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The start of the year

Freshers’ week
The first week of term is dedicated to welcoming new students into the College. The Department has a range of activities for first year students, but on the Friday of this week all students are invited to lunch with their personal tutor.

Updating your contact information
Most often 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. So make sure that any changes are updated on your student e-service.
If your phone number(s) and/or address change during the year, remember to include us in the list of people you tell about the change.

College Identity Card
The college identity card is more than that. It is your key to the computer room and the key that will let you out the front door after 6 pm, it will get you discount on food sold by the College and it will identify you to others as a genuine Imperial student who has every right to be on the premises. You should carry it at all times.
If you have followed the instructions on the new students website and uploaded a photo in time, then your hall of residence will be holding your card for you. If you have uploaded a picture in time and do not stay in any of the halls of residence, then we should have received your card in the Student Office (G03).
Otherwise, you will have to take a stamped registration document or a print out after registering online and courageously queue outside the security ID card office:
Room 151, Level 1, Sherfield Building
Opening hours: Monday to Friday 08:30 to 10:30, 12:00 to 14:00, 15:45 to 16:45.

Official documents
For example: statements of attendance, letters for banks or transcripts. All document requests are dealt with by the Student Hub (Level 3, Sherfield Building), full details of which are found at: http://www.imperial.ac.uk/student-hub/our-services/student-records/. To avoid queues at the Student Hub, you can request certificates online: https://imperial.service-now.com/studenthub/. Please allow 5 working days for transcripts. Due to the extremely high volume of requests at registration time, they may take slightly longer. Registry can not respond to every e-mail received, so if you do not receive a reply, this does not mean that they did not receive your request. All posted documents are sent out by second class post.

Council Tax Certificates
Council Tax Exemption Certificates can be obtained from Registry; you do not need to request the document in advance, just take your college ID in to Registry to collect one. If you need the certificate to be posted to you, please e-mail registry.support@imperial.ac.uk stating the address to which you would like it sent. Further information can be found at: http://www.imperial.ac.uk/student-hub/our-services/student-records/
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 degree when more substantial written work such as the literature review, the design study or the research project are assessed.

If you feel you would benefit from further lessons, there is an English language support offered by the Centre for Academic English and if you wish to register for any of the classes offered you should contact the Student Office immediately to enquire about registration.

The 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 Centre’s website:

http://www.imperial.ac.uk/academic-english and http://www.imperial.ac.uk/academic-english/undergraduate-and-exchange-students/

Students with disabilities, specific learning difficulties or long-term health issues

At Imperial College we recognise that studying at university can be a challenge, especially if you have a disability. We are keen that you have every opportunity to fulfil your potential and graduate with the degree you deserve. It is therefore important that you let us know about any disability, specific learning difficulty or health problem as soon as possible so that we can give expert advice and support to enable you to do this.

Some people never think of themselves as having a disability, but students who have experienced any of the issues listed below have found that a little extra help and support has made all the difference to their study experience.

- Specific learning difficulties (such as dyslexia, dyspraxia, AD[H]D)
- Autistic spectrum disorder (such as Asperger’s)
- Deafness or hearing difficulties
- Long term mental health difficulties (such as chronic anxiety, bipolar disorder, depression)
- Medical conditions (such as epilepsy, arthritis, diabetes, Crohn’s disease)
- Physical disabilities or mobility impairments
- Visual difficulties

Where to find help

Your Disability Liaison Officer: Dr Paul Franklyn (p.franklyn@imperial.ac.uk, ext. 46725 office: G03b)

Dr Paul is your first point of contact within the department and is there to help you with arranging any support within the department that you need. He is also the person who will apply for Special Examination arrangements on your behalf. You need to contact him without delay if you think that you may need extra time or other adjustments for your examinations.
Disability Advisory Service

What does the Disability Advisory Service do?

- DAS offers confidential advice and practical support to disabled students, including those with enduring health or mental health conditions, specific learning difficulties and autism.
- Provides study skills support with specific learning difficulties (PpLDs) Tutors.
- Offers referrals for other specialist support (e.g. study mentors).
- Facilitates academic and other support within the College, including DDOs.
- Provides a gateway to additional or alternative support.
Disability Advisory Service

- Confidential advice, referral and support
- Contact details: Telephone: 020 7594 9755
- Email: disability@imperial.ac.uk
- Office: Room 566, 5th Floor of Sherfield Building
- Further information is available on our website: www.imperial.ac.uk/disabilityadvisoryservice
Promoting inclusion and diversity through teaching and learning

“We will foster an inclusive and diverse community where different backgrounds and cultures in staff and students are cherished and celebrated, and their different cultural experiences and identities are embraced in order to better prepare all students for an increasingly diverse and complex future work environment. We will foster a culture that understands and embodies the values of diversity and inclusivity, ensuring this is reflected in campus life, in the curriculum, and in the application of knowledge to real-life problems in a global context.

ICL Inclusive Teaching and Learning Strategy, June 2016

Disability disclosure

What are the ways of disclosing?

- Disclosing as part of your UCAS application to Imperial College London
- Disclosing to the Disability Advisory Service
- Disclosing to your department
- Disclosing by amending your student record

Can you think of some advantages and disadvantages of disclosing?
FAQs

Q. I’m ill and I won’t be able to complete my work before the deadline

A. In such circumstances you might be granted an extension if you apply before the deadline, and you can discuss this with the Student Office. Remember to inform us if you are going to be absent from College because you are unwell. You will also need to complete a Mitigation form, available from Blackboard in the General Information folder: complete either Minor or Major as appropriate).

Q. I’m really struggling with the course/things are difficult at home

A. In the first instance, try and speak to your Personal Tutor. Alternatively you can speak to Dr Paul Franklyn, the Senior Tutor: p.franklyn@imperial.ac.uk; office number: G03b

Q. I’m ill and I won’t be able to attend my lab session

A. Speak to the Student Office as far in advance as possible, and before your lab session is scheduled to take place.

Term dates:

**Autumn Term:** Saturday 30th Sept—Friday 15th December
**Spring Term:** Saturday 6th January—Friday 23rd March
**Summer Term:** Saturday 28th April—Friday 29th June

You are not permitted to travel outside of term dates (i.e. for holidays)

Something else?

Come and speak to the Student Office, or your Personal Tutor.

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Student Office: G03 | Opening hours: 08:45-16:15
E-mail: fiona.thomson@imperial.ac.uk; raj.adcock@imperial.ac.uk; e.calik@imperial.ac.uk
Departmental Undergraduate Programme website: [http://www.imperial.ac.uk/engineering/departments/materials/courses/](http://www.imperial.ac.uk/engineering/departments/materials/courses/)
The Undergraduate Team

The Student Office is in G03 and is open from **08:45-16:15**. However, if the matter is urgent you will be seen outside of these times. There will almost always be someone there to help you if you need it and you can approach any of us. If, unusually, the office is closed, there will be a notice to tell you when it will re-open. An appointment to see either the Senior Tutor or the Director of Undergraduate Studies can be made for you here.

**Dr Martyn McLachlan**
Director of Undergraduate Studies (DUGS): *The Director of Undergraduate Studies oversees the organisation of all teaching in the Department and chairs the teaching committee.*

Tel: 020 7594 9692  
E-mail: martyn.mclachlan@imperial.ac.uk  
Office: G03c

**Dr Paul Franklyn**
Senior Undergraduate Tutor: *The Senior Tutor co-ordinates the support for students.*

Tel: 020 7594 6725  
E-mail: p.franklyn@imperial.ac.uk  
Office: G03b

**Mrs Fiona Thomson**
Head of Student Administration  
Tel: 020 7594 6726  
E-mail: fiona.thomson@imperial.ac.uk  
Office: G03

**Mrs Raj Adcock**
Undergraduate and MSc Administrator  
Tel: 020 7594 6728  
E-mail: raj.adcock@imperial.ac.uk  
Office: G03

**Miss Ela Calik**
Student Office Administrator  
Tel: 020 7594 6768  
E-mail: e.calik@imperial.ac.uk  
Office: G03
Undergraduate Course Content

All of the courses share the same first two years, covering the production, structure and properties of engineering materials. The basic principles are taught in increasing depth throughout these two years and are reinforced by laboratory work, industrial visits and lectures, as well as tutorials and case studies. The first two years provide a strong base of theoretical principles and cover a wide range of materials, including metals and alloys, ceramics, glasses, polymers, biomaterials, composites and semiconductors.

The final year of the BEng programmes emphasise the application of knowledge and skills, as well as providing an element of specialisation. Core lectures for all students include Materials Characterisation and a Business course, the Integrated Engineering Portfolio which includes the Design Study, Literature Review, etc. Option courses are:

### Year 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 307</td>
<td>Engineering Alloys</td>
</tr>
<tr>
<td>MSE 308</td>
<td>Ceramics and Glasses</td>
</tr>
<tr>
<td>MSE 309</td>
<td>Polymers and Composites</td>
</tr>
<tr>
<td>MSE 310</td>
<td>Electronic Structure &amp; Opto-Electronic Behaviour</td>
</tr>
<tr>
<td>MSE 312</td>
<td>Nanomaterials 1</td>
</tr>
<tr>
<td>MSE 315</td>
<td>Biomaterials</td>
</tr>
<tr>
<td>MSE 317</td>
<td>Materials Modelling</td>
</tr>
<tr>
<td>MSE 316</td>
<td>Horizons/Management</td>
</tr>
<tr>
<td>MSE 318</td>
<td>Surfaces and Interfaces</td>
</tr>
</tbody>
</table>

### Year 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 409</td>
<td>High Performance Alloys</td>
</tr>
<tr>
<td>MSE 410</td>
<td>Advanced Thin Films Manufacturing</td>
</tr>
<tr>
<td>MSE 411</td>
<td>Electroceramics</td>
</tr>
<tr>
<td>MSE 412</td>
<td>Nanomaterials 2 (Prerequisite: Nanomaterials 1)</td>
</tr>
<tr>
<td>MSE 413</td>
<td>Advanced Structural Ceramics</td>
</tr>
<tr>
<td>MSE 414</td>
<td>Nuclear Materials 1</td>
</tr>
<tr>
<td>MSE 419</td>
<td>Nuclear Materials 2</td>
</tr>
<tr>
<td>MSE 416</td>
<td>Management/Humanities</td>
</tr>
<tr>
<td>MSE 417</td>
<td>Advanced Biomaterials</td>
</tr>
<tr>
<td>MSE 418</td>
<td>Advanced Tissue Engineering</td>
</tr>
</tbody>
</table>

Students are also encouraged to participate in extra-curricular courses available through the Imperial College Horizons programme across all years.

The third and fourth years of the MEng programmes provide an opportunity to study materials at a greater depth than is possible in the BEng programmes. A minimum 12 week industrial placement and a research project in Year 4 give students a chance to gain more experience and understanding, and to make useful contacts. Specialist courses in the third and fourth years reflect the individual MEng courses; the Biomaterials and Tissue Engineering programme includes the study of cell biology, biocompatibility, and biomaterials for hard tissue restoration, with detailed case studies and specialist courses on biomaterials for soft tissue restoration, tissue engineering, and artificial organs. The Materials and Nuclear Engineering programme introduces students to the various aspects of nuclear materials as well as chemical engineering in the nuclear industry.

The First Year Course

In the first year teaching of the course starts in the second week of the Autumn term. For the next three terms you will be expected to attend and participate in lectures, workshops, tutorials and laboratory classes.

**Lectures** are generally held in the morning with three, one hour lectures between 9:00 and 12:00 on five mornings a week across the autumn and spring terms. Lectures are given to the whole class but of course the style of delivery will vary considerably from one member of staff to another.

During some of the sessions the lecturer may hand out problem sheets, which you will be expected to complete and hand in by the end of the session. These periods are referred to as class-work sessions. **We cannot emphasise too strongly how important it is that you attend all lectures**, and for this reason attendance is monitored regularly so that we can keep in touch and know if anyone is falling behind.
Imperial College Regulations state:

“Undergraduates must inform their Personal Tutor or Senior Tutor if they are absent from College for more than three days during term. If the absence is due to illness a medical certificate must be produced after seven days. If an examination is missed on account of illness a medical certificate must be produced immediately”.

You are expected to attend all lectures and laboratory classes; they are interdependent and together they form the basis for all the knowledge you will build on during your studies.

Therefore, if for any reason you are unable to come in to College, you must contact the Student Office at the start of the day by telephone or e-mail.

<table>
<thead>
<tr>
<th>The Model Student’s Approach to Lectures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>⇒ Turn up (and don’t be late!)</td>
</tr>
<tr>
<td>⇒ Read over the notes of the previous lecture beforehand</td>
</tr>
<tr>
<td>⇒ Listen and take notes where applicable</td>
</tr>
<tr>
<td>⇒ Ask questions</td>
</tr>
<tr>
<td>⇒ Read your notes soon after the lecture</td>
</tr>
<tr>
<td>⇒ Discuss the lecture, and your notes, with other students</td>
</tr>
<tr>
<td>⇒ Complete all the problem sheets</td>
</tr>
<tr>
<td>⇒ Check your notes against the same material in textbooks</td>
</tr>
<tr>
<td>⇒ File your notes carefully</td>
</tr>
</tbody>
</table>

The College runs a system known as Student Online Evaluation (SOLE) whereby, towards the end of the autumn and spring terms, students are asked to comment in detail on each lecture course, using a standard computer based system. This exercise assists the Department to monitor student satisfaction with the courses and ensure a high quality of delivery is maintained. The reports are made available on line and each lecturer receives a personal copy.

**Feedback sessions** consist of group sessions held once or twice a week and last for about an hour. Usually sessions are given in groups of ~30. These sessions are extremely useful as they allow you to discuss and review parts of the course in a small group and you will find that you develop a much deeper understanding through attendance at these regular sessions. Prior to some of these sessions, the lecturer will hand out problem sheets for completion and you should always ensure that these are completed before the session so they can be discussed and reviewed. You will also attend skill based and mathematic tutorials with your Personal Tutors. Personal tutorials are for you to discuss areas such as laboratory reports, examinations, personal development, summer placements and the like. Wasting your tutor’s time by not attending is not acceptable.

**Laboratory classes** are held twice a week on Mondays and Thursdays in the Autumn and Spring term. They complement the lecture courses and allow you to develop practical skills. After the labs you will be required to submit an electronic lab report (PDF format) online using Blackboard **(submission is always the next day after the date of the lab)**, which will be marked and will contribute towards your degree. You will get the marks and feedback directly from Blackboard as well, usually within 14 days. The format will vary according to the demands of each lab.

For all lab reports the deadline for submission of your work is the next day at 9am for the short labs and 7 days at 9am after the long lab session. Where the deadline falls outside the term dates, it is replaced by the first Monday of the next term.
Work will not be accepted without a cover sheet, so please make sure that ALL coursework, including essays etc. has the completed front cover sheet giving all of the information required in each section: your full name in capitals, the subject title, the name of the person who will mark the work, and the name of the supervisor of the lab.

The cover sheet includes a declaration concerning plagiarism. Each lab experiment has its own cover sheet. You will be required to complete the relevant sections of the experiment-specific cover sheet at the front of the lab script you have downloaded and printed from Blackboard for all lab reports. This must be completed and signed by your lab demonstrator on the day of your practical experiment. You must then scan each completed cover sheet and submit it as the first page of that lab report. For other assignments, you may be given a specially prepared cover sheet by your supervisor. If you are not, a blank cover sheet available on Blackboard or can be collected from the Student Office (G03). This must be adapted in a manner appropriate to the particular piece of coursework concerned.

If you are to hand in a piece of work to the Student Office, it will be stamped with the date of receipt and should be submitted no later than midday. During ‘out of hours’ time, work can be ‘posted’ in the letterbox outside the Student Office and it will be stamped as received on the following day.

Coursework which is late will also be stamped with the date of receipt and will be penalised according to the following rule:

*Any late submissions will be marked as a zero unless an extension (previously granted by the Student Office) has been confirmed due to mitigating circumstances and a form submitted.*

**The working language at Imperial College is English** and it is therefore important for you to be able to use the language correctly and well. During the first year, you will be required to write several reports and essays and also to give a verbal presentation of a piece of work. It is very important for you to be able express yourself clearly and without ambiguity and to realise that the ability to do this gives you a great advantage in College, at job interviews, in the workplace and throughout your career. Comments will be made on your written work when it is marked. Your ability to communicate in writing will be assessed, as well as the technical content.

**Course Content**

In the first year you will study courses as follows:

<table>
<thead>
<tr>
<th>MSE 101 Mathematics and Computing</th>
<th>MSE 102 Materials Chemistry and Biology</th>
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</thead>
<tbody>
<tr>
<td>MSE 103 Mechanical Behaviour</td>
<td>MSE 104 Structure and Properties of Materials</td>
</tr>
<tr>
<td>MSE 105 Materials Physics</td>
<td>MSE 106 Materials Engineering</td>
</tr>
</tbody>
</table>

Full descriptions of all modules are available on Blackboard and via the Departmental Student System (DSS—this is where you can select your module options in Year 3 and Year 4).
MSE 101 Mathematics and Computing:

Dr Andrew Horsfield, Prof Peter Haynes, Dr Paul Tangney, Dr Arash Mostofi, Dr Iain Dunlop and Dr Paul Franklyn

The course involves 48 hours of lectures and class work sessions in the autumn and spring terms, reinforced by weekly tutorials. It is a maths course and is designed to ensure that you have sufficient ability to cope with the mathematical concepts in the materials course.

There will be a two-hour maths test at the start of the summer term, the questions for which will be adapted from the tutorial problem sheets and a question will also be included in the Progress Test taken in January. There will be a three-hour exam in June.

The computing course is given as a series of tutorials in room G08 to teach you to use MATLAB. This part of the course is assessed by a short online quiz at the end of each session.

All marks from the maths test and computing coursework is incorporated into the final Mathematics unit mark.

MSE 102 Materials Chemistry and Biology:

Dr Martyn McLachlan, Prof Jason Riley, Dr Ian Dunlop, Dr Sandrine Heutz, and Dr Alexandra Porter

This series of lectures is designed to introduce the main principles of thermodynamics, electrochemistry, kinetics and Biomaterials and their application to the stability of materials. For those of you who did not do an A-level in Chemistry, a Preliminary Chemistry course will be given in the department at the beginning of the autumn term.

There will be a one-hour test in the summer term, and a three-hour exam in June. The course is backed up with tutorials and a series of chemistry laboratories held in the spring term.

MSE 103 Mechanical Behaviour:

Dr Andrew Horsfield

The Mechanics course focuses mainly on statics with some aspects of mechanics of materials and it takes place in the spring term. In the Mechanics course, the basis of mechanics will be outlined and related to the performance of materials. The course will be assessed by two tests in the spring term.

MSE 104 Structure and Properties of Materials:

Dr Mark Wenman, Prof Eduardo Saiz, Prof Milo Shaffer, Prof Aron Walsh, and Dr Paul Franklyn

This course gives you an appreciation of the Major classes of materials (metals, ceramics, polymers, glasses, composites and soft matter), and the relationship between their chemistry, processing, microstructure and properties. The course is reinforced with tutorials, a series of assessed laboratories and a test with a three hour exam in the summer term.
Crystallography  
Dr Michael Rushton

This element of the course runs throughout the autumn term and from it you will gain an understanding of the fundamental principles of crystal structures, a subject which complements both MSE 104 and MSE 105. The course is assessed by three tests taken throughout the autumn term.

MSE 105 Materials Physics:
Prof Jason Riley, Dr Ainara Aguadero, Prof Norbert Klein, Dr David Payne and Dr Fang Xie
This course is designed to extend your knowledge of atomic structure and bonding and wave theory and to give you an understanding of how to apply your knowledge to electronic, dielectric and magnetic materials and devices. The course is delivered in the autumn and spring terms and there will be a three-hour exam in the summer term. The course is backed up by tutorials and a series of laboratories held in the spring term.

MSE 106 Materials Engineering:
This course has three components:
1. Skills Based Tutorials
Personal Tutors
You will also receive general instruction in your tutorial groups on a number of more general skills which will broaden your knowledge and which are particularly useful in an applied subject such as Materials Science. Topics in the second year include CV preparation and personal development. In first year, report writing, errors, exam revision and techniques and presentation skills are covered. To complement this last activity there is a presentation competition where each student gives a short talk in one of the tutorial sessions and is assessed by the personal tutor and contributes to your overall coursework mark.
3 tutorials: introduction to public speaking, practice talk and final talk: Summer term

2. Computer Aided Design
Dr Benjamin Richards
How to use SolidWorks; Generating parts; 3D sketching, including with planes; Construct assemblies; Production of technical drawings.
4 x two hour sessions (30 minute lecture followed by 90 minute tutorial): Spring term

3. Engineering Drawing
Dr Xin Wang and Mr R Stracey
Master and apply sketching techniques; Produce clear, neat and accurate sketches; Understand projection, projector and orthographic projection; Understand the standard indication of projection system; Produce high quality elevation, plan and end view; Understand dimensioning technique; Comment on the quality of engineering drawing; Understand isometric projection and oblique projections; Reconstruct the object according to given engineering drawing.
3 afternoon sessions: Summer term.
Drop-in sessions every second Wednesday 1pm to 2pm
Room G03B

Do you have to put more effort into these techniques, even though you are very good at your subject?

YES?!

Come and talk with us at a ‘drop in’…
Tests and Examinations

All Year 1 examinations will take place from the week commencing 29th May 2018. Tests are scheduled throughout the academic year and these will be shown on your timetables.

Preparing yourself:

Any student who wants to bring any circumstances which have affected their ability to prepare for the exams or to perform to standard in the exams, to the attention of the Board of Examiners must complete a Major Mitigation Form and submit this to the Student Office with any supporting documents available.

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 all the lecture notes, class work and worked solutions and should have completed the following actions:

- You have looked at past papers – exam papers for the last 2 years are available on Blackboard (please note that model answers/solutions are not provided).
- You know what is going to be covered in the exam and the format of the examination paper.
- You know when and where the exam will take place.
- You are familiar with the use of the examination calculator. In all College examinations you will have to use the standard calculators supplied by the Department because you will not be allowed to use your own calculator. If you want to get accustomed to using this calculator before the exams you can arrange to borrow one from the Student Office.
- If you are registered dyslexic you should inform the Student Office 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.

Just before the start of the exam:

- Be in plenty of time for the exam, allowing for public transport etc. if necessary. You will be allowed into the exam hall about five minutes before the start of the exam. All personal belongings should be left in the room assigned.
- Be absolutely sure you have NO revision notes on your person when you take your seat. You risk disqualification if you forget this.
- You will need to check the candidate list and seating plan displayed by the door to the exam room.
- Do not look at the exam paper until you are told to do so by the invigilator.

**If you are too unwell** to sit an exam it is possible to miss the exam and sit an alternative test during the summer (normally in August), however, if this is the case you must consult a doctor on the day of the exam and obtain a letter from him/her 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. Completion and submission of a Major Mitigation form is essential if your case is to be considered.
During the exam:

- At the start of the exam there will be a number staff members present. You will be told when you can start the paper and when you must stop work.
- Staff will act as invigilators and will supervise the exam and patrol the examination room from time to time. Several different members of staff may share the invigilation duties 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 board 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).
- 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 exam room under supervision to use the toilet. Again you should inform the invigilator by raising your hand and he/she will 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.

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. Exam results are not official until they have been considered by the External Examiners (academics from other Materials departments in the country) and there has been an examiners meeting (this takes place at the end of the summer term). After this has taken place Registry will upload all your marks (exams and coursework) online to your student e-service sometime during July and until that time we are not able to disclose any marks to you. However, we are able to give an indication of overall year performance but no further information will be released.

**Departmental Policy: Failures**

**General policy:**

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

All undergraduates are kept fully informed of the academic requirements of their courses through documentation issued at the start of each year, and are given details of the marking schemes and other notices on Blackboard and in your individual handbooks. This makes it absolutely clear that students who fail to achieve the minimum requirements must expect to withdraw from the College and the possibility of repeating a failed year is NOT mentioned.

**Coursework failures:**

There is a requirement that our students achieve a sufficiently high overall mark in coursework in order to pass the year. All students are made well aware of (i) the importance of coursework and the need to achieve an aggregate mark of at least 40% of the total coursework mark; and (ii) the individual marks carried by coursework in each subject. You are encouraged to monitor your own progress as each piece of graded work is returned during the year.

There are deadlines for the submission of each piece of coursework, with penalties for late submission as stated before, but if any student cannot carry out practical work at a scheduled time or submit a report by a particular deadline because of a medical or personal problem, then alternative arrangements can be made if contact is made with the Student Office.
Given the above, and in the absence of any convincing extenuating circumstances, the Materials Department does not offer students who have failed coursework the opportunity to repeat the year. They are required to withdraw from the College.

Marginal exam failures:

Students who fail examinations by a small margin may be offered the chance to take a Supplementary Qualifying Test (SQT) in August, commencing 20th August 2018 (TBC).

In accordance with College policy, the pass mark for an SQT is 40% and therefore results are capped at this score. Students who fail are deemed to have failed the year and are required to withdraw from the College as explained below.

Other examination failures:

Students who fail examinations by a significant margin are required to withdraw from the College, but with the right to return on one occasion to take all the examinations again the following year, provided always that they have achieved a satisfactory mark in coursework (>40% when all coursework is considered together).

Overall performance:

In addition to these criteria, students also have to achieve a sufficiently high overall mark for the year (combined exams and coursework). For students on the BEng programme in the first, second and third year this is 40%, and in the third year of the MEng course this is 60%.

**Accommodation for SQTs:** If you will require accommodation during the SQT period please do visit the accommodation website for further information and to check availability [http://www.imperial.ac.uk/study/campus-life/accommodation/current-residents/vacancies/resit/](http://www.imperial.ac.uk/study/campus-life/accommodation/current-residents/vacancies/resit/)

“It may be possible for you to apply to stay in College accommodation when you resit for your exams. To be eligible to apply you must ask your department to send an e-mail directly to accommodation@imperial.ac.uk to confirm that you are returning to re-take exams and supply full details.”
First Year (12.5% BEng, 11.1% MEng):

<table>
<thead>
<tr>
<th>Modules</th>
<th>Lecture Hours</th>
<th>Exam marks</th>
<th>CW marks</th>
<th>Pass mark</th>
<th>ECTS</th>
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<tbody>
<tr>
<td>MSE 101 Mathematics and Computing</td>
<td>63</td>
<td>110</td>
<td>25</td>
<td>40%</td>
<td>12</td>
</tr>
<tr>
<td>(Exam 100, Progress Exam 10, Computing 15, 1 Test 10)</td>
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<td></td>
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<tr>
<td>MSE 102 Materials Chemistry</td>
<td>60</td>
<td>110</td>
<td>41</td>
<td>40%</td>
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<td>(Exam 100, Progress Exam 10, 5 labs* 25, 2 long labs* 16)</td>
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<tr>
<td>MSE 103 Mechanical Behaviour</td>
<td>20</td>
<td>38</td>
<td>40%</td>
<td>7</td>
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<tr>
<td>MSE 104 Microstructure and Properties</td>
<td>60</td>
<td>110</td>
<td>73</td>
<td>40%</td>
<td>12</td>
</tr>
<tr>
<td>(Exam 100, Progress Exam 10, 9 labs* 45, 1 long lab* 8, 2 tests 20)</td>
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<tr>
<td>MSE 105 Materials Physics</td>
<td>60</td>
<td>110</td>
<td>18</td>
<td>40%</td>
<td>12</td>
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<tr>
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<tr>
<td>MSE 106 Materials Engineering</td>
<td>25</td>
<td>65</td>
<td>40%</td>
<td>5</td>
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<tr>
<td>Computer aided design 40</td>
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<tr>
<td>3 technical drawing assignments 15</td>
<td></td>
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<tr>
<td>Presentation exercise 10</td>
<td></td>
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</table>

Coursework Total 260

Exam Total 440

Grand Total 700

There will be a January progress test worth 40 marks assessing material from the Autumn term plus four June exams worth 100 marks in each of MSE 101, 102, 104 and 105.

**Qualification to Proceed to the Second Year**

In order to proceed to the second year students must normally pass each course with a minimum of 40%, pass coursework with a minimum of 40% and achieve an overall aggregate mark of 40% for the year.

**Contribution to the Honours Degree Classification**

Marks associated with the first year contribute towards 11.1% of the overall honours degree classification for MEng and 12.5% for MEng.
Labs associated to the modules:

MSE 102:  
Long lab: Titration  
Long lab: Polymers Processing  
Iodine Clock  
Rheology  
Synthesis of Polymers  
Gold Nano  
Viscosity of Glass

MSE 104:  
Long lab: Fracture Impact  
Metallography  
Steels  
Cooling Curve  
Tensile 1 & 2  
Glass Transition  
Brass Rolling  
Bubble Raft  
Casting  
Creep

MSE 105:  
Long lab: Crystal Radio & FET  
PEO  
B-H Loop
Dean’s List:
The performance of students who achieve an end of year mark greater than 70% and are in the top 10% of students in the year, as determined by end of year mark, will be placed on the Dean’s list.

Prizes:
The Rolls Royce and Armourers and Brasiers Prize is awarded to the top two performing first year students.
Looking to get the most out of your degree?
The Imperial Horizons programme offers a wide range of courses for all Imperial College undergraduates. It is designed to broaden your education, inspire your creativity and enhance your professional impact. Over 80 different short course options are available from four fields of study throughout your undergraduate degree.

Incoming 1st Year students (in October 2017) may register for Horizons classes from Monday 4th September until Monday 9th October. Allocations will be confirmed on Friday 20th October. Please see the Imperial Horizons website for further information: http://www.imperial.ac.uk/horizons/course-options/first-year-undergraduates/

First Years (Tuesdays: 4-6pm)

<table>
<thead>
<tr>
<th>Course</th>
<th>Total number of weeks</th>
<th>Autumn Term</th>
<th>Spring Term</th>
</tr>
</thead>
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<tr>
<td>Business &amp; Professional Skills</td>
<td>8</td>
<td>24 Oct - 12 Dec 2017</td>
<td>16 Jan - 6 Mar 2018</td>
</tr>
<tr>
<td>Global Challenges</td>
<td>8</td>
<td>24 Oct - 12 Dec 2017</td>
<td>16 Jan - 6 Mar 2018</td>
</tr>
<tr>
<td>Languages &amp; Global Citizenship</td>
<td>19</td>
<td>24 Oct - 12 Dec 2017</td>
<td>9 Jan - 19/20 Mar 2018</td>
</tr>
<tr>
<td>Science, Culture &amp; Society</td>
<td>8</td>
<td>24 Oct - 12 Dec 2017</td>
<td>16 Jan - 6 Mar 2018</td>
</tr>
</tbody>
</table>

"There were many positives from the course, for example the hands on activities and the group engagement activities.... I loved having the opportunity to take part"
# Departmental Staff List

## Academic Staff

### Head of Department:

<table>
<thead>
<tr>
<th>Name</th>
<th>Initials</th>
<th>Office</th>
<th>Email</th>
</tr>
</thead>
<tbody>
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<tr>
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<td><a href="mailto:a.porter@imperial.ac.uk">a.porter@imperial.ac.uk</a></td>
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<tr>
<td>Prof Jason Riley</td>
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<td><a href="mailto:jason.riley@imperial.ac.uk">jason.riley@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Prof Mary Ryan</td>
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</tr>
<tr>
<td>Prof Stephen Skinner</td>
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<td>203B</td>
<td><a href="mailto:i.stephens@imperial.ac.uk">i.stephens@imperial.ac.uk</a></td>
</tr>
</tbody>
</table>
### Academic Staff continued

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
<th>Room</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof Molly Stevens</td>
<td>MMS</td>
<td>208</td>
<td><a href="mailto:m.stevens@imperial.ac.uk">m.stevens@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Dr Paul Tangney</td>
<td>PT</td>
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<td><a href="mailto:p.tangney@imperial.ac.uk">p.tangney@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Dr Luc Vandeperre</td>
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</tr>
<tr>
<td>Prof Aron Walsh</td>
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<td><a href="mailto:a.walsh@imperial.ac.uk">a.walsh@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Dr Mark Wenman</td>
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</tr>
<tr>
<td>Dr Fang Xie</td>
<td>FX</td>
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<td><a href="mailto:f.xie@imperial.ac.uk">f.xie@imperial.ac.uk</a></td>
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### Student Office Staff:

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
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<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs Fiona Thomson</td>
<td>FT</td>
<td>G03a</td>
<td><a href="mailto:fiona.thomson@imperial.ac.uk">fiona.thomson@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Mrs Raj Adcock</td>
<td>RA</td>
<td>G03a</td>
<td><a href="mailto:raj.adcock@imperial.ac.uk">raj.adcock@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Miss Ela Calik</td>
<td>EC</td>
<td>G03a</td>
<td><a href="mailto:e.calik@imperial.ac.uk">e.calik@imperial.ac.uk</a></td>
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### Teaching Fellows:

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<tbody>
<tr>
<td>Dr Ahu Parry</td>
<td>AP</td>
<td>G04</td>
<td><a href="mailto:ahu.parry@imperial.ac.uk">ahu.parry@imperial.ac.uk</a></td>
</tr>
<tr>
<td>Dr Manjula Silva</td>
<td>MS</td>
<td>G04</td>
<td><a href="mailto:k.silva@imperial.ac.uk">k.silva@imperial.ac.uk</a></td>
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Appendix A  Undergraduate Year Weightings

Faculty of Engineering

<table>
<thead>
<tr>
<th>Degree</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<tr>
<td>BEng</td>
<td>1 (12.5%)</td>
<td>3 (37.5%)</td>
<td>4 (50%)</td>
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<tr>
<td>MEng</td>
<td>1 (11.1%)</td>
<td>2 (22.2%)</td>
<td>3 (33.3%)</td>
<td>3 (33.3%)</td>
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</table>