesday 20th November 24	Term 2: Wednesday 29th January 25 Wednesday 26th February 25

Options Changes – during term

We allow students to **request** to change module options through a formal application process. The open window for MSc students is Spring term of the academic year for **spring term options only**. Applications outside of these windows are **only considered** where major mitigating circumstances come into play. You can submit your requests via the form that will be shared with you by the Student Office. Please note, the link will only be open in the time frame indicated **(see key dates).**

Timetable

You will be able to sign up to receive your own personalised timetable and you can find out more detail on how to set this up at http://www.imperial.ac.uk/timetabling/ .

Preparing for the courses: reviewing background material

The courses you take as part of your MSc may assume knowledge that you do not yet have. We provide lectures covering four areas (crystallography, microstructure, waves, and data analysis) as part of the Art of Research. In addition, we provide you with additional learning material to fill any gaps in your existing knowledge. In particular, we provide each of you a copy of the book "Materials Science and Engineering" by Callister in your welcome packs. Moreover, you will have access to lecture recordings from previous years through Panopto. The assumed knowledge is what is taught by the Department of Materials during the first two years of the undergraduate programme. The module leads will describe the required background material for each option course at the option module sessions in Fresher's Week.

Research Project

You will learn what your project will be in week 1 of the Autumn Term. The research project is carried out once you have finished your exams, after which you need to write it up as a report (submitted in late August) and present a talk about it to the other MSc students and some academics (at the end of September).

Art of Research

This module is **compulsory** and includes four elements:

1. Research project plan
2. Seminar presentation
3. Data analysis
4. Ethics course

During the Autumn and Spring Term you will need to write a research project plan. This gives the information you need to plan the project in advance, and to enable the Department to assess the suitability of the project. It forms part of the assessment for this module and is marked by the research

project marking panel. Note that preparation of the plan will require reading and understanding of the literature, as well as an appreciation of what the project will aim to achieve. Please refer to the deadline planner for the exact deadline date.

You need to attend research seminars regularly together with your study group. At the end of the Autumn Term your study group should choose one seminar that it found interesting and give a presentation on it to the other study groups. The other study groups will ask you questions about it. The presentation will be given by all members of the study group with each student presenting one slide covering: (i) background to the research, (ii) methods and results, (iii) discussion of the findings, (iv) critique of the seminar and the research focusing of what was done well and (v) critique of the seminar and the research focusing on what could be improved. For study groups with six students, there should be one slide for Methods and a separate slide for Results. See the template and coursework description for more details. Please refer to the deadline planner for the exact deadline date. You will receive emails about LCN (London Centre for Nanotechnology) and TYC (Thomas Young Centre for Theory and Simulation of Materials) seminars and other talks too. There will be a lot of these throughout the year. Be proactive about getting information on more specialised talks from our research groups when you are assigned a supervisor.

The taught component of the Art of Research covers the following topics:
- Basics of materials. This takes place at the start of the first term, and covers crystallography, microstructure, waves, and data analysis.
- Attendance at the compulsory course 'Preparing your Literature Review (Online Course) which you need to complete online in week 1.
- Attendance at one other course from the graduate school (see link: https://www.imperial.ac.uk/students/academic-support/graduate-school/professional-development/). More information is provided below. Please try to get this done in Term 1 (classes only run from October to June) and then you can use the skills you have learnt for your research and study.

Before you start your research project in the summer, you will be required to attend a compulsory course on Research Ethics which is scheduled in term 3.

Lab Equipment

We will provide opportunity for training on some shared equipment that you might need to use in the context of your research project. Please discuss with your research supervisor whether this training is required as they will **need to formally approve your registration**. This can be discussed during the project planning. We will not allow training if justification is not given.

Note that your access to the equipment is subject to availability so please make sure you plan your experiments carefully and be respectful of everybody's needs on the equipment. Think carefully whether the time on a highly specialised equipment is really required, or if you could get the answers another way, and prioritise your key samples. Please note that any misuse of equipment can lead to your access being revoked.

Lab work

Please note that safety is our number one priority. If you need to use labs, make sure you use the facilities responsibly and abide by the College, departmental and local safety rules.

Failure to abide by the safety rules will be penalised and can have consequences for your degree classification or even result in expulsion from the course.

We want you to experience our excellent research environment to carry out your project but can only do so if the safety rules are followed. In particular, please note that access to the labs will only be provided following training and if you have demonstrated that you can work safely and responsibly. Access is left at the discretion of the Laboratory Operations Manager(s) and can be revoked at any time. You are also not allowed in the labs outside of college working hours, Monday-Friday, 8am-6pm and should not work on your own.

This still leaves plenty of time for experiments especially as you will need time to plot and interpret your results, and to refresh your knowledge of the literature. Therefore, a **healthy balance of lab-work (or simulations in the case of a theory-based project), planning, analysis and writing up is key to a successful project**.

You should therefore aim to **finish your lab-work (or simulations) two weeks before the project submission deadline**.

Effective communication in English

Being able to communicate effectively in English is crucial if you want to be successful at Imperial College. The emphasis in examinations and tests is on testing your mastery of the subject. However, expect to be marked down if you are not able to express yourself fluently in English. This is especially the case later in the MSc when more substantial written work such as the research thesis is assessed.

If you feel you would benefit from further lessons, there is a **Centre for Academic English (CfAE)** at Imperial which offers: *"Free, dedicated support to international MSc students in science, engineering and medicine. Our aim is to help you with your language needs for your academic studies and to help you understand the expectations of postgraduate work. We offer:*
- *One-to-one tutorials with a dedicated tutor to support you with your course work and provide regular feedback.*
- *Courses and workshops targeting specific academic language and skills".*

If you wish to register for General Classes, Pronunciation Classes or Writing a Literature Review classes, you should contact the CfAE office to enquire at english@imperial.ac.uk or visit:

Centre for Academic English
Imperial College London
Room 320, Level 3, Sherfield Building

Classes start in mid-October and run until the end of the spring term, with some also running in the summer. Registration starts towards the end of the first week of term and more information on all these classes is available on the CfAE website: Centre for Academic English | Administration and support services | Imperial College London.

Widening your skills base: learning other languages

There are many excellent language courses in the College and below is a brief outline. More can be learnt from a visit to the Centre for Languages, Culture and Communication which is based on the third floor of the Sherfield Building or from https://www.imperial.ac.uk/centre-for-languages-culture-and-communication.

Students who would like to study a language can do so in their spare time if they wish. It is always useful to acquire fluency in another language and they are well taught here. The Centre for Co-Curricular Studies is prepared to mark tests and exams in the normal way for 'non-credit' students so you could use the qualification on your CV if you wanted to. There is also a language laboratory where,

once you have registered as a user, you may arrange to study in your spare time.

MasterClass Programme

Students on Master's level programmes are encouraged to develop transferable skills as an important part of their postgraduate education here at Imperial, and most Master's students will receive transferable skills training as an integral part of their Master's programme.

The Graduate School has developed a MasterClass programme specifically for Master's level students [Master's Students | Imperial students | Imperial College London](#)

These sessions have been designed particularly to give you an introduction to each of the following topics:

- Academic Writing
- Developing your career through Networking
- Informational Posters – Layout & Design
- Interpersonal Skills
- Interview Skills
- Job search with a difference
- Negotiating Skills
- Note Taking and Efficient Reading
- Preparing and writing a literature review
- Research Skills and Reference Management
- Stress Management

Online course: Introduction to GenAI for students

Commissioned by the Office of the Provost, 'An Introduction to GenAI for students' is an online course which has been prepared for Academic Year 2024/25. The course has been designed and developed as a benchmarked Imperial College wide online resource primarily for new and incoming UG students but will be available for all students to access. The goal of the course is to raise awareness and encourage new students joining Imperial to reflect on the uses of GenAI.

This new course aims to compliment and build on the existing [AI & Study Guidance Hub pages.](#)

Moore information about the course can be found here: [AI and Study Guidance Hub | Current students | Imperial College London](#)

My Imperial Campus

An app for students - designed by students!

My Imperial Campus is the beginning of a new mobile experience for the Imperial College London community. The app is being designed by Imperial students and alumni and delivered in an iterative way as the team learns more about the experiences that our community want in order to thrive at Imperial. The app is relatively young, and development is continual, please download and explore the app and look out for opportunities to get involved!

You can download the app for Android devices from the Play Store or for iOS devices from the App Store.

Current feature highlights:
- 'Search' is an AI chatbot allowing users to chat with information from the university website and other resources.
- 'Maps' – 2D maps of all campuses and the first 3D map of the South Kensington Campus (White City campus is next).
- 'Events' - All public events Student Union events and societies can be explored, edit your preferences in the settings to customise the feed. Here you can also find a 'Welcome week' filter to view specific events to enjoy at your welcome week.
- 'Timetable check-in' - The Business School and a growing list of other departments requires you to check into class if you are physically on site; use this feature to quickly check-in. Here you can also find a link off to view your full timetable in a browser.
- 'Internships and Careers' - Search through the latest internships and job vacancies received by the Careers Service.

Imperial Success Guide

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

💻 www.imperial.ac.uk/students/success-guide/pgt/
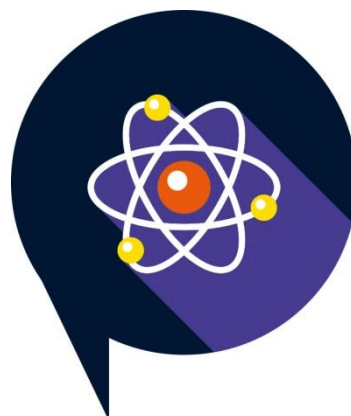
Student Shapers

Student Shapers is a chance to actively contribute to improving your learning experience at Imperial. This programme lets you work directly with staff on exciting projects that enhance the curriculum, create innovative teaching methods, and make a real difference in our learning community. The Student Shapers programme is open to all Imperial students across all departments. All opportunities that have been approved are listed in the 'Current Projects' area of the website.

🖥 www.imperial.ac.uk/students/studentshapers/how-to-get-involved/current-projects/

Imperial Award

The Imperial Award is a programme that fosters personal development through self-reflection on your experiences, formally recognising this on your transcript. This programme is open to all students at Imperial, including UG, PGT, PGR and intercalating students. The Imperial Award aims to help you uncover more about yourself and your potential, and to enhance your ability to articulate the achievements and skills you have developed through activities beyond the lecture hall. For more information, please visit the Imperial Award page.

www.imperial.ac.uk/students/imperial-award/

Updating your contact information

Most times we will communicate with you using e-mail, but e-mail is not the perfect communication medium for all messages. It is therefore in your interest to keep us informed of alternative ways of contacting you.

If your phone number(s) and/or address change during the year, remember to update this information on your 'My Imperial' account as that is where we will look for your personal information.

Official documents

A range of official documentation is automatically available to you confirming your registration status or your registration and attainment history at Imperial College London. You can request and access your eDocuments online.

The following documents can be requested through the online system:

- *Statement of Registration*
- *Council Tax exemption*
- *Opening a bank account*
- *Transcripts*
- *Confirmation of award*
- *Visa letters / CAS*
- *Standard Visitor Visa letter*
- *Skilled Worker Visa reference letter*

More information about requesting an official document can be found here Request an official document | Administration and support services | Imperial College London.

Reading and responding to e-mails from the College

Please make sure you read your e-mail messages at **least three times a week**. If you receive an e-mail asking you to contact the Student Office or one of the lecturers, you should respond in a timely manner.

Lockers

You will be allocated a locker for the duration of your degree which you can use to store your personal belongings and resources needed for your studies.

Please ensure you do not keep anything unsafe in your lockers and you abide by the points highlighted in the locker policy below.

Locker Policy
▪ Please only use the locker allocated to you.
▪ Secure your allocated locker with a padlock.
▪ Please ensure any items you may have borrowed from Academics, PhD students, or Technicians for your projects or lab work are returned to them before the deadline for lockers to be emptied.
▪ Lockers must be emptied by **Friday, 5th of September 2025** (MSc Students). All personal items and rubbish must be disposed of, and anything left in lockers after this date will be thrown away by the Student Office.
▪ Any items stored in lockers that have been taken from or created in labs must be returned, recycled, or disposed of appropriately when your clear out your locker.

Departmental laptops

Short-Term Loan Pool Scheme:
> All taught students in the department are permitted to borrow a laptop from the short-term loan pool scheme if their own laptop requires repair. Loan pool laptops can be borrowed for a maximum of four weeks, and extensions cannot be provided for the scheduled date of return. The short-term loan pool scheme policy can be found in the 2024-2025 Materials General Information on Blackboard Learn.

Ad- Hoc Loan Pool Scheme:
> The ad- hoc loan pool laptops are available for loan in extreme circumstances and will be lent to taught students on a case-by-case basis and depending on availability of laptops. Please contact or visit the Student Office if you require a laptop through this scheme.

3.   Assessment

Within your programme of study, you will have different types of assessment which may include coursework, examinations, timed-remote assessment, presentations, labs or other forms of practical assessment.

Details on the type of assessment for each module can be found within the deadline planner and rubric.
Most examination-based assessments for your programme will be held during the summer term assessment period (April-July)

Imperial has policies and procedures to the support the setting, sitting, marking and moderation of all assessment. These can be found within the Academic Regulations, Policies and Procedures at:

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

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

Coursework

You will be asked to write various pieces of coursework marked by your project supervisor, research assessor panel or lecturer/GTA. All coursework is submitted electronically via Blackboard Learn (unless stated otherwise) and must be submitted before the deadline. We strongly recommend submitting 24 hours before the deadline in case there are problems. For all assignments the **deadline for submission of your work is 3pm** on the deadline date (unless stated otherwise).

Blackboard will keep a record of the submission time of all work submitted electronically. Late receipt of work may be penalised. Where the deadline falls outside the term dates, it is replaced by the first Monday of the next term.

When submitting any coursework, please ensure you provide all of the information required on the front cover page (of your electronic documents):
• Full Name (registered name)
• CID Number
• Title subject of coursework you are submitting.
• Course Programme

We can't allocate you marks if we don't know **who you are**! So, it's very important the above information is inputted on the front of any coursework submitted.

Late work

Link to Late Submissions Policy and Penalties for late submission:

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

Coursework Deadline Planner

The table gives you important coursework dates that you should remember. Coursework should always be handed in by **3pm** via Blackboard Learn (unless stated otherwise).

Please note that these dates are **preliminary and may change throughout the year**. The dates below also depend on what options you pick so you may not be doing everything listed below. You will be notified of changes by the Student Office by email.

Term	Module	Assignment/Event	Due Date	Format	Feedback/Marks
Autumn	MATE70004	Choice of research project title	15:00 03/10/24	Online via MS Form	End of week 1
	Module options	Final module options selection	11:00 08/10/24	Online via MS Form	End of week 2
	MATE70003	Data Analysis	15:00 22/10/24	Electronically via Blackboard Learn	2 weeks*
	MATE70020	Problem set 1	09:00 28/10/24	Electronically via Blackboard Learn	1 week*
	MATE70001	XRD Classwork	09:00 7 days after scheduled session	Electronically via Blackboard Learn	2 weeks (after all sessions have be held) *
	MATE70001	Instrument Demonstration Sessions	At the end of your scheduled session	Blackboard Learn tests	2 weeks*
	MATE70020	Problem set 2	09:00 11/11/24	Electronically via Blackboard Learn	1 week*
	MATE70001	Characterisation Exercise Report Draft	15:00 **Group A:** 13/11/24 **Group B:** 18/11/24 **Group C:** 21/11/24	Electronically via Blackboard Learn	Feedback will be returned before end of autumn term*
	MATE70020	Problem set 3	09:00 25/11/24	Electronically via Blackboard Learn	1 week*
	MATE70001	Peer review activity	09:00 04/12/24	Power Apps	Feedback only

		MATE70020	Problem set 4	09:00 09/12/24	Electronically via Blackboard Learn	1 week*
		MATE70003	Seminar presentation slides	16:00 09/12/24	SharePoint	N/A
		MATE70003	Seminar presentation	All day 10/12/24	Oral	2 weeks*
		MATE70002	Problem sheet 1 (finite elements)	15:00 11/12/24	Electronically via Blackboard Learn	2 weeks*
Spring		MATE70001	Characterisation Exercise Report (Final)	15:00 07/01/25	Electronically via Blackboard Learn	5 weeks*
		MATE70007	Engineering Alloys Coursework	15:00 09/01/25	Electronically via Blackboard Learn	2 weeks*
		MATE70012	Nanomaterials Coursework	15:00 16/01/25	Electronically via Blackboard Learn	4 weeks*
		MATE70026	Computational lab 1	15:30 20/01/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 2	15:30 23/01/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 3	15:30 27/01/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 4	15:30 30/01/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 5	15:30 03/02/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 6	15:30 06/02/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 7	15:30 10/02/25	Electronically via Blackboard Learn	2 weeks by GTAs
		MATE70026	Computational lab 8	15:30	Electronically	2 weeks by GTAs

			13/02/25	via Blackboard Learn	
	MATE70011	Essay paper	15:00 13/02/25	Electronically via Blackboard Learn	3 weeks*
	MATE70014	Nanomaterials abstract	15:00 17/02/25	Group submission - Electronically via Blackboard Learn	Feedback only
	MATE70025	Problem set 1	15:00 20/02/25	Electronically via Blackboard Learn	2 weeks*
	MATE70002	Problem sheet 2 (atomistic methods)	15:00 27/02/25	Electronically via Blackboard Learn	2 weeks*
	MATE70003	Project Plan	15:00 03/03/25	Electronically via Blackboard Learn	2 weeks*
	MATE70014	Nanomaterials poster file	09:00 06/03/25	Electronically via Blackboard Learn	2 weeks after presentations*
	MATE70011	"Pecha-Kucha" presentation slide submission	15:00 06/03/25	Electronically via Blackboard Learn	2 weeks after presentations*
	MATE70011	"Pecha-Kucha" presentation	15:00 10/03/25	Oral	2 weeks*
	MATE70026	Research assignment	15:00 10/03/25	Electronically via Blackboard Learn	2 weeks*
	MATE70002	Mini project	15:00 18/03/25	Electronically via Blackboard Learn	2 weeks*
	MATE70025	Problem set 2	15:00 28/04/2025	Electronically via Blackboard Learn	2 weeks*
	MATE70025	Synthesis problem	15:00 28/04/2025	Electronically via Blackboard Learn	2 weeks*
Summer	MATE70004	Ethics course end of session presentation	After session 09/06/25, 10/06/25,	Oral	1 week*

			12/06/25		
	MATE70004	Research Project check up	18/08/25	Supervisor submission via Blackboard Learn	Feedback given in session
	MATE70004	Research Project Report	15:00 26/08/25	Blackboard Learn and Turnitin	Marks for the report will be returned when final results are reported to central college.
	MATE70004	Research Project Presentation slides submission	5pm, day before presentation	Sharepoint	n/a
	MATE70004	Research Project Presentation	15/09/25. 16/09/25, 17/09/25	Oral	No marks provided, only oral feedback from the panel during the presentations.

* The above dates do not include the Student Office processing time which can be up to **additional 5 working days** on top of the estimated feedback/mark timeframe. Please note, if the **marking is submitted late by the marker**, then the Student Office will get out marks as soon as possible.

Marking

Once the coursework has been marked and the mark recorded will be returned to you via Blackboard Learn by the Student Office. The mark scheme is set out below:

70-100%	60-69%	50-59%	0-49%
Distinction	Merit	Pass	Fail

Departmental policy on failures

The Materials Department does not offer students the opportunity to repeat the programme if you are deemed to have failed unless medical or personal problems are known to have had a severely adverse effect on their studies during the relevant academic year. Before the examination period all students are invited to provide the MSc Administrator with any relevant information concerning mitigating circumstances.

Module failures

We follow the College Regulations for Taught Programmes of Study for both marginal and other module failures. The regulations can be found here:

Overall performance

We follow the College Regulations for Taught Programmes of Study for awarding degrees. The regulations can be found here:

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

Instruction to Candidates for Examinations

When taking examinations, students must ensure they follow the relevant instructions and guidance provided to them. In addition to the Instructions for Candidates, they must adhere to the specific instructions for each exam as provided by their programme team.

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

Instructions for exam candidates can be found here:

www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academic-governance/public/academic-policy/exam-arrangements-and-re-sits/Instructions-to-candidates-for-examinations.pdf

Academic Integrity and Academic Misconduct

As your programme of study continues, you will be taught the concept of academic integrity and how you can ensure that any work that you complete now, or in the future, conforms to these principles. This means that your work acknowledges the ideas and results of others, that it is conducted in an ethical way, and that it is free from plagiarism. Academic integrity is fundamental to learning, teaching and research and it is important to understand what it means for you and the international community of research that you are joining.

Academic misconduct is the attempt to gain an academic advantage, whether intentionally or unintentionally, in any piece of assessment submitted to the university. This includes plagiarism, self-plagiarism, collusion, exam offences or dishonest practice. Full details of the policy can be found under 'Academic Integrity, Academic Misconduct & Research Misconduct' tab:

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

Definitions of the main forms of academic misconduct can be found below:

Plagiarism

Plagiarism is the presentation of another person's thoughts, words, images, research 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 may be intentional, by deliberately trying to use another person's work by disguising it or not citing the source, or unintentional where citation and/or referencing is incorrect.

Plagiarism must be avoided, with particular care on coursework, essays, reports and projects written in your own time but also in open and closed book written examinations. You can support your understanding of proper referencing and citation by using the resources available from the university such as the Library Services learning support webpages at:

💻 www.imperial.ac.uk/admin-services/library/learning-support/plagiarism-awareness/

For group work, all members have responsibility for the integrity of the work submitted. Therefore, if plagiarism (or another form of academic misconduct) is proven, all group members may be liable for any penalty imposed.

All students are required to complete a mandatory plagiarism course every year, this comes from the library and will be delivered via Blackboard Learn.

Imperial requires you to complete mandatory training on plagiarism awareness. You can access this training online via the Early Career Researcher Institute's website:

💻 www.imperial.ac.uk/students/academic-support/graduate-school/professional-development/masters-students/plagiarism-online/

TurnitinUK is an online text matching service which assists staff in detecting possible plagiarism. The system enables institutions and staff to compare students' work with a vast database of electronic sources. Your programme team will explain how it is used in your programme.

💻 www.imperial.ac.uk/admin-services/ict/self-service/digital-education-services/digital-education-platforms/turnitin/turnitin-for-students/

Collusion

This is the term used for work that has been conducted by more than one individual, where this has not been permitted in the assessment brief. Where it is alleged that there has been collusion, all parties will be investigated initially under the Academic Misconduct procedure. Please be aware that this includes working with others in or outside the Imperial community, not just students on your programme.

You should note that whilst Imperial encourages students to support each other in their studies you should be careful to ensure that you do not go beyond the assessment brief with regards to individual work, always acknowledge the contributions of others in your work, and do not leave yourself open to allegations that you have supplied answers to enable another student to commit academic misconduct.

Exam offences

Exam offences fall into two categories. These are offences that may be disruptive in the exam venue or those that are considered an attempt to gain an academic advantage. Examples of disruptive

behaviour includes causing a disturbance in the exam room, having an electronic device that has not been fully turned off or talking in the exam room. Behaviour that may considered an attempt to gain an academic advantage includes bringing unauthorised material into an exam (such as notes, unauthorised books or other material), attempting to communicate with others apart from the invigilator, or trying to remove examination material without permission. You must ensure that you follow all reasonable instructions of the invigilators.

Dishonest practice

This is the most serious category under the procedure. Examples of dishonest practice include bribery, contract cheating, purchasing essays or other materials from other sources (which is now illegal in the UK) or other individual to submit as your own, taking an exam for someone else or getting someone else to take an exam for you, attempting to access exam papers before the exam, making a false claim for mitigating circumstances or providing fraudulent evidence, falsifying documentation or signatures in relation to assessment or a claim for mitigating circumstances.

Preparing yourself for the exam

Preparing for exams starts on the first day of the first term. The format of university exams is such that you are unlikely to achieve results which reflect your potential fully if you only start studying close to the exams. There is only limited time available for revision and you must make sure that you can use that time to re-visit the material to remind you of the understanding you have acquired during the year. You will need to do the following:

- Gather together, read, and understand all the lecture notes, classwork and worked solutions.
- Try past papers * – papers for the last 2 years are available on Blackboard Learn (where possible).
- Know what is going to be covered in the exam and the format of the examination paper.
- Know when and where the exam will take place.
- If you are registered dyslexic, you should inform the Disability Officer, Olly Swanton, as soon after registration as possible. It is possible to receive certain concessions in examinations, e.g., extra time, use of a spellchecker, but this is only possible when a student has registered with the Disabilities Office

> *Past papers – The department's policy is to make available 4 years' worth of past papers. Please note that the 2 most recent past papers should be prioritised for revision purposes, as this is the most accurate information to the current course content. Course and exam content is subject to change year on year, and students revising from past papers more than 2 years do so at their own risk.

Just before the start of the exam

- Leave in plenty of time for the exam, allowing for public transport etc. if necessary. You will be allowed into the exam room about ten minutes before the start of the exam. All personal belongings should be left at the front of the classroom.
- Be absolutely sure you have NO revision notes on your person when you take your seat. You risk disqualification if you forget this. There will be a seating plan with your candidate number on a desk in the exam room: find it and sit down in the appropriate seat. Do not look at the exam paper until you are told to do so by the administrator/invigilator.
- If you are too unwell to sit an exam you must consult a doctor on the day of the exam and obtain

a letter from the doctor stating that you were not well enough to sit an exam. It is essential that you inform the Student Office immediately and before the start of the exam.

During the exam

- At the start of the exam there will be a number of members of staff present. You will be told when you can start the paper and when you must stop writing.
- Invigilators will supervise the exam and patrol the examination room during the exam.
- Read the instructions for the exam carefully and make sure you are aware of what you are required to do. If any errors are found in the exam paper the invigilator will inform you and corrections will be written on the whiteboard at the front of the class.
- You may leave the exam permanently at any time from thirty minutes after the start of the exam. You may not leave the exam in the last thirty minutes of the allotted time as this may cause a disturbance to other candidates. Once you have left the exam room you will not be able to go back (but see below).
- On the front of every answer book write your candidate number clearly. Never write your name on your answer books.
- If you have a query or require extra answer books raise your hand and the invigilator will come to you. **NEVER** leave your seat without permission.
- You may leave the lecture theatre under supervision to use the toilet. Again, you should inform the invigilator by raising your hand and he/she will then escort you to the nearest toilet.
- If you have attempted more questions than is required, delete clearly the questions you do not wish to be marked. On the front of the first answer booklet write the numbers of the questions that you have attempted.
- Do not leave your seat until you have been told that you may do so even after the exam has finished.
- Official departmental exam guidance will be shared via email and uploaded on Blackboard nearer the time.

Good examination technique

- Always read the exam questions carefully - it is time very well spent. It is amazing how often the candidate provides an answer, which is not what the question requires. The most common reason is that the candidate starts reading the question and finds it similar to a class work problem previously attempted. The candidate then skims quickly over the rest of the question and starts providing the answer for the class work problem with which he/she is familiar, although the exam question requires a significantly different answer.
- Always attempt the full number of questions required. For example, if the exam requires you to answer three questions it is better to attempt three questions than to spend all your time attempting to answer two questions perfectly. This is because, in general, it is relatively easy to obtain the first 55-65% of the marks for a question but it becomes increasingly more difficult to obtain the remaining marks.
- The questions asked in an exam are straightforward - there are no tricks! Remember the questions are set so that a student should be able to gain full marks in the limited time available for each question in the exam. From the time available for each question, you should be able to estimate the correct amount of time to spend on each part of that question. This in turn will guide you concerning the amount of detail expected in, for example, the answer to a descriptive part or a derivation.
- If you finish the questions in less than the time allocated, spend the remaining time checking your work. Check the arithmetic and, in the case of more qualitative questions, think about your lecture notes/lab class reports again - you might come up with more relevant facts, which escaped your memory during your first attempt at the question.

- If you make an error in the arithmetic/maths in your answer, don't panic. You will lose a few marks for the error but most of the marks are given for the method.

After the exam

After the exam the exam scripts are marked by the examiners and then second marked by another member of staff. This process can take several weeks so you will not receive any feedback immediately. Exam results are not official until they have been considered by the External Examiners (a chosen academic from another university or suitably qualified person from a relevant industrial background) and there has been an examiners meeting (this takes place at the end of June for the results from the taught courses, and the end of September for the Research Project, and degree outcomes). This is also true for coursework. After the results have been approved by Registry you can download all your marks from your 'My Imperial' student account (exams and coursework).
In the unlikely event that you are unable to sit an exam through serious medical reasons you may be able to take the exam at a later date if this is agreed by the exam board.

Re-sits

You may find out that you have to take some re-sits in order to pass the degree program. You will be notified after the exam board at the end of June and re-sit these on campus, they will take place in the week **11–15 August 2025**.. Please note the Departmental Policy on re-sitting exams is that they are **ONLY** allowed to be taken in the Department we do not allow them to take place abroad. You have to re-sit your exams **within two years of your study here; failure to do this will result in you being withdrawn from the course.**

Re-sit Timetable

If you are required to re-sit the following summer, then please note the Exam timetable will not be published until Spring term and you will receive an email from the Student Office in March with details for the re-sits you are doing.

Marking Schemes for postgraduate taught programmes:

The pass mark for **all** postgraduate taught course modules is **50%.** Students must pass all modules in order to be awarded a degree.

4.   Board of Examiners

Board of Examiners

Members of the Board of Examiners are members of the academic staff of the Department of Materials and those from other departments in college who are involved in teaching and assessment in the Department of Materials. This list can be determined from your academic timetable. Also see the Appendix B for a list of all academic staff involved in teaching.

External Examiners

👤 Professor Steven Kenny, Loughborough University

An External Examiner is normally an experienced member of academic staff from another Higher Education Institution, that acts as a critical friend to the staff delivering your programme of study. For some programmes, one of the External Examiners could be an industry expert to provide the professional expertise needed to support the programme. External examining is an essential part of Imperial's quality assurance and enhancement process, ensuring that academic standards are maintained. The knowledgeable and independent views of external examiners are invaluable in certifying that the university's awards are appropriate, of comparable standard to the rest of the sector, as well as highlighting good practice and/or potential areas of enhancement.

During your programme you may be invited to meet your external examiners to discuss how you have found the programme. It is not appropriate however, for you to seek to submit complaints or representations directly to external examiners or to seek to influence them other than by giving feedback in a meeting. Inappropriate communication towards an examiner would make you liable for disciplinary action. If there is a specific issue that needs to be resolved, please see the Student Complaints Policy and Procedure.

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

💻 www.imperial.ac.uk/about/governance/academic-governance/academic-policy/external-examining/

Please note that you will need to be logged in to your Imperial account to access the summary reports.

The individual External Examiner reports for your programme/department are available from your department.

5.   Location and facilities

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

Your main location of study will be:

📍 South Kensington Campus

Department of Materials

Royal School of Mines
Exhibition Road
London, SW7 2AZ – UK

View a map of South Kensington Campus:

💻 https://www.imperial.ac.uk/media/imperial-college/faculty-of-engineering/department-of-materials/internal/SouthKensingtonCampus.pdf

The Royal School of Mines is building number 12 on the map. The best entrance to the building is via Prince Consort Road.

Closest Tube Stations: South Kensington and Gloucester Road.

Facilities

Use of Departmental and College Facilities

For private study, students are allowed to be in the Department between the hours of 8:00am - 6:00pm only. If you need access outside of these hours, then you will have to request for permission and please note it is not normally given to students for safety reasons. You will need to use your swipe card to get in and out of the department outside the normal College hours, and will be asked to sign a book so that the security officer knows where you are in any emergency – if the fire brigade does not know you are in the building, they will not come looking for you. Your swipe card is only effective at the RSM entrance and the Bessemer Building entrance. **No experimental work is allowed unless the student is accompanied by a qualified person to supervise.**

Computing rooms

You have access to the student computing room (G.08), apart from the times when a class is being held there and can print your documents there. You should not misuse the departmental computers, nor use them to play games.
Many students need the computers to complete coursework using software only available on these computers and selfish behaviour is not tolerated. You will find further computing facilities in the library. You can use lecture rooms as your study room when lectures/tutorials are not being given there but you must check with the Student Office first.

Departmental Common Room

You have access to a common room G10. This room is for you to study in, in both groups and individually. You should not misuse the departmental rooms and be respectful of other students when using the room. This room is for Materials student **ONLY,** do not let in any other authorised students in the room. Any misbehaviour will not be tolerated.

The College also offers GoStudy spaces. Please refer to the link below for further details:

GoStudy spaces | Administration and support services | Imperial College London

Photocopying and printing

Your swipe cards will have an amount of credit loaded on to it at the beginning of the term for use with the photocopiers in the computer rooms. You can use any printer/photocopier across the campus that is for student use with your swipe card. If you run out of credit, then there is a top up machine in the central library. Please use the pre-loaded credit wisely as the department will not top it up for you.

If you notice any facility defects or maintenance issues, please contact the Customer Services Centre (CSC):

www.imperial.ac.uk/estates-facilities/customer-services-centre/

Library Services

The Abdus Salam Library at South Kensington is open 24 hours for study space, and further space is available to all students in GoStudy on levels 4 and 5 of the Chemistry Building. Further study space is available on level 3 of the Sherfield Building.

Make sure you find out who your subject librarian is as they'll be able to help you find books and online resources for your assignments. Also, don't forget to check out the library workshops and other campus libraries for access to specialist medicine and life sciences resources. You can borrow up to 40 books and, whether you're working on or off site, you'll be able to access e-books, e-journals and databases from their collection of almost 567,000 titles. If they don't have what you need, they can get it for you, simply ask them to buy it or request a copy through their free Document Delivery service.

For any questions library staff will be happy to help, simply chat with them online or contact them via email, phone or social media, just check the website for details:

🖥️ www.imperial.ac.uk/library

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 Imperial ID card to board. You can download the timetable and check the latest service updates at:

🖥️ www.imperial.ac.uk/estates-facilities/travel/shuttle-bus

Maps

Campus maps and travel directions are available at:

🖥️ www.imperial.ac.uk/visit/campuses

Accessibility

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

🖥️ www.accessable.co.uk/organisations/imperial-college-london

Smoke-Free Policy

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

🖥️ www.imperial.ac.uk/smoke-free

SafeZone

SafeZone is an Imperial app through which you can quickly and directly contact the Community Safety and Security team whenever you need them. Whether you're in an emergency situation, in need of First Aid or want to report an incident on campus, SafeZone allows you to be immediately put in touch with a member of our Community Safety and Security team and, at the touch of a button, can share your location and personal profile so that they can respond quickly and effectively to your specific needs. It also allows the entire Imperial community to stay informed in the event of a major incident in London or wherever you may be in the world. Safezone also provides information on other services, such as real-time updates on the university shuttle bus.

SafeZone is optional to register for and is now available to download on the Apple and Android App stores. Visit www.imperial.ac.uk/admin-services/security/safezone/ for more details about SafeZone.

All existing phone numbers for the Community Safety and Security team are still operational. In the event of an emergency, you can still call 4444 from any internal College phone. In the event of a wider incident in London, you can now also call 0300 131 4444, Imperial's Emergency Recorded Message Line, which will point you in the direction of up-to-date information and advice.

6.   Working while studying

If you are studying full time, Imperial 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 university working hours.

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

If you are here on a Student Route 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.

🖥️   www.imperial.ac.uk/students/international-students/visas-and-immigration/working-in-the-uk/work-rules-during-your-studies/?

If you are enrolled on a one-year full-time postgraduate programme, you are permitted to work full-time during the university Christmas and Easter closure period, as well as after the official course end date. Please note that one-year full-time postgraduate students are not considered on vacation during the summer months. You can only work full-time during the summer if you are undertaking an assessed work placements that is a formal part of your programme.

🖥️   www.imperial.ac.uk/students/international-students/visas-and-immigration/working-in-the-uk/work-rules-during-your-studies/

If you are considering part-time work during term time you are strongly advised to discuss this with your supervisor or Personal/Senior Personal Postgraduate Tutor (see Wellbeing, Support and Advice section for more information). If you are on a Student Route visa you should also seek advice from the International Student Support team regarding visa limitations on employment.

The university's Board of Examiners will not normally consider as mitigating circumstances any negative impact that part-time work during term-time may have had on your performance in examinations or in other assessed work. Examinations or vivas cannot be rescheduled to accommodate your part-time working arrangements.

7.   Health and Safety

Keeping you safe is a top priority for us. Imperial still encourages students to wear face coverings in crowded areas, to get fully vaccinated, to cover your coughs and sneezes, and to respect others' personal space. All staff and students are advised to stay at home if you are feeling ill or have any symptoms of respiratory disease.

The latest Imperial guidance to students can be seen at:

💻   www.imperial.ac.uk/about/covid-19/

The Imperial Health and Safety Policy can be found at:

💻   www.imperial.ac.uk/safety/safety-by-topic/safety-management/health-and-safety-policy-statement/

Your Departmental safety contact is:

👤   **Dr Peter Petrov**

📍   Room: 2.03D

📞   +44 20 7594 8156 or +44 20 7595 0321

✉   p.petrov@imperial.ac.uk

There is also a wide range of eLearning micro-learning modules focused on specialised topics and designed to raise awareness of hazards and control measures for working safely in hazardous areas (i.e., laboratories and workshops) across the university.

Imperial 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 university's activities range from the use of hazardous materials (biological agents, chemicals, cryogens, gases and ionising/non-ionising radiation) to field work, heavy or awkward lifting and driving.

All of Imperial's 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 university 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/safety-by-topic/accidents--incidents/

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.

Please familiarise yourself with the Departmental Safety Policy and important useful safety personnel in the department which you can find on our website:

https://www.imperial.ac.uk/materials/internal/hsdom/hspolicy/

Occupational Health requirements

Imperial's 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 university is respected, protected and improved whilst at work.

💻   www.imperial.ac.uk/occupational-health

Purchasing New Safety Equipment

If you need replacement safety equipment (goggles/lab coat), please order through this link: Safety equipment - Department of Materials only | Imperial College London Online Store

Once you have made your payment online through the above link, please visit the Materials Student Office (RSM G03a) to collect your new item/s.

8.   University Policies and Procedures

Academic Regulations

All registered students of Imperial are subject to the university Academic Regulations. The relevant set of regulations will depend on your programme and year of entry, please see our Regulations webpage to determine which apply to you:

🖥 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:

🖥 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

Please review each individual coursework item to see the specific feedback policy relating to that item. Please note that feedback can take multiple forms in the Department, from verbal interaction with a GTA through to formal written assessed commentary on a submitted paper. Any interaction with a GTA, lecturer, tutor or other member of staff related to a learning process, should therefore be considered as part of your feedback on coursework.

Please note that your examination scripts once completed belong to the university under the General Data Protection Regulations (GDPR). Please see the Imperial GDPR webpages for further information at:

🖥 www.imperial.ac.uk/admin-services/secretariat/policies-and-guidance/guidance/guide-2---exam-records/

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:

🖥 www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academic-governance/public/academic-policy/marking-and-moderation/Guidelines-for-issuing-provisional-marks-to-students-on-taught-programmes.pdf

Late Submission Policy

You are responsible for ensuring that you submit your assessments in the correct format and by the published deadline (date and time). Any piece of assessed work which is submitted beyond the published deadline (date and time) would be classed as a late submission and will incur a penalty (a cap at the pass mark, or it is classed as a fail). Further guidance on Late Submission of Assessments can be found on the Academic Governance website:

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

If you submit late due to mitigating circumstances, the cap on your mark may be lifted if a claim for mitigating circumstances is accepted. Please see below.

Mitigating Circumstances

During your studies you may be affected by sudden or unforeseen circumstances. You should always contact your Personal Tutor for advice and support. If this happens at the time of, or immediately preceding, your assessments you may be able to make a claim for mitigating circumstances. If successful this claim enables the Board of Examiners when reviewing your marks at the end of the year to have greater discretion with regards to offering repeat attempts (either capped or uncapped), a repeat year, or with your progression or final classification. Please note, the Board are not permitted to amend the marks that you were awarded, only to take your claim into account when making decisions.

All claims must be supported by independent evidence and submitted within 10 working days of the assessment deadline. Any claim made after this deadline is likely to be rejected unless there is a good reason (such as you were still unwell) until the point of submitting the claim. Details of the university's Mitigating Circumstances procedure can be found under the Mitigating Circumstances tab on the page below:

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

Through the procedure you may also be able to request an extension deadline to some forms of assessment. Wherever possible it is expected that this is used as it will enable to you complete your studies within the same academic year (rather than over the summer holiday or in the next year).

Mitigation is submitted in the Department by completing the mitigating circumstances form directly at My Department app. The link to MyDepartment can also be found in the General Information folder on Blackboard.

Mitigating panels will meet regularly through the year (at approximately 2 week intervals). You will normally be given written feedback regarding your mitigation after the panel has met, and you are expected to act on the feedback you receive appropriately. Outcomes of mitigation submissions will be provided back to you through MyDepartment or by email.

Support for ongoing or long-term conditions, or for registered disabilities would not normally fall under the remit of mitigating circumstances and students should be supported through their studies with additional examination arrangements. More details can be found at:

💻 www.imperial.ac.uk/disability-advisory-service/current-students/support-available/adjustments-and-support/

Academic Misconduct Policy and Procedures

As has been highlighted under the Academic Integrity section, it is important that you learn how to properly attribute and acknowledge the work, data and ideas of others. Any proven form of academic misconduct is subject to penalties as outlined in the university's Misconduct Policy and Procedures.

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

Unsatisfactory Engagement

Unfortunately, for a variety of reasons, sometimes students struggle to meet the university's expectations with regards to their engagement with their studies. Imperial has a process to identify and support students by reaffirming these expectations with an action plan. If a student does not engage satisfactorily with these supportive measures, they can be withdrawn from their studies. The full details of this process, and the appeals procedure relating to it can be found at:

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

Fitness to Study

Imperial expects students to participate within the university community, such as by fully engaging and studying to the academic level required and working and living cooperatively. If there are concerns that a student is unable to engage as expected, due to an underlying physical and/or mental health difficulty, the university has a process to ensure that decisions about a students' ability to study are made through a supportive, timely and transparent process which operates in the best interests of the student:

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

Mutual Expectations

The mutual expectations document provides a suggested starter list of expectations that master's students and their project supervisors might expect from each other. It is designed to facilitate conversations to establish effective partnerships and it is recommended that the document is discussed at the first meeting between a main project supervisor and a new student. It should be noted that this is not exhaustive, and that departments may have variations in roles and responsibilities; supervisors should be aware of any such variations and will feed this into their discussions with students. Further, it is recognised that supervisors may not always be best placed to meet all the expectations laid out in the document, but should be aware of who, in their

department, can. Students and project supervisors are encouraged to discuss, tailor and personalise the document further to suit. It is also recommended that students and their project supervisors re-visit the document throughout the duration of the project.

The Mutual Expectations document is available here:

💻 www.bb.imperial.ac.uk/bbcswebdav/xid-12494962_1

Academic Appeals Procedure

We have rigorous processes and procedures in place to ensure assessments are conducted with fairness and consistency, claims for mitigating circumstances have been considered reasonably and in line with the regulations of the university, and that the decisions of the Boards of Examiners maintain the integrity of our academic awards. Should you believe that you have grounds to appeal these decisions, we have laid out clear and consistent procedures through which appeals can be investigated and considered:

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

The ICU Advice service can help you with understanding this policy and supporting you through the process.

Arithmetic Marks Check (Examinations and year results)

If you consider that there may have been an error in the adding up of your marks, you may request an arithmetic mark check. Please note that this must be requested within 10 working days of the official notification of your results from the Assessment Records team in Registry. You may not request marks check for a previous year of study. Please note that a marks check is not a remark of your work, but an administrative check that the marks have been accurately recorded.

Mark queries are submitted through a MS form directly via this link: Arithmetic Marks Check

Mark Query Check (coursework and test marks)

If you consider that a coursework assignment you have submitted or a test you have sat may have been unfairly marked against the rubric published, you may be able to request a check on the marks you have been awarded.

Mark query checks are submitted through the My Department app by completing the Mark Query Check form. The link can also be found in the General Information folder on Blackboard.

Mark Query Checks will only be considered when submitted within 10 working days after receiving your test or coursework mark, and any requests after 10 working days will only be considered with mitigating circumstances.

Outcomes of Mark Query Check requests will be sent to you within 15 working days.

Student Complaints

Imperial strives to ensure that all students are well supported in their studies and receive a good experience of their programme and the wider university activities. If you feel that your experience has not lived up to these expectations Imperial has an agreed Student Complaints process through which your concern can be investigated and considered.

If you have any concerns about your experience at Imperial and have been unable to address these informally, you should contact Student Complaints who can provide advice about what is the appropriate way to seek to resolve this at:

✉ student.complaints@imperial.ac.uk

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

Student Disciplinary Procedure

Imperial 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 the Student Code of Conduct has been committed. The general principles of the Student Disciplinary Procedure are available on the university website:

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

Intellectual Property Rights Policy

Imperial's Intellectual Property (IP) policy governs the ownership and management of universities Intellectual Property and its College's discretionary Reward to Inventors Scheme.
Further guidance on the Imperial Intellectual Property Rights Policy is available on the university website:

💻 www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/ip/

Further information about the Imperial Enterprise Lab can be found at:

💻 www.imperial.ac.uk/students/enterprising-students/

Use of IT Facilities

View the Conditions of Use of IT Facilities:

💻 www.imperial.ac.uk/admin-services/ict/self-service/computers-printing/conditions-of-use-of-it-resources/

General Data Protection Regulation (GDPR)

All staff and students who work with personal data are responsible for complying with GDPR.
Imperial will provide support and guidance, but you do have a personal responsibility to comply.

In line with the above please see the university's Privacy Notice for Students which form part of the Terms and Conditions of registration with Imperial.

🖥 www.imperial.ac.uk/media/imperial-college/administration-and-support-services/registry/academic-governance/public/academic-policy/admissions/Privacy-Notice-for-Students-and-Prospective-Students.pdf

9. Wellbeing, support and advice

In your department

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 at Imperial.

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 at Imperial.

As a postgraduate university student, you are deemed to be an adult capable of making your own decisions. The downside of this is that you are also responsible for your own decisions and that you will have to suffer the consequences for any poor choices you make.
Promising that you will work much harder next time round or pleading that you are a better student than the exam results show will not influence any decision by the Board of Examiners. However, part of being a mature student is recognising that sometimes you need help or advice.

To help you make that transition towards being able to manage your own life a range of people are available for you to seek help or advice from.

The reason for seeking help sooner rather than later is quite simple: evidence of circumstances which have affected your performance are considered when making decisions about your progression. But with so many students with difficulties in their life who have gone before you and have performed exceptionally despite their difficulties, it is rare for a case to be strong enough to alter the decision.

You should therefore assume that as a rule, whatever your circumstances, once a test or exam has been taken, the result will stand. Before the test or examination, we can advise you what the regulations allow us to do for you or where you can find the most effective help.

Nobody can monitor how well you are doing better than you. **If you are worried, seek help immediately.**

Student Wellbeing Advisor

The Wellbeing Advisor is responsible for promoting good mental health and wellbeing and providing confidential and non-judgemental individualised support to students within the Department. They run workshops, raise awareness of health and wellbeing issues, providing resources, and can signpost to other sources of support within College.

Students can speak to the Wellbeing Advisor on a one-to-one basis if there is anything that is causing them stress or anxiety. Olly can provide support to students on personal issues, whether related to their academic work or not. The Wellbeing Advisor is available 9am – 5pm either in-person or online every weekday during term-time, as well as having some availability outside of term.

To make an appointment, either drop into room G03C, email o.swanton@imperial.ac.uk, contact Olly Swanton via Teams or call on 020 7594 7357.

There is no obligation or commitment, as students can arrange a one-off session to discuss a particular issue or arrange further sessions where Olly can provide ongoing support.

Your MSc Senior Tutor

Your Senior Tutor acts as your personal tutor (if required) and will remain the same person throughout your time here at the Department. They would be the first point of contact if you need help or guidance alongside the Student Office.

Your Senior Tutor will therefore get to know you better than most other members of staff and is best placed to advise you on study skills, progression, and professional development. You can talk to your Senior Tutor in confidence on any matter that is affecting you. Your Senior Tutor can speak on your behalf at the meeting of the Examiners should that be required but can only act on information you have made available.

Your Course Director/Deputy Course Director

Your Course Director/Deputy Course Director also acts as your personal tutor if the Senior Tutor is not available (if required). They can be contacted about course matters that you think need to be raised and addressed.
Your Course Director is also well placed to advise you on study skills, progression, and professional development. You can talk to your Course Director in confidence on any matter that is affecting you. Your Course Director can speak on your behalf at the meeting of the Examiners should that be required but can only act on information you have made available.

In addition to this you will also have two Class Representatives who you can raise any concerns on your behalf to both Senior Tutor/Course Director.

The Materials Student Office team: emails, queries, etc.

Please note that when emailing the Student Office, we aim to respond to your queries in a timely manner (within in 3 working days). However, this is not always possible in busy periods of the term so it can take longer, please keep this in mind. **Do not resend emails or come into the office to ask us to respond to your email.** We will always try our best to respond to urgent queries as soon as possible and other emails when we can.

Student Office

The Student Office is in G.03a and is open to students. There will almost always be someone there to help you if you need it. However, there may be times when the office is not open during the term due to staff meetings etc., so please keep this in mind. If that is the case, please email us at materialsstudentoffice@imperial.ac.uk and we will get back to you as soon as possible.

Departmental Disability Officers

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

Your Departmental Disability Officer is: Mr Olly Swanton
Email: o.swanton@imperial.ac.uk

Telephone: 44 (0)20 7594 7357

More information on Departmental Disability Officers is available at:

📖 www.imperial.ac.uk/disability-advisory-service/current-students/support-available/departmental-disability-officers/

More information about how to request additional arrangements for exams if you have a disability is available at:

📖 www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/additional-exam-arrangements-in-respect-of-disability

Postgraduate coaching

As well as professional development opportunities, the Early Career Researcher Institute has a dedicated coaching programme designed to help you through challenging times. The **Postgraduate student coaching programme** has been established to provide an opportunity to talk, independently from your academic department, about challenges you may be experiencing during the course of your studies. The programme primarily focuses on building effective working relationships and there may be other self-development issues that you can explore with a trained coach.

📖 www.imperial.ac.uk/students/academic-support/graduate-school/wellbeing-and-support/coaching/

Attributes and Aspiration Short Course

Attributes and Aspirations (AA) is an online short course that supports you to develop career planning and transferable skills. AA is flexible, has no assessments and can be accessed whenever you need it allowing you to proactively plan for your future. You can also use AA to develop key skills such as critical thinking, problem solving and time management. These will help you be a better student and are essential for your future - whether you choose to move to further study or to a job in industry.

AA is designed specifically for Imperial master's students. The Postgraduate Education Team worked with the Careers Service to design AA so that it works for you. We researched and talked to organisations that hire master's students, PhD course coordinators and alumni to make sure the skills and techniques taught in AA are those that you really need for your professional future. For further information, please see the AA web pages.

📖 www.imperial.ac.uk/students/attributes-and-aspirations

Your Union

All Imperial students automatically become members of Imperial College Union when they register at the university. The Union provides a range of independent support.

Imperial College Union Advice Service

The ICU Advice Service delivers free, confidential, and impartial advice covering academic issues, complaints and disciplinaries, College accommodation, and internal and external signposting. Contact the ICU Advice Service and complete the registration form to speak with a member of the team.

💻   www.imperialcollegeunion.org/advice

Student representatives

Imperial College Union operates two Representation Networks of over 600 elected student representatives – the Academic Representation Network and the Wellbeing Representation Network. Reps represent the voice of students and can direct you to internal and external support services. The Union's Liberation Officers also work to make sure that the views of under-represented and interest groups are heard at Imperial.

If you have any feedback about issues in your department relating to academic or wellbeing issues, you can speak to one of your student representatives.

💻   www.imperialcollegeunion.org/your-union/your-representatives/a-to-z

Officer Trustees

The Union is led by a team of Officer Trustees who are elected every year by the students of Imperial. They take a year out of their studies and work full-time at the Union, representing the voices of students in the Union, the university and the wider community.

The Officer Trustees represent students in a variety of roles, including Education, Welfare, Finance & Service and Clubs & Societies. These elected students are here to represent your views as a student body do make sure you get in touch with them if there's something you would like to discuss or change.

Student Hub

The Student Hub brings together information on many of Imperial's key administrative services in one easily accessible place. The staff in the Hub can provide general advice and information on a wide range of aspects of life at Imperial, including your student records and enrolment (letter of registration for proof of your student status, transcripts and awards), fees and finance, accommodation and international student queries. If your query needs specialist guidance, the Hub team will sign-post you to other university student support services as appropriate.

The Hub is on hand to answer your questions in person (at our desks in South Kensington and White City), by email, phone or online through the ASK Student Hub service.

💻 www.imperial.ac.uk/student-hub

Student Support Zone

Student Support Zone has lots of information about the resources available at Imperial and beyond to help you to stay healthy and happy. It's a great place to start when you're looking for some support – it covers advice about housing and money, health, wellbeing and maintaining a good work-life balance, and provides the details of who you can contact if you need some extra support.

💻 www.imperial.ac.uk/student-support-zone

Centre for Academic English

The goal of the Centre for Academic English is to ensure you develop both the ability and the confidence to excel as a communicator on your degree programme as well as in the workplace. From the very beginning of your degree and all the way through, we're here to help you realise your potential.

To achieve this, we've designed a flexible academic STEMM communication programme enabling you to create your own personalised learning pathway. As you build your pathway, you'll have the freedom to select the resources you need wherever you need them. These resources are the result of close collaborations with departments and so will meet your communication needs for Imperial written and spoken course assignments.

To find out more about what is available for you, visit the Centre for Academic English website.

Centre for Academic English
📍 Level 3, Sherfield Building, South Kensington Campus
✉ english@imperial.ac.uk
💻 www.imperial.ac.uk/academic-english

Useful support contacts

Health and wellbeing

If you have moved home to take up your place at Imperial, you will need to register with a new doctor (also known as a General Practitioner or GP) so that you can access NHS healthcare. It's important that you register with a doctor soon after you arrive – don't wait until you are sick, as this could delay your access to treatment.

Imperial College Health Centre

📍 40 Prince's Gardens, South Kensington Campus

📞 020 7584 6301

✉️ imperialcollege.hc@nhs.net

💻 www.imperialcollegehealthcentre.co.uk

Imperial College Dental Centre

📍 Prince's Gardens, South Kensington Campus

📞 020 7589 6623

💻 www.imperialcollegedental.co.uk

Student Counselling and Mental Health Advice Service

📞 020 7594 9637

✉️ counselling@imperial.ac.uk

💻 www.imperial.ac.uk/counselling

Multi-Faith Chaplaincy Service

📍 15 Prince's Gardens, South Kensington Campus

✉️ chaplaincy@imperial.ac.uk

💻 www.imperial.ac.uk/chaplaincy

Disability Advisory Service

📍 Room 566, Level 5, Sherfield Building, South Kensington Campus

📞 020 7594 9755

✉️ disabilities@imperial.ac.uk

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

International Student Support

📞 020 7594 8040

💻 www.imperial.ac.uk/students/international-students/

Careers Service

📍 Level 5, Sherfield Building, South Kensington Campus

📞 020 7594 8024

✉️ careers@imperial.ac.uk

💻 www.imperial.ac.uk/careers

Accommodation

Information and guidance around private housing and private halls for PG students is available from the Student Accommodation Office. Online you can find a Private Housing Masterclass that guides

you through each step of your private housing search. The team also hosts private housing events, pop-ups and contract-checking services.

📍 Level 3, Sherfield Building, South Kensington Campus

📞 020 7594 3300

✉ accommodation@imperial.ac.uk

💻 www.imperial.ac.uk/students/accommodation/prospective/pg/

💻 www.imperial.ac.uk/students/accommodation/private-accommodation/

ICT and software
ICT Service Desk

📍 Abdus Salam Library, South Kensington Campus

📞 020 7594 9000

💻 www.imperial.ac.uk/ict/service-desk

Software shop

💻 www.imperial.ac.uk/admin-services/ict/self-service/computers-printing/devices-and-software/

10.   Student Administration

The Student Administration team are responsible for the administration and maintenance of the student records for all students studying at Imperial. 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 and Transport for London, as well as other external bodies.

The team are 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 'My Documents' online portal allows you to access your documents, including proof of enrolment and award documentation. You can then digitally share these documents with third parties such as an employer or university.

Each document has a unique QR code with the official university watermark, making it easier for employers and others to verify your credentials. This online document sharing is a legitimate service, introduced and authorised by Imperial.

We would like to encourage you to use this online service in place of paper-based documentation. You can access the 'My Documents' portal here:

🖥️   www.imperial.ac.uk/student-records-and-data/for-current-students/request-an-official-document/

Student Records

📞   +44 (0)20 7594 7268

✉️   student.records@imperial.ac.uk

Degree Certificates

📞   +44 (0)20 7594 7267

✉️   certificates@imperial.ac.uk

11.   Work-life balance

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

Imperial College Union

The Union's range of 360+ 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

🖥 www.imperialcollegeunion.org/activities/a-to-z

Move Imperial

Imperial has a wide range of sports and activities on offer that cater for all experience levels 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.

More information about Imperial student memberships and updates to our services can be found at:

We have a huge collection of online resources, home workout videos, healthy recipes and playlists available to all as part of our Move More campaign, more information can be found at:

🖥 www.imperial.ac.uk/sport/get-active/move-more-programme/

12.   Student feedback and representation

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

Student representation

Student Representatives are recruited from every department to gather feedback from students to discuss with staff. More information about the role, and instructions on how to become an academic representative, are available on the Imperial College Union website.

💻   www.imperialcollegeunion.org/representation/a-to-z

We have two representatives for this MSc programme, who will also be invited to a meeting once every two weeks in term time with the key staff members who are involved in the organising of the MSc to address any matters of concern. This is in addition to the Staff-student Committee.

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. Imperial good practice guidelines for staff-student committees are available here:

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

13. Student Surveys

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

- **Module Evaluation Questionnaire (MEQ)**
  The MEQ is your chance to tell us about the modules you have attended. The questionnaire is open to students across all years of study and runs at the end of the autumn, spring and summer terms.

- **Postgraduate Taught Experience Survey (PTES)**
  The PTES is a national survey which asks you to rate a range of elements related to your student experience such as teaching, assessment, support and resources. Results of this national survey are made publicly available.

The Union's "You Said, We Did" campaign shows you some of the changes made as a result of survey feedback.

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

14.   And finally

Alumni services

When you graduate you will be part of a lifelong community of over 250,000 alumni, with access to a range of exclusive benefits including:

- discounts on further study at Imperial and at Imperial College Business School
- an alumni email address
- networking events
- Library membership and access to a bank of online resources, webinars and events via our alumni platform Imperial Plexus
- careers support for up to three years after you graduate as well as networking opportunities and professional development events
- access to our Alumni Visitor Centre at the South Kensington Campus, a co-working community space with free Wi-Fi, a bookable meeting room and complimentary refreshments

Visit the alumni website to find out more about your new community, how to access your benefits, and how to get in touch with fellow alumni around the world.

    www.imperial.ac.uk/alumni

15. Appendices

Appendix A – Year Structure

Please refer to the programme specification for a breakdown of weighting and credit weighting:

Programme specifications | Staff | Imperial College London

Please refer to the below table for assessment weighting for each module:

Core		
Module	**Name**	
MATE70001	**Characterization of the Structure of Materials**	**% Contribution**
	End of module examination	50%
	Characterisation Exercise Report	35%
	Peer review activity	2%
	XRD Classwork	5%
	Instrument Demonstration Sessions	8%
MATE70002	**Theory and Simulation of Materials**	**% Contribution**
	End of module examination	30%
	Problem sheet 1 (finite elements)	25%
	Problem sheet 2 (atomistic methods)	25%
	Mini project	20%
MATE70003	**The Art of Research**	**% Contribution**
	Seminar Report	20%
	Project Plan	80%
	Data Analysis	0%
MATE70004	**Research Project**	**% Contribution**
	Research Project Report	85%
	Research Project Presentation	12.5%
	Ethics course	2.5%
Elective		
Module	**Name**	
MATE70006	**Biomaterials**	**% Contribution**
	End of module examination	100%
MATE70007	**Engineering Alloys**	**% Contribution**

	End of module examination Engineering Alloys Coursework	80% 20%
MATE70008	**Ceramics and Glasses**	**% Contribution**
	End of module examination	100%
MATE70010	**Electronic Structure and Optoelectronics**	**% Contribution**
	End of module examination	100%
MATE70011	**Surfaces and Interfaces**	**% Contribution**
	End of module examination Essay Paper "Pecha-Kucha" presentation	75% 10% 15%
MATE70012	**Nanomaterials 1**	**% Contribution**
	End of module examination Nanomaterials Coursework	80% 20%
MATE70013	**Advanced Engineering Alloys**	**% Contribution**
	End of module examination	100%
MATE70014	**Advanced Nanomaterials**	**% Contribution**
	End of module examination Nanomaterials Poster Presentation Nanomaterials abstract	70% 30% 0%
MATE70015	**Advanced Structural Ceramics**	**% Contribution**
	End of module examination	100%
MATE70016	**Advanced Tissue Engineering**	**% Contribution**
	End of module examination	100%
MATE70017	**Electroceramics**	**% Contribution**
	End of module examination	100%
MATE70018	**Advanced Biomaterials**	**% Contribution**
	End of module examination	100%
MATE70019	**Nuclear Materials**	**% Contribution**
	End of module examination	100%

MATE70020	**Modelling Materials with Density Functional Theory**	**% Contribution**
	End of module examination	60%
	Problem Sets	40%
MATE70025	**Mathematics & Quantum Mechanics**	**% Contribution**
	End of module examination	50%
	Problem set 1	20%
	Problem set 2	20%
	Synthesis problem	10%
MATE70026	**Machine Learning for Materials**	**% Contribution**
	8 computational exercises	24% (3% each)
	Research assignment	76%
MECH70001	**Nuclear Thermal Hydraulics**	**% Contribution**
	For further details please contact the host Department	
MECH70002	**Nuclear Reactor Physics**	**% Contribution**
	For further details please contact the host Department	
CENG60013:	**Nuclear Chemical Engineering**	**% Contribution**
	For further details please contact the host Department	

The programme information above is correct at the time of publication, however changes may be made during term time and will be communicated to the cohort via email if necessary.

Appendix B – Indicative Module Content

Unless otherwise stated the pass mark for each module is 50% for MSc Advanced Students

(C1) MATE70001: Characterization of the Structure of Materials

For MSc programmes

Module Leader: Prof. Stephen Skinner
 	
Teaching Staff: Dr Sarah Fearn
 	
             Prof. Finn Giuliani
 	
             Prof. Alexandra Porter
 	
             Dr Jonathan Rackham

Full module description can be found in the General Information folder on Blackboard Learn.

MATE70001 Characterization of the Structure of Materials coursework - Characterisation Exercise Report

Assessment Name:	Characterisation Exercise Report
Academic:	Dr Jonathan Rackham
Submission:	Blackboard Learn
Self-study hours:	35 hrs
Assignment details:	The cohort will be split into two groups, each starting their exercise a week apart from each other. Deadlines for each group are set accordingly. Each group is further broken down so that students work in teams of four to characterise a pair of related samples with unknown identities. The identities of the samples, and the relationship between them, should be determined and the findings presented as a report written and submitted individually. The following characterisation techniques will be made available to the groups in a free-form style, with support from GTAs. Some of these may be conducted in person if procedures allow, otherwise GTAs will assist. - Visible light microscopy - Scanning electron microscopy (including energy dispersive X-ray spectroscopy) - X-ray diffraction

		- Atomic force microscopy
		- FTIR spectroscopy
		- UV-Vis spectroscopy
		- Densimetry
		In addition to these techniques, transmission electron micrographs will be available where relevant.
		Students will receive feedback from several sources,
		- verbally from GTAs during their time using equipment,
		- verbally during the office hours from course tutors,
		-in written form on their report draft from peers and course tutors
Other requirements:		The report should be written in the style of a short paper with a focus on presentation and discussion of results. A short introduction may be included for context, but an extended introduction of the techniques used should be avoided. Report to be submitted as a PDF, maximum 6 pages in length. Formatting requirements for this are set out in the briefing document provided at the beginning of the exercise. A document template is provided (MS Word and LaTeX) and should be used.

Rubric:

Item name/number	Value	Description of marking
Abstract	10	0% Not present within the page limit. 25% Does not provide context or present conclusions drawn. No reference to numerical results. Would not inspire further reading of the report. 45% Describes experiments performed and conclusions drawn in isolation with no context or reference to numerical results. Would not inspire further reading of the report. 65% Provides context, describes experiments performed and conclusions drawn. Overly brief/long and does not quote any relevant numerical results. May inspire further reading of the report. 85% Provides context, a concise description of the experiments performed and conclusions drawn. May have reference to numerical results, but not necessarily appropriate. Would inspire further reading of the report. 100% Provides context, a concise description of the experiments performed and the conclusions drawn. Makes reference to relevant numerical results. Would inspire further reading of the report.
Expt Details	15	0% Not present within the page limit. 25% Some, but not all, of the techniques used are mentioned. 45% Appropriate techniques are mentioned. Some details are provided but some important details (e.g. instrument model) are missing.

		Unlikely to show meaningful mention of relevant analysis tools (e.g. software or databases).
		65% Appropriate techniques are mentioned with most important details provided. Some minor errors may be present and some unnecessary details are included. Relevant analysis tools (e.g. software or databases) may be mentioned, but may be incomplete/inaccurate.
		85% Appropriate techniques are mentioned and all important details are provided with some minor errors. Relevant analysis tools (e.g. software or databases) used are detailed.
		100% Appropriate techniques are mentioned and all key details are correctly provided in appropriate detail. All relevant analysis tools are described and referenced with an appropriate level of detail.
Results	25	0% Not present within the page limit.
		25% Not all techniques used are appropriate and several major misunderstandings of techniques are present. No primary analysis has been performed (indexing patterns or assigned spectra). Results presented without any appropriate accompanying text in an unusable format or with items missing.
		45% All techniques used are appropriate but some major misunderstandings may be present. Some primary analysis performed (e.g. indexing patterns, assigning spectra dimensional measurements) but this may not be done completely or competently. Results are ambiguously presented in a poor format and show no evidence of further processing (e.g. cropping, brightness/contrast correction, annotation). Some, but not all, of the results are presented appropriately in the accompanying text with no comments made about reliability of particular results.
		55% All techniques used are appropriate with several minor misunderstandings present. Some primary analysis competently performed (e.g. indexing patterns, assigning spectra, dimensional measurements) but this may not be done completely. Results are ambiguously presented in a basic format but shows some evidence of further processing (e.g. cropping, brightness/contrast correction, annotation). May show some evidence of advanced composition techniques (e.g. stacking, insets, overlays, annotations and labels) although this may not be successfully be applied. Accompanying text describes some but not all of the results presented. Some limited comments may be made about reliability of particular results.
		65% All techniques used are appropriate with limited minor misunderstandings of any particular technique. Primary analysis competently performed (e.g. indexing patterns, assigning spectra, dimensional measurements) but this may not be done completely. Results unambiguously presented in a basic format but shows evidence of further processing (e.g. cropping, brightness/contrast correction, annotation). May show some evidence of advanced composition techniques (e.g. stacking, insets, overlays, annotations and labels) although this may not be successfully employed. Accompanying text describes all of the results presented but not all are described appropriately. Some comments may be made about reliability of particular results, but may not be explored sufficiently
		85% All techniques used are appropriate with clear understanding of each technique. Primary analysis (e.g. indexing patterns, assigning spectra or taking dimensional measurements from micrographs) performed competently and completely. Results presented in a clear

		format with appropriate application of further processing (e.g. cropping, brightness/contrast correction, annotation). Shows evidence of advanced composition techniques (e.g. stacking, insets, overlays, annotations and labels) although this may not be successfully employed. Accompanying text appropriately describes all of the results presented with some comments made about reliability of individual results. 100% All techniques used are appropriate with clear understanding of each technique. Primary analysis (e.g. indexing patterns, assigning spectra or taking dimensional measurements from micrographs) performed competently and completely. Results presented in a clear and engaging format with appropriate application of further processing (e.g. cropping, brightness/contrast correction, annotation). Successfully employs advanced composition techniques (e.g. stacking, insets, overlays, annotations and labels). Accompanying text appropriately describes all of the results presented with comprehensive comments made about reliability of individual results.
Discussion	20	0% Not present within the page limit. 25% Individual results are commented upon but no comparisons are made between techniques or samples. No evidence of narrative development nor of abstract analysis to support comparisons (e.g. calculation of lattice parameters, crystallite size, statistical analysis of dimensional measurements). No relevant references to literature. 45% Individual results are commented upon and some limited comparisons are made between techniques or samples. No evidence of narrative development nor of abstract analysis to support comparisons (e.g. calculation of lattice parameters, crystallite size, statistical analysis of dimensional measurements). No narrative developed and limited references to literature, not all are appropriate. 55% Individual results are commented upon and some limited comparisons are made between techniques or samples presented as a partly developed narrative. Limited evidence of abstract analysis to support the presented narrative (e.g. calculation of lattice parameters, crystallite size, statistical analysis of dimensional measurements) but not performed competently or completely. Limited references to literature, most are appropriate. 65% Comparisons are made between results from different techniques and between samples, presented as part of a partly-developed narrative. Evidence of abstract analysis to support the presented narrative (e.g. calculation of lattice parameters, crystallite size, statistical analysis of dimensional measurements) but not necessarily all performed competently or completely. Limited reference to literature, most are appropriate. 85% Comparisons are routinely made between results from different techniques and between samples, presented as a developed narrative. Extensive evidence of abstract analysis competently performed to support the presented narrative. Regular reference to literature, most are appropriate. 100% Strong comparisons are made between results, presented as a well developed narrative with extensive insightful abstract analysis performed competently and completely to support these comparisons. Regular and appropriate reference to literature.
Further Work	5	0% Not present within the page limit. 25% Limited suggestions for further work are made, none are appropriate

		45% Limited suggestions for further work are made, some are appropriate but none are supported by specific details (e.g. hypotheses to test, techniques to apply) or references to literature.
		65% Appropriate general suggestions for further work are made, some are supported by specific details (e.g. hypotheses to test, techniques to apply) or references to literature although not all details/references are appropriate.
		85% Several appropriate suggestions for further work are made. All are supported by relevant details (e.g. hypotheses to test, techniques to apply) and some reference to literature.
		100% Several appropriate suggestions for further work are made, some are insightful. All are supported by relevant details (e.g. hypotheses to test, techniques to apply) and some reference to literature.
Conclusions	10	0% Not present within the page limit.
		25% Inappropriate conclusions unrelated to the body of the report and unsupported by points in the discussion. May be overly brief or verbose.
		45% Inappropriate conclusions related to the body of the report and partly supported by points in the discussion. May be overly brief or verbose.
		65% Superficial conclusions but without specific statements made. Mostly supported by points made in the discussion. May be overly brief or verbose.
		85% Concise conclusions with specific statements, summarising any insights drawn. Mostly supported by points made within the discussion.
		100% Concise conclusions with specific statement, summarising any insights drawn. Entirely supported by points made within the discussion.
Written Presentation	5	0% Unacceptable presentation. Major elements of the report inappropriately formatted (e.g. spacing, margin).
		25% Unacceptable presentation with poor structure. Prose is difficult to understand with regular grammatical/typographical errors. Some minor elements of the report are inappropriately formatted (e.g. lacking page numbers, unreferenced figures). Figure captions give no context.
		45% Poor presentation with poor structure. Prose is sometimes ambiguous or difficult to parse with repeated grammatical/typographical errors. All report elements are appropriately formatted. Figure captions give little to no context.
		65% Good presentation. Prose is generally well written with a reasonable structure, but marred by repeated grammatical/typographical errors. Some areas are ambiguous or excessively verbose. Figure captions give some context, although this may be limited in some place.
		85% Excellent presentation. Prose is generally well written with a good structure, but marred by repeated grammatical/typographical errors. Some areas are ambiguous or excessively verbose. Figure captions give context and guide the reader to important features.
		100% Journal-level presentation, ready to publish. Prose is well written and easy to read with clear structure and explanations. No/minimal grammatical/typographical errors. Figure captions give context and guide the reader to important features.
References	5	0% None present.

		25%	References are incomplete; many items are uncited. Some sources are inappropriate. Bibliography formatting is poor and most entries are ambiguous.
		45%	References are mostly complete; a few items are uncited. Some sources are inappropriate. Bibliography formatting is poor in places and several entries are ambiguous.
		65%	References are mostly complete; a few items are uncited. All sources are appropriate. Bibliography entries are well formatted but some may be ambiguous.
		85%	References are complete, but some inappropriate sources have been used. Most are well formatted but some may be ambiguous.
		100%	References are complete and all are appropriate. Bibliography is well formatted and unambiguous.
Acting on Feedback	5	0% Did not act on any feedback given. 25% Partially acted on some of the points of improvement. 45% Partially acted on most points of improvement. 65% Acted thoroughly on some points for improvement. 85% Acted thoroughly on most points for improvement. 100% Acted thoroughly on all points for improvement.	

MATE70001 Characterization of the Structure of Materials coursework - Instrument Demonstration Sessions

Assessment Name:	Instrument Demonstration Sessions
Academic:	Dr Jonathan Rackham
Submission:	Blackboard Learn tests
Self-study hours:	2
Assignment details:	Students will attend several lab sessions in groups. Each session will introduce them to a different instrument, such as:

1. Scanning electron microscope

2. X-ray diffractometers

3. Atomic force microscope

Students will be guided through each session by a worksheet (conducted via Blackboard Learn) with practical guidance provided by a tutor. The worksheet will pose various questions about the instrument and associated sample preparation.

Students will receive feedback during the session from the GTA and on their marked worksheets. |

MATE70001 Characterization of the Structure of Materials coursework - XRD Classwork

Assessment Name:	XRD Classwork
Academic:	Dr Jonathan Rackham and Dr Andrey Berenov
Submission:	Blackboard Learn
Self-study hours:	1 hour of revision– a recap will be given during the lesson.
Assignment details:	This is a highly interactive session designed to reinforce and enhance understanding of some of the concepts covered in the XRD lectures. During this exercise the students will process some example data to determine the structure type, lattice parameter and composition of a brass specimen. This will be achieved by following a step by step process explained in the booklet provided. Staff and GTAs will be on hand to help and to answer any questions. Tables, graphs and answers to questions must be entered into the booklet where indicated. The booklet must then be handed in before the end of the session through Blackboard Learn.
Other requirements:	Please refer to the submission instructions in the MATE70001 Blackboard folder.

Rubric:

Item name/number	Value	0%	50%	100%
Expt Details	1	No details mentioned or several key details absent.	Most key details given, may either miss some key details or include excessive unnecessary details.	All key details given concisely.
Figures; Diffraction pattern/peak list/ Nelson-Riley plot	2	Peaks are not indexed and no table of indexed peaks is provided. Axes may be inappropriately scaled, labelled or have inappropriate units.	Peaks are incompletely indexed. Many items are inappropriately or ambiguously formatted.	Appropriately scaled axes with most labels and units present. Data points are formatted clearly with peaks indexed if a table of indexed peaks is not provided separately.
Figures; Caption	1	Caption wholly inappropriate or absent.	Caption gives most appropriate details but may be missing some or may lack conciseness. Insufficient context for figure and caption to stand alone.	Caption is concise with appropriate detail and context. Should give enough detail for figure and caption to encapsulate the ideas presented in prose.

Indexing; Method & Accuracy	1	Peaks not indexed or many inaccuracies.	Diffraction pattern inaccurately or incompletely indexed. Indexing information presented appropriately.	Diffraction pattern accurately indexed with indexing information presented appropriately.
Lattice Parameter	1	Lattice parameter not calculated or calculated using an inappropriate method; lattice type not stated.	Lattice parameter (including lattice type) calculated using an appropriate method but may not be accurate or given with appropriate uncertainty.	Lattice parameter (including lattice type) accurately determined and presented with appropriate uncertainty.
Discussion; Data quality	1	Reliability and accuracy of data not discussed.	Reliability and accuracy of data discussed, but with misunderstanding or no reference to experimental details.	Reliability and accuracy of data discussed with reference to experimental details.
Discussion; Lattice parameter and composition	2	Lattice parameter stated without any discussion of approach used or its validity. Composition may not be determined.	Composition determined. Discusses appropriateness of approach for determining lattice parameter or composition, but not both.	Determines composition. Discusses analysis technique used for determining lattice parameter, their appropriateness and strengths.
Written presentation and Composition	1	Regular typographical/spelling errors or phrasing that makes comprehension difficult; referencing may not be appropriate.	Some typographical/spelling errors or excessively verbose prose; referencing may not be appropriate	Written in concise prose readily comprehended by the reader. Referencing is appropriate.

MATE70001 Characterization of the Structure of Materials coursework – Peer review activity

Assessment Name:	Peer review activity
Academic:	Dr Jonathan Rackham
Submission:	Blackboard Learn
Assignment details:	Each student must fill out the marking rubric and provide feedback comments on the draft reports of two peers, one from their group and one from another group. Students will then receive the feedback on their draft from two peers, one within their group and one from outside their group.

(C2) MATE70002: Theory and Simulation of Materials

Core: MSc in Advanced MSE	
Module Leader:	Stephen Hanham
Teaching Staff:	Paul Tangney
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70002 Theory and Simulation of Materials coursework - Problem sheet 1 (finite elements)

Assessment Name:	Problem sheet 1 (finite elements)
Academic:	Dr Stephen Hanham
Submission:	Blackboard Learn as a PDF
Self-study hours:	15 hours

Assignment details:	The notes for each lecture conclude with exercises to be performed (5 exercises in all). The sections titled Assessed Coursework at the end of each of the exercises indicate for each topic which results are to be reported and what discussion is expected for the assessed work.
Other requirements:	The provided Word template must be used. The maximum allowed length of the report is 6 A4 pages including the template front cover. Each exercise should be on a separate page, with a maximum of one page per exercise. The font and margins of the template are already the correct ones for the coursework (11 point font, 1.5 cm margins and single spacing).

Rubric:

Item name/number	Value	Description of marking
Finite Elements	10	
Introduction to COMSOL	10	
Crystal Elasticity	10	Marks are given for clear and correct presentation of results obtained from the exercises, and for well-presented and accurate discussions.
Electrochemistry	10	
Electromagnetism	10	

MATE70002 Theory and Simulation of Materials coursework - Problem sheet 2 (atomistic methods)

Assessment Name:	Problem sheet 2 (atomistic methods)
Academic:	Dr Stephen Hanham
Submission:	Blackboard Learn as a PDF
Self-study hours:	15 hours
Assignment details:	The assignment is in three parts and each part involves using a different method of simulating materials as assemblies of atoms, molecules, or other nanoscale objects, such as dipole/magnetic moments. Notes explaining one part of the assignment will be provided before each of the three lectures. One part uses kinetic Monte Carlo (kMC), another uses structural relaxation (also known as energy minimization), and the third uses molecular dynamics (MD). Each plays a different role and provides different information. You will be required to perform simulations, analyse and interpret the data produced, and present your results in a specified format. For each of the three parts you will be asked to calculate specific numbers, to provide one or two publication-quality graphics or plots, and to write a specified number of sentences of explanation and interpretation.
Other requirements:	Minimum 11pt font for all text, including figure labels and captions. When the number of sentences of explanation is specified, only that number will be marked, e.g., if the assignment asks for one or two sentences and you write three, only the first two will be marked or read.

Rubric:

Item name/number	Value	Description of marking

Kinetic Monte Carlo	20	Your coursework will be judged on the quality of your simulations, how well you analyse your data, how appropriately you interpret your data, how clearly you present your data, and how clearly and convincingly your sentences and graphs substantiate your interpretation.
Energy landscapes	20	
Molecular dynamics	20	

MATE70002 Theory and Simulation of Materials coursework – Mini project

Assessment Name:	Mini Project
Academic:	Dr Stephen Hanham
Submission:	Blackboard Learn as a PDF
Self-study hours:	15 hours
Assignment details:	Answer questions provided that are based on the research topic discussed in the lecture
Other requirements:	The maximum allowed length of the report is 3 A4 pages. The minimum size font, spacing and margins are: 11 point font, 1.5 cm margins, and single spacing.

Rubric:

Item name/number	Value	Description of marking
Exercises 3 (Research Topic)	20	Marks are given for clearly presented correct answers to research related questions

(R1) MATE70003: The Art of Research

Core: MSc in Advanced MSE
Module Leader: **Nima Haghdidi**
Full module description can be found in the General Information folder on Blackboard Learn.

MATE70003 The Art of Research coursework – Data Analysis

Assessment Name:	Data Analysis
Academic:	Dr Nima Haghdadi
Submission:	Blackboard Learn only (program plus screen shot of its output)
Self-study hours:	10 hours
Assignment details:	Plot the stress-strain and work hardening rate curves for the three different materials and define the strain in which each material experiences the maximum stress (raw data will be provided)
Other requirements:	Upload the word file and Excel file containing the analysis and the graphs to Blackboard.

Rubric:

Item name/number	Value	Description of marking
Data analysis	Pass/Fail	Plot the stress-strain and work hardening rate curves for the three different materials and define the strain in which each material experiences the maximum stress (raw data will be provided)

MATE70003 The Art of Research coursework - Seminar presentation

Assessment Name:	Seminar presentation
Academic:	Professor Theoni Georgiou
Submission:	Sharepoint (submission of slides) and oral presentation
Self-study hours:	15 hours
Assignment details:	Your study group (5 people) needs to attend seminars as a group in Term 1 and make notes. At the end of Term 1 your group should choose one seminar that it found interesting and give a presentation on it to the other study groups. The other groups will then ask you questions about it. Each presentation is 12 minutes long with 10 minutes for the talk and 2 minutes at the end for questions. The presentation will be given by all members of the group, one person at a time. There will be one slide per person (5 in total) covering:
	1. Background to the research
	2. Method and results
	3. Discussion of the findings
	4. Critique of the seminar and the research: what was done well
	5. Critique of the seminar and the research: what could be improved
	The presentation and answers to questions will be assessed by a panel of academics. The presentation will be assessed as a whole with each member getting the same mark. 25 marks are for the presentation and 10 marks are for the answers to the questions.
	The marks are assigned as follows:
	[5] Quality of slides and presentation
	[10] Precision of technical content
	[10] Insight demonstrated by critiques
	[10] Clarity of answers given to questions, and level of insight shown
	Peer review by members of the study group will also be part of the assessment. Peer assessment will be used to assign up to an additional 10 marks to individuals. The peer assessment is submitted through MyDepartment. There are two questions you need to answer for every member of your group, including yourself:
	1. Assess the contribution of each member of your group, including yourself, to attending and organising attendance at the seminars. The marks will be assigned on a scale of 0 to 5. 0 means no contribution was made, while 5 means contributions were made throughout.
	2. Assess the contribution of each member of your group, including yourself, made to the preparation of the presentation. The marks will be assigned on a scale of 0 to 5. 0 means no contribution was made, while 5 means contributions were made throughout.

Rubric:

Item name/number	Value	Description of marking
Slides	5	Quality of slides and presentation
Content	10	Precision of technical content
Critiques	10	Insight demonstrated by critiques
Questions	10	Clarity of answers given to questions, and level of insight shown

MATE70003 The Art of Research coursework – Project Plan

Assessment Name:	Project Plan
Academic:	Professor Theoni Georgiou
Submission:	Blackboard Learn
Self-study hours:	100 hours
Assignment details:	During the Autumn and Spring Terms you will need to write a project proposal. This gives the information you need to plan the project in advance, and to enable the Department to assess the suitability of the project. Below is the format of the project proposal with a description of the information requested. Note that preparation of the proposal will require reading and understanding of the literature, as well as an appreciation of what the project will aim to achieve. Please refer to the deadline planner for the exact deadline date.
Other requirements:	This project proposal can be up to 7 A4 sides, including references. The minimum allowed font size is 11pt, the minimum margin width is 1.5 cm, and the minimum line spacing is single spaced. Some other things to remember when submitting: ▪ Electronic copy submitted through Blackboard Learn (for marking) ▪ Style of font is Calibri or Arial (or similar) ▪ A4 size

Rubric:

Item name/number	Value	Description of marking
Track Record	0	One paragraph describing what your UG degree covered. -Note any previous research work you have done -Note any experimental equipment you have learned to use -Note any computational methods you have learned to use Approx 0.5 pages
Project Summary (Background)	40	Background -Introduce the project topic and explain its context -Review the state of scientific understanding in the field

		-Describe the gap in our knowledge that the work will address This will be assessed on: -Clarity of the writing -Demonstration of knowledge of the field -Accuracy of the reasoning used to identify the gap in our knowledge Approx 2.5 pages
Project Summary (Objectives)	20	Research hypothesis and objectives -Set out your research idea or hypothesis -Identify the overall aims of the project This will be assessed on: -Clarity of the writing -Accuracy of the technical content Approx 0.5 pages
Project Summary (Programme)	25	Programme and methodology -Describe your research methodology -Describe the work programme, indicating what research is to be undertaken, and the order in which the work will be done. This will be assessed on: -Clarity of the writing -Accuracy of the technical content Approx 1 page
Research Impact	5	One paragraph to describe how your research may be of benefit to society and the state of scientific knowledge. This will be assessed on: -Clarity of the writing -How understandable the text is to a non-specialist reader Approx 0.5 pages
Workplan	5	Provide a diagrammatic work plan (Gantt chart). This will be assessed on: -Does the plan look achievable? -Does the plan cover all the steps in the project? One diagram, approx 0.5 pages in size
Resources Needed	0	List the resources you will require, and what equipment training you will need. Indicate what assistance you will require from other people. Indicate how you will use the £500 allocated to your project by the department. Please confirm this with your supervisor. Approx 0.5 pages
References	5	Provide a list of your references here This will be assessed on: -Proper formatting of the references -Appropriateness of the references About 20 (approx 1 page)

(R2) MATE70004 - Advanced Materials Science and Engineering Research Project

Core: MSc in Advanced MSE	
Module Leader:	**Theoni Georgiou**
Topic Leader:	**Greg Artus**
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70004 Research Project coursework - Research Project Report

Assessment Name:	Research Project Report
Academic:	Professor Theoni Georgiou
Submission:	Blackboard Learn and Turnitin
Self-study hours:	450 hours
Assignment details:	Carry out research between the summer exams and the deadline date, under the supervision of an academic, and write it up as a report. The report should answer the research question and convey the ability to develop an appropriate methodology to solve the problems posed. A high level of scientific understanding is expected. This includes an awareness of the scope and limitations of the techniques used, an ability to present and interpret results, the discussion of the results in light of the wider literature, and an understanding of the wider implications of the findings. The layout should be discussed with the supervisor, but the recommended general outline is as follows: Guidance on the report: Writing concisely is a skill that you should be developing throughout the degree. It is easier to write a high-quality short document than a

long one, and this is easier to mark in a robust fashion. The project report is strictly limited to 30 pages in length (excluding any appendices) – A4, including cover sheet and references.

A template (in MSWord) is provided and should be respected – 11pt Arial/Calibri for the main text, with 1.5cm margins, single spaced.

It should include the following (note the proposed length for each section, not strict guidelines):

1pp Title Page and Abstract.

To include project title, your name, supervisors including PhDs and PDRAs and an abstract of up to 150 words.

1pp Contents.

Do not go beyond the first subheading level. If appropriate, here include a paragraph providing commentary, on industrial involvement in the project and its relationship to any prior work, e.g. in a UROP or summer placement. A paragraph of acknowledgements and thanks should also be included here.

2pp Aims and Context.

1 paragraph on the aims of the project, and then a brief outline of the application context of the work and the relevance of the topic of study to society and industry.

0.5 pp Statement on effectiveness of own performance and team performance.

Reflect on your performance during the research project both in terms of your own work, but also on how you have interacted with other Masters students, PhD students, postdocs, supervisors, other academic staff, technicians and professional staff etc.

Questions you might want to answer include: What aspects of the project enabled me to demonstrate my skills best? What aspects of the project enabled me to develop new skills? What were these skills? What did I learn about working with a team? How might I improve my team working skills in future? Note that, while this section is compulsory, it carries no marks.

6 pp Literature Review

Providing an overview of the literature and concisely identifying the gaps which your thesis will address.

3pp Methods.

10 pp Results.

(Bear in mind that around 1/3rd of this might be figures)

		4 pp Discussion.
		1 pp Conclusions.
		2 pp References. Around 60 in total.
		Further Guidance is provided in the templates provided and the marking rubrics. To be clear: you can add appendices, but do not expect assessors to read them.
Other requirements:		▪An electronic copy should be submitted through Blackboard Learn for marking. ▪An electronic copy should be submitted though TurnItIn for a plagiarism check.

Rubric:

Item name/number	Value	Description of marking
Aims and Motivation	5	Technological motivation for the work (socio-economic, technical and industrial), scientific context and clear articulation of the aims of the work and the research problem / question/ hypothesis.
Statement on effectiveness of own performance and team performance	0	Note that, while this section is compulsory, it carries no marks.
Literature Review	25	The review should aim to identify what has been done in the research area, what knowledge gaps remain that might profitably be explored in the project and include a summary. Students are guided to avoid reworking standard textbooks and review articles and instead to synthesize the primary literature; copying and pasting of (appropriately referenced) figures is acceptable but should receive nil credit.
Results and Analysis	30	Results coherently presented and related to each other with the inferences drawn from different approaches discussed and contrasted. Methods and their limitations clearly well understood.
Discussion, Conclusions and Abstract	20	There is no requirement to separate the discussion from the results into separate sections. Whichever approach is taken, the learning outcomes being tested are the ability to interpret the results in the context of the literature and technological problem investigated, to draw appropriate conclusions (<1pp) and to summarise and extract the main findings in a coherent abstract (200 words).
Written Presentation, presentation of (original) figures and handing of data	20	Logical structure and overall presentation, correct English and grammar, quality of referencing (completeness and in a consistent and recognisable style). Overall effectiveness of the Thesis as a technical document. Bear in mind that a template is provided. At the upper end (8+/10) textbook/ publication quality would be expected. At the lower end of the scale (0-5) significant problems of English and style remain. Figures and Tables should meet scientific norms around error bars, units and axes, appropriateness of trend and fit lines, appropriate use of precision e.g. in tables, scale bars and relationship to sample axes, consideration of symmetry and crystallography. Captions should be descriptive and helpful to the reader. Use of colour should be appropriate and the presentation of

		data in graphs e.g. when compared to the literature or using multiple axes should aid clarity and insight. Again, a mark of 8+/10 would indicate uniformly publication-quality figures in leading journals.

MATE70004 Research Project coursework - Research Project Presentation

Assessment Name:	Research Project Presentation
Academic:	Professor Theoni Georgiou
Submission:	Oral (presentation), submission of slides on Sharepoint
Self-study hours:	10 hours, including supervisor assistance, plus half day attending presentations and presenting
Assignment details:	After submission and marking of the research project report you will present your results, analysis and findings to your peers. This will be a 15-minute presentation (including time for question-and-answer discussion). There will be a briefing note available on making scientific presentations. The staff present (your assessor pair, plus another assessor making a panel of three staff) will submit a joint assessment. Your presentation should (i) introduce the aims of the project and situate it in the context of the research literature, (ii) show the main results and findings, (iii) discuss those results and present your conclusions.
Other requirements:	AV equipment and a PC will be available for the use of powerpoint of other visual aids software.

Rubric:

Item name/number	Value	Description of marking
Background	20	Was the scientific and technological context and motivation for the work clearly exposited?
Methods and Results	20	Was it clear *what* was done, *how* it was done, and were errors/uncertainties handled properly?
Discussion and Conclusions	20	Were the results discussed in the context of the literature and appropriate conclusions drawn?
Oral Presentation	20	Was the oral presentation, including questions, handled well? Was the talk well organised and stayed within the time restriction?
Visual Aids: slides, figures and graphs	20	quality (including logical structure) of the visual aids used.

MATE70004 Research Project coursework - Ethics course end of session presentation

Assessment Name:	Ethics course end of session presentation
Academic:	Professor Johannes Lischner/ Greg Artus
Submission:	Oral presentation
Assignment details:	Students will be presented with a particular case study or ethical dilemma. Working in small groups, they will analyse and develop a resolution and then give a short presentation of their work. Students will be assessed on the following criteria: engagement with subject matter, level of critical analysis, originality and creativity.

Rubric:

Item name/number	Value	Description of marking
Critical analysis	10	Depth of understanding of problem
Originality and creativity	10	Quality of solution

(O01) MATE70006: Biomaterials

Optional for MSc programmes
Module Leader: Prof. Julian Jones **Teaching Staff:** Stefano Angioletti-Uberti Priya Saravanapavan
Full module description can be found in the General Information folder on Blackboard Learn.

(O02) MATE70007: Engineering Alloys

Optional for MSc programmes
Module Leader: Minh-Son Pham **Teaching Staff:** Chris Gourlay Stella Pedrazzini Baptiste Gault Tony Paxton
Full module description can be found in the General Information folder on Blackboard Learn.

MATE70007 Engineering Alloys coursework - Engineering Alloys Coursework

Assessment Name:	Engineering Alloys Coursework
Academic:	Dr Minh-Son Pham
Submission:	Blackboard Learn
Self-study hours:	2 hours workshop for coursework exercise, 3 hours self-study
Assignment details:	Students will carry out finite element crystal plasticity texture development in an HCP alloy (Mg or Zr) and will use MTEX to plot orientation distribution at varying strains and examine intragranular residual stresses.

Students will each be asked to prepare a short report to summarise their individual results which will be presented at a workshop session. |

Rubric:

Item name/number	Value	Description of marking
Q1: Model polycrystal deformation using crystal plasticity FE with a unique applied strain	4	Edit abaqus input deck for required applied strain and run. (Include details of strain loading history in report)
Q2: Extract texture data and plot	4	Use provided software to extract texture information and plot using MTEX (Include ODs in report)
Q3: Examine examples of intragranular stresses developed in the polycrystal at peak applied strain	2	Use abaqus postprocessor to extract stress data within the polycrystal (Include stress results in report)
Q4: Write summary report to describe methods, results and conclusions	10	Summarise results (texture and intragranular stresses) in a short report (Submit report containing the above)

(O03) MATE70008: Ceramics and Glass

Optional for MSc programmes	
Module Leader:	Prof. Eduardo Saiz
Teaching Staff:	Prof. Finn Giuliani Dr Max Attwood Dr Florian Bouville
Full module description can be found in the General Information folder on Blackboard Learn.	

(O04) MATE70010: Optoelectronic Materials

Optional for MSc programmes	
Module Leader:	Prof. Mark Oxborrow
Teaching Staff:	Dr Jess Wade Prof. Martyn McLachlan (MSc Only)
Full module description can be found in the General Information folder on Blackboard Learn.	

(O05) MATE70011: Surfaces and Interfaces

Optional for MSc programmes	
Module Leader:	Prof. Sandrine Heutz
Teaching Staff:	Dr Oriol Gavalda Diaz

MATE70011 Surfaces and Interfaces coursework – Essay paper

Assessment Name:	Essay Paper
Academic:	Oriol Gavalda Diaz
Submission:	Blackboard Learn
Self-study hours:	6 hours
Assignment details:	Students are required to research the scientific literature on a topic related to Surfaces and Interfaces, matching one of the 3 categories provided by the course lead. The goal is to summarise the paper and give a critical assessment outlining suitable additional surface and interface approaches.
Other requirements	1 page limit – Arial 11 – 2.5 cm margins.

Rubric:

Item name/number	Value	Description of marking
Summary	20	Concise; Outlines aim of essay, main findings of the publication analyses and their conclusions

Critical reflection	20	Provide a clear, structured critical assessment of the data presented. Indicate where the conclusions might be weak or the data insufficient.
Role of surfaces and/or interfaces	15	Depth of the analysis and discussion on fundamental aspects relating to surfaces and/or interfaces.
Suggestions (for improving, extending the study, including methods)	30	Suggest suitable additional surface and interface approaches to improve the work presented. For example, suggest how to best extend the study, suggest possible methods to extend the characterization. Clear statement of the benefit and application of the suggested method. Please specify how to prepare the samples for the suggested measurements and how the measurements are performed.
Improving impact to avert climate change	15	Discuss how this research is used and could be directed to increase the support to a sustainable future?

MATE70011 Surfaces and Interfaces coursework - "Pecha-Kucha" Presentation

Assessment Name:	"Pecha-Kucha" presentation
Academic:	Oriol Gavalda Diaz
Submission:	Blackboard Learn (slides), oral (presentation)
Self-study hours:	6 hours
Assignment details:	Students will present the paper from the literature related to surfaces and interfaces in a 3-minute oral presentation to the rest of the class.
Other requirements	Presentation: template provided, includes 3 slides scrolling every 1 minute.

Rubric:

Item name/number	Value	Description of marking
Overall structure and timekeeping	3	3 - excellent, perfect timing, logical structure, nothing missing 2 - good, almost all timing was kept, logical structure, missing minimal information 1- some vagueness, not quite to time, too long or too short 0 - no structure, no timing, poor effort
Use and quality of slides / figures / other media	3	3-No errors, well laid out, figures easily understood, perfectly applied into the talk 2- Generally good, minimum errors, most figures useful 1- A few mistakes and poor layout 0 - unreadable, figures do not help
Technical & scientific content	6	6- perfect, very high level and high engagement at that level 4/5 - very good, could have been more detailed 2/3- acceptable, some understanding demonstrated, no depth 0/1 -no understanding, no content
Quality of explanations and answers to questions	5	5 - perfect, very high level and high engagement at that level 4 very good, could have been more detailed 2/3 - acceptable, some understanding demonstrated, no depth 0/1 -no understanding, no content
Overall communication	3	3 - Excellent, enthusiastic, genuine investment in the work 2- Very good, decent interest shown, some areas lacking 0/1- Poor, limited engagement, task based on requirement

/ engagement and interest		

(006) MATE70012: Nanomaterials

Optional for MSc programmes	
Module Leader:	Prof. Jason Riley
Teaching Staff:	Prof. Peter Petrov Dr Jess Wade
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70012 Nanomaterials coursework

Assessment Name:	Nanomaterials coursework
Academic:	Professor Jason Riley
Submission:	Blackboard Learn
Self-study hours:	20 hours
Assignment details:	You will select from a list, a topic in nanomaterials to research, e.g., hydrophobicity of porous nanomaterials. You will then use ChatGPT to prepare a referenced science magazine article (1000 words) on the topic and transfer the text to a Word document, listing the prompts used. Using track changes you will edit the document to improve both style and content, submitting a final non-cleaned version. The exercise will be graded on the prompts used and improvements (content and style) made to the AI generated text.
Other requirements	The editing of the original text must be clearly identified. The submitted article must be a maximum of 1000 words in length, excluding the title and references. The document should be in Arial and at Font Size 12.

Rubric:

Item name/number	Value	Description of marking
Chat GPT Prompts employed	20	Are the prompts appropriate given the title of the article? Do they demonstrate the student researched the topic before compiling the essay?
Title	5	Does the title both engage the reader and reflect the content of the article?
Style editing	30	Do the edits make the essay more engaging and appropriate for a science magazine?
Content Editing	35	Do the additions/redactions of content result in a more informative article?
References	10	Are the references correctly presented and appropriate?

(O07) MATE70013: Advanced Engineering Alloys

Optional for MSc programmes	
Module Leader:	**Prof. Chris Gourlay**
Teaching Staff:	**Prof. David Dye**
Full module description can be found in the General Information folder on Blackboard Learn.	

(O08) MATE70014: Advanced Nanomaterials

Optional for MSc programmes	
Module Leader:	**Prof. Alexandra Porter**
Teaching Staff:	**Dr Ifan Stephens**
	Dr Cecilia Mattevi
	Dr Fang Xie
	Dr Michelle Conroy
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70014 Advanced Nanomaterials coursework - Nanomaterials abstract

Assessment Name:	Nanomaterials abstract
Academic:	Professor Alex Porter
Submission:	Blackboard Learn
Self-study hours:	15-18 hours
Assignment details:	Group of 5-7 students are required to prepare a poster presentation on a topic provided by the course leader. Students should first perform and in-depth literature search on the topic, select a subtopic on which to focus their poster and read up on the specifics of that topic. Students should first formulate an abstract of their poster content on which to receive feedback from the course leader. **The abstract is not assessed.**

MATE70014 Advanced Nanomaterials coursework - Nanomaterials poster presentation

Assessment Name:	Nanomaterials poster presentation

Academic:	Professor Alex Porter
Submission:	Blackboard Learn (poster file) and presentation
Self-study hours:	15-18 hours
Assignment details:	A group of 5-7 students are required to prepare a poster presentation on a topic provided by the course leader. Students should first perform an in-depth literature search on the topic, select a subtopic on which to focus their presentation and read up in more detail on the topic. After receiving feedback on the abstract by the course leader, students should prepare a poster. The poster presentation will be assessed. The overall grade will be given by assessment of the poster by team of academics and other students taking the course.
Other requirements:	Instructions for the posters: ▪Each poster presentation will be assigned a board. The size of your poster should be: **A0 size: 118.9cm x 84.1cm; 46.8 inch x 33.1 inch.** ▪Pins will be made available. ▪Display your material in large print so it may be read from a distance. Print the TITLE of the poster and AUTHORS in large print across the top of your display.

Rubric:

Item name/number	Value
Presentation Skills (group mark)	10
The scientific quality of the poster content (group mark)	10
Answers to questions (group mark, determined by how the group answer and distribute questions between themselves)	10

(O09) MATE70015: Advanced Structural Ceramics

Optional for MSc programmes
Module Leader: Prof. Finn Giuliani
Teaching Staff: Prof. Eduardo Saiz Dr Florian Bouville
Full module description can be found in the General Information folder on Blackboard Learn.

(O10) MATE70016: Advanced Tissue Engineering

Optional for MSc programmes
Module Leader: Dr Iain Dunlop
Teaching Staff: Prof Theoni Georgiou Prof Julian Jones
Full module description can be found in the General Information folder on Blackboard Learn.

(O11) MATE70017: Electroceramics

Optional for MSc programmes	
Module Leader:	Prof. Stephen Skinner
Teaching Staff:	Dr Chun (Ann) Huang
Full module description can be found in the General Information folder on Blackboard Learn.	

(O12) MATE70018: Advanced Biomaterials

Optional for MSc programmes	
Module Leader:	Prof. Julian Jones
Teaching Staff:	Prof. Alexandra Porter
	Dr Stefano Angioletti-Uberti
Full module description can be found in the General Information folder on Blackboard Learn.	

(O13) MATE70019: Nuclear Materials for Reactor Systems

Optional for MSc programmes	
Module Leader:	Dr Mark Wenman
Teaching Staff:	Prof. Robin Grimes
	Dr Michele Conroy
Full module description can be found in the General Information folder on Blackboard Learn.	

(O14) MATE70020: Modelling Materials with Density Functional Theory

Optional for MSc programmes	
Module Leader:	Prof. Johannes Lischner
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70020 Modelling Materials with Density Functional Theory coursework - Problem sets 1-4

Assessment Name:	Problem sets (4 x problem sets)
Academic:	Professor Johannes Lischner
Submission:	Blackboard Learn
Self-study hours:	10-15 hours
Assignment details:	In the four problem sets, students will carry out density-functional theory calculations of different systems, including atoms, molecules, defects and solids. In addition, they will analyze and critically discuss the results.

(O15) MATE70025: Mathematics & Quantum Mechanics

Optional for MSc programmes	
Module Leader:	**Jess Wade**
Teaching Staff:	**Prof Arash Mostofi**
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70025 Mathematics and Quantum Mechanics coursework - Problem Set 1

Assessment Name:	Problem Set 1
Academic:	Professor Arash Mostofi
Submission:	Blackboard Learn as PDF
Self-study hours:	3 Hours
Assignment details:	Provide written answer to the assessed problem sheet

Rubric:

Item name	Value	Description of marking
Question sheet 1 -- short questions	20	Answer some short questions accurately and clearly
Question sheet 1 -- long question	20	Answer a long question accurately and clearly

MATE70025 Mathematics and Quantum Mechanics coursework - Problem Set 2

Assessment Name:	Problem Set 2
Academic:	Dr Jessica Wade
Submission:	Blackboard Learn as PDF
Self-study hours:	3 Hours
Assignment details:	Provide written answer to the assessed problem sheet

Rubric:

Item name	Value	Description of marking
Question sheet 2 -- short questions	20	Answer some short questions accurately and clearly
Question sheet 2 – long question	20	Answer a long question accurately and clearly

MATE70025 Mathematics and Quantum Mechanics coursework – Synthesis Problem

Assessment Name:	Synthesis Problem
Academic:	Dr Jessica Wade
Submission:	Blackboard Learn as PDF
Self-study hours:	3 Hours
Assignment details:	Provide written answer to the assessed problem sheet

Rubric:

Item name	Value	Description of marking
Synthesis question sheet	20	Answer question accurately and clearly

(O16) MATE70026: Machine Learning for Materials

Optional for MSc programmes	
Module Leader:	Prof Aron Walsh
Full module description can be found in the General Information folder on Blackboard Learn.	

MATE70026 Machine Learning for Materials coursework – Computer Labs

Assessment Name:	8 Computer Labs
Academic:	Professor Aron Walsh
Submission:	Blackboard Learn
Self-study hours:	105 independent study hours have been allocated in total, covering weekly reading, and the research assignment.
Assignment details:	Python-based coding exercises, in the form of Jupyter electronic notebooks, will reinforce the concepts delivered in the first 8 lectures. These are to be completed and submitted through My Department. Rubric will be communicated by lecturer.

Rubric:

Item name/number	Value	Description of marking
Lab exercise	100	Notebook contents including completeness, clarity, and quality

MATE70026 Machine Learning for Materials coursework – Research assignment

Assessment Name:	Research assignment
Academic:	Professor Aron Walsh
Submission:	Blackboard Learn
Self-study hours:	105 independent study hours have been allocated in total, covering weekly reading, and the research assignment.
Assignment details:	A machine learning research assignment will be the focus of lectures 9 and 10. The code is to be submitted along with a verbal walkthrough (narrated PowerPoint presentation) for assessment. Rubric will be communicated by lecturer.

Rubric:

Item name/number	Value	Description of marking
Data Preparation	20	Appropriate pre-processing steps are applied. A high score should plot the data distribution.
Model Choice	20	Model justified by the nature of the problem and the data available. A high score may include testing of multiple model types.
Training and Testing	20	Validation and testing. A high score will include systematic hyperparameter optimisation.
Code Quality	10	Code should be clearly organised and annotated with sensible function and variable names.
Presentation	30	Clarity and conciseness is rewarded. Lose 50% if not within 5 minutes or doesn't cover the three stated sections. Attention paid to depth of understanding, especially for discussing model performance.

Appendix C - Academic Staff List

This list is updated up to the start of academic year 2024-25

Name	Initial	Room	Email
Head of Department			
Prof Sandrine Heutz	SH	2.01c	s.heutz@imperial.ac.uk
Academic Staff			
Prof. Neil Alford	NMA	2.05	n.alford@imperial.ac.uk
Dr Stefano Angioletti-Uberti	SAU	1.08	s.angioletti-uberti07@imperial.ac.uk
Dr Florian Bouville	FB	LM04a	f.bouville@imperial.ac.uk
Dr Andrew Cairns	ABC	1.07	a.cairns@imperial.ac.uk
Dr Michele (Shelly) Conroy	SC	1.06	m.conroy@imperial.ac.uk
Dr Iain Dunlop	ID	1.02	i.dunlop@imperial.ac.uk
Prof. Fionn Dunne	FD	1.04	fionn.dunne@imperial.ac.uk
Prof. David Dye	DD	1.09	david.dye@imperial.ac.uk
Prof. Mike Finnis	MWF	2.27b	m.finnis@imperial.ac.uk
Dr Baptiste Gault	BG	B301F	b.gault@imperial.ac.uk
Dr Oriol Gavalda Diaz	OGD	1.04	o.gavalda-diaz@imperial.ac.uk
Prof. Theoni Georgiou	TG	1.05	t.georgiou@imperial.ac.uk
Prof. Finn Giuliani	FG	LM04D	f.giuliani@imperial.ac.uk
Prof. Christopher Gourlay	CG	B301D	c.gourlay@imperial.ac.uk
Prof. Sir Robin Grimes	RWG	B301C	r.grimes@imperial.ac.uk
Dr Nima Haghdadi	NH	301E	n.haghdadi@imperial.ac.uk
Dr Stephen Hanham	SH	B333	s.hanham@imperial.ac.uk
Prof. Peter Haynes	PH		p.haynes@imperial.ac.uk
Dr Chun Ann Huang	CAH	B338	a.huang@imperial.ac.uk
Dr Samuel Humphry-Baker	SHB	LM.04D	s.humphry-baker@imperial.ac.uk
Prof. Julian Jones	JRJ	2.07	julian.r.jones@imperial.ac.uk
Prof. John Kilner	JK	2.14	j.kilner@imperial.ac.uk
Prof. Johannes Lischner	JL	B342	j.lischner@imperial.ac.uk
Prof. Cecilia Mattevi	CM	2.11	c.mattevi@imperial.ac.uk
Prof. Martyn McLachlan	MAM	203C	martyn.mclachlan@imperial.ac.uk
Prof. Arash Mostofi	AAM	B332	a.mostofi@imperial.ac.uk
Prof. Mark Oxborrow	MO	2.04	m.oxborrow@imperial.ac.uk
Prof. David Payne	DP	2.09	d.payne@imperial.ac.uk
Prof. Tony Paxton	TP		t.paxton@imperial.ac.uk

Dr Stella Pedrazzini	SP	1.18	s.pedrazzini@imperial.ac.uk
Dr Peter Petrov	PP	2.03d	
Dr Minh-Son Pham	M-SP	B301F	son.pham@imperial.ac.uk
Prof. Alexandra Porter	AEP	B341	a.porter@imperial.ac.uk
Prof. Jason Riley	DJR	B3.37	jason.riley@imperial.ac.uk
Dr Reshma Rao	RR		reshma.rao@imperial.ac.uk
Prof. Eduardo Saiz Gutierrez	ES	LM04.B	e.saiz@imperial.ac.uk
Prof. Milo Shaffer	MS	B334	m.shaffer@imperial.ac.uk
Prof. Stephen Skinner	SJS	2.06	s.skinner@imperial.ac.uk
Prof. Ifan Stephens	IS	2.03B	i.stephens@imperial.ac.uk
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