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1. Welcome
1.1 Welcome to the College

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

From Fleming’s discovery of Penicillin to Gabor’s invention of holography, Imperial’s 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.

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

We actively encourage you to seek out help when you need it and try to maintain a healthy work-life balance. Our choice of over 340 clubs, societies and projects is one of the largest of any UK university, making it easy to do something different with your downtime. You also have free access to gym (following a one–off orientation fee of £40 in 2017) and swimming facilities across our campuses.

1.2 Welcome from the Head of School

The MEng in Design Engineering helps you develop a diversity of skills and expertise. We are excited at the opportunity of working with you over the coming years as you enter the world of design engineering and contribute towards the development of society and the domain.

This document serves a number of purposes including helping to introduce you to key information which will be helpful during the welcome week and as you settle in. In addition the document provides an overview of the MEng in Design Engineering which will be useful throughout your degree programme. The document has been developed with input from several staff members and is updated regularly so do source the online version for the latest information.

As a student of Imperial College London, the Students’ Union, fellow students, social media and staff are all part of your new network and we encourage you to engage with all of these, and we also encourage you to seek out the staff with your queries – it’s what we are here for.

Welcome to the MEng in Design Engineering.

All the best,

Professor Peter Childs
Head of Design Engineering
Meet the School Teaching Staff

Prof. Peter Childs  
Head of School  
p.childs@imperial.ac.uk

Prof. Peter Cheung  
Professor  
p.cheung@imperial.ac.uk

Dr Marco Aurisicchio  
Reader in Engineering Design  
m.aurisicchio@imperial.ac.uk

Dr Weston Baxter  
Lecturer  
weston.baxter@imperial.ac.uk

Dr David Boyle  
Lecturer  
david.boyle@imperial.ac.uk

Dr Michel-Alexandre Cardin  
Senior Lecturer  
m.cardin@imperial.ac.uk

Prof. Rafael Calvo  
Professor, Chair in Engineering Design  
r.calvo@imperial.ac.uk

Dr Sam Cooper  
Lecturer  
samuel.cooper@imperial.ac.uk

Aran Dasan  
Senior Teaching Fellow (on sabbatical)  
a.dasan@imperial.ac.uk

Dr Pelin Demirel Liu  
Senior Lecturer  
p.demirel@imperial.ac.uk

Dr Chandramohan George  
Lecturer  
chandramohan.george@imperial.ac.uk

Dr Mazdak Ghajari  
Senior Lecturer  
m.ghajari@imperial.ac.uk

Dr Stephen Green  
Senior Teaching Fellow  
stephen.green@imperial.ac.uk

Dr Hamed Haddadi  
Senior Lecturer  
h.haddadi@imperial.ac.uk

Eva-Maria Kirchberger  
Senior Teaching Fellow  
e.kirchberger@imperial.ac.uk

Dr Petar Kormushev  
Lecturer  
p.kormushev@imperial.ac.uk

Olga Kravchenko  
Teaching Fellow  
olkavchenko@imperial.ac.uk

Dr Nan Li  
Lecturer  
n.li09@imperial.ac.uk
2. Key Contacts
2.1 School Officers

Most of our academic staff and many other members of the School are engaged in teaching, but as an undergraduate student there are a few you will see and hear from more often.

Staff can be away from their desks therefore whenever possible contact the person you wish to speak with via email in advance to arrange an appointment.

**Head of School (HoS)**
Professor Peter Childs

*The Head of School is responsible to the University for all of the School’s activities, both teaching and research.*

Floor 1, Dyson Building
p.childs@imperial.ac.uk

**Director of Undergraduate Studies (DUGS)**
Dr Lorenzo Picinali

*The DUGS is responsible for all the undergraduate programmes in the School.*

Floor 1, Dyson Building
l.picinali@imperial.ac.uk

**Senior Tutors**

- Dr Mazdak Gharjari
  Senior Tutor
  M224, RCS1 Building
  m.ghajari@imperial.ac.uk

- Dr Rebecca Stewart
  Deputy Senior Tutor
  M220, RCS1 Building
  r.stewart@imperial.ac.uk

**Academic Tutor**

Dr Stephen Green
Floor 1, Dyson Building
stephen.green@imperial.ac.uk

*The Academic Tutor is responsible for ensuring that our Students’ academic experience is optimal and continually improving.*

**Departmental Disability Officer**

Freddie Page
Floor 1, Dyson Building
freddie.page@imperial.ac.uk

*The School Disability Officer is your first point of contact if you have a physical or learning disability that requires additional support such as special exam arrangements.*

**Exams Officer**

Dr Michel-Alexandre Cardin
Floor 3, Dyson Building
m.cardin@imperial.ac.uk

*The Exam’s Officer oversees all exams across the School. The Exam Board consists of every academic member of staff and the external examiners.*

**School Safety Officer**

Dr Connor Myant
M224, 2nd Floor (Mezzanine), RCS1 Building
connor.myant@imperial.ac.uk

*The School’s Safety Officer is responsible for the safety of teaching and research in the School. If you have questions or concerns regarding Health and Safety, you can contact the Safety Officer directly.*
2.2 Year Coordinators

Year Coordinators are responsible for the planning and implementation of each year’s curriculum and activities.

**Year 1 Coordinator**
Dr Freddie Page  
Floor 1, Dyson Building  
freddie.page@imperial.ac.uk

**Year 2 Coordinator**
Dr Nan Li,  
M224, 2nd Floor (Mezzanine), RCS1 Building  
n.li09@imperial.ac.uk

**Year 3 Coordinator**
Dr Shayan Sharifi,  
Floor 1, Dyson Building  
s.sharifi@imperial.ac.uk

**Year 4 Coordinator**
Dr Nicolas Rojas  
M229, 2nd Floor (Mezzanine), RCS1 Building  
n.rojas@imperial.ac.uk

2.3 Personal Tutors

A member of staff who will act as your Personal Tutor. You will meet them regularly during the session, in groups and/or individually, to discuss both academic progress and personal topics.

You will find the name and email address of your Personal Tutor during our first week.

**First year of study**
You and your group will be meeting your Personal Tutor four times during the Autumn and Spring Terms, and three times during the Summer Term.

**Other years of study**
If you are in the second, third or fourth year, you will be meeting your Personal Tutor three times during each of the three terms. These meetings will be timetabled, and you will receive information about days, times and locations during the welcome week.

**Individual Meetings**
If you are in need of an individual meeting with your Personal Tutor, you can contact them via email and arrange for a day, time and location. Please do feel free to do this, as the information that your Personal Tutor can supply about your general progress throughout your time here, and any special difficulties you might have experienced can be of benefit to you when decisions affecting your future have to be made. They may also write you reference letters.

If, for whatever reason, you are unable to contact or establish a good rapport with your Personal Tutor, please talk to the Senior Tutors (see preceding page) who may be able to help resolve this.

2.4 Teaching Office

The Programme Administration team are known as the Teaching Office and are here to answer your general queries. You will find them on the Third Floor of the Dyson Building. They will contact you with information during the course of your studies.

**IMPORTANT**
It is important that you read emails from the Teaching Office. They will contain key information you will need to know about your classes and assessments.

The Teaching Office Team are present Monday – Friday 0930-1700 during term time. You are welcome to visit (drop in is fine, no appointment necessary) or email design.engineering@imperial.ac.uk

**Senior UG & PG Administrator**
Momo Rahim  
Third Floor, Dyson Building  
m.rahim@imperial.ac.uk

**UG and PG Administrators**
Lucie Richards and Jess O’Toole  
Third Floor, Dyson Building  
lucie.richards@imperial.ac.uk  
jotoole@imperial.ac.uk

**Office Administrator**
Sophie Skyes  
Third Floor, Dyson Building  
s.skyes@imperial.ac.uk

2.5 Senior Tutors

The Senior Tutors are responsible for the welfare and academic progress of all undergraduate students in the School and work with student representatives to ensure the course is running smoothly. They can offer personal advice and help to any student on both academic and non-academic matters.

The Senior Tutors are also on call during vacations but if for any reason they are unavailable, or you are unsure about who to talk to on a particular issue, please ask a member of the Teaching Office (see above) and they can relay who is best able to help you.

One responsibility of the Senior Tutor team is to maintain records for each student so that, for example:
- You can be notified of your examination results
• You can provide evidence of problems such as ill health, for it to be presented to the Board of Examiners.

Your student file is strictly confidential to the Senior Tutors and their team; no-one else is allowed to consult it.

2.6 Faculty Senior Tutor

In the event of an issue arising within your department there are a number of avenues for you to seek support. This will include, depending on your department, your Undergraduate Senior Tutor(s) and your personal tutor, and in some departments, other designated staff such as year tutors or degree coordinators.

There are a number of avenues within the College to seek help with academic and pastoral matters: http://www.imperial.ac.uk/student-support-zone.

In the event that you would like to seek additional support or guidance, or that you wish to air your issues in confidence, the Faculty Senior Tutor, Dr Lorraine Craig, can be contacted by email l.craig@imperial.ac.uk in the first instance.

Depending on the nature of your query, it may be passed onto other more relevant staff.

2.7 Wellbeing Advisor

Amy Picton, Student Wellbeing Advisor
Room141b, City and Guilds Building
a.picton@imperial.ac.uk

Welcome to all new and returning Undergraduates, as your Student Wellbeing Adviser I am here to offer you wellbeing support within the department.

My role will enhance the wellbeing support you receive from your Personal Tutor and the Student Support Zone. Throughout the year I will offer a non-judgemental listening and advice service. I will be available to speak to on a confidential one to one basis regarding a range of issues and offer practical coping strategies. I will also work closely with College support services to signpost you to further ongoing support.

My role will include developing wellbeing resources, leading workshops and working with elected student wellbeing reps to ensure you have the tools to look after your wellbeing and achieve a healthy work life balance.

If you ever need a listening ear on any topic that is affecting your wellbeing please get in touch. Congratulations on your success and I am very much looking forward to getting to know you and supporting you throughout your time at Imperial.

Personal Tutorial visit to V&A museum - 2017
3. School Comms
Our primary channels for maintaining contact with you is via your Imperial College e-mail and by the Virtual Learning Environment (Blackboard).

3.1 Blackboard
Blackboard is the Virtual Learning Environment for all Design Engineering modules.

Module info
Within Blackboard you will be able to find a section (module shell) for each of the modules you are currently enrolled in. In each module shell you will find information and materials about the specific module, such as:
- module handbook;
- lecture recordings (via ‘Panopto’; see 3.4 below)
- exercise and tutorial notes
- announcements
- tests
- videos
- marking scheme, etc.
- your grades

How to Login
You will be able to login into Blackboard using your Imperial College credentials.

Blackboard Login (link)

Blackboard App
There is also a Blackboard app available on all platforms. You are strongly advised to download this if you have an appropriate device (OSX / Android).

3.2 College Email
The email address issued to you on registration will remain active for one year after you leave Imperial.

You can use this address freely to communicate with other students, staff and people outside the College. We try to email you no more than necessary, but messages will still be necessary and some of these will be very important and, possibly, urgent.

Re-directing Imperial email to a non-Imperial address:
If necessary, College ICT can redirect your mail to a colleague or to a non-Imperial email address (see Computers section for instructions)

Set Up Email Forwarding (link)

IMPORTANT
You must check your e-mail regularly for incoming messages. Any failure to read important communications will not be accepted as grounds for mitigation.

3.3 Late or Absent Teaching Staff
If no lecturer or tutor arrives for a timetabled class, check your timetable to find out who should have been there, and use the teaching staff lists to contact them directly and/or by email or phone.

If this action fails to deliver, contact the Teaching Office and/or a Senior Tutor. Any staff member who has been given leave of absence will have provided the office with details of substitute staff who can cover each teaching duty. It may be this substitute who is missing.

If neither the timetabled staff member nor the substitute can be found, the activity will normally have to be re-scheduled. Such instances are rare, and we are sorry where they do occur. Avoiding this outcome is to the benefit of everyone.

Please feel free to give courteous feedback and raise questions in-person to all staff. If you have an issue and don’t speak up, then the School will not be able to address the matter in a timely manner.
3.4 Lecture Recordings

Some of the lectures given in teaching spaces are equipped with Panopto, a system through which a lecturer and their presentation is recorded. Panopto videos can be viewed directly via the course Blackboard page or the general Panopto page.

Note
If a session is being recorded and for any reason you do not wish to be part of that recording, please sit in an 'off-camera' area (ask the lecturer if you are in doubt) and reserve any questions to the lecturer until recording has ended.

Many students find lecture videos a valuable resource for review and revision. However, a recording cannot possibly replace the shared learning experience of the live lecture, and cannot be relied on for completeness. Occasionally, video captures may fail.

IMPORTANT
It is the School’s intention to make Panopto recordings whenever the facilities allow this. However not all College teaching spaces are fitted with the necessary facilities, so you must not rely on being able to view recordings.

IMPORTANT
Lecture recordings are provided only for personal use by registered Imperial College students, and only for educational purposes.

Any redistribution (e.g. via social media), sharing (even by email), editing or re-use of a lecture video will be treated as misconduct and handled as a disciplinary matter under the Code of Student Discipline.

Login to Panopto video site
Guidelines on audio and video lecture recordings
Code of Student Discipline

3.5 Your Timetable

Your timetable will automatically appear in your Imperial College Outlook calendar and remain in sync with updates.

The easiest and most reliable way to view your calendar is via iCalendar.

iCalendar (link)

Timetables are subject to periodic changes so you should get in the habit of checking your timetable regularly.

Whilst the majority of teaching activity is between 1000–1700 Monday–Friday during term time (except Wednesday afternoons and your Year’s Horizon slot), events can be scheduled between 0900 – 1800.

If you have issues with events not showing up in your iCalendar, please contact the Teaching Office via design.engineering@imperial.ac.uk.
4. Academic Support
4.1 Support for Academic Transition

Students who join Imperial are all academically able, but they come from a wide range of secondary education cultures. Adjusting to the challenge of higher education can be tough, and we offer some special resources to support you.

First and foremost, please take time to explore the new Imperial Success Guide site.

This was put together from a vast amount of collective experience — above all that of many students who were asked what was needed to empower and support them as they started university. The guide brings together information on effective study, assessments and feedback, well-being, workshops and support to ensure that you know where to look for advice and guidance on study skills.

The Imperial Success Guide

4.2 English Classes

The undergraduate course involves a substantial amount of reading and writing, as well as oral presentations. Fluency in English is vital if you are to be successful in the course. The Centre for Academic English runs a series of English classes in the evenings for students who need tuition and practice.

IMPORTANT

Failure to attend these classes could result in you not understanding the lectures and underperforming or failing assessments (i.e. projects, end-of-Term exams, essays and reports, etc.)

Centre for Academic English

4.3 Imperial Horizons

Looking to get the most out of your degree? Imperial Horizons is a programme designed to broaden your undergraduate education, inspire your creativity and enhance your professional impact. The courses are popular and highly rated by students: make your choice and sign up quickly!

You can choose from more than 20 different course options in the following four fields of study:
- Business & Professional Skills
- Global Challenges
- Science, Culture and Society
- Languages and Global Citizenship

Key benefits
- Give yourself a unique edge - These courses will give you opportunities to develop your skills in communication, problem-solving and teamwork.
- Make your degree transcript stand out - Imperial Horizons courses are included on your degree transcript as a valuable selling point for employers.

Study for free during normal teaching hours

All Departments have set aside time for Imperial Horizons:
- 1st Years: 16.00–18.00 on Tuesdays
- 2nd Years: 16.00–18.00 on Mondays
- 3rd / 4th Years: 16.00–18.00 Thursdays

IMPORTANT

First years must register their course preferences on the Imperial Horizons website during Welcome Week, before the deadline of Monday 07 October 2019. Imperial Horizons is a set of extracurricular and non-compulsory activities that are not credited towards your degree.

Info on Imperial Horizons Courses (link)

4.4 Disability Advisory Service

The Disability Advisory Service (DAS) works with individual students, no matter what their disability or level of study, to ensure that they have the support they need. Our Advisors are committed to providing the best possible support for all students at Imperial College.

They understand that each person’s disability can affect them in different ways and therefore the support offered is flexible and tailored. We can also help if you think that you may have an unrecognised study issue or specific learning difficulty such as dyslexia. The Service is confidential and information about your support needs is only passed on to others within the College with your agreement and then only in order that you are fully supported. Our Advisors never pass on information outside the College or to parents unless you ask them to. DAS is also here to support students who may have a temporary or short term disability.

Some of the sorts of things the Disability Advisors can help with are:
- checking that your evidence of disability is appropriate and up-to-date
• arranging a diagnostic assessment for specific learning difficulties
• making recommendations for additional exam arrangements, for example extra time or rest breaks
• arranging extra Library support and access to the Assistive Technology Suite
• supporting applications, where appropriate, for continuing accommodation after your first year.

Your advisor will draw up a “Suggested Reasonable Adjustment” document for you to share with your department which outlines all your support needs and we will fund any additional support agreed by your DAS Advisor. This could include funding for:

• note taking, specialist study skills or mentoring support.
• disability related equipment (note: excludes computers)
• other additional support, for example taxi fares for those who need help with transport.

A disability is any long-term condition that has a substantial impact on your ability to study effectively for example:

• a specific learning difficulty, e.g. dyslexia, dyspraxia
• an enduring mental health condition, e.g. depression, OCD, generalised anxiety disorder etc.
• a visual, hearing, or other sensory impairment
• a social/communication difficulty, e.g. autistic spectrum/Asperger’s syndrome
• a mobility or dexterity impairment

You can book an appointment by dropping in to the office, phoning or sending an email:

The Disability Advisory Service, 
Room 566, Level 5, 
Sherfield Building

020 7594 9755
disabilities@imperial.ac.uk

Departmental Disability Officers (DDOs)

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

Please see section 2.1 School Officers on page 9 for details of the School’s Disability Liaison Officer. More information on Departmental Disability Officers is available at:

Departmental Disability Officers (link)

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

Exam arrangements and disability (link)

4.5 Evening Classes

The Centre for Co-curricular Studies offers evening classes in a broad selection of subjects outside science and technology, such as languages and humanities. Fees are normally due, but these will be considerably less than the equivalent classes held privately.

Information on evening classes (link)

4.6 Central Library

The College’s Central Library is next to the Sherfield Building. It provides access to high quality resources including electronic journals, databases, textbooks, print journals and maps. Computer workstations and wireless access to the College computing network are also available.

More information is available on the library’s website, and new students receive a Library induction course in the first week of term.

The School has a dedicated librarian to guide and support your access to central library resources. They maintain a web page with a blog and hold office hours for consultation (see the web page for details).

Nicole Urquhart - Design Engineering Librarian
Room 110 Central Library
Ext. 41889
n.urquhart@imperial.ac.uk

School librarian’s web page

Library website
4.7 Guidance for the acknowledgement of contributions to project work

In addition to any stipulations regarding acknowledgement of work given by Imperial College London (and the Royal College of Art for GID and IDE) in relation to your degree, please see the following note.

Project work often benefits from input from others, be it general advice and guidance, problem solving, coding and bug fixing, to assist with practical work. Some projects benefit from collaborative efforts on specific aspects. Some project builds benefit from input from a prototyping company or sponsor. The leverage of resource in a project can demonstrate the ability to collaborate and operate effectively. In Design Engineering we have seen many diverse forms of input to a project that are helpful and reflect well on a student’s, or group of students’, ability to deliver an effective project outcome.

As your projects are part of an educational pathway, we consider it essential and professional to acknowledge the input of others, outside general advice and guidance given by the staff team, in any form to your projects. A practical way of doing this is to include a clear printed acknowledgement of input to specific aspects of your project in your presentation materials.

This could take the form of a poster on a show display, an acknowledgement page in a report or an acknowledgements slide in a presentation. If you have limited space available in a presentation, you could give credit in the given context, by, for example, giving the name of a collaborator on the same slide you are presenting a particular aspect of your project to which someone else or another organisation has contributed.

Acknowledgement of input from some other party is not likely to detract from your project but may actually augment the overall impression you give, showing that you give credit to others and are not taking credit for yourself for aspects you have not actually done.

Please also remember that you will likely be asked to demonstrate mastery of relevant topics in assessments of your projects. Acknowledgement of which aspects you have been fully engaged with, and those you have not, in a project can aid the focus of attention on these in an assessment. The following links provide the current policy on academic integrity:

Examination and Assessments: Academic Integrity (link)

Examination and assessments (link)

4.8 Interruption of Studies

The DE MEng programme, its examination and assessment structure and its marking scheme are designed for continuous attendance. Interruption of Studies — effectively, temporary withdrawal — can be arranged on medical, financial or personal grounds. Taking Interruption of Studies has implications for International students with Tier 4 visas. Please liaise with the Teaching Office who can put you in touch with the right department, or see this link: https://www.imperial.ac.uk/study/international-students/.

If you wish to take time out from your course of study, make your request via a form – the Teaching Office Team can advise you (see above for their details). This will be considered by the Senior Tutor within the School. They will suggest you discuss your wish to interrupt studies with your personal tutor, then offer to meet you in a friendly capacity to go through your form to understand the nature of your request. It is important for us to understand your particular case and all aspects of why you wish to take the ‘gap’. If your plans are to work, for example, there may be options for integrating them with your current degree programme or for transferring to another.

Temporarily ceasing to be a student can create significant problems: details of these are given on the Registry website:

Registry Information on Interruption of studies (link)
5. Assessment
5.1 Passing the Year

The Design Engineering MEng programme consists of four successive, one-year parts. You must pass all of the modules in one year to automatically pass onto the next year.

To pass a module, you must achieve a 40% weighted average for the entire module (ergo, you could get less than 40% for coursework, but then compensate that with a good exam or vice versa).

5.2 Mitigating Circumstances

What are mitigating circumstances?
These are circumstances beyond students’ control that may prevent them from sitting an exam, delivering an assessed presentation or submitting coursework on time, or may seriously affect their performance in assessments.

What should students do if they have mitigating circumstances?
Students are advised to inform the Senior Tutor and their Personal Tutor of any circumstances affecting their academic performance.

If they want the School to take these circumstances into account, they should make a formal request using the Mitigating Circumstances Request form. The form is in the ‘UG Resources’ section of Blackboard, along with good and bad examples. The form along with supporting evidence should be sent to desenior.tutor@imperial.ac.uk. The Senior Tutor, Academic Tutor, and two members of the Teaching Office team have access to this account.

The supporting evidence is expected to be submitted with the request. Depending on the circumstances, students may be given a set period for submitting the evidence. Failing to submit the evidence by the deadline will invalidate the request.

In certain circumstances, such as illness of short duration, students may not be able to obtain evidence. In these circumstances, students can use the Mitigating Circumstances self-certification form to provide explanation as to why evidence cannot be provided. The maximum period that may be self-certified is 7 calendar days.

When should students make the request?
This depends on the request:

A. Request for extension to an assessment deadline:
The request should be submitted before the assessment submission deadline. Follow section B below if the deadline is missed.

B. Request for anything else:
The request should be submitted within 5 working days of the deadline/exam date.

Who makes the decision?
A. Request for extension made before an assessment deadline:
Any member of the Mitigating Circumstances Panel (usually the Senior Tutor) can authorize the extension if the extension is maximum two weeks. In exceptional circumstances, requests for extensions beyond two weeks can be considered. The decision to consider such requests and authorising the extension will be made by at least two members of the Mitigating Circumstances Panel.

B. Request for anything else:
The mitigating circumstances advisory panel (MCAP) will make the decision. The panel is formed of:

- Senior Tutor (Chair)
- Deputy Senior Tutor
- Examination Officer
- Academic Tutor

The MCAP meets six times a year:
- Week 2 of T1
- Week 7 of T1
- Week 2 of T2
- Week 7 of T2
- Week 2 of T3
- Around end June or approximately one week before the Exam Board meeting (see section 10.5 below).

Decision
A. Request for extension made before an assessment deadline:
The request will be assessed within 3 working days from the request date. If the request is rejected, the student will be given clear reason and also advised about other support mechanisms, if appropriate, such as applying for mitigating circumstances.

B. Request for anything else:
If the request is accepted, one of the following will be recommended to the Board of Examiners:

1) Defer: This will allow the Board of Examiners to...
consider offering the student:

a) a further opportunity to attempt the assessment(s) at the next available assessment point. If relating to a first attempt at the assessment this will receive an uncapped mark.

b) to take an uncapped SQT(s) to retrieve outstanding modules

c) to be permitted to take an SQT(s) to enable progression

d) to be offered an opportunity to retake the year as a first attempt

Where the assessment has been passed or the module overall is a pass, the Board may also consider:

e) extended consideration at the borderline for an uplift in classification in accordance with the College regulations

f) consideration at the borderline where a qualifying mark is required for continued progression

2) Allow Late. The late submission assessment(s) is accepted as though ‘on time’ and will receive an uncapped mark.

The Teaching Office team will communicate the decision to the student. If the student does not accept the uncapped SQT offer, the decision will be recorded as ‘performance affected’.

If the request is rejected, clear reasons will be provided to the students. They will also be notified of a 5 working days period to resubmit an amended claim and that they have this chance only once.

Mitigating Circumstances forms are in the ‘UG Resources’ section of Blackboard

IMPORTANT

The College Health Centre can certify illness only for absence from College lasting more than one week, or absence from an Examination. Submit the form as soon as you can.

NOTE

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 on this page of the College website.

5.3 Getting Your Results

Your results will be loaded onto your eService in early-mid July.

If you are a sponsored student and need your exam results sent to your sponsor, please visit the Student Hub on Level 3 of the Sherfield Building at the Kensington Campus and they can arrange this for you.

When all assessments for the year have been marked and the marks collated, a series of meetings collectively known as the Board of Examiners review the results and allocate an overall grade to each student.

Generally candidates who do not satisfy the examiners, either in the examinations or after Supplementary Qualifying Tests (see section below), will be required to withdraw from the College permanently. In exceptional circumstances, a student may be permitted to retake the year (see section below).

5.4 Appeal and Complaints Procedures

We have rigorous regulations 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 College, and that the decisions of the Boards of Examiners maintain the integrity of our academic awards. In the event that 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:

Appeal and Complaints Procedures (link)
Regulations for students (link)
Terms & Conditions (link)

IMPORTANT

If you are considering filing an appeal using the College procedures, before doing so we recommend you contact the DUGS and/or the Academic Tutor in a timely manner, and arrange a meeting with them to discuss about the issues you are experiencing, in an attempt to solve these internally. If a solution cannot be found, then you can always rely on the College procedures outlined at the link above.

5.5 Supplementary Qualifying Tests (resits)

In the case of a fail in one or two modules, the Board of Examiners may set a Supplementary Qualifying Test (SQT).

This course of action is only available where the performance in on other modules is very good. Students are therefore not guaranteed an SQT option.
SQTs can take the form of an examination or coursework. The decision on the format is made by the module leader and designed to ensure that the module learning outcomes are achieved.

Students can take a maximum of 2 SQTs per year for the first three years of the course. No SQTs are allowed in the final year. SQTs are usually done in the summer (generally early September). The Teaching Office staff will communicate a schedule.

Any modules that have been passed due to an SQT shall be capped to 40%.

**IMPORTANT**
SQTs must be taken at Imperial College London. The College cannot make arrangements for them to be taken abroad.

More SQT information: Appendix E – Schemes for the Award of Honours on p80

### 5.6 Retaking a Year

Retaking a year that you have failed is only permitted in exceptional circumstances.

The decision on whether or not you will be allowed to retake will be made at the Board of Examiners (in July) or after a failed SQT.

If permission is granted for you to retake a year then you will be expected to start the year again from the start (September) and complete it in full. All of your grades from your previous attempts at that year will be discarded, including any modules that you may have passed. Your grades for any years you successfully passed previously will be unaffected.

### 5.7 Plagiarism

Plagiarism is the presentation of another person’s thoughts, words, images or diagrams as though they were your own.

If any significant level of plagiarism is detected in any submission, the best possible outcome will be a mark of zero.

**IMPORTANT**
College treats plagiarism and cheating offences very seriously indeed.

### Compulsory Lecture

In the sixth week of term you will hear a lecture on plagiarism by a representative of the College Library. Attendance at this lecture is compulsory.

### TurnItIn

The School uses the plagiarism detection site TurnItIn both to filter electronic submissions of coursework via Blackboard and to check electronic duplicates of printed submissions.

**Student Guide to Turn It In (link)**

### Online Plagiarism Course

In October 2019 the College launched an online plagiarism resource for undergraduate students: [www.imperial.ac.uk/library/plagiarism-awareness](http://www.imperial.ac.uk/library/plagiarism-awareness).

This set of web pages, linked from the College library’s web pages, will serve as an unassessed plagiarism resource for undergraduates. It is designed to be used for any discipline. The unassessed quiz is for the student’s own information and doesn’t capture personal details.

**College Plagiarism Information (link)**

### 5.8 Coursework

The purpose of coursework is to develop your design engineering skills, reinforce lecture material and to develop specific skills in laboratory work, computing, design etc. Most coursework is assessed and contributes towards your degree. Coursework includes project work, prototypes, presentations, lab reports, project reports, computing exercises and progress tests which are completed and handed in during the year.

**IMPORTANT**
Do not under any circumstances use any copied or pirated coursework, or allow your work to be copied by others. The College treats cheating on coursework exercises exactly the same way as cheating in examinations. If any student is suspected of cheating, of attempting to cheat, or of assisting someone else to cheat, the facts will be reported to the College. If
found to have done so, s/he may in consequence be disqualified from all future examinations of the Imperial College.

**College disciplinary procedures**

**Late Submission of Coursework**
Each piece of coursework will have a specified submission date, set in advance and published in the module description.

**IMPORTANT**
Coursework submitted between one minute and 24 hours late will be capped at 40%. Coursework submitted more than 24 hours late will receive 0%.

The 24-hours late submission policy does not apply in the following cases, in which any late coursework will be marked 0%:
- Class tests
- Submitting of results/write up from a lab session at the end of the session
- Time limited computer programming exercises
- Outputs from design days/weeks/activities
- Work created from workshop sessions (e.g. where something is made in a given time)
- Measurements, notes, annotated maps etc., undertaken in the field

Having a major coursework item capped or zeroed due to late submission could lead, in the worst case, to a lower degree classification or even outright failure. You should allow for potential delays such as computer/internet/printer glitches or delays to your journey when planning your coursework submissions.

**IMPORTANT**
Some coursework will be submitted electronically via Blackboard and/or Turnitin. Once you have submitted your work on Blackboard/Turnitin, you will be provided with a preview of the file you have submitted. It is your responsibility to ensure that you have submitted the correct file. If you submit the wrong file in error and subsequently miss the coursework deadline, your work will be marked as late, and the relevant policy for late submission will be applied. It is also important to underline that both Blackboard and Turnitin will send you a submission receipt via email. It is your responsibility to receive and store such receipt, and provide it to the module leader if requested. If after having submitted an assignment online you do not receive an email receipt, please contact your module leader as soon as possible. In case of problems with your submission (e.g. the file has not been submitted correctly), if you are not able to provide evidence of the submission (i.e. the email receipt) your work will be marked as late, and the relevant policy for late submission will be applied.

**Missed coursework**
If your coursework is more than two weeks late, it will be counted as ‘missed coursework’. Missed coursework will receive 0% and will not be marked for feedback even if it is submitted at a later date.

**Moderation**
Major items of coursework are double marked. The moderation process is intended to ensure fair and accurate marking and to resolve discrepancies in project report marks between the supervisor and the second marker.

**Feedback to Students**
The principal objectives of setting coursework are to assess your progress and to help you improve. The School has a target of 10 working days for coursework to be marked and returned to you. Sometimes circumstances mean that an academic will not be able to achieve this turn-around but they will always notify you if this is the case.

The form of feedback you receive will vary widely, depending on the nature of the submission. A common form is an itemised list of criteria with a tick-box grade for each, along with some written indication of the reason for credit being lost.

5.9 Examinations
Most written examinations take place at the start of the term following a module or at the end of the summer term. They will appear in your timetable.

There is no set ‘failure rate’ for exams and therefore no reason why every candidate should not pass at the first attempt.

**Past Papers**
Normally, each examined module provides at least the last two exam papers, with answers or outline solutions, on Blackboard. These provide a useful guide for paper and question style, but cannot be relied on to guide your revision. Defining what you must be able to do in an exam is the job of the intended learning outcomes given in the module description.

**Exam Advice**
The Imperial Success Guide provides excellent advice on taking university exams. You should refer to this information regularly.

**Exam Stress**
Most people find exams at least a bit stressful. We suggest you refer to the College Health Centre’s website
for advice on how to manage stress. If you find that you are becoming overwhelmed by stress, there is help available for you.

**Health centre website on exam stress**

**Sitting an Exam.**
Your exams will be in your timetable. It will include all of the information that you require including time, date and locations of exams.

**IMPORTANT**
You must carry your college identity card, so that your CID number can be noted and your identity checked.

The only items you can take into exams are:

- **Pens, pencils, erasers and rulers.** These must either be loose or in a transparent pouch.
- **Your college identity card.** This must be placed on your desk so that your CID is visible to be noted and your identity checked.
- **Still water** in a clear plastic bottle with no label.
- You will be provided, if necessary, with:
  - A **basic scientific calculator** — you will not be allowed to take your own, or any peripheral equipment. The Casio FX–83ES provided has all the usual scientific functions. If you need to familiarise yourself with this model, the Teaching Office will issue one on overnight loan (don’t leave this last-minute).

Other than water in a clear plastic bottle with no label, there is to be no eating or drinking during the exam.

College examination conditions and rules e.g. the absolute rule against speaking to neighbours are stated in the Instructions to candidates for examinations and are similar to those for any other public exams.

**IMPORTANT**
No smart watches or (other watches with functions beyond telling the time) will be allowed in the examination room. There will be at least one clock in each examination room.

**Instructions to Candidates for Examinations**

**Handy Exam Guidance**

**IMPORTANT**
The instructions on the front page of the answer book — fill in a list of questions attempted, start each question on a new page etc. — are there for your protection. Read and obey them.

**Respect of Disability**

Additional assessment and examination arrangements are provided by the College for individual candidates registered as students of the College who have physical, mental or sensory impairments (whether temporary or permanent) or specific learning difficulties. For further details, please read below. You should contact the School’s Disability Liaison Officer; see page 9 of this document.

**Procedures for consideration of exam arrangements in respect of Disability**

**Examination Feedback**
As soon as you submit an exam script for marking, it becomes the property of the College and you renounce any right to access it.

**IMPORTANT**
There is no automatic right of appeal against the marks awarded at examination. Students may only appeal against exam results on the grounds of administrative or clerical error and papers will not be remarked.

Each paper is marked by two independent internal examiners, and checked by one external examiner. Students have the right (on payment of a fee) under the Data Protection Act to sight of any such written comments or annotations. Request must be made to the College Secretariat, with payment of a fee, and annotations will then be transcribed to a separate document for access under carefully supervised conditions.

**5.10 Grades & Marks for Exams & Coursework**

Imperial assesses undergraduate examinations and coursework submissions on a scale of correspondence between percentage mark, letter grade A to E and degree honours class.

All grades and numerical marks issued during the academic year are provisional. They are issued to provide feedback and to provide an indication of progress.

Final marks are awarded only after work has been the Board of Examiners has convened (in July; see 10.5 below).

Ultimately these marks, appropriately weighted, will be used to determine which degree class is awarded.

These correspondences are shown the Table below:
Grade Letter | ... corresponds to mark (%) | ... corresponds to degree class | ... corresponds to descriptor
--- | --- | --- | ---
A* | 85+ | First class honours | Exceptional
A | 70–84 | Excellent
B | 60–69 | Upper second class honours | Very Good
C | 50–59 | Lower second class honours | Good
D | 40–49 | Third class honours | Pass
E | below 40 | Not up to honours level | Fail

5.11 Student Prizes and Awards

The programme has several awards to recognise students' academic achievements or their contribution to the wider College experience. Awards are made at either Departmental or College level. Departmental awards operate at the discretion of the School and are not announced at the graduation ceremony. College awards have been ratified by the College’s Senate and are announced at the graduation ceremony.

The awards described here are mentioned on the awardees' transcripts. All internal and external awards available to Design Engineering students will be advertised on Blackboard.

The Dean’s List

Because Imperial graduates compete in an international market, Imperial has matched the USA practice of recognising the top 10% of A-graded students on a ‘Dean’s list’ — and marking this achievement on the transcript of graduating students.

The conditions are:

- Achieving an overall mark of 70% or greater during the previous 12 months, and
- Being placed within the top 10% (rounded up) of students in their cohort — e.g., of their year and programme.

The Head of School Prize

Four prizes are given each year to:

- the 1st year student with the highest mean grade across the cohort in the 1st year;
- the 2nd year student with the highest mean grade across the cohort in the 2nd year;
- the 3rd year student with the highest mean grade across the cohort in the 3rd year;
- the 4th year student with the highest mean grade across the cohort across the whole MEng.

The Outstanding Student Achievement Award

The purpose of this award is to recognise students’ exceptional achievements in extramural activities that have brought credit to College. The Senior Tutor/s in the School call out to colleagues within the School to nominate students.

The DESIRE (Design Engineering Selected Innovation REward)

The DESIRE award is a prestigious award within the School. It is something that all students should aspire to win during their degree and it will appear on transcripts of the awardees.

Please note that the DESIRE selected works need not necessarily be associated with the top mark or grade scoring project. DESIRE is a departmental award, and its winners will not be explicitly mentioned during the graduation ceremonies.

Which projects get DESIRE awards?

Not all projects qualify for the DESIRE award. It is only for modules where there is a design engineering output in the form of significant coursework. The project could be a group project or an individual piece of work.

Selection for the DESIRE award

The selection of the winner may be done on the day of the assessment or after the completion of the assessment.

If the panel decide that none of the submitted work demonstrates significant outstanding quality, then the award will not be issued. This is to retain the quality of the award winning projects. Winning projects are listed on the School’s award webpage:

Desire Awards Webpage

Head of School Prize

Four prizes are given each year to:

- the 1st year student with the highest mean grade across the cohort in the 1st year;
- the 2nd year student with the highest mean grade across the cohort in the 2nd year;
- the 3rd year student with the highest mean grade across the cohort in the 3rd year;
- the 4th year student with the highest mean grade across the cohort across the whole MEng.
6. School Spaces
6.1 Teaching Spaces

Details of which rooms you need to attend will be clearly listed on your calendar.

Appendix A – Imperial Campus Map

The rooms that we will use most frequently are:

**Studio 3, Level Three, Dyson Building**
Flat floor teaching space
(quadrant B3 on campus map in appendix section)

**2nd Floor Study Space, Level Two, Dyson Building**
Flat floor teaching space
(quadrant B3 on campus map in appendix section)

**The Design Library, Level One, Dyson Building**
Tutorial space
(grid square B3 on campus map in appendix section)

**1851 Lecture Theatre, Ground Floor, Dyson Building**
Lecture Theatre
(grid square B3 on campus map in appendix section)

**The Boardroom, Ground Floor, Dyson Building**
Occasional Teaching Space
(grid square B3 on campus map in appendix section)

**EEng 114b Electronics Workshop, Electrical and Electronic Engineering Building**
Lecture theatre and lab spaces
(grid square B2 on campus map in appendix section)

**266 Roderick Hill Lecture Theatre**
(grid square A2 on campus map in appendix section, please see note below re: these rooms)

**IMPORTANT**

Lecture and tutorial rooms may change week to week. Always check which room your class is being held in each week.

Finding Roderick Hill Lecture Theatres
A lecture theatre that we will be using quite frequently is Roderick Hill 266. This can be a little hard to locate the first time, so there are detailed instructions on how to find the room below.
You may also use rooms 252 and 254, which are just around the corner from 266.

[How to find Roderick Hill 266 (link)](link)

6.2 Social Study Space

From 1200 noon each day, the 2nd Floor Study Space in the Dyson Building is available for all students to use as a communal study/social area.

This area contains PC/laptop benching, comfortable seating, and a kitchen unit. Note there may be teaching events scheduled in this space.

**IMPORTANT**

Level 2 Studio is a communal space used by everyone and operates a Clean Studio Policy. EVERYTHING left on tables, desks, worktops, and floor in the Studio on Level 2 will be **thrown away** every Monday morning.

Please clear up the space after you put anything that you want to keep in your allocated share box. (See: [Project Storage](link)).

6.3 Meeting rooms

The School has a number of meeting rooms. You will mostly use these for Personal Tutorials and meetings with academics that they may arrange.

**Student use of meeting rooms**
The meeting rooms are primarily for staff use. They use a booking system and students cannot book them.

You may use an empty meeting room but must leave as soon as you are requested to. You must always leave meeting rooms in a clear and tidy state, otherwise we will revoke all unaccompanied student access to the meeting rooms.

**Dyson Building Meeting Rooms**

**Trapezoid Rooms 1, 2 & 3**
These three rooms are next to each other on the 2nd Floor of the Dyson Building. They are along the side of the Study Space.
Observatory (A.K.A ‘Obs’) Building
Meeting Rooms

Volt & Ohm Rooms
The Volt and the Ohm Rooms are next to each other on the top floor of the Observatory Building. They are through the PhD offices which do not have general access. You will only be able to access these rooms if the person you are meeting with lets you through the locked doors.

How to find the Obs Building
The Observatory Building will eventually be joined via a link bridge to the main Dyson Building. Until then, you need to exit the Dyson Building and walk around the side to enter the Observatory Building.

1. From Imperial College Road take the side road with the zebra crossing on it (opposite Skempton Building).
2. Follow the road as it turns left and slopes down towards the black fire escape on the exterior of the Observatory Building.
3. Take the stairs to the black door on the second landing (DesEng Staff card access needed)
4. Once through the doors, the office doors are straight ahead of you (DesEng Staff card access needed).

6.4 Storage

Storage space in the School Workshop is limited. Items may only be stored if, and where, agreed in advance by the Workshop Head Technician and if clearly marked with the owner’s name, the supervisor’s name and relevant contact numbers along with dates defining the period of storage.

Given the range of users and the limited storage facilities, appropriate clearing and cleaning during and after any ACE lab activity is absolutely essential. ACE Workshop staff will inspect daily and tidy as necessary: any items left out will be subject to disposal.

Email Head Technician, Ms. Ingrid Logan: i.logan@imperial.ac.uk

Download COSHH form (doc)

Chemical Storage
Chemicals cannot be stored in the ACE lab without the prior agreement of the School’s Technicians and the completion and signing off of a COSHH assessment.

Project Storage
In the Studio space of the 2nd Floor, Dyson Building, there are eight storage units, each with 12 storage boxes, providing a total 96 boxes.

Additionally, there are a number of fully securable lockers that are located at the east end of the basement floor (by the lift) and in the Fusion 54 Cafe on the ground floor.

This storage is managed by the School’s Student Representatives. If you have any issues with these, you should contact the Reps directly (see: Student Reps).

Design Society webpage on storage

Otherwise you will be responsible for storing the necessary books and equipment for your courses and ensuring that you bring the correct items with you to classes and sessions.

Clean Studio Policy
Level 2 Studio is a communal space used by everyone. As we have storage solutions for all in the form of shared lockable boxes in the Level 2 Studio, we will be implementing a Clean Studio Policy.

Please clear up the space after you and put anything that you want to keep in your allocated share box. EVERYTHING we find left on tables, desks, worktops, and floor in the Studio on Level 2 will be disposed of each Monday morning.

If you do not have a shared box and wish to share one with others, please complete a request from at the Design Society webpage (see above).
6.5 School Workshop

The School’s workshop facilities are located on the ground floor of ACE Building (Building no.14 in the map, Appendix A).

IMPORTANT
Items should not be left out anywhere in the building and will be disposed of, unless they have the express prior permission from the School Operations Manager. When permission is granted, Items must be labelled with the name and contact details of the owner and the date by which the items will be removed.

Email School Operations Manager, Sam McKenney: s.mckenney@imperial.ac.uk

IMPORTANT
Failure to keep the lab spaces safe and tidy may lead to restrictions in your access to College lab spaces.

Workshop Training

Before you can use any equipment in any of the Workshops you need to be appropriately trained. Induction sessions are scheduled throughout the MEng course. These are pass/fail and an attendance register will be taken.

Before the ACE Lab induction, all students will have to complete an online safety test on Blackboard, of which details will be provided in due course.

Training on specialist machine tools will be provided by the School Head Technician Ms. Ingrid Logan.

CAD/CAM

Technical advice on specialist rapid prototyping and CAD-CAM (Computer Aided Design/Manufacture) techniques will be provided by the School Head Technician Ms. Ingrid Logan.

0900–1700 – Weekdays* – Supervised
Technical support, supervision and selected power tools will be made available in the ACE Lab Workshop during these hours.

0800–2200 – Every day* – Unsupervised
Qualified students can access the workshop benches and use hand-tools during these hours.

*not including College closure days

Workshop Schedule (Google Doc)

IMPORTANT
It is always your responsibility to return your tools to their storage places after use.

Personal Protective Equipment

You must wear the following items in the Workshops at all times:
• Sturdy shoes with closed toes
• Safety Glasses
• Boiler suit or lab coat
• Long hair must be tied back at all times
• All jewellery must be taken off

Glasses and labcoats are available to be borrowed from the entrance of ACE Workshop.

Technicians

<table>
<thead>
<tr>
<th>Ingrid Logan</th>
<th>Gordon Addy</th>
<th>Saadiqah Rahman</th>
<th>Connor Myant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop Manager</td>
<td>Senior Technician</td>
<td>Technician</td>
<td>Senior Lecturer Technical services and Safety officer</td>
</tr>
<tr>
<td><a href="mailto:i.logan@imperial.ac.uk">i.logan@imperial.ac.uk</a></td>
<td><a href="mailto:g.addy@imperial.ac.uk">g.addy@imperial.ac.uk</a></td>
<td><a href="mailto:saadiqah.rahman@imperial.ac.uk">saadiqah.rahman@imperial.ac.uk</a></td>
<td><a href="mailto:connor.myant@imperial.ac.uk">connor.myant@imperial.ac.uk</a></td>
</tr>
</tbody>
</table>

Please be courteous and professional to all workshop personnel. Connor Myant is the safety officer for this facility and therefore will be ensuring best practice.

Please see the ACE Workshop Handbook in the Design Engineering Information section of Blackboard.
Project Work in Research Labs

College and School health and safety rules dictate that students on taught courses may only work in laboratories during technical staff hours — i.e. between 08:30–17:00, Monday to Friday, while the College is open. Even outside these hours, no-one is permitted to work alone unless the work has been declared (in writing) to be non-hazardous, and authorised by his or her supervisor and the laboratory manager — otherwise, a second person must be present.

NOTE
For some laboratories, ‘lone working’ permission is never given.

6.6 Electronics Workshop

Design Engineering students benefit from access to the EEng 114b Electronics Workshop within the Electrical and Electronic Engineering Building on the South Kensington campus. DE students that have already taken or are taking the Electronics 1 module, may use the EEE lab between 1 and 5pm on weekdays. The Lab closes at 5pm sharp. Your workspace must be cleared at the end of each day.

You may use the allocated benches (please ask the technicians when entering the lab) and the equipment on them such as soldering stations, function generators, and oscilloscopes. You may also utilise modest amounts of passive components (e.g. resistors and capacitors) and wire. Note this does not extend to other components (e.g. LEDs, IC chips, buzzers) that you should procure yourself.

While in the lab you must adhere to the EEE lab’s rules, in particular:
• No equipment is to be moved or removed from the lab
• No food and drinks (bottled water is okay – there is also a water fountain close to the lab entrance)
• No sitting on tables
• Wear appropriate clothing (e.g. no flip-flops, etc)
• When entering the lab, please scan your College ID card. This is essential, mainly for health & safety reasons (i.e. technicians need to always be aware of how many people are in the lab in case of, for example, fires and other issues).
7. Computers
7.1 Required Laptop

In order to undertake the MEng from September 2019, you will need to have a laptop computer of your own of modern specification. More details and advice on this is in Appendix G of this document (link).

Regular maintenance
You will be responsible for basic laptop maintenance of your own machine. You must arrange:
- Virus protection
- Ransom ware protection
- Regular security updates
- Backing up your data

You may wish to periodically take your laptop to ICT for performance hints and tips to maximise performance.

7.2 School Laptop Library

The Department has 36 laptops that you may borrow for a 4-hours at a time. These laptops are stored in secure lockers that you operate yourself using your Imperial College ID card. These laptops will be pre-installed with all the relevant software. The loan laptops are not be taken out of the Dyson building.

Borrowing a laptop is like borrowing a library book. If you do not return it within the due period, an overdue fine will be incurred. A full guide to how the loan laptop system works is here:

Appendix G – Laptop Loan System (link)

7.3 College ICT Support

Important
Back-up your digital work regularly! Hacking and hardware failure can lead to losing your work. It is your responsibility to protect against this.

Imperial College Information and Communication Technologies (ICT) provides general assistance with IT issues from a central Service Desk.

ICT Access
08.30 to 18.00, Monday to Friday:
In-person - ICT Service Desk, 1st Floor, Central Library, South Kensington Campus

Phone - 0207 594 9000 (x.49000)

24/7 Support: ASK ICT (link)

All staff and students are bound by the conditions of use for IT facilities (link).

7.4 Software

The School will provide access to any software that you may need for the course. Imperial College has agreements with many companies such that students could install some software free on their own personal machine.

Please check out this web-page to see what software is available for you while being a student at Imperial:

Software for students

Some packages are only available on the School’s loan laptops. To use these, you must borrow one of the loan machines and use it within the School’s building.

Adobe Creative Cloud CC
Adobe Creative Cloud CC (the full suite of creative software) will be installed on all the loan laptops.

Additionally each DE Year Group will have access to Adobe CC on their personal laptops for one term each year.
7.5 Printing

It is possible to print to the communal college printers from your School issued private laptop. You will need your College ID card to do this.

How to print (link)

Printing to communal College printers and using the photocopiers costs money. You can purchase printer credits to charge your card at the Central Library or online.

Communal printers and photocopiers can be found on Level 2, Dyson building and the Central Library.

Printer credits
Undergraduate students who join the School in or after October 2018 will be issued with £10/year printing credit for use on College printers.

This will be automatically issued to your account at the start of each year.

Service Point
Some projects may require that you design a poster to present your work. Posters can be printed at Service Point, the College’s on-site contractor for bulk and professional printing.

IMPORTANT
Ensure you allow sufficient time for the turnaround of printing tasks.

Service Point (link)

7.6 Internet Access

Imperial College London provides and supports excellent access to the Internet, both on-site and in halls. However, this access is not unrestricted and its misuse, or its use for anti-social behaviour, are regarded as serious offences.

An account for access to IT facilities will have been created for you on registration, and you shall be provided with a username and password for access to Imperial College systems. If you forget your password and need to obtain a new one, you will need to produce a valid College ID card.

How to access the Wi-Fi and networks (link)

IMPORTANT
In your contract as a student you have agreed to abide by the Conditions of Use of IT Services. These conditions concern anti-social behaviour by which other users can be affected and areas of misuse which come under UK Law.

7.7 General Data Protection Regulation (GDPR)

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

In line with the above please see the College’s privacy notice for students which form part of the terms and conditions of registration with the College.

Privacy Notice for students (link)
8. Professional Development
8.1 What is a Chartered Engineer?

The title Chartered Engineer (CEng) is protected by UK civil law and is internationally one of the most widely recognised of engineering qualifications. In the UK, it is awarded by the Engineering Council.

The benchmark for CEng is UK-SPEC: the UK Standard for Professional Engineering Competence. UK-SPEC, published by the Engineering Council, tries to specify the essential attributes of a professional engineer. It was developed, and is regularly updated, by panels representing UK professional engineering institutions, employers and educators.

To become a Chartered Engineer, you will need:

- The Educational Base: an MEng or equivalent degree from a recognised degree programme like ours; and
- An extended period of Initial Professional Development (IPD): work-based training and/or experience under the guidance of a Mentor.

A professional institution like the Institution of Mechanical Engineers (IMechE), the Institution of Engineering Designers (IED) or the Institution of Engineering and Technology (IET), acts as an agent for the Engineering Council: it both accredits degree programmes and, through a network of suitably qualified mentors, monitors the subsequent IPD process.

8.2 UROP Placements

The Undergraduate Research Opportunities Programme (UROP) matches students with ‘research internships’, either within or outside Imperial. A UROP placement offers work experience within a research environment; the work is usually paid and some bursaries are available.

The UROP scheme at Imperial is coordinated within Registry, and is described in detail on the College web page. However, perhaps the best way to initiate a placement within Imperial will be to contact a research-active staff member whose work interests you. If you do agree a placement by this informal route it should still be set up formally, otherwise you will be unable to earn ECTS credits.

Most UROP placements are paid, but not all supervisors have sufficient research funding available. Some research sponsors, even relatively generous ones, put tight restrictions on the way in which funds can be spent. Under these conditions supervisors may be able to offer exciting projects bringing close interaction with potential employers, but unable to support bursaries for them.

8.3 Careers Service Sessions

Throughout all four years of your course you will have the opportunity to engage with careers sessions to prepare you for future employment and opportunities.

These careers sessions will be scheduled into your timetable and it will be clear whether they are optional (drop-in or pre-book) or compulsory.

School's Careers Officer

The School’s Careers officer is Dr. Talya Porat. If you have any queries or suggestions about careers events, contact Talya: t.porat@imperial.ac.uk.

College Career Services

There is a central College Careers Centre based on the 5th Floor of the Sherfield Building. Full details of their services can be found on their webpage.

8.4 Intellectual Property

What is IP?

Intellectual Property (IP) is a term used to describe an individual’s creative output such as an invention. Intellectual Property Rights (IPRs) such as trademarks, patents, copyright and design rights are the legal means that can be used to prevent others from using your creative output without your consent. You need to consider protecting any IP you develop whilst you are at The School, whatever you have developed it as part of the School’s syllabus or through extra-curricular activities.

IP will be covered during the MEng curriculum however you should start learning the basics now. The College has some excellent resources to teach you about IP on the Imperial College website. The College have also created two YouTube videos which also recommended viewing.
8.5 Industry Advisory Arrangements

The School has a strategy for industrial engagement to ensure that the vision of the school, the directions of research and the development of the curriculum are pushing the boundaries of theory and practice in design and engineering. To address this, our engagement with industrial partners spans three levels:

• **Strategic Advisory Board (SAB)** –
  This is an elite group of up to 10 companies at a time, carefully selected to give a strategic overview of global future trends that will impact design engineering. We have selected world-leading companies from a range of different industrial sectors and contexts, across physical and digital domains. We work closely with these companies to help us gain foresight of how global and local economies will change, and what big shifts are on the horizon.

• **Industry Advisory Board (IAB)** –
  This is a broader group of up to 30 members at a time. These are invited to represent a wider cross section of industry (from small start-ups to large international corporations across different disciplines) and the third sector (policy and charities) to give us insight into a wider range of opportunities.

• **Industrial Partnerships Group (IPG)** –
  This final level consists of any organisations linked to the school, including those who offer industrial placements, work on research projects, or run projects with our students. They receive newsletters about the work in the school and we track partnerships across different activities to ensure linked working across the school. We host a range of engagement activities with these different groups across the year, and invite students to participate in discussions, networking and showcasing their work.

8.6 Joining Professional Institutions

In October 2017 the IED (Institution of Engineering Designers) granted accreditation to the MEng in Design Engineering. This is a tremendous achievement and endorsement of the programme.

The School is also seeking accreditation from IET and IMechE and we are on track for this to be awarded in Summer 2019 (after our first intake graduate).

We strongly encourage you to make use of student membership for these three institutions: there are very low (IET) or no membership fees (IMechE and IED) until you graduate.

IMechE ([The Institution of Mechanical Engineers](https://www.imeche.org))

IET ([The Institution of Engineering and Technology](https://www.iet.org))

IED ([The Institution of Engineering Designers](https://www.i-fd.net))

Professional institutions memberships will allow you to get support and guidance at each stage of your career, providing you with a professional home for life. Please refer to the Internet sites linked above in order to get more information about the joining process.
9. Surveys & Feedback
We welcome feedback on teaching from students. We want to improve and make your learning experiences in the department as enjoyable and fulfilling as possible.

Students have academic tutors and personal tutors who can help resolve problems and pass on suggestions for improvement in teaching. All students are encouraged to raise issues and to make suggestions to the School.

There are a number of avenues of feedback available to our students.

9.1 Giving feedback to staff

Please feel free to give courteous feedback and raise questions in-person to all staff. If you have an issue and don’t speak up, then the School will not be able to address the matter in a timely manner.

Module Leaders
You can contact the relevant Module Leader or Associate Module Leader/s with general points about a module at anytime. This includes comments on the general content of courses as well as specific issues.

Personal Tutor
You can contact your Personal Tutor about your individual study either in your timetabled Personal Tutorials or, if needed, via email or a special one-off meeting. You can also talk to your Personal Tutor if you have an issue that you have raised with a Module Leader but you do not feel has been appropriately addressed.

Senior Tutors
The Senior Tutors usually deal with group feedback (the SSCC as below or Survey results) but if you have raised an issue with your Personal Tutor and you do not feel it has been appropriately addressed, you may contact the Senior Tutor.

Faculty Senior Tutor
The Faculty Senior Tutor has responsibility for ensuring the delivery of consistent, high quality support for students in their personal, general academic and professional development. If you have a matter which you feel is highly sensitive or complicated you may wish to contact the Faculty Senior Tutor, see section 2.6 above for more details.

9.2 Staff-Student Consultative Committee (SSCC)

The Staff-Student Committee is the formal way for the student representatives to raise issues that are of a concern to the wider student body. Minutes of the meetings are always taken. Meetings are held termly.

Members of the SSCC include all the Student Reps (all Year Reps + School Reps), and representatives from the School’s staff (Head of School, Director of Undergraduate Studies, and Examination Officer).

Students are strongly encouraged to raise questions or concerns at the Staff and Student Committee though their student representatives.

To find your student representative please see 12.2 Student Representatives.

9.3 UG SOLE Lecturer / Module Survey

This is a college-level survey. This survey, which runs at the end of the autumn and spring terms, is your chance to tell us your opinion of the modules you have attended and the lecturers who taught them. Alongside exam and coursework results, SOLE (and especially the free text comment boxes) provide our main source of information for managing course development.

**IMPORTANT**
When entering free text, please be absolutely specific (with names!) about who or what you are commenting on.

The dates for SOLE are:
- **Autumn Term**: early December – early January
- **Spring Term**: mid March – Easter
- **Summer Term**: early June – early July

You will be notified via your College email of the exact survey dates.

Access survey and past results (link)

9.4 Student Experience Survey

This is a college-level survey. Run at the same time as the autumn term UG SOLE lecturer/module survey is the Union’s Student Experience Survey (SES). This survey will cover your induction, welfare, pastoral and support services experience.
- Motivations for taking the programme,
- Depth of learning
- Organisation
- Dissertation and
- Professional development.

During spring term you will receive an email providing a link to the survey.
9.5 National Student Survey – NSS

This is a national-level survey. While in the Fourth year of your programme, you will be invited to take part in the National Students Survey (NSS). NSS asks all final-year undergraduates to rate a range of elements related to their student experience such as:

- Academic support
- Learning resources and
- Assessment and feedback.

This nationwide survey compiles year-on-year comparative data for higher education institutions, with its results being made publicly available.

Unistats website (to see Imperial’s National Student Survey results)

Read examples of student survey response at Union website
10. DE Year by Year
10.1 Key Dates and Attendance

The College has both a duty of care towards its students, and regulations to ensure that they follow the prescribed programme of studies.

Regular attendance in lectures, tutorials and lab sessions improves the learning experience. Attendance in personal tutorials improves pastoral support. Your attendance at personal tutorials will be taken and logged on a system called Starfish. Taking attendance in other scheduled sessions is undertaken at the discretion of the module leader. However, in order to make sure that we have at least one attendance record for each student per week, your attendance will be recorded in one session per week and logged on Starfish. These sessions are:

<table>
<thead>
<tr>
<th>Term</th>
<th>Week</th>
<th>Activity</th>
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<tr>
<td>Autumn</td>
<td>1</td>
<td>Welcome Week (T1)</td>
</tr>
<tr>
<td></td>
<td>2–5</td>
<td>Teaching</td>
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<tr>
<td></td>
<td>6</td>
<td>DRAW Week</td>
</tr>
<tr>
<td></td>
<td>7–10</td>
<td>Teaching</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Supplementary activities</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
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<tr>
<td>Summer</td>
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Key dates 2019–20

Term dates

Term Dates (link)

Closure dates

College Closure Dates (link)

Key Events

Great Exhibition Road Festival: 03 -05 July 2020

I-Explore Modules

Through I-Explore, you’ll have the chance to deepen your knowledge in a brand new subject area, chosen from a range of for-credit modules built into your
undergraduate degrees will include one module from I-Explore’s wide selection. For students starting the Design Engineering MEng in 2018–19, one I-Explore module can be taken in Year 3.

10.2 Degree overview

A schematic overview of the academic curriculum is given in Appendix B – Programme Modules Gantt Chart.

Every teaching and learning activity is part of a module, which is taught in a specific year of the course (DE1 to DE4). These are grouped in board themes, listed below.

- Design Engineering Projects
- Electromechanical Engineering
- Engineering Analysis
- Enterprise and Professional Practice
- Physical Engineering

Each module is self-contained and separately assessed although, of course, its subject matter will be linked to that of other modules.

Note
As the MEng Design Engineering is a new course, information regarding subsequent years is subject to change. In addition the programme includes a diverse range of electives, some run by other departments, some run by the Dyson School of Design Engineering and open to students from other departments. These modules offer a crucial opportunity for interdisciplinary experience and activities.

A key activity in the programme is the extensive project work, some in combination with students from other departments, which is undertaken in each of the years, enabling implementation of material covered in the modules as well as project based learning of key technologies.

The programme has a diversity of means of assessment with a particular emphasis on project work, assignments and coursework as opposed to examinations. The project work focus enables students with particular requirements to schedule their efforts according to their particular needs. Several electives are available in years three and four, permitting students to adjust the focus of their studies as they progress, and the intention is to make further elective modules available as the School develops.

10.3 Modules Year by Year

In response to an ever-changing landscape for engineering, science and medical education, Imperial College London is undertaking a major curriculum review covering all aspects of our undergraduate programmes. Employing an an all-round participatory design approach, involving all the relevant stakeholders (e.g. students, staff, industry, etc.), we have thoroughly reviewed the Design Engineering MEng course over the past two years. We are proud to launch the new programme for the cohort joining us in 2019–20.

For the students who have already completed parts of the degree (i.e. the student cohorts having joined us in 2016–17, 2017–18 and 2018–19), we have incorporated parts of the revised curriculum into the ‘old’ programme. For this reason, in 2019–20 we will have three variations of the Design Engineering MEng curricula:

1 - For students that commenced in 2016–17. The first three years of the curriculum are from the ‘old’ programme, and in the fourth year we have integrated a few of the reviewed curriculum changes in modules such as Placement Part 2 and Optimisation; This programme will be referred to as the Old Programme.

2 - For students that commenced in 2017–18 and 2018–19. The first two years of the curriculum are from the ‘old’ programme, while the third and fourth years are from the new reviewed programme. This programme will be referred to as the Blended Programme.

3 - For students commencing in 2019–20. all four years of the programme will follow the new curriculum. This programme will be referred to as the New Programme.

In the next sections you will be able to find information about the modules within each year of these three curricula.
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<tbody>
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<td></td>
<td></td>
<td>1. Old modules</td>
<td>2. Old modules</td>
<td>3. Old modules</td>
</tr>
<tr>
<td>2017/18</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2022/23</td>
<td>4. New modules</td>
<td></td>
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</tr>
</tbody>
</table>

### Features

2019/20 cohort are entirely on the new programme

2018/19 and 2017/18 cohorts take updated programme, with years 1 and 2 on old modules, years 3 and 4 on modified modules

2016/17 cohort entirely on old programme

E&D / Thermofluids not taught in 2019/20

Computing 2 taught in twice (y2 (t1) and y1 (t3)) in 2019/20

Optimisation taught twice (y4, y3) in 2019/20
Teaching Themes

The tables below display the DE MEng modules organised by teaching themes (see bulleted section under 10.2 above). Each theme represents a regular forum for the teaching and other relevant staff to discuss and progress all aspects of quality enhancement for their suite of modules. Combining modules into themes aims to facilitate sharing of best practice in teaching and learning and strong vertical co-ordination of curricula and related teaching and learning practice. We shall display these by year of entry for ease of reference across all cohorts, so jump to the one that suits you.

**Old programme (2016/17 entry cohort – Current DE4)**

The First Year

The programme commences with key foundational skills and knowledge building in design and engineering fundamentals. Beginning with induction projects, the novice design engineer’s experience of the design process is steadily developed through a series of design engineering projects, enabling the student to see the practical application of content introduced in other modules as well as developing their own individual experience base and design process, communication and project management skills.

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<tr>
<th>Theme</th>
<th>Title</th>
<th>Description</th>
<th>Core / Elective</th>
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<tbody>
<tr>
<td>Enterprise and Professional Practice</td>
<td>Communication in Design</td>
<td>Students will learn about creating compelling communication using a variety of techniques, including design drawing, engineering drawing, 3D computer aided design, 2D digital graphics, critical writing and oral presentation.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering Analysis</td>
<td>Computing 1</td>
<td>This module aims to introduce students to computer programming. They will learn the Python programming language using the Jupyter Notebook environment.</td>
<td>Core</td>
</tr>
<tr>
<td>Design Engineering Projects</td>
<td>Design 1</td>
<td>This module aims to develop students’ competence and self-confidence in the key elements of the creative design process. Specifically, this module seeks to help students.</td>
<td>Core</td>
</tr>
<tr>
<td>Electromechanical Engineering</td>
<td>EA 1.3 – Electronics</td>
<td>The Engineering Analysis 1 extended module develops fundamental skills in engineering analysis and applied mathematics, and consists of 3 subsections. This subsection is: Introduction to Electronics This part of the course covers topics ranging from high power networks to micro-control systems involved in electrical engineering.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>EA 1.2 – Energy and Design</td>
<td>This part of the course covers an introduction to the principles of energy, fluid mechanics, heat transfer and thermodynamics.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>EA 1.1 – Mechanics</td>
<td>The Engineering Analysis 1 extended module develops fundamental skills in engineering analysis and applied mathematics, and consists of 3 subsections. This subsection is: ‘Mechanics’. Physical principles of force, momentum, and interia. Principles of stress and strain. Study of the behaviour and motion of particles, vector notation and truss systems.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering Analysis</td>
<td>Engineering Mathematics</td>
<td>The module aims to provide students with sufficient mathematical tools and techniques to tackle a variety of engineering design problems.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>Production and Materials</td>
<td>Concepts and fundamentals to develop understanding types of materials: metals, polymers, ceramics and composites. The course commences with consideration of the simple properties used by engineers to quantify materials behaviour, such as hardness, strength, toughness etc. The course then considers metals, polymers, ceramics and composites in turn and relates the basic structure of each material type to its observed behaviour.</td>
<td>Core</td>
</tr>
</tbody>
</table>
Second and Third Years

In the second and third years, the range of engineering fundamentals, design thinking, creative problem solving, management and communication skills are developed, leading to a series of enterprise modules and projects where students develop skills in value propositions and turning their concepts into embodied concepts and proposals that are suited to corporate and enterprise roll-out. Students going onto the fourth year will then take part in a six-month industrial placement intended to give them real commercial experience and an opportunity to put the skills they have acquire into practice.

Second Year

<table>
<thead>
<tr>
<th>Theme</th>
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<th>Description</th>
<th>Core / Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Analysis</td>
<td>Big Data</td>
<td>The module aims to provide students with sufficient tools and techniques to explore small and large datasets, to perform data analysis and to use key insights from data mining.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering Analysis</td>
<td>Computing 2</td>
<td>This module builds on the first programming module DE1-COM1 to extend the skills acquired there to learn the principles of algorithmic problem solving, with a focus on asymptotic efficiency.</td>
<td>Core</td>
</tr>
<tr>
<td>Design Engineering Projects</td>
<td>Design 2</td>
<td>The module aims to develop students’ competence and self-confidence in the key elements of the sustainable design process.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>EA 2.1 M4DE Mechanics for Design Engineers</td>
<td>This part of the module applies fundamental concepts to Design Engineering problems for a range of structures, mechanisms and machine elements. The module explores the ideas of design evaluation and analysis through mechanics.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>EA 2.2 – Computer Aided Engineering</td>
<td>The aims of the module are: - To introduce the fundamentals of the finite element method, a powerful computer-aided engineering tool - To introduce the basic procedures in carrying out practical finite element analyses - To provide the opportunity to use a commercial finite element software to analyse a range of problems in design engineering.</td>
<td>Core</td>
</tr>
<tr>
<td>Electromechanical Engineering</td>
<td>EA 2.3 – Electronics for Product and System Design</td>
<td>This module is a continuation of the DE1.3 Electronics module from the first year. It builds upon the knowledge, experience and competence from the first year module to include two main fundamental electronic engineering topics: signal processing and control engineering.</td>
<td>Core</td>
</tr>
<tr>
<td>Design Engineering Projects</td>
<td>Engineering Design Project</td>
<td>Design Engineering course focusing on holistic design processes applied to an engineering design problem. The course takes students through an engineering design problem from requirements through to final prototype and manufacturing specification/drawings.</td>
<td>Core</td>
</tr>
<tr>
<td>Electromechanical Engineering</td>
<td>Gizmo (Physical Computing)</td>
<td>Many products rely on the effective design and implementation of mechanisms for their function. This course builds on DE1-PMat, DE1-EA1M and DE1-EA1E and introduces deterministic approaches to selection, synthesis and analysis of mechanisms and machine elements including bearings, shafts, gears, belts, chains, fasteners, clutches, brakes, seals, electromagnetic actuators, electrical circuits and sensors.</td>
<td>Core</td>
</tr>
</tbody>
</table>
### Third Year

<table>
<thead>
<tr>
<th>Theme</th>
<th>Title</th>
<th>Description</th>
<th>Core / Elective</th>
</tr>
</thead>
</table>
| Enterprise and Professional Practice       | Enterprise Management                      | To provide design engineers with an understanding of:  
- The structures, cultures, practices and financial underpinnings of organisations.  
- The competitive environments in which such organisations operate, and their strategic positioning.  
- Management best practices, and principles of good teamwork in agile design engineering environments.  
- How to turn product concepts into marketable products with service thinking and marketing | Core            |
| Design Engineering Projects                | Group Project                              | Engineering design group project/interdisciplinary group project Group work: Design engineering futures methods and tools; Ideation and use of creativity tools; exploration of user requirements and insights from users; exploration of technologies, development of effective group dynamics; project management, concept development, detailed design; design prototyping; rapid prototyping and CAD/CAE, testing and validation; public expert engagement through exhibitions and reporting. | Core            |
| Enterprise and Professional Practice       | Industry Placement (Part1)                 | The Industry Placement modules aim to provide practical industry experience on a substantial project, or collection of related projects, lasting up to 6 months. Industry Placement 1 will run from April until June in the third year of study, directly followed by Industry Placement 2 from July until September in the fourth year of study for those students following the Meng programme. | Core            |
| Electromechanical Engineering              | Robotics                                   | This module is intended to provide a basic introduction to the field of robotics without requiring prior knowledge or experience in this topic. The course content will focus on the most common type of robots – robot manipulators – and how they can be designed, modelled, and controlled. | Core            |
| Elective                                   | Audio Experience Design                    | An introduction to audio technology and perception, which includes acoustics (architectural and musical), digital signal processing, audio recording techniques (microphones, DAC/ADC, etc.), audio reproduction techniques (speakers design, etc.) 3D sound synthesis and reproduction, data sonification and psychoacoustics. | Elective        |
| Elective                                   | Design for Additive Manufacture (D4AM)     | An exciting and fast developing area of digital manufacturing. This module provides engineering students with the platform needed to solve future industry challenges, get the most out of 3D printing technology and optimise designs. | Elective        |
| Elective                                   | Design Led Innovation and Enterprise       | Students learn to apply human–centred design, creativity and systems based approaches in the development of innovative, viable and sustainable solutions for unmet needs in an area of their choosing. | Elective        |
| Elective                                   | Industrial Design                          | The module aims to  
- Develop a high level understanding of contemporary industrial design principles and practice;  
- Follow a thorough practical design process to develop a PSS concept, with detail design for a 3D touchpoint of the system;  
- Powerfully communicate the outcomes in appropriate formats and with high professional ID standards for wider dissemination. | Elective        |
Fourth Year

The fourth year offers several electives, allowing a greater degree of specialisation to students than earlier years. The fourth year also contains a high proportion of the programme’s commercially oriented modules; this was designed to consolidate the students’ industrial placement experiences with their previous academic studies and invest students with the skills in enterprise and design in commercial contexts that the programme aims to provide its graduates.

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<td>Enterprise and Professional Practice</td>
<td>Enterprise Roll Out</td>
<td>During their time with the Dyson School of Design Engineering our students develop an impressive range of design, engineering and innovation skills. As they enter their final year, Enterprise Roll Out invites them to bring these skills to bear on the development and communication of a tangible value proposition that will form the basis of a viable Enterprise.</td>
<td>Core</td>
</tr>
<tr>
<td>Enterprise and Professional Practice</td>
<td>Industry Placement (Part2)</td>
<td>6 month Industry Placement; aiming to provide further practical industry experience on a sustained project hosted within a company which draws on design engineering skills, building on the experience gained through the Industry Placement A module.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering Analysis</td>
<td>Optimisation</td>
<td>The Optimisation course is designed to provide students with exposure to a rational integration of design methodologies with the concepts and techniques of modern optimisation theory and practice. Through the course, the students will learn to rationalise and quantify an engineering system or product design problem, develop proper mathematical models to formulate a design optimisation problem, and apply appropriate optimisation algorithms to solve it.</td>
<td>Core</td>
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<tr>
<td>Engineering Analysis</td>
<td>Sensing and the Internet of Things</td>
<td>The module aims to provide students with sufficient tools and techniques to develop software and hardware platforms for the Internet of Things, to obtain data from mobile and social sensors, perform data analysis, perform actuations, and to use key insights from data mining.</td>
<td>Core</td>
</tr>
<tr>
<td>Design Engineering Project</td>
<td>Solo Project</td>
<td>Major Design Engineering Individual Project in which students will be expect to work with minimal supervision to design a product, service, system or experience of their choice, subject to the satisfaction of the module leader and their supervisor. Students will be expected to select and implement projects ‘at the edge’ of design know how, perhaps using new or emergent technology, or exploiting recently developed scientific knowledge.</td>
<td>Core</td>
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<tr>
<td>Elective</td>
<td>Robotics Research Projects</td>
<td>Robotics II will provide an overview of the latest research in the field of applied robotics, as well as a hands-on approach to bring critical skills together. This is done in a project-oriented course where students will design mechanical, electrical, and software subsystems of an overall functioning robot.</td>
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Blended programme (2017/18, 2018/19 entry cohorts – Current DE3, DE2)

The First Year

The programme commences with key foundational skills and knowledge building in design and engineering fundamentals. Beginning with induction projects, the novice design engineer’s experience of the design process is steadily developed through a series of design engineering projects, enabling the student to see the practical application of content introduced in other modules as well as developing their own individual experience base and design process, communication and project management skills.

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Second Year

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<td>Engineering Analysis</td>
<td>Computing 2</td>
<td>The aim of this module is to provide students with the design concepts, theoretical foundations, and hands-on experience to efficiently construct their own algorithms and data structures for solving general or particular problems. To this end, the module covers the basic techniques for analysing the running time of algorithms, paradigms of algorithm design, and well-known data structures and high-level algorithms that a design engineer should be comfortable with and able to apply to further modules in the programme.</td>
<td>Core</td>
</tr>
<tr>
<td>Design Engineering Projects</td>
<td>Design 2</td>
<td>The module aims to develop students’ competence and self-confidence in the key elements of the sustainable design process.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>EA 2.1 M4DE Mechanics for Design Engineers</td>
<td>This part of the module applies fundamental concepts to Design Engineering problems for a range of structures, mechanisms and machine elements. The module explores the ideas of design evaluation and analysis through mechanics.</td>
<td>Core</td>
</tr>
</tbody>
</table>
| Physical Engineering          | EA 2.2 – Computer Aided Engineering        | The aims of the module are:  
- To introduce the fundamentals of the finite element method, a powerful computer-aided engineering tool  
- To introduce the basic procedures in carrying out practical finite element analyses  
- To provide the opportunity to use a commercial finite element software to analyse a range of problems in design engineering.       | Core            |
<p>| Electromechanical Engineering | EA 2.3 – Electronics for Product and System Design | This module is a continuation of the DE1.3 Electronics module from the first year. It builds upon the knowledge, experience and competence from the first year module to include two main fundamental electronic engineering topics: signal processing and control engineering. | Core            |
| Design Engineering Projects   | Engineering Design Project                 | Design Engineering course focusing on holistic design processes applied to an engineering design problem. The course takes students through an engineering design problem from requirements through to final prototype and manufacturing specification/drawings. | Core            |
| Electromechanical Engineering | Gizmo (Physical Computing)                 | Many products rely on the effective design and implementation of mechanisms for their function. This course builds on DE1-PMat, DE1-EA1M and DE1-EA1E and introduces deterministic approaches to selection, synthesis and analysis of mechanisms and machine elements including bearings, shafts, gears, belts, chains, fasteners, clutches, brakes, seals, electromagnetic actuators, electrical circuits and sensors. | Core            |</p>
<table>
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</table>
| Enterprise and Professional Practice                    | Innovation and Entrepreneurship            | To provide design engineers with an understanding of:  
- Ability to assess market potential to take an informed decision to develop a venture  
- How to turn venture ideas into commercial products considering market needs (service thinking and marketing)  
  c) The structures, cultures, practices and financial underpinnings of enterprises  
d) Management best practices and principles of good teamwork in agile design engineering environments                                                                                                                                                                                      | Core            |
| Design Engineering Projects                             | Design Engineering Futures                 | Students form teams to develop analysis and then original designs in response to significant design engineering futures challenges or opportunities taking account of a wide range of social, environmental, technological and economic factors. The project based work builds on earlier design engineering skills, understanding and team working, but adds the introduction to techniques for futures analysis and innovation together with the requirement for high levels of prototype embodiment and validation through engagement with external stakeholders. As project deliverables, teams produce prototypes, project reports and exhibitions of their work. | Core            |
| Enterprise and Professional Practice                    | Industry Placement (part1)                 | The Industry Placement modules aim to provide practical industry experience on a substantial design engineering related project, or collection of related projects. Lasting up to 6 months Industry Placement (Part 1) will run from April until June in the third year of study, directly followed by Industry Placement (Part 2) from July until September and the beginning of the fourth year of study. Utilising work carried out to develop CVs and Portfolios in the 2nd year Working in Organisations module students secure a placement with an organisation prior to the start of the placement period. They then work with the organisation for the duration of the placement. | Core            |
| Electromechanical Engineering                           | Robotics                                   | This module provides an introduction to the field of robotics without requiring prior knowledge or experience in this topic. The students will be acquainted with the most important theoretic building blocks in robotics, namely, kinematics and dynamics of robots, robot control and motion planning algorithms. The module emphasizes both theoretical and practical aspects of robotics. It includes many tutorial and lab sessions that enable hands-on experience and provide the students with access to state-of-the-art robots. | Core            |
| Engineering Analysis                                   | Optimisation                               | The Optimisation course is designed to provide students with exposure to rational integration of design methodologies with the concepts and techniques of modern optimisation theory and practice. Through the course, the students will learn to rationalise and quantify an engineering system or product design problem, develop proper mathematical models to formulate a design optimisation problem, and apply appropriate optimisation algorithms to solve it. | Core            |

Electives on next page
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<td>Elective</td>
<td>Audio Experience Design</td>
<td>An introduction to audio technology and perception, which includes acoustics, psychoacoustics, digital signal processing, audio recording techniques, audio reproduction techniques, 3D sound synthesis and reproduction and other selected topics such as data sonification and loudspeakers design.</td>
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<td>Elective</td>
<td>Design for Additive Manufacture (D4AM)</td>
<td>It is vital that the next generation of engineers and designers are equipped with the knowledge and skills necessary to harness the full potential of Industry 4.0. Part of this new industrial revolution is Additive Manufacturing; an exciting and fast developing area of digital manufacturing. This module provides engineering students with the platform needed to solve future industry challenges, get the most out of 3D printing technology and optimise designs. The module is aimed at engineering students who have an interest in 3D printing and advanced manufacturing methodology; who have the desire to become industry experts or academic researchers in this exciting area.</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>Design Led Innovation and Enterprise</td>
<td>Students learn to apply human-centred design, creativity and systems-based approaches in the development of innovative, viable and sustainable solutions for unmet needs in an area of their choosing. The module adopts a design science research approach that differs from scientific explanatory research (i.e. methods differ to traditional engineering, deterministic approaches). Design-led research makes a creative jump to ‘what can be’, through the use of qualitative and quantitative methods, an emphasis on prototyping and effectiveness of a solution in a chosen context.</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>Advanced Industrial Design</td>
<td>The module aims to:  - Develop a high level understanding of contemporary industrial design principles and practice;  - Follow a thorough practical design process to develop a PSS concept, with detail design for a 3D touchpoint of the system;  - Powerfully communicate the outcomes in appropriate formats and with high professional ID standards for wider dissemination. Students will be predominantly focused on a practical design assignment supported with lectures and tutorials covering the following topics: Design for meaning: narrative, semiotics, visual language, aesthetics, form, Contextual Design, Brand strategy, Detail design, Colour, Materials, Finishes (CMF), Trend forecasting, Design for experience, service design, design for behaviour change, Design innovation with Business Model Canvas, design impact &amp; validation, Advanced CAD visualisation.</td>
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Fourth Year

The fourth year offers several electives, allowing a greater degree of specialisation to students than earlier years. The fourth year also contains a high proportion of the programme’s commercially oriented modules; this was designed to consolidate the students’ industrial placement experiences with their previous academic studies and invest students with the skills in enterprise and design in commercial contexts that the programme aims to provide its graduates.

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<td>ERO aims to provide students with the knowledge and understanding they will need to create viable enterprises and deliver new products to market taking account of ambiguity and uncertainty; plan and implement appropriate prototyping strategies; effectively communicate and test ideas with target markets and stakeholders; explore and quantify commercial potential and develop a commercialisation strategy; evaluate risks and plan mitigation; develop and pitch a compelling value proposition to investors / funders; work in an effective and professional team planning and managing both strategy and team tasks; adopt best practice in their documentation and communication of progress and findings; embody their ideas and innovations sufficiently to exploit identified potential.</td>
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<td>The Industry Placement modules aim to provide practical industry experience on a substantial design engineering related project, or collection of related projects. Lasting up to 6 months. Industry Placement (Part 1) will run from April until June in the third year of study, directly followed by Industry Placement (Part 2) from July until September and the beginning of the fourth year of study. During Part 2 students are expected to be able to demonstrate completing their contributions to a significant project or collection of projects and to provide a reflective presentation to their host organisation and report on their professional development.</td>
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<tr>
<td>Design Engineering Project</td>
<td>Solo Project</td>
<td>The Master’s Project represents the culmination of the four year design engineering journey. Students have a high degree of choice of project topic based on outline briefs defined by an academic, an industry partner or the student themselves. This allows for specialism building on evolving interests, placement work and pattern of elective choices. Likewise the project deliverables and assessments allow for a very wide range of project types from theoretical research to projects with significant iterative physical prototyping. This reflects the wide potential of design engineering spanning; enterprise, design, physical and digital engineering subjects.</td>
<td>Core</td>
</tr>
<tr>
<td>Elective</td>
<td>Sensing and the Internet of Things</td>
<td>The module aims to provide students with sufficient tools and techniques to develop software and hardware platforms for the Internet of Things, to obtain data from mobile and social sensors, perform data analysis, perform actuations, and to use key insights from data mining.</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>Robotics Research Projects</td>
<td>Robotics II will provide an overview of the latest research in the field of applied robotics, as well as a hands-on approach to bring critical skills together. This is done in a project-oriented course where students will design mechanical, electrical, and software subsystems of an overall functioning robot.</td>
<td>Elective</td>
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New programme (2019/20 and future entry cohorts – Current DE1)

The First Year

The programme commences with key foundational skills and knowledge building in design and engineering fundamentals. Beginning with induction projects, the novice design engineer’s experience of the design process is steadily developed through a series of design engineering projects, enabling the student to see the practical application of content introduced in other modules as well as developing their own individual experience base and design process, communication and project management skills.

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<td>Engineering Analysis</td>
<td>Computing 1: Introduction to Scientific Computing</td>
<td>This module aims to introduce students to computer programming and analysis through a hands-on approach. They will learn the Python programming language using the Jupyter Notebook environment. The module will focus on the fundamental algorithms and data structures that are the foundations of computer programming in any language. Students will use Python coding to solve maths problems, a key foundation skill needed in design engineering. By the end of the module, students should be able to write moderately complex programs based on the Python language and be able to transition easily to other high-level languages, such as Java, C#, .NET, C++, etc. The idea of this introductory course is to lay a foundation such that the students can undertake independent learning for application-specific programming in their subsequent analytical work.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering Analysis</td>
<td>Computing 2: Algorithm Design and Analysis</td>
<td>The aim of this module is to provide students with the design concepts, theoretical foundations, and hands-on experience to efficiently construct their own algorithms and data structures for solving general or particular problems. To this end, the module covers the basic techniques for analysing the running time of algorithms, paradigms of algorithm design, and well-known data structures and high-level algorithms that a design engineer should be comfortable with and able to apply to further modules in the programme.</td>
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<tr>
<td>Electromechanical Engineering</td>
<td>Electronics 1: Introduction to Electronic Circuits, Sensors, and Mechatronics</td>
<td>This module introduces students to both analogue and digital electronics as found in all electronics systems. The module approaches the subject both theoretically and practically, including topics such as analysis of circuits, CPU architectures and interfacing to micro-controllers. By the end of the module, students will be able to design and implement both circuits and python based embedded programs in electronics hardware that contains four main elements: 1) sensors that produce electrical signals from physical world; 2) driver and actuators that provide mechanical movements; 3) communication links that passes messages between a mobile device and the embedded electronic systems; 4) embedded programming that gives the electronic system intelligence and adaptability.</td>
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<tr>
<td>Engineering</td>
<td>Engineering Mathematics</td>
<td>This module aims to provide students with sufficient mathematical tools and techniques to tackle a variety of design engineering problems. There is particular focus on the intuitive understanding of topics, rather than investing too much time grinding through the calculations. It is taught using the “inverted classroom” approach, where students are expected to have already watched specific lecture videos online before engaging with an interactive learning experience in class. This modern approach has proved to be extremely effective for other courses at Imperial and seems to make learning maths considerably more enjoyable.</td>
<td>Core</td>
</tr>
<tr>
<td>Design Engineering Projects</td>
<td>Human centred Design Engineering</td>
<td>This module aims to develop students’ competence and self-confidence in the key elements of creative human centred design engineering tools and process. Students will also learn and develop design engineering communication techniques; including design drawing, engineering drawing, 3D computer aided design, 2D digital graphics and oral presentation. These two elements combine in a substantial structured design engineering project which involves both individual and team based activity. Student confidence and ability to work autonomously is developed through the requirement to investigate and define a human centred design engineering opportunity/problem area, establish meaningful links with users and stakeholders for information gathering and validation and manage the overall project process to deliver a complete set of outcomes in submissions, presentation and an exhibition of work.</td>
<td>Core</td>
</tr>
<tr>
<td>Enterprise and Professional</td>
<td>Introduction to Design Engineering</td>
<td>This module provides an introduction to design engineering in three significant areas: 1) the evolving global and professional contexts for design engineering, 2) the foundational mindsets, methodologies and methods for creatively tackling design engineering issues and 3) the focused opportunity to apply and develop core practical and intellectual skills. Contextual understanding will be enhanced by a number of guest lectures from industry-leading practitioners of design engineering. Skills are developed through practical tutorial activities and through application in a series of short design engineering projects. Students start to develop their own critical analysis of contemporary contexts through a self initiated study on ethical, environmental and social elements in a design engineering topic of choice.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering</td>
<td>Production and Materials</td>
<td>Production and materials provided students with an understanding of material properties and the means to manufacture them into geometries. Underpinning material science in metals, polymers, ceramics and composites combined knowledge of how to apply them into different use cases will equip students to quantitatively assess material selection problems and also enable them to abstract the knowledge onto more complex problems.</td>
<td>Core</td>
</tr>
<tr>
<td>Engineering</td>
<td>Solid Mechanics 1</td>
<td>In Mechanics, students learn how to link force and displacement using laws of physics. They use this knowledge to model several real-world problems, including predicting failure loads in stationary structures and predicting the motion of objects. They put their knowledge in practice in an outdoor unique activity, the catapult challenge.</td>
<td>Core</td>
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</table>
Second and Third Years

In the second and third years, the range of engineering fundamentals, design thinking, creative problem solving, management and communication skills are developed, leading to a series of enterprise modules and projects where students develop skills in value propositions and turning their concepts into embodied concepts and proposals that are suited to corporate and enterprise roll-out. Students going onto the fourth year will then take part in a six-month industrial placement intended to give them real commercial experience and an opportunity to put the skills they have acquire into practice.

Second Year

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<tbody>
<tr>
<td>Engineering Analysis</td>
<td>Data Science</td>
<td>The module aims to provide students with sufficient tools and techniques to explore small and large datasets, to perform data analysis and to use key insights from statistics and machine learning. The main topics include the basics of data analysis, statistics, and advanced data science. During the whole module, tutorials will be structured around case studies that are appropriate for Design Engineering students, such as social media activity analysis.</td>
<td>Core</td>
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<tr>
<td>Electromechanical Engineering</td>
<td>Electronics 2: Signals, Systems, and Control</td>
<td>This course is a follow on from Year 1’s Electronics 1 module by providing a system perspective to electronic systems. The focus of this year module will be on signal interpretation, processing and manipulation; system characterisation and modelling; feedback control and tuning of feedback systems. By the end of this module, together with what have been covered in the first year, students will have most of the fundamental concepts of electrical and electronic engineering necessary for a design engineer. Some may even have the prerequisites to study more advanced modules in EEE in their 3rd and 4th years.</td>
<td>Core</td>
</tr>
<tr>
<td>Physical Engineering</td>
<td>Finite Element Analysis</td>
<td>In FEA, in a hands–on environment, students learn how to use one of the most versatile computational modelling techniques, the FEA, to model complicated mechanical systems, predict their performance and even optimise the design by making informed alterations. The modules includes an experimental lab, where students put their predictions into a test and reflect on their models based on experimental observations. The topics that we cover range from failure of static structures to fatigue, buckling and vibrations.</td>
<td>Core</td>
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<tr>
<td>Electromechanical Engineering</td>
<td>Gizmo: Physical Computing</td>
<td>Gizmo combines the approaches of Physical Computing and Mechatronics. It is a foundational course that assumes you have elementary or no prior knowledge in one or more of the associated subjects of mechanical design, electronic control and feedback systems, and computing. The module takes an active learning approach, with most of the real work happening in the workshops and programming and interacting with your peers and tutors. A broad overview of tools and techniques used in Physical Computing and Mechatronics will be provided, with emphasis on mechanisms.</td>
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<tr>
<td>Design Engineering Projects</td>
<td>Industrial Design Engineering</td>
<td>The Industrial Design Engineering module is built around a single substantial project brief which aims to integrate a human centred design approach with creative design engineering of a complex electromechanical product. Benchmark products will have multiple components; materials, manufacturing and market factors to consider. This project based context provided requires further development in human centred design engineering, engineering analysis, machine elements, mechatronics, form, design for manufacture, assembly and production, product marketing considerations and project management. Project outcomes include well resolved working prototypes which are demonstrated in a final presentation and used for verification and validation against defined user requirements.</td>
<td>Core</td>
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<tr>
<td>Physical Engineering</td>
<td>Solid Mechanics 2</td>
<td>This module is a progression from Solid Mechanics 1, and develops key foundational principles for later modules, such as Robotics and FEA. The module focuses on Kinematics, and Dynamics of rigid bodies, Vibrations and Stress Analysis is also included.</td>
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<tr>
<td>Design Engineering Projects</td>
<td>Sustainable Design Engineering</td>
<td>More than ever, designing for sustainability is fundamental to design engineering practice. This module reinforces the foundations of knowledge and skills with methodologies and methods developed in year 1, and through analysis of a key challenge for sustainability, introduces specific principles and methods for sustainable design. Validated design engineering concepts for improving the environmental impact of the analysed situation are developed and presented.</td>
<td>Core</td>
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<tr>
<td>Physical Engineering</td>
<td>Thermofluids</td>
<td>Nearly every product, service and system consumes energy in its production, implementation and end of life. Design Engineers can consider these factors at the design stage, taking deliberate decisions on the magnitude and impact of the energy concerned. These decisions can have substantial energy efficiency impact. This module introduces the topic of energy within a design context and the associated engineering sciences of fluid mechanics, heat transfer and thermodynamics. The topics covered range from physical models to real-world practical applications and design principles.<a href="https://dyson.imperial.ac.uk/th/img_auth.php/a/a7/Level_5_DESE_Thermofluids.pdf">https://dyson.imperial.ac.uk/th/img_auth.php/a/a7/Level_5_DESE_Thermofluids.pdf</a></td>
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<td>Enterprise and Professional</td>
<td>Working in Organisations</td>
<td>This module aims to develop an understanding of the different organisational contexts Design Engineers operate in and help students consider the current and future professional landscape, together with preparing effectively to position themselves on a career route that is most relevant and exciting to them. The module requires students to research and analyse organisations, make meaningful external connections, start and grow a professional network, prepare a professional CV with a strong portfolio of their existing work and write an essay that reflects on their investigation of organisations and career trajectory considerations.</td>
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<td>Design Engineering Projects</td>
<td>Design Engineering Futures</td>
<td>Students form teams to develop analysis and then original designs in response to significant design engineering futures challenges or opportunities taking account of a wide range of social, environmental, technological and economic factors. The project based work builds on earlier design engineering skills, understanding and team working, but adds the introduction to techniques for future analysis and innovation together with the requirement for high levels of prototype embodiment and validation through engagement with external stakeholders. As project deliverables, teams produce prototypes, project reports and exhibitions of their work.</td>
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<td>Industry Placement (Part 1)</td>
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<td>Enterprise and Professional Practice</td>
<td>Innovation and Entrepreneurship</td>
<td>This module aims to push students to unleash their entrepreneurial spirit and develop business cases which have economic potential and have been informed by social or technological opportunities. This module builds on initial introductions to contexts for innovation and entrepreneurship in first and second year and presents students with real-life situations as entrepreneurs by working with experienced experts to develop business cases in only 8 weeks. It substantially deepens knowledge and understanding of key concepts and methods used in strategy, innovation and design thinking for commercialisation of new technology and innovating new services and products. Together with an expert network composed of a corporate sponsor, a set of experts acting as coaches and the wider Imperial entrepreneurship ecosystem, students will fast-track through an entrepreneurial journey. In teams, students pitch a business opportunity and develop a venture plan, and complement evaluation of their performance with an individual</td>
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<td>Engineering Analysis</td>
<td>Optimisation</td>
<td>The Optimisation course is designed to provide students with exposure to a rational integration of design methodologies with the concepts and techniques of modern optimisation theory and practice. Through the course, the students will learn to rationalise and quantify an engineering system or product design problem, develop proper mathematical models to formulate a design optimisation problem, and apply appropriate optimisation algorithms to solve it.</td>
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<td>Electro-mechanical Engineering</td>
<td>Robotics</td>
<td>This module provides an introduction to the field of robotics without requiring prior knowledge or experience in this topic. The students will be acquainted with the most important theoretic building blocks in robotics, namely, kinematics and dynamics of robots, robot control and motion planning algorithms. The module emphasises both theoretical and practical aspects of robotics. It includes many tutorial and lab sessions that enable hands-on experience and provide the students with access to state-of-the-art robots.</td>
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<td>Elective</td>
<td><strong>Advanced Industrial Design</strong></td>
<td>The AID elective module provides the opportunity to further develop industrial design skills and knowledge to a high professional level alongside gaining understanding of significant emerging themes and methodologies within the field. At this level industrial design takes a product service systems perspective and incorporates development of CAD skills needed for advanced approaches such as generative design, but also in virtual prototyping and visualisation. Students work on individual projects culminating in high quality visualisation of concepts which will be important content of professional portfolios and may be entered into international design competitions such as the RSA student design awards.</td>
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<td><strong>Audio Experience Design</strong></td>
<td>An introduction to audio technology and perception, which includes acoustics, psychoacoustics, digital signal processing, audio recording techniques, audio reproduction techniques, 3D sound synthesis and reproduction and other selected topics such as data sonification and loudspeakers design.</td>
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<td><strong>Digital Product Design Engineering</strong></td>
<td>This elective module aims to consolidate a range of existing experience and develop knowledge, skills, understanding and attitudes for tackling the; opportunity, discovery, definition and creative development of digital products. Digital products are a dramatically expanding range of business or consumer facing services, systems and experiences. Examples range from your bank account, to your travel card to your home voice interface product. Digital product design engineering is the holistic, creative and systematic process for creating these products. It encompasses developing expertise in Digital product strategy, research, service design, user experience, user interface design and digital systems engineering. This is a project based module resulting in individual presentations of a concept for a digital product.</td>
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Fourth Year

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<td>Enterprise and Professional Practice</td>
<td>Industry Placement (Part 2)</td>
<td>The Industry Placement modules aim to provide practical industry experience on a substantial design engineering related project, or collection of related projects. Lasting up to 6 months. Industry Placement (Part 1) will run from April until June in the third year of study, directly followed by Industry Placement (Part 2) from July until September and the beginning of the fourth year of study. During Part 2 students are expected to be able to demonstrate completing their contributions to a significant project or collection of projects and to provide a reflective presentation to their host organisation and report on their professional development.</td>
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<td>Design Engineering Projects</td>
<td>Master’s Project</td>
<td>The Master’s Project represents the culmination of the four year design engineering journey. Students have a high degree of choice of project topic based on outline briefs defined by an academic, an industry partner or the student themselves. This allows for specialism building on evolving interests, placement work and pattern of elective choices. Likewise the project deliverables and assessments allow for a very wide range of project types from theoretical research to projects with significant iterative physical prototyping. This reflects the wide potential of design engineering spanning: enterprise, design, physical and digital engineering subjects.</td>
<td>Core</td>
</tr>
</tbody>
</table>

Electives on next page
<table>
<thead>
<tr>
<th>Theme</th>
<th>Title</th>
<th>Description</th>
<th>Core / Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>Design for Additive Manufacture (D4AM)</td>
<td>It is vital that the next generation of engineers and designers are equipped with the knowledge and skills necessary to harness the full potential of Industry 4.0. Part of this new industrial revolution is Additive Manufacturing; an exciting and fast developing area of digital manufacturing. This module provides engineering students with the platform needed to solve future industry challenges, get the most out of 3D printing technology and optimise designs. The module is aimed at engineering students who have an interest in 3D printing and advanced manufacturing methodology; who have the desire to become industry experts or academic researchers in this exciting area.</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>Robotics Research Projects</td>
<td>Robotics Research Project will provide an overview of the latest research in the field of applied robotics, as well as a hands-on approach to bring critical skills together. This is done in a project-oriented course where students will design mechanical, electrical, and software subsystems of an overall functioning robot. In this module, students will come up with a user case for a robotic solution, develop a hypothesis about the effect of a design criterion on the user experience (e.g. across gender, culture, or wellbeing), develop the robotic solution (experimental set up), test on human participants, obtain measurements, analyse data, and write a report in a conference paper format (6-8 pages). This requires students to fuse elements of embedded programming, control, and mechanical fabrication in the design and build of highly contextualised smart technologies. They must consider the interaction between the human users and their robot systems, and demonstrate a systematic methodical approach to the conception, development, and validation of their ideas. This has the aim of proposing new methods for the development and application of robotics in new contexts across the world.</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>Sensing and Internet of Things</td>
<td>The module aims to provide students with sufficient tools and techniques to develop software and hardware platforms for the Internet of Things, to obtain data from mobile and social sensors, perform data analysis, perform actuations, and to use key insights from data mining.</td>
<td>Elective</td>
</tr>
</tbody>
</table>
10.4 Industry Placement

Students going onto the third and fourth year of the DE MEng take part in a six-month industrial placement intended to give real commercial experience and an opportunity to put the skills acquired into practice.

The placements will run April–September in the third year. Third year exams will be taken early to ensure that all students will be present in College. The School’s Placements Officer, Talya Porat (EMAIL) and The Teaching Office Team shall arrange and select a number of appropriate placement companies and industrial supervisors. These will be prepared to provide suitably challenging and well-defined project objectives to students. Companies will be generally expected to pay the students at a level appropriate for a new graduate.

Arranging your placement
During Year 2, sessions will be run with the Placements Officer to inform you of the placements procedure. Attendance at these sessions is mandatory.

The School will provide a list of companies and pre-agreed placements through an online portal. Students will need to find adverts of interest to them, and then go through the company’s individual application and interview process to secure their placement. Students will also be able to source a position with a company not offered by the College, however, this will need to be approved with the School’s Placements Officer to ensure it is appropriate for the learning outcomes.

Supervision and Assessment
Students will have one placement tutor (School academic) and one industrial supervisor (a member of staff at the host company). The module will be assessed against objectives by their placement tutor on the basis of an interim and final report, a presentation, an exhibition, and an employer’s report from the industrial supervisor.

Preparation
In preparation for your placement it is important that you develop your skills-base in areas relevant to employment and your CV and portfolio. We strongly encourage students to ensure that they manage their projects effectively in DE1, DE2 and DE3 as well as extra-curricular activities and capture the outputs and work for inclusion in your portfolio and CV.

IMPORTANT
Unless your industry placement is based in London, you will only need accommodation during T1 and T2 of Year 3. The duration of your placement also means that you will be working during the summer break between the third and fourth years.

Further information
Early in your third year you will be provided with a separate handbook that contains the most updated information on the placement details for your year.
10.5 Graduation

With your final-year taught modules examined and your project work written up and presented, the degree programme is over. Academic and administrative staff now integrate all of the module marks and any other relevant information to decide, at a final meeting, the degree class to award.

The Board of Examiners

The Board of Examiners consists of every academic member of staff plus the External Examiner/s.

There are two meetings interspersed with fact-finding activities and reviews, this procedure leads to a final mark for graduating students and to a decision on progression for all others.

The process begins with the collection of all marks registered during the year for every student. Checks are made at this stage to ensure that each student has a mark for each module for which they were registered.

Verified marks are next input to a master database which contains the marks brought forward from previous years for each registered student. Finally a program which implements the progression rules for each student’s year of entry is run to update the database and arrive at a mark for the current year.

A Pre-Exam Board Meeting, attended by a core group of academics including the Examinations Officer, DUGS and members of the Teaching Office take an overview of the year’s results. Special cases are discussed and exam or coursework marks for modules which may require moderation are identified. The group considers preliminary outcomes for individual students. In particular, College regulations require every candidate who is within 2.5% of a degree class boundary (e.g. who has a mark between 67.5% and 70%) to be considered for promotion. This is increased to 5% where valid mitigating circumstances are taken into account.

The External Examiners — senior academics from another UK university — now arrive. They spend some days reviewing all marked examination scripts and coursework marked during the year, concentrating on individual project reports and group project results for students who might be considered for degree class promotion. The Pre Exam Board Meeting and the External Examiners’ visit ensure that all relevant information is reviewed in preparation for the Final Board of Examiners Meeting.

The Final Board of Examiners Meeting is attended by all academic staff (who assess students and are therefore ‘Examiners’), the External examiners and a representative from Registry to advise on procedures and regulations. This is the occasion on which the recommendation for degrees and degree classes (honours) are formally agreed. At this point a decision is made on whether a student passes/fails a year or will be required to take a Supplementary Qualifying Test (SQT).

A decision is also made on:
- Whether to carry the information forward to the following year;
- Whether a graduating student is awarded an appropriate compensation in marks.

NOTE
At no stage is the proportion of results in each degree class used to implement a ‘quota’, or taken into account in any way at all. In theory every student could get a first!

The Graduation Ceremony

On what the College calls Commemoration Day in October after your final year, you will arrive at the graduation ceremony as an undergraduate, participate as a graduand and emerge as a graduate!

Invitations are issued during August. The ceremony takes place in the Royal Albert Hall, Kensington, London.

Attendance is not required; it does not affect the awarding of your degree, but few graduands manage to resist the allure of the occasion in the presence of family and peers. The School will organise a reception; we shall pass you more details nearer the time. However if you wish to know more feel free to ask the Teaching Office Team.

Graduation website (link)
11. General Information
11.1 College Principles

Imperial College London embodies and delivers world class scholarship, education and research in science, engineering, medicine and business, with particular regard to their application in industry, commerce and healthcare.

The College is diverse and international – it comprises academic staff, students and support staff of varied disciplines and backgrounds. It champions collaboration, actively opposes discrimination and recognises the importance of making a positive impact in the wider community.

The full College Principles can be found here:

College Principles (link)

11.2 Health Services

A list of College health and welfare services is posted throughout the School and College. You will probably need to make little or no use of these services, but you should register as an NHS patient with the Health Centre within the first few weeks of term.

Health Centre
The College has its own Health Centre that is only for Imperial Staff and Students. This is run by the National Health Service (NHS).

Registration
On the Sunday before Welcome Week, the Health Centre will be open for students in local halls of Residence to register, and to provide information on vaccinations required. Health centre staff will also be working late sessions on Monday, Tuesday, Wednesday and Thursday of Welcome Week for new registrations and immunisations.

Address
40 Prince’s Gardens Southside,
Watts Way,
London SW7 1LY

24-hour telephone service
+44 (0)20 7584 6301

Emergencies
(Security) 4444 (internal)
020 7589 1000 (external)

Internal extension
49375/6

Email
imperialcollege.hc@nhs.net

Term time opening hours
08.00–18.00 Monday, Wednesday, Thursday and Friday
08.00–13.00 Tuesday

Vacation time opening hours
08.00–17.00 Monday, Wednesday, Thursday and Friday
08.00–13.00 Tuesday
Closed at weekends and on public holidays

On weekdays during the Christmas and Easter closures, the Health Centre runs an emergency clinic only, 08.00–10.00. Reception is open 08.00–13.00.

Find a Doctor (link)

Health Centre Website (link)

National Health Service website (link)

Out of Hours Services
If you are registered with the Health Centre as a National Health Service (NHS) patient, and need medical advice outside normal opening hours please telephone the surgery as usual. Follow the recorded instructions which explain how to contact its out-of-hours service.

The Health Centre provides a 24-hour emergency service for its NHS registered patients only.

If you are not eligible to register there, you may use its on-site services during normal working hours only. Make sure you are registered with an NHS General Practitioner near where you live during term, in case you need the doctor to visit you there or need medical advice out-of-hours.
Nearest Accident and Emergency (A&E) Departments

Chelsea and Westminster Hospital
369 Fulham Road London SW10 9NH

St Mary's Hospital
Praed Street, London W2 1NY

**IMPORTANT**

Accident and emergency (A&E) departments should only be used for accidents and emergencies.

11.3 Mental Health Services

Mental Health issues are not uncommon and 1 in 4 people in the UK will experience a mental health problem each year*. If you find that you are struggling to cope with any aspect of your life, it is better to seek help earlier rather than later.

Short-term counselling is offered to all registered students of Imperial College London. It is free and confidential: [www.imperial.ac.uk/counselling/](http://www.imperial.ac.uk/counselling/)

The above website also includes links to various resources that provide mental health information and advice.

If you are registered as an NHS patient you are also able to access free Mental Health services via the NHS although waiting times can be long.

**IMPORTANT**

If you are having suicidal thoughts, it is important for you to talk to someone and tell them how you are feeling. This could be a family member, a friend, a member of College staff, a health professional, a helpline or whoever you feel comfortable talking to.

If you are considering killing yourself you should contact the emergency services (999) immediately.

The Samaritans is a charity organisation who provide services to those who are experiencing mental health issues. You can contact their helpline, via phone on 116 123 (free from all phones including mobile) or email jo@samaritans.org

*Samaritans website (LINK)*

11.4 Security

Imperial is a relatively public space, and, sadly, thefts can occur from time to time. It is essential to look after your own property and to remain vigilant. Take great care of both your personal property and that of the College.

If you are planning to use a bicycle in London, please be careful and lock it securely. You can find more information about this at the link below.

**Information Security Policy (link)**

**IMPORTANT**

If you lose anything, report it promptly to the security officer in Sherfield building (ref. 20 on campus map, internal tel. 4444). It is especially important to report a lost or stolen ID card. If you find an ID card or any apparently lost property in the school, please hand it in to the Teaching Office team or a member of campus Security.

**Security website (link)**

**Securing your bike (link)**

**SafeZone**

SafeZone is an app through which you can quickly and directly contact the Security team whenever you need them. In an emergency situation, whether you’re 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 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 College 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 College shuttle bus.

SafeZone is optional to register to and is now available to download on the Apple and Android App stores.

All existing phone numbers for the 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.

*Samaritans website (LINK)*
11.5 Your ID Card

The College-wide security system of ID swipe cards controls and monitors access to halls of residence, and to the School building and certain rooms outside normal hours. Your ID card will be your passport for the duration of your course: get it as soon as you can, and treat it with respect.

**IMPORTANT**

Lending your swipe card to friends or acquaintances, even for a short time, is a serious offence which can result in your being asked to leave the College.

Lost your ID card?

[Contact the ID card Office](link)

11.6 Student Disciplinary Procedure

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

[Student Disciplinary Procedure](LINK)

11.7 Smoke-Free Policy

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

[www.imperial.ac.uk/smoke-free](link)

11.8 Health and Safety

Design engineers make things, test things and deal with potentially dangerous quantities, e.g. chemicals, power, energy, force, pressure, mass and velocity.

To be a professional engineer your consciousness of risk, and concern for your own and others’ safety, must be considered and instinctive. We will emphasise this from day one. Very soon after registration, every student must attend the School Safety Briefing.

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

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

[The College’s Health and Safety Policy](LINK)
[The College Safety Department](LINK)
[Occupational Health Requirements](LINK)

The School’s safety contact is:
Dr Connor Myant
M224, 2nd Floor (Mezzanine), RCS1 Building
connor.myant@imperial.ac.uk

**IMPORTANT**

The College is required, under the Health and Safety at Work Act (1974), to formally acquaint all its members with their legal responsibilities for the maintenance of their own safety and that of others. You must read and understand the linked Health and Safety Policy Statement, and will be required to sign a form to confirm. Failure to attend the Safety Briefing will forfeit the protection offered by the Act and render you vulnerable to personal prosecution in the courts. In any event, you will certainly not be allowed to work in the School workshops and laboratories.
11.9 In Your Hall of Residence

If you’re staying in College accommodation you will have access to a range of support within your hall. All halls have a Hall Warden team who are on call 24/7 to look after your wellbeing and maintain a friendly living environment so that all residents can study, sleep, relax and enjoy themselves.

They also play an important part in the social life of the hall, organising a rolling programme of events to bring everyone together. This is supported by the Hall Activities Fund, which all residents contribute to at a rate of £2 per week.

The team includes returning students, known as Hall Seniors, who can offer first-hand advice about making the most of life at Imperial.

Each hall also has a Hall Supervisor or a Reception team who oversee the day-to-day running of the residence. So, if you have any enquiries or want to report a maintenance issue there are people on hand to help you.

11.10 Student Records and Data

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

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

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

Student records and examinations: records@imperial.ac.uk

Degree certificates: certificates@imperial.ac.uk

11.11 Alumni Services

When you graduate you will be part of a lifelong community of over 190,000 alumni, with access to a range of alumni benefits including:
- discounts on further study at the College and at Imperial College Business School
- alumni email service
- networking events
- access to the Library and online resources
- access to the full range of careers support offered to current students for up to three years after you graduate
- access to our Alumni Visitor Centre at the South Kensington Campus, with free Wifi, complimentary drinks, newspapers and magazines, and daytime left luggage facility

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

www.imperial.ac.uk/alumni
12. Imperial College Union
Every student who registers at Imperial College London automatically becomes a member of the Students’ Union. As well as providing an overall framework for student representation, ICU provides a wide range of information, facilities, support and social events.

12.1 President of Imperial College Union

Welcome,

First and foremost, congratulations on making it here. It’s difficult to overstate how well you’ve done to make it to Imperial, and an easy thing to take for granted: well done.

Studying at a place like this gives you opportunities you simply wouldn’t have elsewhere. This is a well-funded institution, with extremely capable students and superb research facilities. Take advantage of both: working with others, and seeking out opportunities beyond your course, is what makes a degree here worthwhile.

Imperial has plenty to offer outside study too, giving you the chance to try something new. London is a well-connected, diverse city, where almost anything you could want is only a tube ride away. We’re a stone’s throw from some of the greatest museums in the world. We also have hundreds of student-led societies covering almost any area you can think of.

These societies are administered by your student union, the Imperial College Union. We also support networks of departmental student representatives, campaigns, and volunteering opportunities. The Union is led by students, for students. The four deputy presidents and myself are all elected students who have taken a year out to work full-time representing you.

University is a bit of a sea change: you’re in a place where, likely for the first time in your education, you have a good degree of control over how you learn. Take advantage of this. Consider running in our autumn elections, be sure to join a society or two, and above all, make your voice heard. If there’s something you want to see changed, this is a place where we can make that happen.

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.

Best of luck – I hope you have a fantastic year,

Abhijay Sood
Imperial College Union President 2019-20
union.president@imperial.ac.uk

12.2 Student Representatives

In our School, the Union has three Department Reps (two academic and one well-being), and two Year Reps (one academic and one well-being) for each of the years.
You can find the description of these roles here:

Academics Reps (link)
Well-being Reps (Appendix E)

Election of Dep Reps
The Department Reps are elected via the Union’s eVote service. All UG students will be invited to a gathering in week 1 of the autumn term, where the candidates will run through their manifesto. After the meeting the eVote system opens and students have a chance to campaign for two weeks, after which the eVote closes. The results will be announced shortly thereafter.

Election of Year Reps
The two Year Reps (for each year) will be elected during a session, coordinated by the Senior Tutor, timetabled in Week 4 of the autumn term.

2019/20 Reps
The School academic and wellbeing reps for the 2019/20 academic year are listed below:

<table>
<thead>
<tr>
<th>Dept</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE1</td>
<td>Paula Castillero Garcia</td>
<td><a href="mailto:paula.castillero-garcia19@imperial.ac.uk">paula.castillero-garcia19@imperial.ac.uk</a></td>
</tr>
<tr>
<td>DE2</td>
<td>Mimi Reyburn</td>
<td><a href="mailto:mimi.reyburn18@imperial.ac.uk">mimi.reyburn18@imperial.ac.uk</a></td>
</tr>
<tr>
<td>DE3</td>
<td>Puja Soneji</td>
<td><a href="mailto:puja.soneji17@imperial.ac.uk">puja.soneji17@imperial.ac.uk</a></td>
</tr>
<tr>
<td>DE4</td>
<td>Visakan Mathivannan</td>
<td><a href="mailto:visakan.mathivannan16@imperial.ac.uk">visakan.mathivannan16@imperial.ac.uk</a></td>
</tr>
</tbody>
</table>

Academic Reps

<table>
<thead>
<tr>
<th>Dept</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE3</td>
<td>Higor Alves De Freitas (DE3)</td>
<td><a href="mailto:higor.alves-de-freitas17@imperial.ac.uk">higor.alves-de-freitas17@imperial.ac.uk</a></td>
</tr>
</tbody>
</table>
### 12.3 Clubs and Societies

This is a demanding course and we expect you to work hard; but we hope you will ‘play hard’ as well. Opportunities range from the hundreds of student societies to the social and cultural resources of one of the world’s greatest cities.

Since there are over 8000 undergraduate students at Imperial, it is virtually certain that your interests – however unusual – will be shared by others. The clubs and societies formed by students and supported by Union funding will be competing to attract new members at the Union Fair on the first Tuesday of autumn term. More than 300 societies are affiliated to the Student Union, and every one of them will want you to join.

#### IC Union clubs and societies (link)

London offers an incredible range of entertainment and culture, both nearby and further afield. The substantial price reductions available to students make this expensive place extremely good value.

Take advantage of being here: few of you will have a second chance of university education.

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### 12.4 Imperial College Advanced Hackspace

Imperial College Advanced Hackspace is a unique community of over 2000 like-minded makers, hackers, inventors and entrepreneurs across the University. Supported by an extensive suite of prototyping equipment and professional experts, ICAH has created a vibrant environment that makes it the best place in the world to turn idea into a reality. ICAH is free to all College members and the community continues to grow with 100 new users joining each month.

#### Imperial College Advanced Hackspace (link)

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### 12.5 Design Engineering Society

The Imperial Design Engineering Society is a departmental society for the Dyson School of Design.
Engineering. Students of the School are automatically members.

They aim to provide their members with extracurricular and social events to further broaden their experience whilst they study at Imperial.

DesSoc Website (link)

Contact (email)

12.6 College Support and Welfare

Coming to Imperial can be quite daunting if you are moving away from home for the first time — especially if you are also new to the UK. The College is possibly larger than any institution you’ve attended before, and the freedom of life in it is immense. The culture shock can be a challenge, but there are resources at both School and College level to help you through.

A single website (link at the end of this section) now coordinates access to the entire range of support and welfare services offered by the College and the Students’ Union.

The main areas covered are:
- Academic appeals and regulations
- Careers Advisory Service
- Chaplaincy
- College Hardship/Access to Learning Funds
- College Tutors
- Director of Student Affairs
- Disability Advisory Service
- English language support
- Equality
- Health Centre
- ICU Advice Centre
- ICU student representation
- International student support
- Maths support (METRIC)
- NHS Dentist Student
- Counselling Service
- Wardens

Student Space (link)

12.7 Imperial College Union Advice Centre

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

The Advice centre is your first port of call if you are experiencing difficulties during your time at university.

Their advice is:
- Free: you don’t have to pay to get advice
- Confidential: they won’t tell anyone that you’ve gone to see them and they won’t share with anyone else what you tell them unless in exceptional circumstances (see their confidentiality policy on their website, below.)
- Impartial: they offer the advice that is best for you, they are not influenced by any other organisation
- Independent: They are not part of the Imperial College so their advice is not influenced by The College or School.
- Non-judgemental: as long as you are a student they will offer the best advice they can give you and they will not judge your position or the next step you decide to take.

Imperial College Union Advice Centre (link)
13. Appendices
### Appendix B - Programme Modules Gantt Chart for the years and modules that are running in 2019-20

<table>
<thead>
<tr>
<th>Old Code</th>
<th>Banner Code</th>
<th>Year 1 - New Programme (Curriculum Review)</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESE40002</td>
<td></td>
<td>Introduction to Design Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESE40007</td>
<td></td>
<td>Computing 1: Introduction to Scientific Computing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DESE40001</td>
<td></td>
<td>Engineering Mathematics</td>
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<td>DESE40003</td>
<td></td>
<td>Production and Materials</td>
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<td></td>
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<tr>
<td>DESE40005</td>
<td></td>
<td>Solid Mechanics 1</td>
<td></td>
<td></td>
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<tr>
<td>DESE40004</td>
<td></td>
<td>Human-centred Design Engineering</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DESE40008</td>
<td></td>
<td>Computing 2: Algorithm Design and Analysis</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DESE40006</td>
<td></td>
<td>Electronics 1: Introduction to Electronic Circuits, Sensors, and Mechatronics</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Year 2 - Updated Programme (With DE2 old modules)**

<table>
<thead>
<tr>
<th>Old Code</th>
<th>Banner Code</th>
<th>Year 2 - Updated Programme (With DE2 old modules)</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
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<tbody>
<tr>
<td>DE2-COM2</td>
<td>DESE95006</td>
<td>Computing 2</td>
<td></td>
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</tr>
<tr>
<td>DE2-DES2</td>
<td>DESE99005</td>
<td>Design 2</td>
<td></td>
<td></td>
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<tr>
<td>DE2-EA2AM</td>
<td>DESE95002</td>
<td>Engineering Analysis 2.1 – M4DE (Mechanics for Design Engineers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE2-GIZ</td>
<td>DESE95001</td>
<td>Gizmo (Physical Computing)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>DE2-EA2FEA</td>
<td>DESE95003</td>
<td>Engineering Analysis 2.2 – Computer Aided Engineering</td>
<td></td>
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<tr>
<td>DE2-EA2PSD</td>
<td>DESE95004</td>
<td>Engineering Analysis 2.3 – Electronics for Product and System Design</td>
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<tr>
<td>DE2-EDP</td>
<td>DESE99008</td>
<td>Engineering Design Project</td>
<td></td>
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</tr>
<tr>
<td>DE2-BD</td>
<td>DESE95007</td>
<td>Big Data</td>
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</table>

**Year 3 - Updated Programme (With DE3 updated modules)**

<table>
<thead>
<tr>
<th>Old Code</th>
<th>Banner Code</th>
<th>Year 3 - Updated Programme (With DE3 updated modules)</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE3-IE</td>
<td>DESE96001</td>
<td>Innovation and Entrepreneurship</td>
<td></td>
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<tr>
<td>DE3-OPT</td>
<td>DESE9600X</td>
<td>Optimisation</td>
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<tr>
<td>DE3-GP</td>
<td>DESE96006</td>
<td>Design Engineering Futures</td>
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</tr>
<tr>
<td>DE3-ROB</td>
<td>DESE96005</td>
<td>Robotics</td>
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</tr>
<tr>
<td>DE3-IP1</td>
<td>DESE96007</td>
<td>Industry Placement (Part 1)</td>
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**Year 4 - Old Programme**

<table>
<thead>
<tr>
<th>Old Code</th>
<th>Banner Code</th>
<th>Year 4 - Old Programme</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
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<tbody>
<tr>
<td>DE4-IP</td>
<td>DESE97001</td>
<td>Industry Placement B</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>DE4-OPT</td>
<td>DESE97005</td>
<td>Optimisation</td>
<td></td>
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<td>DE4-SIOT</td>
<td>DESE97002</td>
<td>Sensing and Internet of Things</td>
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<tr>
<td>DE4-ERO</td>
<td>DESE97004</td>
<td>Enterprise Roll Out</td>
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<td>DE4-SP</td>
<td>DESE97006</td>
<td>Solo Project</td>
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</tr>
</tbody>
</table>

### Teaching Themes

- Design Engineering Projects
- Electromechanical Engineering
- Engineering Analysis
- Enterprise and Professional Practice
- Physical Engineering
Appendix C - Student Feedback Chart

Design Engineering | MEng Student feedback & quality enhancement flow chart (academic points*)

STUDENTS

- Year Representatives
  - DE4 x2
  - DE3 x2
  - DE2 x2
  - DE1 x2

- Department Representatives (x2 academic, 1 wellbeing)

- Design Society

STAFF

- Module leaders
- Associate module leaders

- Personal tutors

- Year Coordinators x4

- Academic Management team (DUGs, Senior Tutor, Academic tutor)

- Examinations officer

- Staff Student Consultative Committee (SSCC)

- Student Online Evaluation tool (SOLE) and National Student Survey (NSS) data

- External Examiner/s

- Industry liaison (Industry Advisory Board, Panel & Partners)

QUALITY ENHANCEMENT

Termly and annual Committees and QE processes including Teaching Themes, Curriculum Development, School Teaching Committee, Annual module review etc.

Current SSCC & SOLE points passed to AMT for immediate action

Coordination of Exam and assignment previews & EE checking

Annual QE processes inform overall development of module delivery and student experience

*Also ref separate information about communication of welfare points
**Appendix D - Assessment methods**

Per 10.3 above, due to curriculum review we shall display a version below per cohort year for your ease of reference, based on your year of entry.

**Old programme (2016/17 entry cohort – Current DE4)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Module</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Communication in Design</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>1</td>
<td>Computing 1</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>1</td>
<td>Design 1</td>
<td>80% Coursework + 20% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Engineering Analysis 1.3 - Electronics</td>
<td>40% Coursework + 60% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Engineering Analysis 1.2 – Energy and Design</td>
<td>10% Coursework + 90% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Engineering Analysis 1.1 – Mechanics</td>
<td>20% Coursework + 80% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Engineering Mathematics</td>
<td>100% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Production and Materials</td>
<td>50% Coursework + 50% Exams</td>
</tr>
<tr>
<td>2</td>
<td>Big Data</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Computing 2</td>
<td>60% Coursework + 40% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Design 2</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Engineering Analysis 2.1 – Mechanics for Design Engineers</td>
<td>15% Coursework + 85% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Engineering Analysis 2.2 – Computer Aided Engineering</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Engineering Analysis 2.3 – Electronics for Product and System Design</td>
<td>40% Coursework + 60% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Engineering Design Project</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Gizmo (Physical Computing)</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Enterprise Management</td>
<td>50% Coursework + 50% Exam</td>
</tr>
<tr>
<td>3</td>
<td>Group Project</td>
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</tr>
<tr>
<td>3</td>
<td>Industry Placement A</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Robotics</td>
<td>70% Coursework + 30% Exam</td>
</tr>
<tr>
<td>4</td>
<td>Enterprise Roll Out</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>4</td>
<td>Industry Placement B</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>4</td>
<td>Optimisation</td>
<td>50% Coursework + 50% Exam</td>
</tr>
<tr>
<td>4</td>
<td>Sensing and the Internet of Things</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>4</td>
<td>Solo Project</td>
<td>100% Coursework</td>
</tr>
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## Blended programme (2017/18, 2018/19 entry cohort – Current DE3, DE2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>Module</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>1</td>
<td>Core</td>
<td>Communication in Design</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Computing 1</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Design 1</td>
<td>80% Coursework + 20% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Engineering Analysis 1.3 - Electronics</td>
<td>40% Coursework + 60% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Engineering Analysis 1.2 - Energy and Design</td>
<td>10% Coursework + 90% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Engineering Analysis 1.1 - Mechanics</td>
<td>20% Coursework + 80% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Engineering Mathematics</td>
<td>100% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Production and Materials</td>
<td>50% Coursework + 50% Exams</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Big Data</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Computing 2</td>
<td>60% Coursework + 40% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Design 2</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Engineering Analysis 2.1 - Mechanics for Design</td>
<td>15% Coursework + 85% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Engineering Analysis 2.2 - Computer Aided</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Engineering Analysis 2.3 - Electronics for Product</td>
<td>40% Coursework + 60% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Engineering Design Project</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Gizmo (Physical Computing)</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Innovation and Entrepreneurship</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Group Project (renamed Design Engineering Futures)</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Industry Placement Part 1</td>
<td>100% Coursework (pass / fail)</td>
</tr>
<tr>
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<td>Core</td>
<td>Robotics</td>
<td>70% Coursework + 30% Exam</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Optimisation</td>
<td>50% Coursework + 50% Exam</td>
</tr>
<tr>
<td>3</td>
<td>Elective</td>
<td>Audio Experience Design</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Elective</td>
<td>Design for Additive Manufacture (D4AM)</td>
<td>100% Coursework</td>
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<td>Design Led Innovation and Enterprise (DLIE)</td>
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<td>Advanced Industrial Design</td>
<td>100% Coursework</td>
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<td>100% Coursework</td>
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<tr>
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<tr>
<td>4</td>
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<td>Robotics Research Projects</td>
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## New programme (2019/20 and future entry cohorts – Current DE1)

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<th>Module</th>
<th>Assessment</th>
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<tr>
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<td>Core</td>
<td>Computing 1: Introduction to Scientific Computing</td>
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<tr>
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<td>Core</td>
<td>Computing 2: Algorithm Design and Analysis</td>
<td>50% Coursework + 50% Practical</td>
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<tr>
<td>1</td>
<td>Core</td>
<td>Electronics 1: Introduction to Electronic Circuits, Sensors, and Mechatronics</td>
<td>40% Practical + 60% Exam</td>
</tr>
<tr>
<td>1</td>
<td>Core</td>
<td>Engineering Mathematics</td>
<td>100% Exams (80% exams + 20% progress tests)</td>
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<tr>
<td>1</td>
<td>Core</td>
<td>Human centred Design Engineering</td>
<td>85% Coursework + 15% Practical</td>
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<td>Introduction to Design Engineering</td>
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<td>Core</td>
<td>Production and Materials</td>
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<tr>
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<td>Core</td>
<td>Solid Mechanics 1</td>
<td>20% Coursework + 80% Exam</td>
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<td>Core</td>
<td>Data Science</td>
<td>70% Coursework + 30% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Electronics 2 Signals, Systems, and Control</td>
<td>40% Practical + 60% Exam</td>
</tr>
<tr>
<td>2</td>
<td>Core</td>
<td>Finite Element Analysis</td>
<td>100% Coursework</td>
</tr>
<tr>
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<td>Core</td>
<td>Gizmo (Physical Computing)</td>
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<td>Core</td>
<td>Industrial Design Engineering</td>
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</tr>
<tr>
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<td>Core</td>
<td>Solid Mechanics 2</td>
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<td>Core</td>
<td>Thermofluids</td>
<td>100% Exams (90% Exam + 10% multiple choice tests)</td>
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<td>Core</td>
<td>Working in Organisations</td>
<td>100% Coursework</td>
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<tr>
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<td>Core</td>
<td>Design Engineering Futures</td>
<td>70% Practical + 30% Coursework</td>
</tr>
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<td>Core</td>
<td>Industry Placement (Part 1)</td>
<td>100% Coursework (pass / fail)</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Innovation and Entrepreneurship</td>
<td>30% Practical + 70% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Optimisation</td>
<td>15% Practical + 35% Coursework + 50% Exam</td>
</tr>
<tr>
<td>3</td>
<td>Core</td>
<td>Robotics</td>
<td>25% Practical + 45% Coursework + 30% Exam</td>
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<td>3</td>
<td>Elective</td>
<td>Advanced Industrial Design</td>
<td>40% Practical + 60% Coursework</td>
</tr>
<tr>
<td>3</td>
<td>Elective</td>
<td>Audio Experience Design</td>
<td>100% Practical (40% in class tests + 60% installation)</td>
</tr>
<tr>
<td>3</td>
<td>Elective</td>
<td>Digital Product Design Engineering</td>
<td>80% Practical + 20% Coursework</td>
</tr>
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<td>Core</td>
<td>Enterprise Roll Out</td>
<td>40% Practical + 60% Coursework</td>
</tr>
<tr>
<td>4</td>
<td>Core</td>
<td>Industry Placement (Part 2)</td>
<td>20% Practical + 80% Coursework</td>
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<td>4</td>
<td>Core</td>
<td>Master’s Project</td>
<td>25% Practical + 75% Coursework</td>
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<tr>
<td>4</td>
<td>Elective</td>
<td>Design for Additive Manufacture</td>
<td>60% Practical + 40% Coursework</td>
</tr>
<tr>
<td>4</td>
<td>Elective</td>
<td>Robotics Research Projects</td>
<td>25% Practical + 75% Coursework</td>
</tr>
<tr>
<td>4</td>
<td>Elective</td>
<td>Sensing and Internet of Things</td>
<td>100% Coursework</td>
</tr>
</tbody>
</table>
Appendix E – Scheme for the Award of Honours

This document sets out the assessment structure of degrees awarded in the School of Design Engineering, including the criteria for progression and the criteria for the honours classifications. The degrees are composed of Parts corresponding to the years of the course: four Parts for an MEng and three Parts for a BEng. Please note that a BEng exit award is possible in exceptional circumstances, however this is not a route that we recommend normally.

For candidates at the end of the degree programme, a decision is made on whether the candidate has passed and if so, what classification of honours is to be awarded. These decisions are made by a Board of Examiners which normally meets one week after the end of the summer term and is composed of all teaching staff involved with the degree programmes plus two external examiners appointed from other UK universities. The mitigating circumstances panel will give advice to the board of examiners on how mitigating circumstances, formally notified in advance by a candidate, is to be taken into consideration.

The award of honours is based on the following mark boundaries. These are the same boundaries as used for the grade letters for reporting examination marks throughout the degree programme.

<table>
<thead>
<tr>
<th>Grade Letter</th>
<th>...corresponds to mark (%)</th>
<th>...corresponds to degree class</th>
<th>...corresponds to descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>A*</td>
<td>85+</td>
<td>First class honours</td>
<td>Exceptional</td>
</tr>
<tr>
<td>A</td>
<td>70–84</td>
<td>Upper second class honours</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>60–69</td>
<td>Lower second class honours</td>
<td>Very Good</td>
</tr>
<tr>
<td>C</td>
<td>50–59</td>
<td>Third class honours</td>
<td>Good</td>
</tr>
<tr>
<td>D</td>
<td>40–49</td>
<td>Not up to honours level</td>
<td>Pass</td>
</tr>
<tr>
<td>E</td>
<td>below 40</td>
<td></td>
<td>Fail</td>
</tr>
</tbody>
</table>

Final marks are not divulged to students by assessors or the Board of Examiners. The Registrar will release the marks confirmed at Board of Examiners to individual students in accordance with the procedures of Imperial College. Student marks will be held in an appropriate and secure Student Information System.

For candidates not in their final year, the Board of Examiners will make a decision on whether the candidate may progress to the next Part using the criteria set out later in this document. Again, mitigating circumstances, notified in advance, will be taken into account. It is possible, but not guaranteed, that a candidate who fails a Part can re-sit all the assessments in the following session. In the case of a marginal fail (i.e. with a grade in the range 30–39%) in one, or exceptionally two, modules, the examiners may set a Supplementary Qualifying Test (SQT) to allow the candidate to reach the pass mark and progress to the next part without delay. This course of action is not guaranteed and is only available where the performance in other assessments is very good.

About SQT (Supplementary Qualifying Test)

SQTs are carried out before the start of the next academic year (beginning of September).

SQTs can take the form of examination or coursework. The decision on the exact form of the SQT will be taken by the module leader and will be designed to ensure that the module learning outcomes are achieved.

SQTs are capped at 40% in cases where a student has failed the module during the year. If a student subsequently fails the SQT, he/she will fail the year. An extraordinary Board of Examiners meeting will need to take place, where it will be decided whether the student will be offered an opportunity to retake the year.

Students may also be permitted to progress to the next academic year if they marginally fail one SQT with a grade in the range 30–39%, and where their overall aggregate mark for the year is 45% or higher. An extraordinary Board of Examiners meeting will need to take place to determine whether the student will be permitted to bring forward the fail grade. This can ONLY be permitted after the SQT (not before).

If a student is taking an SQT following the approval of mitigating circumstances, the 40% cap will not apply. If a student with approved mitigating circumstances subsequently fails the SQT at the first attempt, an extraordinary Board of Examiners meeting will need to take place, where it will be determined whether the student will be permitted to take an additional SQT which will be capped at 40%. If the student subsequently fails this second SQT, he/she will fail the year, and an extraordinary Board of Examiners meeting will need to take place to determine whether the student will be offered an opportunity to retake the year.

Failing to attend an SQT without approved mitigating circumstances will result in a 0% grade, therefore a fail of the year.
Curriculum Review
The MEng programme has recently undergone a curriculum review (for more information, see also section 10.3 above). Students commencing in September 2019 will undertake the revised curriculum. Those students may disregard the aforementioned section on the Scheme for the Award of Honours and should instead refer to the College’s Academic Regulations: https://www.imperial.ac.uk/about/governance/academic-governance/regulations/.

Degree Part Weightings and ECTS
- Old Programme

The tables below summarise the weightings of marks from each part when combined into a total for the degree programme, and how ECTS are allocated to each part and each module.

MEng in Design Engineering, Old programme (2016/17 entry cohort – Current DE4)

**European Credit Transfer and Accumulation System**

<table>
<thead>
<tr>
<th>Weightings</th>
<th>Part I</th>
<th>Part II</th>
<th>Part III</th>
<th>Part IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEng</td>
<td>12.5%</td>
<td>37.5%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>MEng</td>
<td>11.1%</td>
<td>22.2%</td>
<td>22.2%</td>
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<table>
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<tbody>
<tr>
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<td>MEng</td>
<td>60</td>
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<td>60</td>
<td>90</td>
<td>270</td>
<td>Yes</td>
</tr>
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</table>
### Year One (old programme)

**Every student must take all modules**

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Mathematics - Term(s): 1, 2</td>
<td>7.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Communication in Design - Term(s): 1, 2</td>
<td>10</td>
<td>16.7%</td>
</tr>
<tr>
<td>Production and Materials - Term(s): 1, 2</td>
<td>10</td>
<td>16.7%</td>
</tr>
<tr>
<td>Design 1 - Term(s): 1, 2, 3</td>
<td>12.5</td>
<td>20.9%</td>
</tr>
<tr>
<td>Engineering Analysis 1.1 - Mechanics - Term(s): 1</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Engineering Analysis 1.2 - Energy and Design - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Engineering Analysis 1.3 - Electronics - Term(s): 3</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Computing 1 - Term(s): 3</td>
<td>5</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

**Progression to Year Two**

- The pass mark for each module is 40%. All modules must be passed in order to progress.
- Supplementary Qualifying Tests in up to two modules, may be offered to candidates whose performance is unsatisfactory.

### Year Two (old programme)

**Every student must take all modules**

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
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<tbody>
<tr>
<td>Gizmo (Physical Computing) - Term(s): 1, 2</td>
<td>12.5</td>
<td>20.9%</td>
</tr>
<tr>
<td>Engineering Analysis 2.1 - Mechanics for Design Engineers - Term(s): 1</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Engineering Analysis 2.2 - Computer Aided Engineering - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Engineering Analysis 2.3 - Electronics for Product and System Design - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Design 2 - Term(s): 1, 2</td>
<td>7.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Computing 2 - Term(s): 1</td>
<td>7.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Big Data - Term(s): 6</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Engineering Design Project - Term(s): 1, 2</td>
<td>12.5</td>
<td>20.9%</td>
</tr>
<tr>
<td>Working in Organisations - Term(s): 3</td>
<td>5</td>
<td>8.3%</td>
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</table>

**Progression to Year Three**

- The pass mark for each module is 40%. All modules must be passed in order to progress.
- Supplementary Qualifying Tests in one module may be offered to candidates whose performance is unsatisfactory.
Year Three (old programme)
Every student must take two elective modules, and all non-elective modules. Industrial Placements commence in April

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Management - Term(s): 1</td>
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<td>12.5%</td>
</tr>
<tr>
<td>Robotics - Term(s): 1, 2</td>
<td>12.5</td>
<td>20.9%</td>
</tr>
<tr>
<td>Industry Placement A - Term(s): 3</td>
<td>15</td>
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<tr>
<td>Group Project - Term(s): 1, 2</td>
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<td>25%</td>
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<tr>
<td>Year 3 Elective 1 - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Year 3 Elective 1 - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Elective 2 - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
<tr>
<td>Elective 3 - Term(s): 2</td>
<td>5</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

Progression to Year Four
- The pass mark for each module is 40%. All modules must be passed in order to progress.
- Supplementary Qualifying Tests in one module may be offered to candidates whose performance is unsatisfactory.
- A student who has obtained 180 ECTS credits may, at the discretion of the Examiners, be permitted to graduate with the award of a BEng degree.

Year Four (old programme)
Every student must take two elective modules, and all non-elective modules.

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
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<tbody>
<tr>
<td>Industry Placement B - Term(s): Summer</td>
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<tr>
<td>Sensing and the Internet of Things- Term(s): 1</td>
<td>5</td>
<td>7.14%</td>
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<tr>
<td>Solo Project - Term(s): 1, 2, 3</td>
<td>30</td>
<td>42.86%</td>
</tr>
<tr>
<td>Enterprise Roll Out - Term(s): 1, 2, 3</td>
<td>15</td>
<td>21.43%</td>
</tr>
<tr>
<td>Optimisation - Term(s): 1</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Year 4 Elective 1 - Term(s): 2</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Year 4 Elective 2 - Term(s): 2</td>
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<td>7.14%</td>
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Successful Completion Criteria
- 20 ECTS credits of Industry Placement B are assessed on a pass / fail basis. The other 5 ECTS are numerically assessed.
- The pass mark for each module is 40%. All modules must be passed in order to be awarded the MEng.
- Supplementary Qualifying Tests are not available in the final year.
Degree Part Weightings and ECTS - Blended Programme

The tables below summarise the weightings of marks from each part when combined into a total for the degree programme, and how ECTS are allocated to each part and each module.

MEng in Design Engineering, Blended programme (2017/18, 2018/19 entry cohort – Current DE3, DE2)

**European Credit Transfer and Accumulation System**

<table>
<thead>
<tr>
<th>Weightings</th>
<th>Part I</th>
<th>Part II</th>
<th>Part III</th>
<th>Part IV</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEng</td>
<td>12.5%</td>
<td>37.5%</td>
<td>50%</td>
<td></td>
<td>180</td>
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<tr>
<td>MEng</td>
<td>11.1%</td>
<td>22.2%</td>
<td>22.2%</td>
<td>44.5%</td>
<td>270</td>
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</table>

<table>
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<tr>
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<th>Part III</th>
<th>Part IV</th>
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<th>Bologna Compliant</th>
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<tbody>
<tr>
<td>BEng</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>180</td>
<td>Yes</td>
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<tr>
<td>MEng</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>90</td>
<td>270</td>
<td>Yes</td>
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</table>

**Year One (blended programme)**
Every student must take all modules

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Mathematics - Term(s): 1, 2</td>
<td>7.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Communication in Design - Term(s): 1, 2</td>
<td>10</td>
<td>16.67%</td>
</tr>
<tr>
<td>Production and Materials - Term(s): 1, 2</td>
<td>10</td>
<td>16.67%</td>
</tr>
<tr>
<td>Design 1 - Term(s): 1, 2, 3</td>
<td>12.5</td>
<td>20.83%</td>
</tr>
<tr>
<td>Engineering Analysis 1.1 - Mechanics - Term(s): 1</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Engineering Analysis 1.2 - Energy and Design - Term(s): 2</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Engineering Analysis 1.3 - Electronics - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Computing 1 - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
</tbody>
</table>

**Progression to Year Two**
- The pass mark for each module is 40%. All modules must be passed in order to progress.
- Supplementary Qualifying Tests in up to two modules, may be offered to candidates whose performance is unsatisfactory.
### Year Two (blended programme)

Every student must take all modules

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gizmo (Physical Computing) - Term(s): 1, 2</td>
<td>12.5</td>
<td>20.83%</td>
</tr>
<tr>
<td>Engineering Analysis 2.1 – Mechanics for Design Engineers - Term(s): 1</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Engineering Analysis 2.2 – Computer Aided Engineering - Term(s): 2</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Engineering Analysis 2.3 - Electronics for Product and System Design - Term(s): 2</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Design 2 - Term(s): 1, 2</td>
<td>7.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Computing 2 - Term(s): 1</td>
<td>7.5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Big Data - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Engineering Design Project - Term(s): 1, 2</td>
<td>12.5</td>
<td>20.83%</td>
</tr>
</tbody>
</table>

### Progression to Year Three

- The pass mark for each module is 40%. All modules must be passed in order to progress.
- Supplementary Qualifying Tests in one module may be offered to candidates whose performance is unsatisfactory.

### Year Three (blended programme)

Every student must take two elective modules, and all non-elective modules. Industrial Placements commence in April

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
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<tbody>
<tr>
<td>Innovation and Entrepreneurship - Term(s): 1</td>
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<td>11.11%</td>
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<tr>
<td>Optimisation - Term(s): 1</td>
<td>5</td>
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</tr>
<tr>
<td>Robotics - Term(s): 1, 2</td>
<td>10</td>
<td>22.22%</td>
</tr>
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<td>Design Engineering Futures - Term(s): 1, 2</td>
<td>15</td>
<td>33.34%</td>
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<td>Year 3 Elective 1 - Term(s): 2</td>
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<td>Year 3 Elective 2 - Term(s): 2</td>
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<td>11.11%</td>
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<tr>
<td>Industry Placement (Part 1) - Term(s): 3</td>
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<td>0% (pass/fail)</td>
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### Progression to Year Four

- The pass mark for each numerically assessed module is 40%.
- All modules must be passed in order to progress.
- Supplementary Qualifying Tests in one module may be offered to candidates whose performance is unsatisfactory.
- A student who has obtained 180 ECTS credits may, at the discretion of the Examiners, be permitted to graduate with the award of a BEng degree.
## Year Four (blended programme)

Every student must take two elective modules, and all non-elective modules.

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
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<tbody>
<tr>
<td>Industry Placement (Part 2) – Term(s): Summer</td>
<td>25*</td>
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</tr>
<tr>
<td>Master’s Project – Term(s): 1, 2, 3</td>
<td>30</td>
<td>42.87%</td>
</tr>
<tr>
<td>Enterprise Roll Out – Term(s): 1, 2, 3</td>
<td>15</td>
<td>21.43%</td>
</tr>
<tr>
<td>Year 4 Elective 1, (from group A) – Term(s): 3</td>
<td>5</td>
<td>7.14%</td>
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<tr>
<td>Year 4 Elective 2, (from group A) – Term(s): 3</td>
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<td>7.14%</td>
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<tr>
<td>Year 4 Elective 3, (from group B) – Term(s): 3</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Year 4 Elective 4, (from group B) – Term(s): 3</td>
<td>5</td>
<td>7.14%</td>
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</table>

### Successful Completion Criteria
- 20 ECTS credits of Industry Placement (Part 2) are assessed on a pass / fail basis. The other 5 ECTS are numerically assessed.
- The pass mark for each module is 40%. All modules must be passed in order to be awarded the MEng.
- Supplementary Qualifying Tests are not available in the final year.
Degree Part Weightings and ECTS - New Programme

The tables below summarise the weightings of marks from each part when combined into a total for the degree programme, and how ECTS are allocated to each part and each module.

**MEng in Design Engineering, New programme (2017/18, 2019/20 entry cohort – Current DE1)**

**European Credit Transfer and Accumulation System**

<table>
<thead>
<tr>
<th>Weightings</th>
<th>Part I</th>
<th>Part II</th>
<th>Part III</th>
<th>Part IV</th>
<th>Total</th>
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<tbody>
<tr>
<td>BEng</td>
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<td>35%</td>
<td>57.5%</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>MEng</td>
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<td>20%</td>
<td>72.5%</td>
<td>-</td>
<td>100%</td>
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<tr>
<th>Modules</th>
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<th>% of part</th>
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</thead>
<tbody>
<tr>
<td>Introduction to Design Engineering - Term(s): 1</td>
<td>7.5</td>
<td>12.50%</td>
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<tr>
<td>Computing 1: Introduction to Scientific Computing - Term(s): 1</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Engineering Mathematics - Term(s): 1, 2</td>
<td>10</td>
<td>16.67%</td>
</tr>
<tr>
<td>Production and Materials - Term(s): 1, 2</td>
<td>10</td>
<td>16.67%</td>
</tr>
<tr>
<td>Human centred Design Engineering - Term(s): 2, 3</td>
<td>12.5</td>
<td>20.83%</td>
</tr>
<tr>
<td>Computing 2: Algorithm Design and Analysis - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Solid Mechanics 1 - Term(s): 2</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Electronics 1: Introduction to Electronic Circuits, Sensors, and Mechatronics - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
</tbody>
</table>

**Year One (new programme)**

Every student must take all modules. Year 1 modules are FHEQ Level 4

**Progression to Year Two**

- In order to progress to the next level of study, students must have passed all modules (equivalent to 60 ECTS years 1-3, 90 ECTS year 4) in the current level of study at first attempt, at resit or by a compensated pass.
- The pass mark for modules at levels 4, 5 and 6 is 40%, and at level 7 is 50%
- Supplementary Qualifying Tests in up to two modules, may be offered to candidates whose performance is unsatisfactory
# Year Two (new programme)
Every student must take all modules. Year 2 modules are FHEQ Level 5

<table>
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<tr>
<th>Modules</th>
<th>ECTS</th>
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<tbody>
<tr>
<td>Sustainable Design Engineering - Term(s): 1</td>
<td>7.5</td>
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</tr>
<tr>
<td>Gizmo: Physical Computing - Term(s): 1, 2</td>
<td>10</td>
<td>16.67%</td>
</tr>
<tr>
<td>Solid Mechanics 2 - Term(s): 1</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Electronics 2: Signals, Systems, and Control - Term(s): 1</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Finite Element Analysis - Term(s): 2</td>
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<td>8.33%</td>
</tr>
<tr>
<td>Thermofluids - Term(s): 2</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Industrial Design Engineering - Term(s): 2, 3</td>
<td>12.5</td>
<td>20.83%</td>
</tr>
<tr>
<td>Working in Organisations - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
<tr>
<td>Data Science - Term(s): 3</td>
<td>5</td>
<td>8.33%</td>
</tr>
</tbody>
</table>

**Progression to Year Three**
- In order to progress to the next level of study, students must have passed all modules (equivalent to 60 ECTS years 1-3, 90 ECTS year 4) in the current level of study at first attempt, at resit or by a compensated pass.
- The pass mark for modules at levels 4, 5 and 6 is 40%, and at level 7 is 50%
- Supplementary Qualifying Tests in up to two modules, may be offered to candidates whose performance is unsatisfactory

# Year Three (new programme)
Every student must take all modules. Year 3 modules are FHEQ Level 6

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Engineering Futures - Term(s): 1, 2</td>
<td>15</td>
<td>37.5%</td>
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<tr>
<td>Robotics - Term(s): 1, 2</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Optimisation - Term(s): 1</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Innovation &amp; Entrepreneurship - Term(s): 1</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Year 3 Elective 1 - Term(s): 2</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Year 3 Elective 2 - Term(s): 2</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td>Selected menu of other Electives from Faculty / College - Term(s): 2</td>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>I-Explore modules (see section 10.1 above) - Term(s): 1, 2</td>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>Industry Placement (Part 1) - Term(s): 3</td>
<td>15</td>
<td>0% (pass /fail)</td>
</tr>
</tbody>
</table>

**Progression to Year Four**
- In order to progress to the next level of study, students must have passed all modules (equivalent to 60 ECTS years 1-3, 90 ECTS year 4) in the current level of study at first attempt, at resit or by a compensated pass.
- The pass mark for modules at levels 4, 5 and 6 is 40%, and at level 7 is 50%
- The overall weighted average for each of the first three years must be at least 40%, including where a module(s) has been compensated, in order to progress to the next year of the programme.
- Supplementary Qualifying Tests in up to two modules, may be offered to candidates whose performance is unsatisfactory
Year Four (new programme)
Every student must take all modules. Year 4 modules are FHEQ Level 6

<table>
<thead>
<tr>
<th>Modules</th>
<th>ECTS</th>
<th>% of part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry Placement (Part 2) – Term(s): Summer</td>
<td>25*</td>
<td>7.14%</td>
</tr>
<tr>
<td>Master’s Project – Term(s): 1, 2, 3</td>
<td>30</td>
<td>42.86%</td>
</tr>
<tr>
<td>Enterprise Roll Out – Term(s): 1, 2</td>
<td>15</td>
<td>21.43%</td>
</tr>
<tr>
<td>Year 4 Elective 1, (from group B) – Term(s): 1</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Year 4 Elective 2, (from group B) – Term(s): 1</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Year 4 Elective 3, (from group A) – Term(s): 2</td>
<td>5</td>
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<tr>
<td>Year 4 Elective 4, (from group A) – Term(s): 2</td>
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</tr>
<tr>
<td>Selected menu of Electives from Faculty / College (Elective Group A) - Term(s): 2</td>
<td>5</td>
<td>7.14%</td>
</tr>
</tbody>
</table>

Successful Completion Criteria

• 20 ECTS credits of Industry Placement (Part 2) are assessed on a pass / fail basis. The other 5 ECTS are numerically assessed.
• Students must have passed all modules (equivalent to 60 ECTS years 1-3, 90 ECTS year 4) in the current level of study at first attempt, at resit or by a compensated pass.
• As an accredited degree, students on the MEng programme are subject to the standards set by the Engineering Council in relation to compensation: a maximum of 15 ECTS credits can be compensated across the entire programme.
• The pass mark for modules at levels 4, 5 and 6 is 40%, and at level 7 is 50%
• The overall weighted average for each of the first three years must be at least 40%, including where a module(s) has been compensated, in order to progress to the next year of the programme.
• In order to successfully complete the degree, the average for Year 4 modules must be at least 50%, including where a module(s) has been compensated.
• Supplementary Qualifying Tests are not available in the final year.

BEng in Design Engineering

In order to provide a route for students who are unable to complete an MEng, we have defined a BEng route. This is not a route we promote nor recommend and we do not recruit students directly onto the BEng. The BEng is not accredited and does not satisfy the requirements for chartered status. As such we recommend the vast majority of students take the MEng route, which represent the gold standard qualification. Students who do not meet the requirements for progression to Year 4 (MEng), will be considered for the award of BEng in Design Engineering, with a total of 180 ECTS.

BEng students will be required to choose two elective module in Year 3 and will graduate following the completion of Year 3 with 180 ECTS credits.

IMPORTANT

A BEng does not on its own satisfy requirements for chartered status and we are not seeking accreditation for this award.
Appendix F – Roles and responsibilities of Wellbeing Reps

Department Reps (Wellbeing)

Summary of role

Department Representatives (Wellbeing) are elected members who are responsible liaising with College staff regarding issues raised by Year Reps (Wellbeing). They are expected to support campaigns, Liberation Officers and raise awareness on campus about wellbeing issues affecting students. The wellbeing reps should never act as counsellors, caregivers, advisers or a peer support network, however, they are expected to be able to signpost students to those with adequate training to do so.

Key responsibilities and duties

- Ensure they are known to the Year Reps (Wellbeing) and students in their cohort, ensuring students’ views are represented within meetings and that they are kept up to date with any changes and developments
- Meet with Year Reps (Wellbeing) to collate feedback from students in the department
- Attend and submit items for discussion to Staff-Student Committees, Community and Welfare Board and other meetings deemed necessary
- Help to inform CU Welfare Officers, Deputy President (Welfare) and Liberation Officers of issues identified
- Refer urgent issues directly to a relevant member of College or Union staff, especially if you are concerned about a student’s safety
- Ensure student confidentiality is maintained at all times unless agreed otherwise or you believe the student to be a danger to themselves or others
- Make it clear to students that you cannot provide counselling, support or advice, however you can signpost to relevant services
- Be in regular communication with the Wellbeing and Campaigns Coordinator

Skills and knowledge required

- Thorough knowledge of the Wellbeing Representation structure and awareness of the Academic Representation structure
- Good understanding of College’s workings as a whole and knowledge of available support services both internally and externally
- Attend relevant training courses as required in order to fulfil the role
• Have an understanding of the Union and its structures
• Know who to contact in emergencies and if you have concerns regarding a student’s safety
• Being aware of and adhering to personal limitations and limitations of the role, seeking support for oneself regarding pressures of the role from Union staff

Training and support

• Wellbeing Rep Induction
• Introductory mingle with Union Reps
• Ongoing support from the Wellbeing and Campaigns Coordinator
• Imperial Plus workshops
• Mental Health First Aid training

Time commitment and availability

• Department Reps (Wellbeing) should expect to attend at least two formal meetings a term with College staff. These are usually held at campus where the bulk of the course is administered so should require no more travel than expected on a day to day basis. Meetings typically last one to two hours
• Students would be expected to catch-up with Year Reps (Wellbeing) in advance of formal meetings to establish what point for discussion are being raised by students. This can be informal and last about an hour
• Representatives should be available by email and expect to be approached to meet for a short time with students when requested. Email correspondence should be answered within a reasonable time frame
• Work relating to the position should take on average no more than a few hours a week. The work volume will vary during the course of the academic year and term by term. Meetings and work commitments during examinations will be avoided where possible

It is recognised that students are first and foremost at Imperial to study or research and that this must be prioritised. Students who feel their studies are being compromised, are struggling or feel they are spending too much time filling the role should speak to the Wellbeing and Campaigns Coordinator (laura.regan@imperial.ac.uk)
Year Reps (Wellbeing)

Summary of role

Year Representatives (Wellbeing) are elected members who are responsible for gathering feedback directly from students and feeding this information to Department Reps (Wellbeing). They are expected to support campaigns, Liberation Officers and raise awareness on campus about wellbeing issues affecting students. **The wellbeing reps should never act as counsellors, caregivers, advisers or a peer support network,** however, they are expected to be able to signpost students to those with adequate training to do so.

Relationships with: CU Welfare Officers, Department Reps (Wellbeing), Liberation Officers, Academic Reps, Education & Welfare team, Advice Centre

Responsible to: Deputy President (Welfare), Department Reps (Wellbeing), CU Welfare Officers

Key responsibilities and duties

- Ensure they are known to students in their cohort, ensuring students’ views are represented within meetings and that they are kept up to date with any changes and developments
- Meet with Department Reps (Wellbeing) to discuss feedback from students in the year, submitting items for discuss at Staff-Student Committees and Community and Welfare Board
- Help to inform CU Welfare Officers, Deputy President (Welfare), Liberation Officers and Department Reps (Wellbeing) of issues identified
- Refer urgent issues directly to a relevant member of College or Union staff, especially if you are concerned about a student’s safety
- Ensure student confidentiality is maintained at all times unless agreed otherwise or you believe the student to be a danger to themselves or others
- Make it clear to students that you cannot provide counselling, support or advice, however you can signpost to relevant services
- Be in regular communication with the Wellbeing and Campaigns Coordinator

Skills and knowledge required

- Thorough knowledge of the Wellbeing Representation structure and awareness of the Academic Representation structure
- Good understanding of College’s workings as a whole and knowledge of available support services both internally and externally
- Attend relevant training courses as required in order to fulfil the role
- Have an understanding of the Union and its structures
- Know who to contact in emergencies and if you have concerns regarding a student’s safety
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Training and support

• Wellbeing Rep Induction
• Introductory mingle with Union Reps
• Ongoing support from the Wellbeing and Campaigns Coordinator
• Imperial Plus workshops
• Mental Health First Aid training

Time commitment and availability

• Year Reps (Wellbeing) are expected to meet with Department Reps (Wellbeing) in advance of Staff-Student Committees and Community and Welfare Board meetings to establish what points for discussion are being raised by students. This can be informal and last about an hour
• Reps will be expected to make themselves known to students, ensuring they are available to meet with students before or after lectures, workshops, etc.
• Representatives should be available by email and expect to be approached to meet for a short time with students when requested. Email correspondence should be answered within a reasonable time frame
• Work relating to the position should take on average no more than a few hours a week. The work volume will vary during the course of the academic year and term by term. Meetings and work commitments during examinations will be avoided where possible

It is recognised that students are first and foremost at Imperial to study or research and that this must be prioritised. Students who feel their studies are being compromised, are struggling or feel they are spending too much time filling the role should speak to the Wellbeing and Campaigns Coordinator (laura.regan@imperial.ac.uk)
Appendix G - Advice on Laptop Purchases

Advices on Laptop for First Year Students joining in October 2019

We are looking forward to welcoming you as one of our new students in October. One of the common questions that new students ask is: “What Laptop computer should I buy that will support my study at Imperial College?” This document provides the necessary information you need to make that decision.

Do I need to have my own laptop?

The short answer is “YES”. We strongly recommend all our students to have their own personal laptop computer. Your laptop will become part of your everyday tools, just like pen and paper. By the end of the course, you want you to become proficient in managing your own laptop, including all the software installed on it.

What are the most important criteria in choosing my personal laptop?

Unlike what many people think, the speed/performance of your laptop is probably least important. You will only need a very fast computer on rare occasions and you can always use the Department’s laptop. Instead you find two factors make your laptop most useful:

a) Weight – you will be carrying your laptop in your bag most of the time. So, choosing a light-weight laptop is crucial. There is a reduce risk of you hurting your back.

b) Battery endurance – your laptop battery lasting for the entire day at College is another important factor. It saves you having to carry the charger with you.

Shall I choose a PC or a Mac?

Your personal laptop can run any operating systems including Windows or Apple’s OS X. However, all applications software used on the course will run on Windows 10, and most of them also have a version that runs on Apple’s OS X operating system. If you choose a PC, then obviously, you will be running MS Windows. If you choose a MacBook, then our recommendation is to run both OS X and Windows 10 on your laptop. You can always run a virtual machine, which allows you to run multiple operating systems on a single laptop.

Are the laptops available in the Department?

The Department has 36 laptops that you may borrow for a 4-hours loan session. These laptops are stored in secure lockers that you operate yourself using your Imperial College ID card. Borrowing a laptop is like borrowing a library book. If you do not return it within the due period, a overdue fine will be incurred.

Is there a laptop model that you would recommend?

As a University, we do not make official recommendations on specific make of laptops. However, it is worth noting that the following models are used as the loan laptops in the Studio:

- Apple – MacBook Pro 13”, 16GB of RAM, 512GB SSD drive, no Touch bar (Qty: 16)
- PC – HP EliteBook 840 G5, 16GB of RAM, 512GB SSD drive, 15” display (Qty: 20)

Your personal laptop should have at least 8GB of RAM and 256GB of disk. We strongly recommend you to purchase one that uses Solid-State Disk (SSD) because the performance benefit of using SSD makes this choice particularly cost effective. It is probably worth mentioning that a significant number of current MEng students use Apple MacBook (various models).

What capacity of SSD do you recommend?

Although you SSD drive must not be smaller than 256GB, we recommend you to consider purchasing one that is between 512GB to 1TB. Otherwise, you may need to offload your photos and music to a backup hard drive often.

What about Software? Will Imperial College provide these for us?

We will provide access to any software that you may need for the course, one way or another. Imperial College has agreements with many companies such that students could
install some software free on their own personal machine. Please check out this webpage to see what software are available for you while being a student at Imperial:

https://www.imperial.ac.uk/admin-services/ict/self-service/computers-printing/devices-and-software/get-software/get-software-for-students/

Some packages are only available on the Department's loan laptops. To use these, you must borrow one of the loan machines and use it within the Department's building.

**Should I choose a laptop with an i7 processor?**

For degree programme, you will very rarely need an ultra-powerful processor. Therefore, in choosing the specification of your laptop, processing power is the least important factor. You should priorities the weight (light) and battery life (long), and possibly the amount of RAM you have in the laptop. There is no reason for you to choose a quad-core i7, which will consume more power and you will run out of battery quicker. A humble i5 is sufficient.

**Apple Mac is almost twice the price of a PC. Is it worth it?**

There is no right or wrong answer to this question – it depends on your budget and the trade-offs that you are willing to make. Apple Mac is more expensive than an average PC, but it is likely to last longer. Many of our students are using a lower-cost PC and are happy with what they have too. Many other students would also vouch for an Apple Mac!

**Do I need a desktop as well as a laptop?**

You are strongly advised against purchasing a desktop machine. Instead, you may want to buy a lightweight external monitor and connect your laptop to it. This configuration is much more portable and useful than a desktop machine.

**When should I buy my laptop?**

That’s up to you. Buying your own laptop before you start will give you time to get use to your laptop during the summer vacation. However, if you wait until you start with us before you buy your own personal machines, you may be able to purchase the laptop as an Imperial registered student. You may be able to take advantage of discount deals only available to our student, or take time to consider your options. You would then need to rely on the loan machines for a week or so at the start of term.

**If I am on a limited budget and cannot afford my personal laptop, what can I do?**

If you, for whatever reason, are unable to buy your own laptop, please discuss your case with Professor Peter Cheung after you have arrived in the start of term.

**Do I need a printer or other computer peripherals?**

There are various printers around the College that you can use to print your files, but they will be charged on per-page basis. If you intend to print lots of paper copies, it may be cheaper if you use your own printer. Most students also found a USB memory stick and a large capacity external hard disk (at least 1TB) useful for back up and transfer of files.

**Do I need a tablet as well as a PC?**

Some students have found owning a tablet and a stylus (e.g. Apple Pencil) helpful, particularly when making electronic notes. Others even bought a PC that can be turned into a tablet (e.g. MS Surface). The decision is yours. Nevertheless, you definitely would need a laptop, but not a tablet.

**Do I need to subscribe to cloud-based storage?**

You do not need to pay for your own cloud storage (e.g. iCloud, Google Drive or Dropbox). Imperial College provides each student with 4GB of secure file space ourselves. In addition, each student can also use up to 5TB of cloud-based personal file storage via Microsoft’s OneDrive for Business for syncing their local disk for offline work, and for backup. See:

https://www.imperial.ac.uk/admin-services/ict/self-service/connect-communicate/office-365/features/onedrive-for-business/

**Should I purchase Adobe Creative Cloud for the course?**
Adobe Creative Cloud CC (the full suite of creative software) will be installed on all the loan laptops. However, you would need to use this on the loan machine in the Dyson Building. Furthermore, you will have a named license for the second term in Year 1 (January to March), when you can use CC on your own personal laptop, anywhere, anytime. If you want to have access to Adobe CC all the time on your personal laptop, you would need to subscribe that at your own expenses at other times (i.e. outside January to March 2019).

If I need more information, who should I contact?

Contact Professor Peter Cheung on p.cheung@imperial.ac.uk with any question or advice relating to your personal laptop requirements.
Appendix H - School Laptop Loan Scheme

General usability
Some of the items listed in this document are subject to improvement plans but certain infrastructure improvements need to be made first.

The machine is protected by Deep Freeze which resets the laptop on restart (reboot).

Login
The username for each laptop has been set to DysonUser and the password will be provided to students by Academic staff. The passwords are set to DyImpLoan-xxx where ‘xxx’ represents the machine number on the login screen, so 003 would be DyImpLoan-003.

‘DysonUser’ is a LOCAL account and has no network connectivity in itself. To login, enter the username in the following format:
`.\DysonUser`

Note that the . and the \ are important here, as are the capital D and U. The password is then as stated.

Initial Login Behaviour
Some items will start up once you login, but won’t function until you connect to WiFi (noted below). Chrome will launch and try and load Software Hub, as will Creative Cloud.

Wi-Fi
Once you are logged in, you will need to connect to Wi-Fi by selecting the Wireless icon in the bottom right hand corner next to the clock.

You will then be presented with a list of Wireless Connections to attach to. From here connect to the network named Imperial-WPA. There are a couple of Certificate prompts, one just after you click connect on Imperial-WPA and one after enter your credentials; ensure you accept both. You need to login to Wi-Fi using your College user name and password. Once complete, the Wi-Fi icon will turn white and Imperial-WPA will show as connected.

Note: Until you login, no services will be accessible. You can login in via V1.0 1 Oct 2018 or another network when offsite to access the software.

Accessing Network Services
Once you have connected to Wi-Fi, you will be able to connect to all network services that were loaded upon you logging in. To access the software available to the laptop, refresh the Chrome browser window and login to the Software Hub when requested using your College credentials. If you closed Chrome accidentally, click on the Software Hub icon on the computer’s desktop (see image below) or navigate to https://softwarehub.imperial.ac.uk using the Chrome browser.

Once logged in you will see it validate against your laptop; this should take moments and should then show a green bar stating that validation has been successful (see image below). If it fails the bar will be red.

You will then be able to launch the software available for you to use.

Software Hub
By default, users will be able to see a large number of applications that they can use on the laptop. This list may appear quite daunting at first but there are a couple of options you can use. Firstly, you can search for the application you need by using the ‘Search Apps’ windows at the top right of the Software Hub:

Once you find the application you want, and you know you will use it again, you can favourite it by clicking on the star at the top of the icon, you can find this by hovering over the icon. Note this may take a second to turn the star yellow, please be patient; if you click it again, you will unfavourite the application!
If you find an application that isn’t available or isn’t performing as well as you expect, let us know and we’ll sort it.

**Local Installs and Software Hub applications**
There is currently a mix of applications that have been installed on the laptops in the “traditional way” and those that are “streamed” from the Software Hub. There are benefits to each and some disadvantages. Applications like MatLab, MS Office and Adobe Creative Cloud have been installed on the machine as they are either too big, complex or the license doesn’t support streaming; the remainder of the applications available to DE students are streamed.

**What is the difference and what will I notice?**
Traditional applications install all their files onto the machine and has been an effective way of working for a very long time. However, managing these applications on a day to day basis becomes tricky. For example, if an update is required, each install needs to be patched individually.

Streaming an application is beneficial for students who want to access software (license permitting) outside of the College environment. Visiting https://softwarehub.imperial.ac.uk from your personal machine gives access to certain applications.

Streaming an application is more efficient as firstly, it only uses the files it requires but also when it comes to updating the application, we update once centrally and then subsequent launches of the application use the newly updated package. It also means we can quickly respond to change requests and deliver software required for teaching within a shorter space of time.

Applications from the Software Hub may be slower to load on a first run but will be quicker on-going once they are cached (i.e. stored on the local disk); they should function as normal once cached. Some larger applications may take a little longer to load so please be patient.

Note that there is some work we can do to enhance the performance of the applications but it would require input from Colleagues / Students who use the application on a daily basis.

**Launching Applications**
Both streamed applications and those that are locally installed will be presented via the Software Hub. You can tell the difference by hovering your mouse pointer over the icon.

<table>
<thead>
<tr>
<th>Locally installed application</th>
<th>Streamed application</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Keysthot" /></td>
<td><img src="image" alt="Arduino IDE 1.8.5" /></td>
</tr>
</tbody>
</table>

Doing this all via the Software Hub should give a consistent way of accessing applications both on and off campus.

**Maintenance**
The laptops are configured to wake up from sleep or a shutdown state at 0:01 every morning. They will enter a maintenance state until 6am and then shutdown again. During this period, they should receive any updates to software and the operating system that ICT delivers. Please ensure that the laptops are returned to the locker with power and network attached, in a shutdown state with the lid closed.

**Troubleshooting**
When logging in to the Software Hub, you may see a message pop up in place of the green validated bar stating that validation was not successful. In this case, please close the browser and try again.

**Application prompts**
Microsoft Word pops up with a couple of prompts which ICT are unable to suppress due to the way in which Microsoft configures its policy settings. The first is allows the installation of Spellex for Word, click install to proceed.

![Microsoft Office Customization Installer](image)

The following 2 are accepting the license in Word and choosing the document standard that you wish to use. Both will still save as docx but the underlying language changes depending on the choice you make. ICT’s recommendation is Office Open XML formats as this supports all features within Microsoft Office.
Future Development

Single Sign-on
The initial design has a single sign on configuration applied so that when a user logs into the windows login dialogue, it automatically passes through credentials for usage of OneDrive and the Software Hub. It also maps the H drive for use.

The pass-through component isn’t 100% reliable so has been disabled for the time being whilst ICT works to resolve this issue. ICT will shortly be providing a network login script that will allow users to connect to their H drive once connected to the WiFi network.

Mac Dual Boot
The Macs have been configured to dual boot with both Windows 10 and Mac OSX on them. ICT is working to manage this configuration to ensure that both the Mac and Windows builds receive the maintenance they need. This will be applied to the Mac devices later on.