Imperial College London

Undergraduate Prospectus

2021 ENTRY

Number one
for graduate employability

The Guardian University Guide 2020

9th best university
in the world

QS World University Rankings 2020

Bursaries worth up to
£5,000 per year

for Home students through the Imperial Bursary scheme (see page 24)

WHAT'S INSIDE?

INTRODUCING IMPERIAL

STUDYING AT IMPERIAL

Find out what life is like as an Imperial student from our team of **student bloggers:**

www.imperial.ac.uk/studentblogs

Come to an Open Day and talk to current students and staff at Imperial to find out what life is really like at the College:

www.imperial.ac.uk/study/ug/visit/open-days

ABOUT IMPERIAL

Welcome to IMPERIAL

Imperial College London is unique in the UK, focusing exclusively on engineering, science, medicine and business.

Our degrees open doors and our discoveries change lives. But we're so much more than laboratories and league tables. Imperial is a place where you can find what makes you happy, the passions and pursuits that will shape your life, and the people who will share it.

If this sounds like your place, you're probably our kind of person...

"I still vividly remember the moment I decided to apply to medical school.

It was not an easy decision for me. Despite my genuine interest and passion, there was always a doubt in my mind that I could ever be the 'ideal' medical student I thought a university like Imperial wanted. Now that I'm here, I've realised this is simply not the case. There is no 'ideal'."

YASMIN, MBBS/BSc MEDICINE

Read Yasmin's full story:
bit.ly/student-stories-yasmin

THE BEST OF BOTH WORLDS

Our South Kensington Campus offers the advantages of a campus university, without sacrificing the opportunities that our central London location brings.

So you won't have to navigate the city to find different lecture rooms, the sports centre or the Students' Union; but when you do want to make the most of it, it's all right there on your doorstep.

ABOUT IMPERIAL

FREE

SOAK UP THE SUNSHINE...
in Hyde Park and Kensington Gardens, two of London's eight Royal Parks.

7 minutes

FIND YOUR DREAM JOB...
at companies and startups that have headquarters in London.

MAKE CONNECTIONS...
at hundreds of free networking events, seminars and lectures across the city.

ENJOY PERFORMANCES...
by some of the world's finest artists in the stunning Royal Albert Hall and imagine the day when you'll be on the stage there yourself, collecting your Imperial degree.

5 minutes

LEARN GERMAN...
from scratch or build on existing skills in classes at the Goethe-Institut.

3 minutes

FREE

EXPLORE SCIENCE THROUGH THE AGES...
in the Science Museum, with the original model of DNA and the Apollo 10 command module in its collections.

3 minutes

FREE

ENJOY ART SPANNING 3,000 YEARS OF HISTORY...
in the world's largest museum of decorative arts and design, the Victoria and Albert Museum (V&A).

4 minutes

EXPLORE THE FUTURE OF DESIGN...
at the annual graduate show at the Royal College of Art (RCA) for our two unique double Master's degrees in engineering design which are run jointly with the RCA.

6 minutes

QUEEN'S TOWER
The heart of our South Kensington Campus.

FREE

SEE NATURAL HISTORY COME TO LIFE...
in the award-winning Natural History Museum, home to around 80 million specimens, including some collected by Charles Darwin.

4 minutes

Walking time from the Queen's Tower

ABOUT IMPERIAL

YOUR JOURNEY TO IMPERIAL

London is Europe's most connected city,* so when it comes to travelling to Imperial – or exploring other cities once you're here – you'll have a world of possibilities on your doorstep.

3 tube lines **serve South Kensington where our main campus is located (Circle, District, and Piccadilly).**

30% discount **available from Transport for London with an 18+ Student Oyster photocard.**

A GLOBAL TRANSPORT HUB

On top of its six major airports, London also hosts a Eurostar terminal for high speed rail travel to cities including Paris (2hrs 16 mins), Brussels (1hr 48 mins) and Amsterdam (4hrs 38 mins).

You can also take advantage of London's 24/7 bus service and weekend Night Tube when travelling home.†

* London has direct air connections to 401 global destinations and 243 connections with Europe – more than any other European city, according to RDC Aviation.

Train times based on average journey times using www.thetrainline.com

Flight times based on average journey times using www.google.com/flights

† The Night Tube runs on Fridays and Saturdays. For more information, see: www.tfl.gov.uk

WHY IMPERIAL?

Here are just a few of the reasons why students choose to study at Imperial...

WORLD CLASS EDUCATION

3RD IN EUROPE, 10TH IN THE WORLD

Times Higher Education World University Rankings 2020

SUPPORT WHEN YOU NEED IT

A COMPREHENSIVE NETWORK
of support covering your wellbeing, academic success and personal development. See page 34.

BURSARIES WORTH UP TO £5,000 PER YEAR
to help Home students with their living costs. See page 24.

AN ACTIVE COMMUNITY

OVER 380 STUDENT-LED CLUBS, SOCIETIES AND PROJECTS
which is one of the largest ranges of any UK university. See page 56.

GUARANTEED ACCOMMODATION
for all first years in our halls of residence. See page 28.

THE LONDON ADVANTAGE

EASY ACCESS TO A GLOBAL JOB MARKET
for interviews, internships and professional networking opportunities. See page 48.

A GLOBAL TRANSPORT HUB
for easy travel home and discovering new destinations. See page 6.

NUMBER 1 FOR GRADUATE EMPLOYABILITY

The Guardian University Guide 2020

Choosing your course

The majority of undergraduate students at Imperial study single-honours degrees focusing on one core subject.

While there is usually flexibility to take a certain number of modules from outside your department including one I-Explore module (see page 42), your course will mainly focus on topics within your core subject, which increase in depth each year.

Below are some top tips for finding an Imperial course that's right for you.

UNDERSTAND WHAT MOTIVATES YOU

Think about which subjects you will enjoy studying for the next three or more years. Learning about things you enjoy will be a much better motivator that anything else.

DON'T LIMIT YOURSELF

Qualifications in science and mathematics are key to entry to most of our courses so we encourage you to explore the full range of options. This includes areas you may not have considered before or which are different from your current or previous study.

USE YOUR UCAS CHOICES WISELY

Imperial departments usually do not make more than one offer to the same applicant, regardless of how many courses you apply for. So if you're interested in more than one course within the same department, we recommend contacting them for advice before applying. This does not apply if you're applying for multiple courses in different departments.

"I first visited Imperial as part of a science summer school.

It was the first time I'd been to a university and I didn't know what to expect. I soon realised that the students and mentors I spoke to all had such a scientific way of thinking; they were just like me."

HAFIZA,
BSc BIOCHEMISTRY

Read Hafiza's full story:
bit.ly/student-stories-hafiza

7.7 : 1 **applications per place**
on average (2019–2020 entry)

A A A

at A-level (or equivalent)
is the minimum level at which we make offers – most departments make offers above this

ASK QUESTIONS

There are lots of ways to find out more about Imperial before you apply, including coming to an Open Day, reading our student blogs and attending a summer school.

www.imperial.ac.uk/study/ug

How to apply

We welcome students from all over the world. No matter where you're from, you need to submit your application through UCAS at **www.ucas.com**

EARLY SEPTEMBER 2020

UCAS's application process opens
Learn about the process so you're ready when applications open.

www.ucas.com/how-it-all-works

15 OCTOBER 2020 18.00 UK TIME

UCAS application deadline for our Medicine (MBBS/BSc) course
All Medicine applicants also need to sit the BioMedical Admissions Test (BMAT) in the year of application.

NOVEMBER 2020–FEBRUARY 2021

Interviews
If you're invited to interview, we recommend that you try to travel to Imperial to attend. If you live overseas, you may be offered a Skype interview.

15 JANUARY 2021 18.00 UK TIME

UCAS deadline
Deadline for all other Imperial courses. If you're a Home student, don't forget to apply for government funding to be considered for the Imperial Bursary (see page 24).

31 MARCH 2021

Decisions
We make all application decisions by this date. Use UCAS Track to check whether you have received an offer which you need to reply to.

INTERNATIONAL STUDENTS

Confirmation of acceptance of studies
If you require a Tier 4 (general) student visa you need a reference number called a confirmation of acceptance of studies (CAS) to enter on your visa application. We will send you a CAS after you meet all the conditions of your offer.

www.imperial.ac.uk/study/ug/apply/after-you-apply/cas

ATAS certificate
You may need to apply for an Academic Technology Approval Scheme (ATAS) certificate from the UK government before you can study certain Imperial courses. If this is required, we will include it as a condition in your offer. You can apply for a certificate up to nine months before your course starts.

www.gov.uk/academic-technology-approval-scheme

Dedicated support team
Our dedicated International Student Support team is on hand to give specialist advice on issues including Tier 4 visas, even before you arrive in the UK.

www.imperial.ac.uk/study/visas

ADMISSIONS SCHEMES

We have introduced new admissions schemes for Home students from groups that are underrepresented at the College to make sure we fairly measure their ability and academic potential in the full context of their application.

www.imperial.ac.uk/selection/admissions-schemes

Our selection process

Whether you're applying for direct or deferred entry, our selection process is the same. Learn more about the process and the criteria we use to select our students.

MINIMUM ENTRY STANDARD AND TYPICAL OFFERS

In our entry requirements (pages 66–135), you will see the minimum grades you need for entry to each department. As a guide, we have also included the typical offer that the department made to at least 80% of A-level and International Baccalaureate applicants for 2019 entry (each department also accepts a wide range of international qualifications). The typical offer standard is usually higher than the department's minimum entry standard, particularly in our most competitive departments.

ADMISSIONS TESTS

There is no College-wide entry test, although some of our departments do use external admissions tests as part of their admissions process, such as BMAT for Medicine. Where this applies, you will be responsible for registering for the test yourself, so make sure that you take note of relevant registration deadlines and test dates.

INTERVIEWS

The majority of our departments interview applicants who demonstrate potential. The type of interview varies across departments, for example it could be a panel interview, presentation or part of a recruitment day. We'll let you know in advance.

PRACTICAL SCIENCE ASSESSMENT (A-LEVEL STUDENTS)

Where this assessment applies, we expect you to pass the practical science assessment for all subjects that form part of your offer.

↑ Dr Wayne Mitchell teaches a student on the Mastering Laboratory Skills course.

ENGLISH LANGUAGE REQUIREMENTS

All applicants, including native English speakers, need to show that they meet our English language requirements for entry.

We have two levels of achievement – standard and higher. Check the entry requirements for the course you're applying for to see which one you need to meet.

We accept a wide range of English language qualifications, including those shown below, but visit our website for the full range. We also accept three proficiency tests: IELTS (Academic), Pearson Academic (PTE) and TOEFL (iBT). Scores are valid for two years from the date of the test.

	STANDARD	HIGHER
GCSE or O-level	**Grade B/6** in English Language	
AS-level/ A-level (if taken)	**Grade C** in English Language	
International Baccalaureate	Varies depending on syllabus	
IELTS (Academic)	**6.5 overall** (minimum 6.0 in all elements)	**7.0 overall** (minimum 6.5 in all elements)
Pearson Academic (PTE)	**62 overall** (minimum 56 in all elements)	**69 overall** (minimum 62 in all elements)
TOEFL (iBT)	**92 overall** (minimum 20 in all elements)	**100 overall** (minimum 22 in all elements)

ACADEMIC ENGLISH SUPPORT

All Imperial students can access free academic language support from our Centre for Academic English. This includes courses, workshops and online resources that develop your written and spoken communication. International students with an unconditional offer, whose first language is not English, can take the Centre's three-week pre-sessional course to develop their academic language and literacy before starting their course.

www.imperial.ac.uk/study/ug/apply/requirements/english

LONDON

the best student city in the world

according to QS Best Student Cities 2019

If you want a student experience unlike any other, London's fusion of culture, charm and career opportunities is hard to beat. Discover some of the best museums and galleries in the world for free, try food from across the globe and visit a different coffee shop or bar every time you go out. Watch free gigs from soon-to-be-famous bands and don't be surprised if you have a chance celebrity encounter or two. But don't let the excitement of London stop you venturing further afield. The city also has brilliant links with the rest of the UK and the world – see pages 6–7.

→

Undergraduate students Dev, Leah and Kwan exploring the area surrounding one of London's most iconic landmarks, Tower Bridge.

"It's so easy to get around London and I love exploring new areas.

Tower Bridge is one of my favourite places to visit. The views from the iconic bridge are beautiful – you can see across to The Shard and look right down the River Thames. There's such a positive atmosphere in London and I love being able to experience lots of different cultures from all over the world."

LEAH, MEng MOLECULAR BIOENGINEERING

Read Leah's full story:
bit.ly/student-stories-leah

Tuition fees

Our tuition fees are payable every year at one of two rates depending on your fee status: Home or Overseas. After you apply, we use government regulations to decide which fee status you're eligible for.

STUDY COSTS

The majority of our undergraduate courses last four years and we charge tuition fees for each year of study. Extra costs also apply to some of our courses for things such as protective clothing for lab work, field trips and books. Where these apply, we provide information on the course pages on our website, alongside the tuition fee.

www.imperial.ac.uk/study/ug/courses

Home rate of tuition

As a guide, the annual fee for Home students in 2020–2021 was £9,250. This fee is subject to government regulations so may rise for 2021 entry in line with future inflationary increases based on RPIX.* The government has not yet confirmed whether the finance arrangements for EU students starting university in 2021 will remain the same following the UK's decision to leave the EU. This includes whether they will continue to pay the Home rate of tuition and have access to the Tuition Fee Loan. Visit our website for the latest information about student finance for EU students.

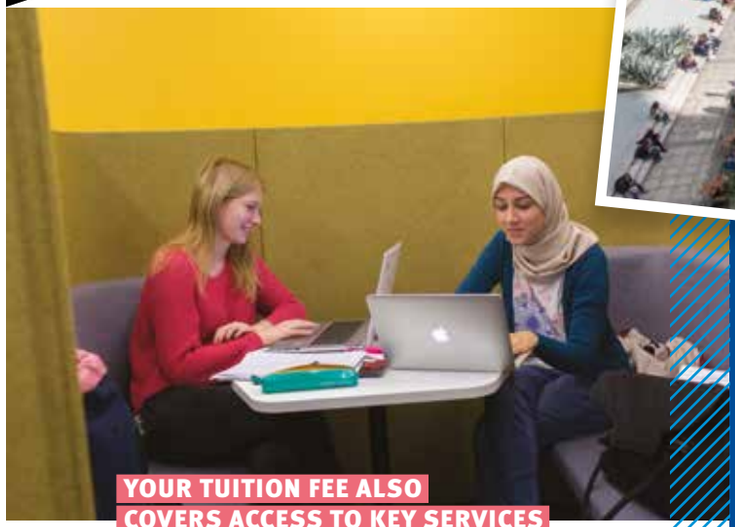
Tuition Fee Loans

Home students do not have to pay the cost of tuition up front as they can apply for a Tuition Fee Loan from the UK government. This loan is not based on an assessment of your household income and covers the full cost of tuition for every year.

Overseas rate of tuition

International students pay a different rate of tuition to Home students which varies according to the course they are studying at Imperial. As a guide, our Overseas fees for 2020 entry ranged from £30,000–£44,000 per year. We have not yet set our fees for 2021 entry, but we expect them to be higher, in line with inflationary increases based on RPI.* Once these have been set, we will publish them on the course pages on our website.

* RPIX is an inflationary measure which covers all Retail Price Index (RPI) items, excluding mortgage interest payments.



YOUR TUITION FEE ALSO COVERS ACCESS TO KEY SERVICES AND FACILITIES.

↑ When you join Imperial, you automatically become a member of Imperial College Union. You can also access our wellbeing services, and facilities such as the Library and computing laboratories.

EU STUDENTS

Our website has the latest finance information for European Union (EU) students studying in the UK, as well as answers to frequently asked questions relating to the UK's decision to leave the EU.

www.imperial.ac.uk/about/imperial-and-the-european-union

Budgeting for London life

Living in London brings a number of benefits that continue to make it QS' best city for students,* from the career opportunities to the unrivalled social and cultural experiences that you'll have on your doorstep.

Studying in London can be more expensive than other UK cities. That's why creating a budget and learning to stick to it is important.

Our rough guide to approximate living costs (see right) gives you an idea of how much you should expect to spend in an academic year at Imperial.

As a student in London, you'll also be in a great position to make the most of the range of student discounts available on everything, from clothes to travel.

* Number 1 in QS Best Student Cities rankings 2018 and 2019

"The thought of managing my money in London was daunting.

But I've got into the habit of checking my bank balance every few days to make sure I'm not going over my budget. I also cook with my housemates – it means we socialise together and it stops me eating out every day."

AISHY, BSc MATHEMATICS

Read Aishy's full story:
bit.ly/student-stories-aishy

Approximate living costs

	WEEKLY	39 WEEKS
College accommodation**	£162.00†	£6,318.00
or private accommodation‡	£161.54	£6,300.00
Food‡	£50.00	£1,950.00
Travel	£25.20§	£871.20≠
Personal and leisure‡	£40.00	£1,574.00
Total	**£277.20 or £276.74**	**£10,713.20 or £10,695.20**

** Based on rents for 2019– 2020. Once confirmed, costs for 2021–2022 will be displayed at: **www.imperial.ac.uk/accommodation**
† This £162 median cost includes a £2 weekly contribution to the Activities Fund and all utilities.
‡ Figures taken from a Student Experience Survey 2019 of Imperial students, includes utilities.
§ Weekly zones 1–2 TfL Travelcard with a 18+ Student Oyster photocard, which gives a 30% discount off the adult price (2020 prices).
≠ Based on buying a monthly zones 1–2 TfL Travelcard with a 18+ Student Oyster photocard for nine months (2020 prices).

BUDGETING IN ADVANCE AND LEARNING TO STICK TO IT IS KEY

← If you run into problems or you need extra help when you arrive, support is available from our Student Financial Support team and Imperial College Union's Advice Centre.

Help with living costs

If you're worried that London life comes with a price tag that puts it beyond your reach, it's worth taking the time to discover what financial support is available that may make it more affordable than you think. This includes government funding, scholarships and the Imperial Bursary (see page 24).

↑ Got questions about funding your studies?

www.imperial.ac.uk/students/fees-and-funding/contact-us

UK GOVERNMENT MAINTENANCE LOANS

As well as Tuition Fee Loans, Home students can apply for a Maintenance Loan from the UK government via their regional funding body, such as Student Finance England for English domiciled students. The level of maintenance support varies for students from England, Scotland, Wales and Northern Ireland and includes an assessment of your household income. You may also be eligible for more generous funding for studying in London than elsewhere in the UK.

www.imperial.ac.uk/study/ug/fees-and-funding/loans-and-grants

SCHOLARSHIPS

We offer a range of scholarships which you don't have to pay back. The availability and how much they are worth varies across departments, but they are searchable in one place via our scholarships search tool:

www.imperial.ac.uk/fees-and-funding/scholarships-search

MUSIC AND SPORTS SCHOLARSHIPS

Exceptional musicians and sports people may be eligible for additional funding.

www.imperial.ac.uk/study/ug/fees-and-funding/bursaries-and-scholarships

STUDENT SUPPORT FUND

You can access help to manage your money while you're at Imperial, including advice from our Student Financial Support team. But we know that sometimes unexpected things happen, and that's what the Student Support Fund is for – to help in cases of unforeseen financial difficulty.

www.imperial.ac.uk/students/fees-and-funding/student-support-fund

EXTRA HELP

NHS FUNDING FOR MEDICAL STUDENTS

Home students studying on our Medicine courses can access additional funding from the NHS. What you may be eligible for varies depending on where you live. See our website for details:

www.imperial.ac.uk/study/ug/fees-and-funding/loans-and-grants/nhs-funding

SUPPORT FOR DISABLED STUDENTS

Home students with a learning difference, health problem or disability may be eligible for a Disabled Students' Allowance (DSA) to cover some of the extra costs involved in supporting their university study. Our Disability Advisory Service offers help with accessing this funding, as well as a range of other support.

CARE LEAVERS

Home students who have been in local authority care can apply for a one-off bursary of £2,000 from their local authority. You are also usually entitled to the maximum amount of financial support from the UK government and the maximum Imperial Bursary (see page 24), depending on your household income at the point of application.

www.imperial.ac.uk/study/ug/fees-and-funding/care-leavers

The Imperial Bursary

The Imperial Bursary is one of the most generous schemes of its kind in the UK. It's designed to provide Home students with up to £5,000 per year of extra help towards their living costs, on top of any government funding they are eligible for.

Imperial Bursary 2021–2022

ANNUAL HOUSEHOLD INCOME	BURSARY (per year)
£0–£16,000	£5,000
£16,001–£50,000	£4,000
£50,001–£55,000	£3,000
£55,001–£60,000	£2,000

Please note: Exclusions apply to repeat years of study and NHS-funded years for medical courses.

www.imperial.ac.uk/fees-and-funding/imperial-bursary

36%

of Home students received an Imperial Bursary in 2019–2020

MONEY

"I knew I wanted to apply to Imperial, but I had originally thought about studying nearer to home to save money.

At the back of my mind, I worried that if I went to Imperial, I would have to get a part-time job and juggle this around my course.

Receiving the Imperial Bursary has been a huge help. It's taken such a weight off. I receive the bursary in monthly instalments and know I have an income to help with uni costs. It's also nice knowing you don't have to pay the money back!"

KINAN, MBBS/BSc MEDICINE

Read Kinan's full story:
bit.ly/student-stories-kinan

£60,000

If your annual household income remains below this level, you will **automatically qualify for an Imperial Bursary** each year

38%

of bursary recipients received the maximum amount of £5,000 in 2019–2020

NON-REPAYABLE

You do not have to pay back the Imperial Bursary

£5,000

The maximum amount you may be eligible for each year

A global city

People come from all over the world to study in London – and the city thrives on the diversity that this brings.

The streets are buzzing with more than 300 languages, and its food, fashions, cultural activities, shops, exhibitions and nightlife are a reflection of the people who have made London their home.

The annual party for London's Caribbean communities, Notting Hill Carnival, is Europe's biggest street festival, while the city's annual Pride in London parade is part of a month-long celebration of the city's LGBTQ+ community.

As one of the people lucky enough to live here, you'll soon discover one of its best kept secrets – that the city is more like a series of villages, each one with its own vibe, history and culture. Once you know your way around, you'll find it easy to escape the crowds and enjoy London – from Shakespeare's Southwark to Harry Potter's King's Cross – like a true local.

MANY OF LONDON'S TOP ATTRACTIONS HAVE FREE ENTRY

→ London's 850+ art galleries and over 190 museums include some of the best in the world.


1

2

→ King's Cross station is home to the Harry Potter shop and Platform 9 ¾.

→ There are many ways to get around the capital.

195+
festivals every year, including BBC Proms in the Park, West End Live and the BFI London Film Festival

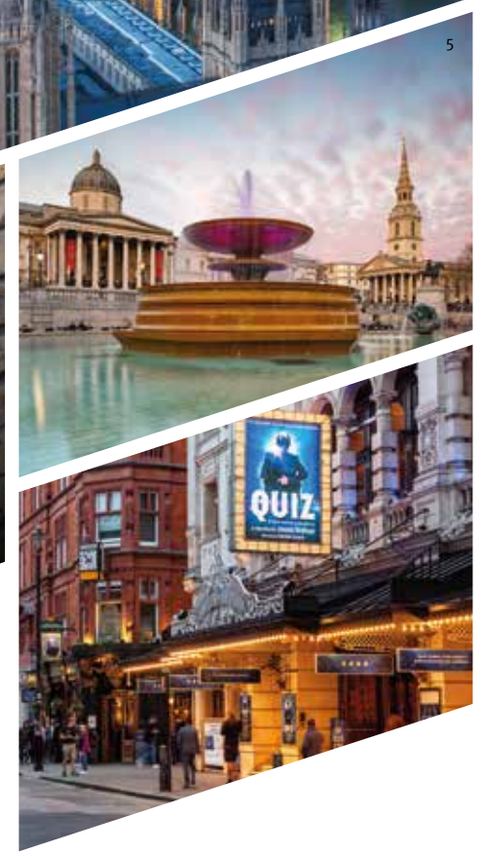
22,000+
music performances a year across more than 300 venues

200+
theatre shows every day in the West End, including many smash hit shows


3

4

→ London's Theatreland in the heart of the West End is home to cutting-edge drama, big hit musicals and classic shows.



5


6

1 British Museum
2 Piccadilly Circus
3 Big Ben, the London Eye and the River Thames
4 Brick Lane, one of London's most vibrant streets, famous for its multicultural cuisine
5 Trafalgar Square
6 Richmond Park, the largest of London's eight Royal Parks

Source of statistics: **www.london.gov.uk**

Home from home

Living in halls is a great way to fully immerse yourself in the Imperial experience from your very first day. To encourage new friendships, each hall brings together people from all different courses and countries. A Residential Support team is also on hand in each one to provide round-the-clock help.

First-year guarantee

... of a place in College accommodation for all first-year undergraduates who accept Imperial as their firm choice, are coming alone and apply by the deadline.

For full terms and conditions, see: **www.imperial.ac.uk/accommodation**

38–40 WEEK CONTRACTS

There's no need to move out during the Christmas and Easter holidays – some halls also include the option to extend your stay over the summer vacation.

SAFE AND SECURE

All of our halls have CCTV and swipe card or fob entry systems. There are also 24-hour manned security offices on campus and mobile patrols for off-campus halls.

If you take advantage of our first-year accommodation guarantee (see left), you'll be assigned to one of our halls before you arrive.

You can choose up to five halls on your application and specify your preferred room type and price for each. Your five choices will be ranked equally and we'll use these to guide the allocation process.

Currently around 27% of our 2,900+ bed spaces are in twin rooms. Twin rooms are always single gender and generally cheaper. You can state your preference on your application and we will try our best to match it.

If Imperial is your insurance choice you will also be able to apply for a place in our accommodation, though you will not be covered by the first-year guarantee.

Compare features, see current prices and 360° tours, and find out more about how to apply:

www.imperial.ac.uk/accommodation

1 Beit Hall, South Kensington
2 Eastside, South Kensington
3 Our new accommodation site, North Acton

A visualisation of our brand new 700-bed hall in North Acton.

Our halls are self-catered; if you don't fancy cooking, there is a wide choice of catering outlets on campus.

4

5

4 Eastside, South Kensington
5 Woodward Buildings, North Acton
6 Wilson House, Paddington

APPLYING FOR ACCOMMODATION

MAY 2021
The application process opens for applicants who have made Imperial their first choice (firm acceptance through UCAS). You can choose up to five halls (and specify your preferred room type and price for each).

FRIDAY 30 JULY 2021
The last day to apply for a guaranteed place in our accommodation.

MONDAY 2 AUGUST 2021
Application process starts for applicants who have accepted Imperial as their insurance choice. We aim to house as many students as we can, but cannot guarantee places for insurance-choice students.

EARLY SEPTEMBER 2021
We start allocating rooms using the preferences you've put on your application form as a guide.

SEPTEMBER 2021
We email you to tell you which hall you've been assigned to.

SATURDAY 2 OCTOBER 2021
Moving in day!

Rent in College accommodation includes all bills (gas and electricity charges, internet in your room and insurance for your personal possessions). You pay this on a termly basis, so it's easy to keep track of what you need to pay when.

Many of our halls have their own social facilities, such as TV and games rooms. Your Residential Support team will also organise year-round social, cultural and sporting activities to bring residents together.

For a breakdown of rents in all of our halls, including the number of rooms available within each price band, visit our website.

www.imperial.ac.uk/accommodation/halls/compare

BEYOND THE FIRST YEAR

Most undergraduates move into privately rented accommodation from their second year. We provide year-round advice and practical help on searching London's huge range of houses, flats and studios. This includes an annual Private Housing Evening with tips on how to get started and a housing fair bringing estate agents and other service providers to campus.

www.imperial.ac.uk/accommodation/privatehousing

There are also a few options to stay on in halls, including returners' rooms in our Evelyn Gardens hall of residence, applying to join a Residential Support team as a hall senior and applying for any remaining spaces in other halls.

PROPERTY SEARCH WEBSITE

Our property search website has been designed to help Imperial students navigate London's huge choice of private properties. Imperial Home Solutions lets you search by type and size of property, price, area and travel time, and create your own property shortlist from a huge choice of rented properties offered by private landlords.

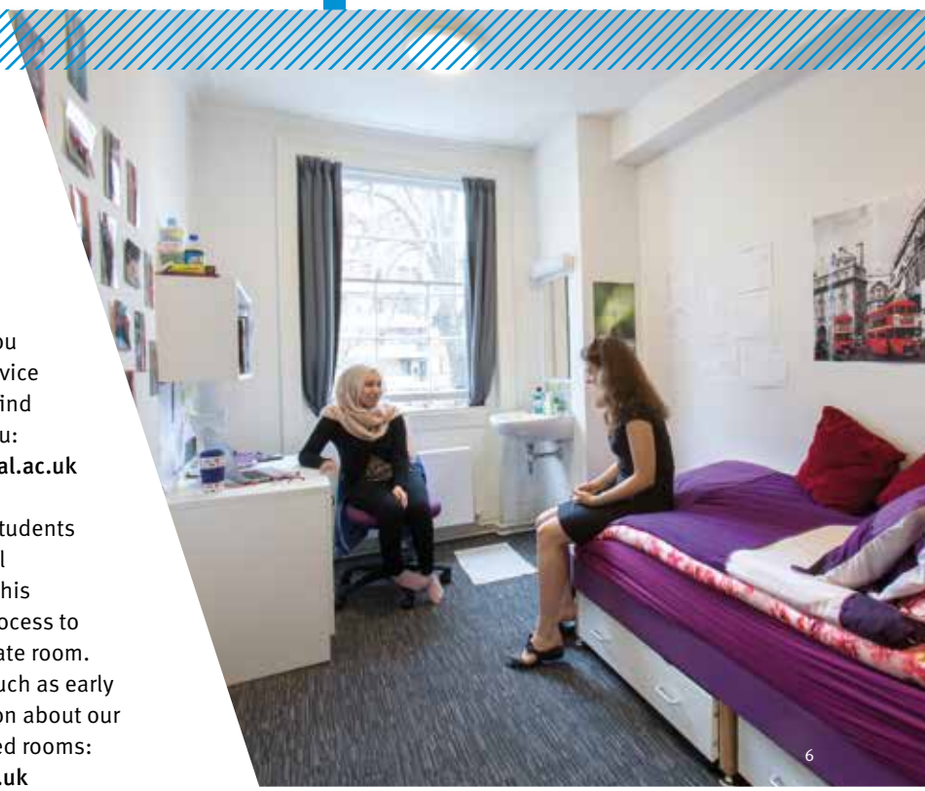
You can also connect with potential flatmates via the message board and access useful information to help with your search, including a checklist of what to look for when viewing properties and advice about paying deposits.

www.imperialhomesolutions.co.uk

GOT A QUESTION?

Even before you arrive, you can take advantage of advice and support to help you find a home that's right for you: **accommodation@imperial.ac.uk**

We encourage disabled students and students with special requirements to declare this during the application process to be allocated an appropriate room. You should also get in touch as early as possible for information about our purpose-built and adapted rooms: **disabilities@imperial.ac.uk**

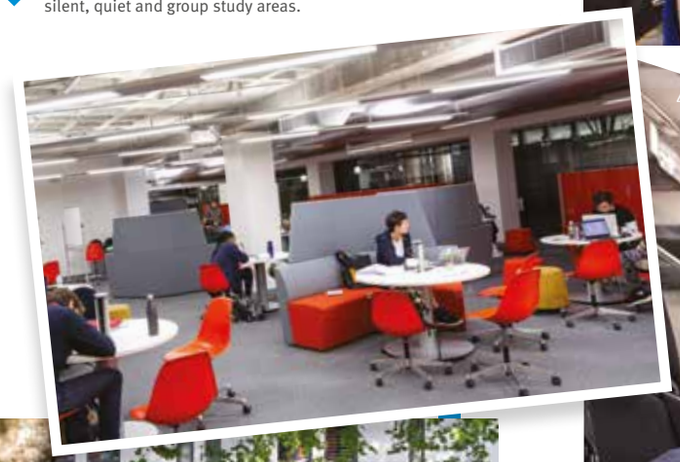


6

Our campus

Our self-contained campus in the heart of South Kensington in central London is home to the majority of our undergraduate teaching. Our cutting-edge teaching facilities, multi-cultural catering outlets, purpose-designed social spaces and sports centre are all within walking distance of each other.

↓ The Central Library is a great place to study and has silent, quiet and group study areas.



↑ Soak up the sun in Prince's Gardens – conveniently located next to our on-campus NHS Health Centre and Dental Surgery.

1 The College Café is one of several catering outlets on campus – the perfect spot to meet friends, chat over coffee or grab a bite to eat.

2 The Central Library is one of seven College libraries, including specialist libraries at five of our medical campuses.

3 Ethos Sports Centre is equipped with state-of-the-art facilities, including a gym, 25m swimming pool and exercise studio.

4 Our cutting-edge teaching facilities include our full-motion flight simulator used by Aeronautics students.

↑ A farmers' market takes place on the Queen's Lawn every week, selling fresh fruit and veg, cakes, breads and takeaway lunch bites – including vegan options.

Here to help

Our College-wide network of support services is an important part of your experience, making sure you feel part of a community where you can completely be yourself.

All Imperial students – including native and non-native English speakers – can access free academic language support from our Centre for Academic English. See page 15.

ACADEMIC SUPPORT

You will have a dedicated personal tutor, who is there to support you throughout your time here. They provide academic advice and feedback, as well as helping you access any College support services you may need. We also provide a variety of resources to support your academic success, including an online Success Guide which covers a range of study advice, lunchtime library workshops and specialist subject librarians who can help you find the resources you need.

SUPPORT IN YOUR DEPARTMENT

As well as your personal tutor, your department is home to a network of experienced staff members and student representatives who can provide support, advice and representation on personal, practical and academic matters. They work together to create a vibrant student community that you will quickly become a part of, helped by Imperial College Union's parents' scheme, which pairs you with returning students in your department.

SUPPORT WITHIN YOUR HALL

Our Residential Support team is on call 24/7 to look after your wellbeing and also organise lots of social activities for residents.

OUR STUDENT HUB BRINGS TOGETHER MANY OF IMPERIAL'S KEY STUDENT SERVICES IN ONE PLACE

The Student Hub is your first port of call for accommodation, fees and funding, exchange programmes, exam arrangements and more.

Students from the Hindu Society celebrating Holi.

HEALTH AND WELLBEING

We have a number of on-site health and wellbeing services, including an NHS Health Centre, Dental Surgery and a Counselling and Mental Health Advice Service. Imperial College Union's independent and confidential Advice Centre offers help on a wide range of issues. The Union also co-ordinates a network of Student Wellbeing Representatives whose role is to promote and support student health and wellbeing within their departments.

FAITH AND SPIRITUALITY

Our Multi-Faith Centre supports students from different faiths and philosophical backgrounds. It provides access to chaplains from different religions, multi-faith prayer rooms, events, meditation and mindfulness sessions, and information on local places of worship.

SPECIALIST SUPPORT

If you have a disability, specific learning difference or an enduring physical or mental health condition, the Disability Advisory Service can provide you with specialist support throughout your time here. Be sure to contact the service before you start your course to discuss the support that you might need. Care leavers can also access a range of specialist support, starting from the admissions stage.

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

INTERNATIONAL STUDENT SUPPORT

Each year we welcome students from over 130 countries. We provide a range of services to help our international students quickly feel part of our student community:

A dedicated Student Support team to help international students settle into life in the UK and who hold a year-round programme of social activities.

Visa and immigration advisers offering specialist advice on issues including Tier 4 visas, short-term study visas and post-study visas.

Free courses and classes in both academic and social English, delivered by the Centre for Academic English.

RESEARCH-LED EDUCATION

DISCOVER the unknown

Ever wondered what the 'missing' 95% of the universe is made up of? Or how we can build carbon-neutral cities? Or how we predict and prevent illness across our entire lifetime? We have. In fact, this is the stuff we live for at Imperial. And it's an obsession that we love to share with the world.

This means making sure that our research remains closely linked to our education and that it has practical applications beyond our laboratories – for example, through our relationships with industry, and our support for companies that spin out of the College (see page 50).

It's also about making sure that we engage others in our work – whether that's our students through programmes like UROP (see page 41), or the public through our annual public festival and Imperial Lates events.

www.imperial.ac.uk/research

→

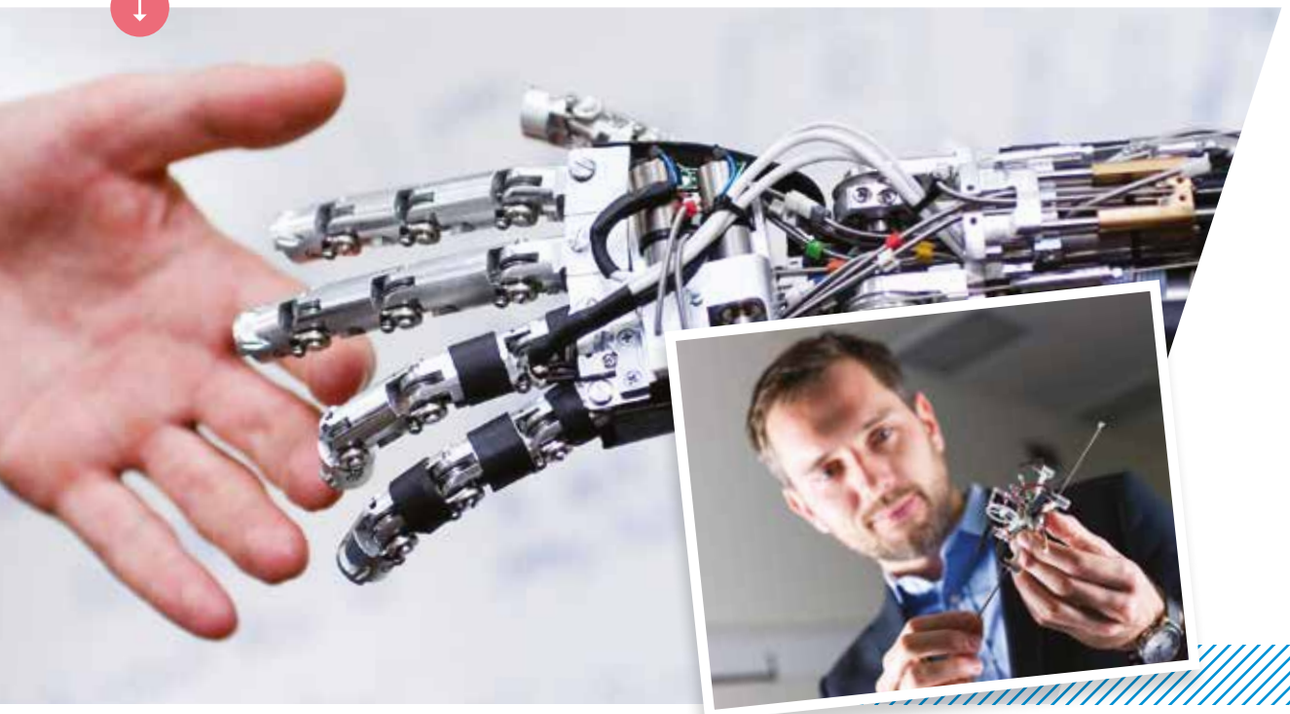
The Great Exhibition Road Festival is your opportunity to see our world leading research come to life. www.imperial.ac.uk/festival

Be part of the solution

We want our graduates to use their education to change the world. That's why we're not just focused on knowledge, we also welcome you into an inspiring community of people whose research is doing just that. People like...

↑ **Professor Andrea Rockall** and her team in the Faculty of Medicine, who are developing artificial intelligence (AI) software to detect bone cancer. The research team hope AI could reduce the time needed by radiologists to review whole-body MRI scans to diagnose the disease, as well as detecting it more accurately.

→ **Dr Amin Hajitou** in the Faculty of Medicine, whose international research team is focused on tackling deadly brain cancers using specialised bacteria-killing viruses. The team were able to shrink the tumours, which can be resistant to existing treatments, while leaving healthy tissue intact.



→ **Helen O'Brien** in the Department of Physics, who is the lead engineer on a new instrument that will study the Sun's magnetic field as part of a European Space Agency mission in 2020. The Imperial-built instrument on board the Solar Orbiter spacecraft will get a close-up look at the Sun to help us understand how it works and how it affects human life.

↑ **Professor Etienne Burdet** in the Department of Bioengineering, who has developed the world's first reactive robot that can continuously learn a human user's movements and adapt its own movements accordingly. The robot, which can respond to changing and inconsistent human movements, like those seen after injury, could be used to help with physical rehabilitation or shared driving in semi-autonomous vehicles.

↑ **Dr Mirko Kovac** in the Department of Aeronautics, who is the Director of our new Aerial Robotics Lab. The UK is set to be a leader in drone technology, and our £1.25 million lab is giving it a flying start. Researchers can simulate different terrains in the air, the ocean and on land. They can also create extreme conditions, such as fire, smoke, and heat to explore how the next generation of drones will perform in harsh environments.

↑ **Dr Gbemi Oluleye** in the Department of Chemical Engineering, whose pioneering research is looking at cost-effective ways to decarbonise current industry energy systems. By developing mathematical optimisation frameworks, Dr Oluleye has been able to show the potential economic and environmental advantages of using low-to-zero carbon technologies in the UK.

↑ **Team CleanSea**, set up by undergraduate students Dario Mongiardi and Riccardo Rocco Pierre from the Department of Chemistry and Jedidiah Cheung from the Department of Life Sciences. They developed a technology that could filter hazardous microplastics from wastewater before they enter the ocean as part of the 2018 Faculty of Natural Sciences Make-A-Difference Competition.

Learning by discovery

Employers aren't just looking for a well-trained brain. They want a fully-rounded person attached to it.

They're looking for people who can apply what they know to circumstances they don't. Who can inspire and persuade others they've never met and bring fresh perspectives to complex problems. In short, they want people who can lead.

Nurturing those qualities is what an Imperial education is designed to do. We'll teach you to think critically about problems you encounter, to work together across disciplines and to be confident facing uncertainty. The diversity in our classrooms is also an undeniable asset; we make the most of this in the opportunities we provide for you to learn from and challenge each other.

It's a style of education that relies on learning by discovery and it's likely to be a big change from what you're used to, but you'll get plenty of support along the way (see page 34).

We take a direct approach to getting our students involved in developing our education through StudentShapers, which pairs students with staff on projects that lead to positive change.

CASE STUDY
In Medical Biosciences you'll get hands-on experience of the challenges of a real-life laboratory from your very first year through work in state-of-the-art Lab Pods, which continue through the course.

↑ Undergraduate students are working with Department of Physics staff to redesign our teaching laboratory space as part of the StudentShapers programme.

We're also big believers in the importance of international experiences, so many of our courses build in the chance to expand your learning abroad through research or study placements. A number of our student societies also have an international focus, like Cameroon Catalyst which promotes sustainable development in the Eastern region of Cameroon.

CASE STUDY
In Chemical Engineering, you'll reap the benefits of learning-by-doing early on with a first-year benchtop experiment that challenges you to choose the equipment and techniques you'll need to successfully complete it.

LEARNING FROM AND ALONGSIDE EXPERTS

At Imperial you become part of a community of learners. Even our staff are still learning through their own research discoveries. Many of our courses include a major individual research project conducted under the supervision of an active researcher – the study topics in the later years of your course are usually also heavily influenced by research taking place within the department or Faculty.

UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAMME

If you've got an eye on a research career, or you simply want to get more hands-on research experience, our Undergraduate Research Opportunities Programme (UROP) gives you the chance to work within one of our research teams for up to 12 weeks – usually during the vacation period. A weekly tax-free UROP bursary may also be available to cover your living costs.

CASE STUDY
In Chemistry, you may have the chance to complete our unique Chemical Kitchen module which uses the skills required in cooking to help you develop as experimental scientists. As well as input from a gastronomy expert and the Basque Culinary Centre, the course was also created in partnership with our students via our StudentShapers programme (see page 40).

I-Explore

Imperial students want to make their mark on the world. To help them prepare, we equip them with a broad range of skills – and not just those from within their chosen subject.

No matter which course you choose, you'll have the chance to deepen your knowledge in a brand new subject area through our I-Explore scheme.* Choose from a huge selection of modules across four categories and earn academic credit for the one you choose which will be fully integrated into your degree.

www.imperial.ac.uk/i-explore

CASE STUDY
Tackling a global challenge, like students who enter the Faculty of Natural Science's annual Make-A Difference (FoNS-MAD) competition, is an example of the sort of challenge we set students who choose our Multidisciplinary Project module. 2019's FoNS-MAD winner, Team MultusMedia, developed a new technology to reduce the cost of lab-grown meat and help the industry become more sustainable.

CASE STUDY
Even a university with an eye on the future knows the past still has a lot to teach us – students taking Imperial Horizon's 'Lessons from History' option discover that too as they work in teams to evaluate the lessons learnt from natural disasters.

CASE STUDY
If you choose our STEMM module, you'll have the chance to add breadth to your studies, like students studying the Colonisation of Mars module. They're working in teams to create ambitious designs for a future off-world Mars settlement where humans can live and work happily and healthily.

THE FOUR I-EXPLORE CATEGORIES ARE:

IMPERIAL HORIZONS
Choose from a wide range of options, including modules focused on humanities, social sciences, languages, and culture, society and global challenges.

BUSINESS FOR PROFESSIONAL ENGINEERS AND SCIENTISTS (BPES)
Gain a greater understanding of the financial, strategic and operational context of your core subject through face-to-face and online classes in Imperial College Business School.

SCIENCE, TECHNOLOGY, ENGINEERING, MATHS AND MEDICINE (STEMM)
Study areas of STEMM outside your core degree, including the chance to engage in debates about topical areas of science and the solutions being pioneered by our world leading researchers.

MULTIDISCIPLINARY PROJECTS
Collaborate with students from across the College on problem-solving projects that will push the boundaries of your creativity.

↑ Imperial Horizons is available through I-Explore and also as an extracurricular option for students looking to gain new skills.

www.imperial.ac.uk/horizons

* Students taking a year abroad or a year in industry will not normally be able to choose from the full I-Explore range.

CELEBRATE

joining a global alumni community

Your relationship with the College does not end when you graduate. As an Imperial alumnus, you will join a community of over 210,000 former students around the globe.

It's a community that includes prestigious prize winners, inventors, business leaders, scientists, engineers, doctors, journalists, researchers and entrepreneurs – united in their shared experience of studying in London at one of the best universities in the world. Imperial alumni enjoy a range of exclusive perks, including invitations to events, careers support, an alumni email address and access to our libraries and the Alumni Visitor Centre on our South Kensington Campus.

www.imperial.ac.uk/alumni

The magnificent setting of the Royal Albert Hall, one of the world's finest concert halls, perfectly matches the pride and sense of achievement our graduates feel as they mark the end of their time at Imperial.

Great minds don’t think alike

People come to Imperial because they want to help create a better world. That takes courage, commitment, resilience and lots of creativity.

These are also the ingredients of successful entrepreneurship, so it’s not surprising that lots of our graduates are choosing this route over more conventional career paths.

THE ENTERPRISE LAB

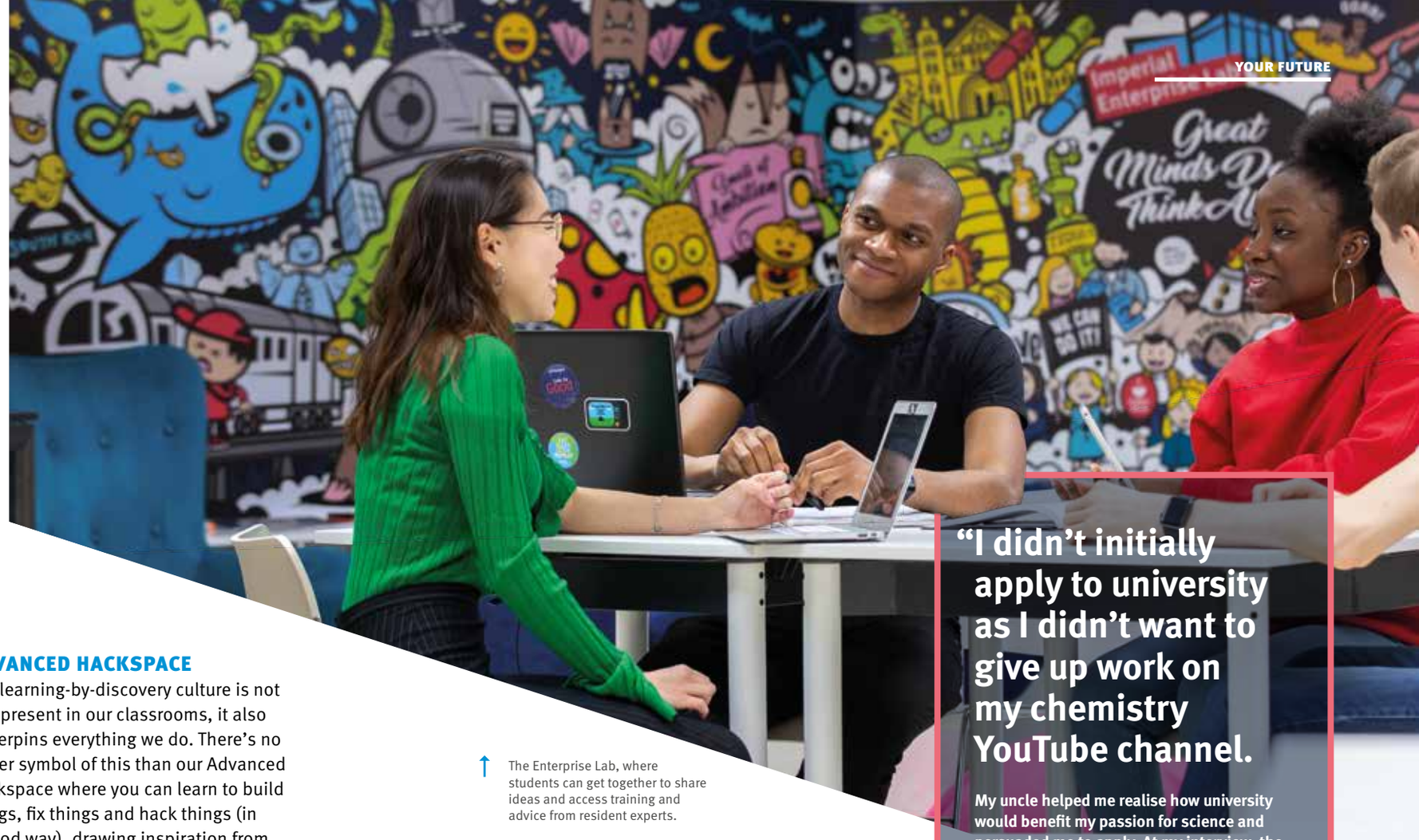
Our Enterprise Lab exists to ensure that all students and staff who have an idea or innovation receive the support they need to take it forward, regardless of what stage they’re at. That might be through training programmes, access to competitions for funding, ideas surgeries with the Lab team or mentoring from industry experts. The Lab’s co-working space is also the go-to place for people to work on their ideas, connect with others and get inspiration.

www.imperialenterpriselab.com

ADVANCED HACKSPACE

Our learning-by-discovery culture is not just present in our classrooms, it also underpins everything we do. There’s no better symbol of this than our Advanced Hackspace where you can learn to build things, fix things and hack things (in a good way), drawing inspiration from each other as you go. It provides a dedicated place on campus where you can access resources like electronics, wood and metal workshops, a bio lab, and a range of prototyping tools all under one roof.

www.imperialhackspace.com



↑ The Enterprise Lab, where students can get together to share ideas and access training and advice from resident experts.

CREATING A BETTER WORLD

Our mission is to make the world a healthier, cleaner and safer place to live. The enterprising community at the College, and the student societies that have formed as a result, provide some of the best examples of this – like the El Salvador Project, whose members provide simple engineering solutions to rural communities.

“I didn’t initially apply to university as I didn’t want to give up work on my chemistry YouTube channel.

My uncle helped me realise how university would benefit my passion for science and persuaded me to apply. At my interview, the panel were really interested in my YouTube project and told me about all the support available here for entrepreneurs – this was a huge factor in my decision to study here and I haven’t regretted it. I have received loads of help and advice and am well on the way to turning my YouTube hobby into a business.”

DAVID, BSc CHEMISTRY

Read David’s full story:
bit.ly/student-stories-david

SUCCESS STORIES →

← **Isa Ibrahim** (BEng Materials Science and Engineering 2017) is the co-founder of ApTap, a bill management tool that allows users to review all of their bills in one place and to cancel, compare, and sign up to new subscriptions with just a tap.

← **Medicine students Changavy Kajamuhan, Shad Asinger and Marcus Panchal** are the co-founders of Tommy, a non-invasive, affordable device that monitors glucose levels to help improve the management of diabetes.

← **Biomedical Sciences student Suchaya Mahuttanatan** won £15,000 of funding as part of WE Innovate, Imperial’s women’s entrepreneurship programme, for her waterproof, breathable cast that could revolutionise the bone healing process.

Your future career

If you've got your eye on an exciting career when you graduate, an Imperial degree is a great place to start – and you'll get plenty of help along the way.

PROFESSIONAL CAREERS GUIDANCE

Regular skills seminars, daily one-to-one guidance appointments and CV checking are just some of the services available from your very first day and for up to three years after you graduate from our Careers Service.

The Career Service's website also has an extensive collection of resources, including practice psychometric tests, interview and assessment centre feedback, country-specific information and useful tips and videos covering every aspect of the recruitment process.

www.imperial.ac.uk/careers

← Our Professional Project Fund offers financial support for a four-week internship in a business area of your choice:

www.imperial.ac.uk/careers/professional-project-fund

ALUMNI MENTORING SCHEME

Our 210,000-strong community of former students work in a huge range of professions across the world – and they are an invaluable source of careers advice. Our Alumni Mentoring scheme is designed to connect you with an alumnus working in your field of interest, or a related industry, for advice on how to follow in their footsteps.

← Our Ask an Alum scheme puts you in touch with Imperial graduates who are happy to answer your careers questions. It's a great way to get valuable insight into specific industry sectors and job roles.

SKILLS DEVELOPMENT

Imperial students don't wait until graduation to start making an impact in the world and often clock up many hours taking part in extracurricular activities, volunteering and part-time work. The Imperial Award offers you a useful framework for reflecting on the skills you develop outside the classroom – and official recognition for them on your degree transcript to help you stand out to future employers.

www.imperialcollegeunion.org/your-development

FOLLOW IN THEIR FOOTSTEPS

Emma Ridley is a Forensic DNA Analyst for the analytical testing firm Eurofins Forensic Services. She is responsible for extracting and processing DNA from items from crime scenes and interpreting the DNA profiles.

BSc Biochemistry 2016

Abdul Alam is a Graduate Engineer at Rolls-Royce where he is developing and testing hybrid mesh technology which could help to enhance the performance of next-generation jet engines.

MEng Aeronautical Engineering 2018

Dr Mala Mawkin was featured in the Forbes 30 under 30 list for her medical research project into the future of space travel at the European Space Agency and work with healthcare startups to improve NHS services.

MBBS/BSc Medicine 2019

No.1 for graduate employability

The Guardian University Guide 2020

6,500+ VACANCIES

advertised in 2019 by employers registered with the Careers Service

NO.1

for graduate starting salaries in the UK

The Times/Sunday Times Good University Guide 2020

9 annual campus careers fairs, including engineering, science, finance and consulting fairs, which bring hundreds of employers to Imperial.

Industry connections

The advantage of being the only university in the UK to focus solely on science, engineering, medicine and business is that a lot of employers want to work with us.

Businesses contributed £61.2 million to our income in 2017–2018. They also use our facilities, engage our staff as consultants and fund scholarships and prizes for our students.

In many departments this valuable employer input is channelled through guest lectures, scholarships and prizes.

Courses with integrated years in industry (or research) are also available in the majority of our departments – it's not unusual for these to lead to job offers on graduation.

Our central London location is a huge advantage in our links with employers. We make the most of this in our year-round graduate recruitment programme:

- nine sector-specific careers fairs
- a rolling programme of employer presentations
- industry sector forums, offering an insight into a variety of work roles within a particular industry
- on-campus interviews – first round interviews with a range of graduate recruiters

YOUR FUTURE

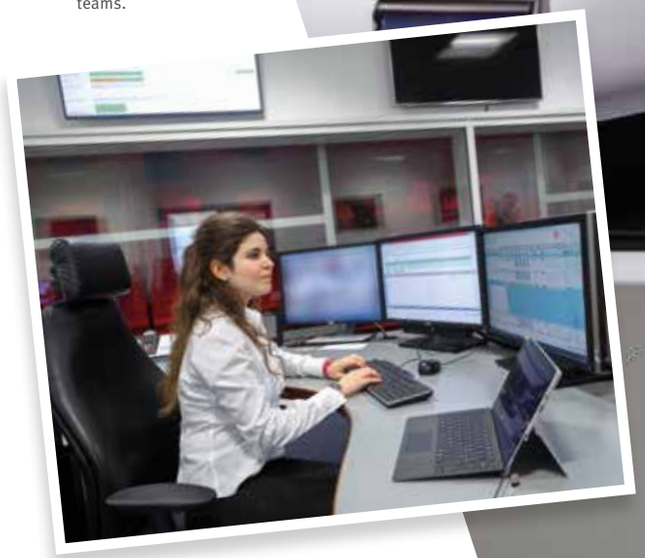
"I love problem solving and being creative.

Analysing each car's performance is a big part of my role: I process and analyse track data, looking at the car's technical performance and briefing the machine."

ELIZABETH, MEng AERONAUTICAL ENGINEERING WITH A YEAR IN INDUSTRY

Read Elizabeth's full story:
bit.ly/student-stories-elizabeth

→ Elizabeth and Carlota's year-long industry placement is at Williams Racing, one of the world's leading Formula 1 teams.



"There are so many opportunities.

I'm developing a new tool to understand how air flow along our cars can affect their performance and have been analysing the data from our wind tunnel experiments."

CARLOTA, MEng AERONAUTICAL ENGINEERING WITH A YEAR IN INDUSTRY

Read Carlota's full story:
bit.ly/student-stories-carlota

OVER 60%

of our undergraduate courses are professionally accredited, delivering industry-recognised skills and knowledge

INDUSTRY-STANDARD FACILITIES

which match those you will find in the professional world are available across the College

GET INVOLVED

A COMMUNITY like no other

Imperial's community is drawn together by a love of science. This creates a special culture of people who love to make things, discover things and make a difference in the world.

We may have plenty in common but that's not to say we're all the same. In fact, we celebrate the diversity that our international profile brings, with students from over 130 countries and from all kinds of backgrounds.

→

The Queen's Lawn during Welcome Week at the start of term.

Beyond the classroom

Master a new skill, take up a new sport or embrace a new challenge. There's a world of opportunity waiting for you beyond the classroom and Imperial College Union is here to help you make the most of it.

IMPERIAL COLLEGE UNION

All Imperial students are members of Imperial College Union, which provides funding, resources and support for our student activities (see pages 56–57). Its dedicated building on our South Kensington Campus also houses an Advice Centre, staffed by professional advisers who can offer independent guidance on a range of personal and academic issues.

→ Imperial has an age-old tradition of mascotry, with 11 mascots representing the different College Unions.

www.imperial.ac.uk/mascots

MAKE YOUR VOICE HEARD

The Union provides a voice for change for all Imperial students through its network of elected representatives across all campuses.

www.imperialcollegeunion.org

← Felix the Cat is the official mascot of Imperial's student newspaper, *Felix*. The weekly paper grew out of the College's arts magazine *Phoenix*, which was established by *War of the Worlds* author and former Imperial student, H.G. Wells.

felixonline.co.uk

GET INVOLVED

↑ There are five established *a cappella* groups at the College, including the mixed-gender group The Scopes.

↑ Imperial College Union has a number of volunteering programmes that offer a way for you to take practical action on issues that you care about and gain new skills at the same time.

VOLUNTEERING

Every year over 3,000 students are elected to volunteer roles within Imperial College Union. Around 600 of these students make up the Union's Academic and Wellbeing Representation Networks. These networks play a vital part in communicating and representing the needs of students to the College, whether in relation to the delivery of a course or to student welfare issues, such as mental health or financial wellbeing.

THE ARTS

It's a common misconception that the arts cannot thrive at our science-dominated College – at Imperial they're alive and well. Music really flourishes here – evident in our four orchestras, six choirs, wind band, jazz big band, and busy lunchtime concert series. We also have ten music practice rooms, which you can use for free.

Other arts are equally well catered for with free art workshops, an on-site art studio and gallery and Dramatic and Musical Theatre societies welcoming both performers and behind-the-scenes volunteers.

THE UNION IS HOME TO AN ON-CAMPUS NIGHTCLUB, METRIC

THE SUMMER BALL IS ONE OF THE LARGEST UNION EVENTS

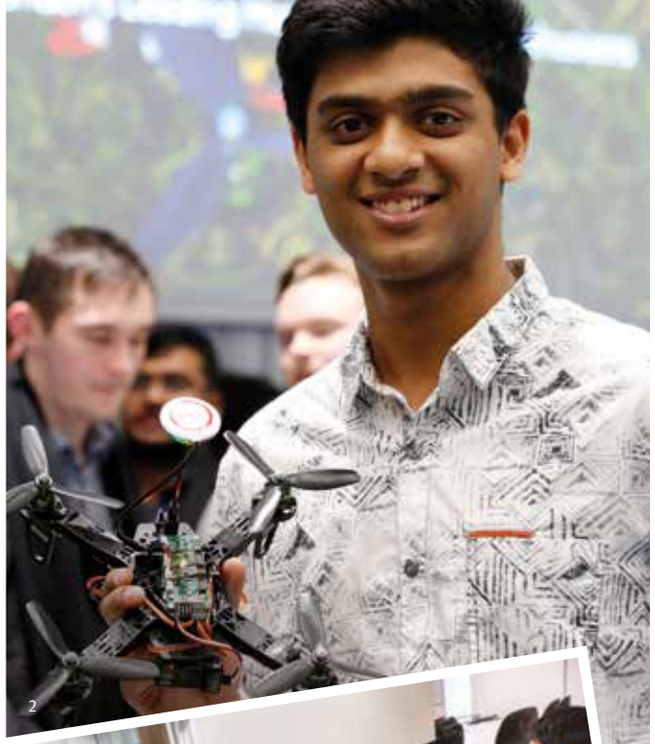
ALL WORK AND NO PLAY?

If our students did nothing but work, there wouldn't be anyone to go to our 380+ societies, clubs and projects. That's one of the largest ranges of any UK university and it's growing every year.

But don't worry if you can't find one that fits – Imperial College Union can help you set up your own.

In fact, the biggest challenge you may face is deciding which of our hundreds of activities to join. That's why we offer lots of taster sessions in the first term so you can try out as many as you want before deciding whether you're ready to commit to a membership.

1 IQ (LGBT+)
2 Drone Society
3 Imperial College Radio
4 Musical Theatre Society
5 Canoe Club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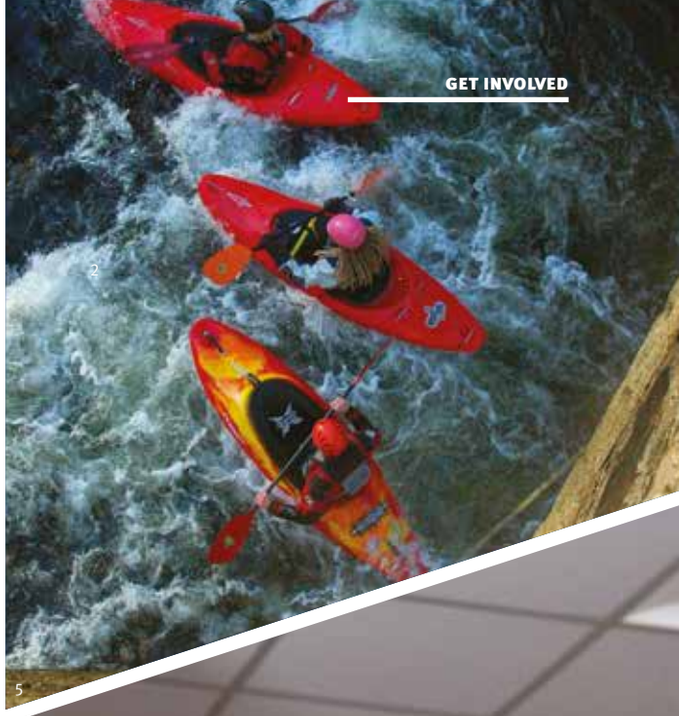
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"Straight away, I found people who I just clicked with. Some are still my closest friends.

You think there's not going to be time for a social life at a university like Imperial. But that's not true.

When I got my offer, I remember worrying about fitting in and making friends. But in Welcome Week I joined the African Caribbean society. The society has given me an outlet.

Taking part in dance rehearsals for the society's annual gala has given me time off to think about things other than my course."

SEAN, MEng DESIGN ENGINEERING

Read Sean's full story:
bit.ly/student-stories-sean

PLAY, COMPETE, EXERCISE, ENJOY

Imperial is the number one university for sporting success in London,* giving you plenty of opportunity to stay active, get fit and meet new friends.

Whether you're looking to introduce a bit of exercise into your daily routine, want to join a sports club or need support to compete at a national or international level, our dedicated sporting body, Move Imperial, is here to help you achieve your goals. You'll find all the facilities, services and expert sporting advice you'll need under one roof.

www.imperial.ac.uk/sport

PERFORMANCE SPORT

Over 80 Imperial teams will compete in the 2019–2020 inter-university league, BUCS. The standard is high, bringing together some of the UK's top student-athletes, including 50 Imperial sports scholars – elite athletes who also compete at national or international level.

For more information about our sport scholarships see:

www.imperial.ac.uk/sport/performance-sport/sport-scholarships

* Based on our overall ranking in the British Universities and Colleges Sport (BUCS) leagues 2018–2019.

↑ Distance runner and sports scholar, Daniel Rowden.

1 Parkour, free running and gymnastics
2 Diving
3 Karate Shotokan
4 Hockey
5 Surfing
6 Fencing
7 Basketball
8 Football
9 American football
10 Rowing
11 Ethos sports facilities

SPORTS CLUBS

The choice of sports clubs available is as diverse as our students, with around 100 clubs welcoming players at all levels. These cover a huge range of competitive and recreational activities, including archery, badminton, BMX, cricket, fencing, hockey, polo, riding, rowing, rugby, skateboarding and snowsports. We also offer over ten different martial arts.

GET INVOLVED

↑ Watch our sports clubs in action:

bit.ly/imperial-sports-day-in-the-life

1st in London

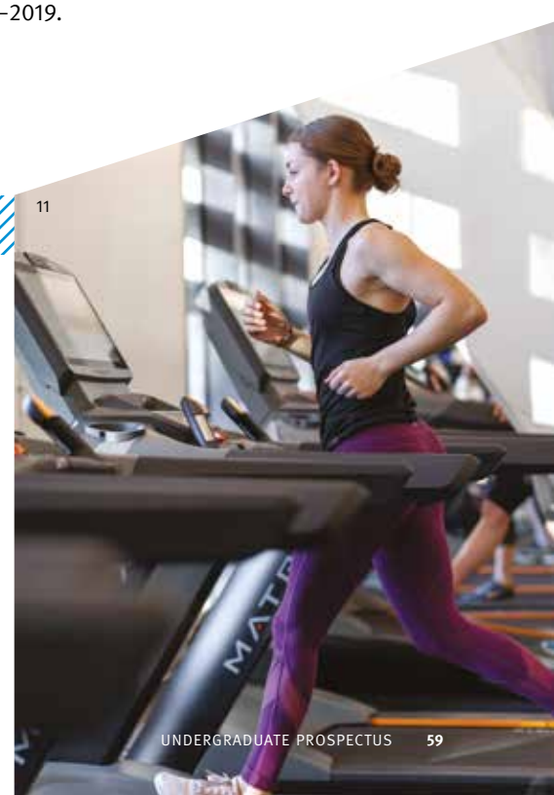
↑ in the inter-university British Universities and Colleges Sport (BUCS) leagues 2018–2019.

ETHOS SPORTS CENTRE

Our on-campus sports centre, Ethos, is convenient for fitting in a lunchtime swim, gym session or fitness class.

All of our students have access to the gym and swimming facilities in Ethos, and at our other campuses, for an annual membership fee (currently £30) or on a pay as you go basis.

www.imperial.ac.uk/ethos



DON'T JUST STUDY THE WORLD, LIVE IT

We want to train graduates who are interested in the world around them. Doing this authentically means giving our students the chance to experience different cultural perspectives first hand.

→

EACH YEAR OUR EXPLORATION BOARD FUNDS TRIPS WHICH TAKE OUR STUDENTS ALL OVER THE WORLD

←

An expedition team of eight Imperial students trekked unsupported across one of Crete's most tiring and difficult walking routes for three and a half weeks.

www.imperial.ac.uk/be-inspired/exploration-board

1

2

3

4

1 Many departments offer integrated year abroad courses, with options to study at some of the world's best universities. Mathematics student Harrison spent his third year studying in Switzerland.

2 Geophysics student Ruth spent a year studying in Los Angeles.

3 Our International Research Opportunities Programme (IROP) allows you to spend your summer vacation overseas at a top partner university. Chemistry undergraduate student Sofia took part in an IROP placement at Seoul National University in South Korea.

4 Materials undergraduate Matas carried out a summer IROP placement at MIT.

www.imperial.ac.uk/students/global-opportunities/ug/summerresearchplaces

5 A wide range of student-led volunteering societies gives you the chance to apply your education globally, like members of e.quinox who use their engineering skills to bring cost effective and renewable energy to developing countries.

6 You can study a range of languages alongside or as part of your degree through Imperial Horizons.

www.imperial.ac.uk/languages

5

6

ALL STUDENTS HAVE THE CHANCE TO LEARN A LANGUAGE THROUGH IMPERIAL HORIZONS

OVERSEAS FIELD TRIPS ON A NUMBER OF OUR COURSES TURN THE WORLD INTO YOUR CLASSROOM

→

Our Earth Science and Engineering students on a field trip to the Pyrenees, an extensive mountain range between Spain and France.

OUR COURSES

EXPLORE what's on offer

←

Geology students taking part in a field trip to gain experience of identifying rocks and interpreting the physical processes that may have been involved in their formation.

SUBJECT REQUIREMENTS

This table provides an overview of our fields of study and the subject requirements for students studying A-levels.

It's essential that you also check our course pages (pages 66–135) for the grades you need to achieve in each subject.

Subject requirements for students studying international qualifications, including the International Baccalaureate (IB), may differ – see our course pages for details.

A minimum English language requirement (standard or higher depending on the department) also applies for all applicants, even native English speakers – see page 15.

www.imperial.ac.uk/study/ug/courses

↓ These subjects form part of our minimum standard of entry for students studying A-levels.

↓ These subjects are not required for entry but if available at your school, we recommend that you take them.

↓ The skills and/or knowledge gained in these subjects may be useful, but they are not required for entry.

↓ For students who demonstrate sufficient potential on their application.*

SUBJECT AREA	REQUIRED SUBJECTS	RECOMMENDED SUBJECTS	USEFUL SUBJECTS	INTERVIEW	ADMISSIONS TEST
Aeronautics (page 66)	▸ Mathematics ▸ Physics	▸ Further Mathematics		✓	✓
Biochemistry and biotechnology (page 70)	▸ Chemistry ▸ Biology, Mathematics or Physics			✗	✗
Bioengineering: Biomedical engineering (page 74)	▸ Mathematics ▸ Physics	▸ Biology ▸ Chemistry ▸ Further Mathematics	▸ Computer Science ▸ Design and Technology ▸ Electronics	✓	✗
Bioengineering: Molecular bioengineering (page 74)	▸ Mathematics ▸ Chemistry	▸ Biology ▸ Further Mathematics ▸ Physics	▸ Computer Science ▸ Design and Technology ▸ Electronics	✓	✗
Biological sciences (page 78)	▸ Biology ▸ Chemistry, Mathematics or Physics			✗	✗
Biomedical science: Medical biosciences (page 82)	▸ Biology or Human Biology ▸ Chemistry, Physics, Mathematics or Further Mathematics			✗	✗
Chemical engineering (page 86)	▸ Mathematics ▸ Chemistry ▸ Biology, Business Studies, Economics, Further Mathematics or Physics			✓	✗
Chemistry (page 90)	▸ Chemistry ▸ Mathematics	▸ Biology ▸ Economics ▸ Physics	▸ Business Studies, French, Further Mathematics, Geography, Geology, German, History, Spanish	✓	✗
Civil and environmental engineering (page 94)	▸ Mathematics ▸ Physics		▸ Further Mathematics	✓	✓
Computing (page 98)	▸ Mathematics	▸ Computer Science ▸ Further Mathematics ▸ Physics	▸ Biology, Chemistry, Economics, Electronics, English Literature, History, Languages, Law, Philosophy, Politics, Psychology	✓	✓
Design engineering (page 104)	▸ Mathematics		▸ Art and Design, Computing, D&T: Product Design, Electronics, Fine Art, Further Mathematics, Graphic Design, Music Technology, Physics, Psychology, Statistics, Textiles, 3D Design	✓	✗
Earth science and engineering: Earth and planetary science (page 112)	▸ Mathematics ▸ Biology, Chemistry, Geography, Geology or Physics			✓	✗
Earth science and engineering: Geology (page 112)	▸ Two of: Biology, Chemistry, Geography, Geology, Mathematics, Physics			✓	✗
Earth science and engineering: Geophysics (page 112)	▸ Mathematics ▸ Physics			✓	✗
Electrical and electronic engineering (page 108)	▸ Mathematics ▸ Physics	▸ Biology, Chemistry, Computer Science, Computing, Design and Technology, Economics, Electronics, English Literature, Further Mathematics,† Geography, History, Languages, Music, Music Technology		✓	✗
Materials science and engineering (page 116)	▸ Mathematics ▸ Chemistry or Physics		▸ Biology, Computing, Design and Technology, Economics, Electronics, English Language, English Literature, Further Mathematics, Geography, History, Languages,‡ Philosophy, Politics, Psychology	✓	✗
Mathematics (page 120)	▸ Mathematics ▸ Further Mathematics§		▸ Chemistry ▸ Physics	✗	✓
Mathematics and computer science (page 100)	▸ Mathematics ▸ Further Mathematics	▸ Physics ▸ Computer Science	▸ See Computing (above)	✓	✓
Mechanical engineering (page 124)	▸ Mathematics ▸ Physics		▸ Further Mathematics	✓	✗
Medicine (page 128)	▸ Chemistry ▸ Biology			✓	✓
Physics (page 132)	▸ Mathematics ▸ Physics	▸ Further Mathematics	▸ Chemistry	✓	✗

* Each department makes its own interview arrangements – international students may be offered an interview via Skype.
§ Required, where available.

† Recommended third subject, where available.
‡ A-levels in foreign languages that are studied in an applicant's native language may not be considered.

Aeronautics

The science behind the design of vehicles and structures that interact with air, with application to aircraft and other flight vehicles, motorsports and energy.

Studying Aeronautics at Imperial means joining a department at the cutting edge of aerospace teaching and research – we're ranked in the top ten in the field in the QS World University rankings by subject 2019.

This is reflected in the state-of-the-art facilities you will have access to – a Mach 9 hypersonic gun tunnel and a variable Mach supersonic wind tunnel; a range of low-speed wind tunnels for road vehicle studies; a large flight test arena for the development of next-generation aerial robots; and a flight simulator where you can test-fly your own aircraft designs.

We also have extensive links with the aerospace industry, leading to talks and seminars by visiting experts, specific lecture courses delivered in full or in part by industry experts and industry-inspired projects.

Students working inside one of the Department's large wind tunnels.

FAST FACTS

Delivered by
→ Department of Aeronautics

Total expected intake (2021 entry)
→ 130

Applications:admissions ratio
→ 8:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/aeronautics**

2nd in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad (in Europe, Singapore or the USA)

Professionally accredited courses

Year in industry

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MEng	Aeronautical Engineering ■	H401	4 years
MEng	Aeronautical Engineering with a Year Abroad ■	✱	4 years
MEng	Aeronautical Engineering with a Year Abroad ■	✱	5 years
MEng	Aeronautical Engineering with a Year in Industry ■	✱	5 years
MEng	Aeronautics with Spacecraft Engineering ■	✱	4 years

■ International students applying for these courses require an ATAS certificate before they can apply for a student visa – see page 12.
✱ Transfer to these courses is only available after you start – all students must apply to H401 in the first instance.

PROFESSIONAL ACCREDITATION
Our courses are accredited by the Royal Aeronautical Society (RAeS) and the Institution of Mechanical Engineers (IMechE). The current accreditation agreement is due to be renewed for students starting their studies in the 2021–22 academic year.

A

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A or **A* A A A** overall to include:

A* in Mathematics
A / A* in Physics (an A* is required if studying three A-levels or at least an A if studying four A-levels)
A in a third subject, Further Mathematics is recommended but not essential

Typical offers (see page 14)

Student taking three A-levels: **A* A* A**
Students taking four A-levels: **A* A A A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

40 points overall to include:

7 in Mathematics at higher level*
7 in Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches (preferred) or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

40 points

ADDITIONAL CRITERIA

- ✓ **Standard** level College English language requirement – see page 15
- ✓ A language qualification may be required for Year Abroad course
- ✓ Interview – applicants who demonstrate potential
- ✓ Mathematics test – applicants who are invited to interview

Course overview

The first two years are the same across all of our Aeronautical Engineering courses, covering a strong base of physical and engineering subjects. Year two includes more specialised aeronautical material such as aerodynamics, flight mechanics and propulsion, and turbomachinery, plus the chance to attend a flight-testing course at the National Flying Laboratory Centre at Cranfield University.

Both years include laboratory-based coursework plus design-make-and-test exercises to develop your design and analysis skills.

Years three and four continue to cover core modules and laboratory work. You also have a choice of optional modules covering specialist topics. Current choices include advanced propulsion, turbulence and turbulence modelling, and advanced mechanics of flight, as well as general engineering options.

A group project in year three gives you the chance to simulate the work of a design team to take a design concept through the different stages of feasibility. Recent examples include an advanced tactical stealth fighter and an off-shore oil platform. You also complete an individual research project in year four.

YEAR ABROAD PATHWAY

Students choosing this pathway spend a year studying at a university overseas – currently in France, Germany, Singapore or the USA. The grades you achieve while abroad count directly towards your degree. Teaching is in the language of the host country in France and Germany, so you will need to reach an acceptable level in the relevant language before you go. Free language classes are available to help you prepare.

Places are limited at each partner university so competition is strong and selection cannot be guaranteed. Normally, only students who are achieving marks of 60% and above will be eligible for placements in France and Germany; for placements in Singapore and the USA, only students achieving marks of 70% and above will be eligible.

YEAR IN INDUSTRY PATHWAY

Students choosing this pathway complete an industrial placement between the third and fourth years, typically with a Formula 1 racing team or an aircraft manufacturer. You will be expected to help the Department organise your placement; we have strong links with industry and can offer advice on companies to approach.

SPACECRAFT ENGINEERING PATHWAY

Students on this pathway cover more specialised space-related material from year three onwards, including core modules in spacecraft structures and spacecraft systems. Your individual research project in year four must also be space engineering related.

The Department is home to an Aerial Robotics Laboratory, with a large enclosed flight arena and flight test lab, supporting the design, creation and testing of next-generation flying robots.

What our graduates do

All of our undergraduate courses lead to an integrated Master's degree, which includes study at postgraduate level. This makes our graduates highly sought after for a range of careers in the aerospace industry, manufacturing, consultancy, research and development, and in other fields including teaching and finance.

Recent graduates of the Department have become...

1. Graduate Simulation and Modelling Engineer, Mercedes AMG Formula 1 team
2. Structural Design Engineer, Airbus Group
3. Automatic Transmissions Control Engineer, Jaguar Land Rover
4. Technical Service Engineer, Singapore Airlines
5. Technology Analyst, Goldman Sachs

The new 'flying fish' robot can use water to propel itself and glide through the air.

DID YOU KNOW?

Researchers from Imperial's Aerial Robotics Laboratory have created a robot that uses water from the environment to create a gas and launch itself into the air. The robot, which can glide 26 metres through the air after take-off, could be used to collect water samples in hazardous environments, such as after floods or nuclear accidents. The research team are now working with partners in Switzerland to trial the robot in a range of environments, including monitoring the oceans around coral reefs.

Full course information
www.imperial.ac.uk/study/ug/aeronautics

Undergraduate Admissions Team
+44 (0)20 7594 5047
aero.admissions@imperial.ac.uk

Biochemistry and biotechnology

The analysis of chemical processes within living organisms and understanding how biochemical knowledge can be applied to real-world situations.

Biochemistry and Biotechnology students at Imperial are based within the Department of Life Sciences, which is home to one of the largest life science groups in Europe. This allows us to offer real breadth in our study programme, covering all aspects of the applied biochemistry and biotechnology industries.

You also have the flexibility to follow your career aspirations, with opportunities including overseas study, a year in industry or research, and the chance to study management or a language as part of your course.

For details of our Biological Sciences courses, see pages 78–81.

FAST FACTS

Delivered by
→ Department of Life Sciences

Total expected intake (2021 entry)
→ 150

Applications:admissions ratio
→ 8:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/life-sciences**

4th in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad options in Europe

Management year available

Year in industry/ research

A Biochemistry student working with cyanobacteria, photosynthetic bacteria that live in water.

Thinking of applying for more than one of these courses? Contact the Department for advice.

OUR COURSES

Courses are also available in Biological Sciences (see pages 78–81). While transfer is possible between the Biochemistry and Biotechnology courses (excluding Languages for Science), it is not possible to transfer from a Biochemistry/Biotechnology course to a course within the Biological Sciences stream after entry.

QUALIFICATION AND DEGREE TITLE		UCAS CODE	LENGTH
BSc	Biochemistry	C700	3 years
BSc	Biochemistry with a Year in Industry/Research	✱	4 years
BSc	Biochemistry with French for Science	C7R1	4 years
BSc	Biochemistry with German for Science	C7R2	4 years
BSc	Biochemistry with Spanish for Science	C7R4	4 years
BSc	Biochemistry with Management	✱	3 years
BSc	Biochemistry with Management	✱	4 years
BSc	Biochemistry with Research Abroad	✱	4 years
BSc	Biotechnology	J700	3 years
BSc	Biotechnology with a Year in Industry/Research	✱	4 years
BSc	Biotechnology with French for Science	J7R1	4 years
BSc	Biotechnology with German for Science	J7R2	4 years
BSc	Biotechnology with Spanish for Science	J7R4	4 years
BSc	Biotechnology with Management	✱	4 years
BSc	Biotechnology with Research Abroad	✱	4 years

✱ Transfer to these courses is only available after you start – all students must apply to C700 or J700 in the first instance.

B

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A A A overall to include:

A in Chemistry
A in Biology, Mathematics or Physics

Typical offers (see page 14)

A A A to **A* A A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

6 in Chemistry at higher level
6 in Biology, Mathematics* or Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

39 points (usually including a 7 in Chemistry or Biology at higher level)

ADDITIONAL CRITERIA

✓ **Higher** level College English language requirement – see page 15

✓ Minimum grade B at AS level (or 5 at higher level/6 at standard level for students studying the IB) in the relevant language for French/German/ Spanish for Science courses

✕ Interview

✕ Admissions test

Course overview

Biochemistry aims to understand biology with a focus on the molecular (protein, DNA) and cellular level. Biotechnology creates a vital link between biology and technology and aims to understand how biochemical knowledge can be applied, such as in the manufacturing of new drugs and diagnostic tools, or to catalyse the conversion of solar into chemical energy.

All students follow the same core modules for the first year and a half. This means you can transfer between the different Biochemistry and Biotechnology courses up to the end of your second year. Core modules currently focus on topics such as biological chemistry, cell and molecular biology, proteins and enzymes, genes and genomics and protein science.

In the second year, you start to specialise in a particular area and choose from a number of optional modules.

In the final year, you have increased freedom to follow your own interests, choosing from a range of topics linked to our current research, such as damage and repair in biological systems, medical glycobiology, systems neuroscience, synthetic biology, structural biology and drug design, molecular basis of bacterial infection, and mechanisms of gene expression. You also get the chance to apply your knowledge to the real world by carrying out a laboratory-based research project or literature-based dissertation.

LANGUAGE FOR SCIENCE COURSES

These courses combine the full science curriculum with the chance to study French, German or Spanish as a second language. You attend language classes in your first, second and fourth years. You spend the third year at a partner university, where you attend lectures and conduct a research project.

The following pathways are available for internal transfer for students achieving a 2:1 standard by the end of second year:

MANAGEMENT PATHWAY

This pathway integrates teaching by Imperial College Business School, focusing on the management and operating environment of business organisations.

The three-year course covers two years of the BSc Biochemistry or BSc Biotechnology course, followed by a management year. The four-year course covers the first three years of our BSc Biochemistry or BSc Biotechnology course, with a final management year. Transfer to this pathway is dependent on your internal application to the Business School being accepted.

B

DID YOU KNOW?

Researchers from Imperial's Department of Life Sciences have found that drug-resistant bacteria responsible for deadly hospital 'superbugs' block antibiotics by closing the pores in cell walls. The findings could allow future drugs to be developed that can unblock these pores and allow antibiotics into bacterial cells.

↑ Undergraduate student Emem working in the zebrafish lab to research the impact of a Western style diet.

RESEARCH ABROAD PATHWAY

Students following this pathway spend their third year at one of our partner universities – currently in Austria, Denmark, France, Germany, the Netherlands, Spain, Sweden or Switzerland. Placements to certain countries require proficiency in the relevant language – free language classes are available to help you prepare.

YEAR IN INDUSTRY/ RESEARCH PATHWAY

This pathway combines our science curriculum with a 12-month placement in industry or a research organisation between the second and third years. You are expected to organise your placement with support from the Department.

What our graduates do

Many of our Biochemistry and Biotechnology graduates go on to study for a higher degree in the field, typically starting with a Master's degree, followed by a PhD and a career in academic research or industry. Other opportunities for Life Sciences graduates include government and industrial research, public health, and careers in business.

Recent Biochemistry and Biotechnology graduates have become...

1. Analyst, Ministry of Defence
2. Fungicide Biochemist, Syngenta
3. Research Officer, A*STAR, Singapore
4. Cyber Risk Consultant, Deloitte
5. Medical Laboratory Assistant, NHS

Full course information
www.imperial.ac.uk/study/ug/life-sciences

Undergraduate Admissions Team
+44 (0)20 7594 5398
lifesciences.admissions@imperial.ac.uk

Bioengineering

A highly interdisciplinary field at the interface of engineering, medicine and the physical sciences.

Of all of the engineering disciplines, none has the power to transform lives quite so dramatically as bioengineering. Imperial's Department of Bioengineering is ranked in the top ten departments in the world to study this rapidly evolving field (QS World University rankings by subject 2019).

You study many subjects, including engineering mathematics, mechanics, nanotechnology, biomaterials, electronic engineering, physiology, programming and design.

You also have access to a range of state-of-the-art facilities. These are designed to support practical activities and enable you to contribute to real-world projects which make a positive impact on people's lives.

FAST FACTS

Delivered by
→ Department of Bioengineering

Total expected intake (2021 entry)
→ 175

Applications:admissions ratio
→ 3.5:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/bioengineering**

4th in the UK
The Guardian University Guide 2020

Year abroad (in Europe, Singapore or the USA)

Professionally accredited courses

Year in industry

Imperial students showcasing one of their devices at the inaugural Bionic Paralympics – the Cybathlon. The competition gives people living with severe disabilities, who have previously been unable to participate in any sports, the chance to compete in a range of challenges with the help of the latest assistive technologies.

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MEng	Biomedical Engineering	BH9C	4 years
MEng	Biomedical Engineering with a Year Abroad	✱	4 years
MEng	Biomedical Engineering with a Year in Industry	✱	5 years
MEng	Molecular Bioengineering	H160	4 years
MEng	Molecular Bioengineering with a Year Abroad	✱	4 years
MEng	Molecular Bioengineering with a Year in Industry	✱	5 years

✱ Transfer to this course is only available after you start – all students must apply to BH9C or H160 in the first instance.

PROFESSIONAL ACCREDITATION

Our Biomedical Engineering courses are accredited by the Institute of Physics and Engineering in Medicine (IPEM), the Institution of Engineering and Technology (IET), the Institute of Mechanical Engineers (IMechE) and the Institute of Materials, Minerals and Mining (IOM3). Our Molecular Bioengineering courses are accredited by IOM3 and we are seeking accreditation by IPEM, IET and IMechE. If successful, this accreditation is likely to be applied retrospectively.

B

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A A overall to include

For Biomedical Engineering
A* in Mathematics
A in Physics
A in another subject (Biology, Chemistry or Further Mathematics is recommended)

For Molecular Bioengineering
A* in Mathematics
A in Chemistry
A in another subject (Biology, Further Mathematics or Physics recommended)

Typical offers (see page 14)

Three A-level offer: **A* A A** to **A* A* A**
Four A-level offer: **A* A* A A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

For Biomedical Engineering
6 in Mathematics at higher level*
6 in Physics at higher level
6 in a third subject at higher level

For Molecular Bioengineering
6 in Mathematics at higher level*
6 in Chemistry at higher level
6 in a third subject at higher level

* For 2021 entry, the Mathematics Analysis and Approaches (preferred) or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38–40 points

ADDITIONAL CRITERIA

- ✓ **Standard** level College English language requirement – see page 15
- ✓ Interview – applicants who demonstrate potential
- ✓ Admissions exercise for applicants who are unable to attend a face-to-face interview

Course overview

BIOMEDICAL ENGINEERING

Biomedical engineers use their technological knowledge and understanding to help people live longer, healthier and happier lives. You learn a broad range of engineering skills, develop your ability to collaborate and solve problems, and work on projects in medicine and biology with life-changing potential.

In the first two years, you study foundational engineering topics such as mathematics, computing, electronics, and mechanics and develop your understanding of the human body. In the second year, you apply these skills to practical problems through an engineering design project, where you work in teams to solve local and global challenges such as the need for low-cost assistive technology in the developing world, or design equipment to help Paralympians.

In the third and fourth years, you choose modules tailored to your interests and can specialise in one of the following pathways: Biomedical Engineering, Computational Bioengineering, Electrical Engineering or Mechanical Engineering. You continue to undertake substantial practical work – a third-year group project that includes working with medical students and an individual research project in your fourth year.

← Bioengineering student Kaavya undertaking a UROP placement (see page 41), in Imperial's Nowlan Lab.

MOLECULAR BIOENGINEERING

Molecular Bioengineers consider how we can engineer chemical and biological systems to solve challenges in health and wellbeing. This truly interdisciplinary course covers a breadth of topics such as designing and building a cancer screening device, genetically engineering bacteria to produce new drugs, and understanding how minimising scar-tissue formation is the key to creating a bionic eye. You develop the technical knowledge and problem-solving skills of an engineer and the scientific understanding and laboratory expertise of an experimental scientist.

In the first two years, you study foundational engineering topics such as mathematics, computing, electronics and mechanics, and develop your theoretical and practical understanding of chemical and biological processes. You work in groups in the second year to solve a real-world problem, such as developing new diagnostic tests or medical monitoring devices.

In the third and fourth years, you choose specialist modules in topics such as biomaterials, biomimetics, mathematical modelling, medical entrepreneurship and synthetic biology, which you study alongside core modules. You also undertake a group project in your third year and an individual research project in your fourth year.

YEAR ABROAD PATHWAY

Students achieving marks of 60% and above at the time of selection can apply to spend the fourth year at one of our partner universities abroad. This is an integrated year so your grades count directly towards your degree. Limited spaces mean competition is strong and selection cannot be guaranteed.

YEAR IN INDUSTRY PATHWAY

You can apply to undertake a 12-month paid placement in an industrial setting between your third and fourth year. You are expected to organise your placement with support from the Department.

B

↑ Students in the Royal British Legion Centre for Blast Injury Studies at Imperial.

DID YOU KNOW?

Department of Bioengineering researchers have developed low-cost food spoilage sensors for meat and fish packaging. The sensor data can be read by smartphones so that people can hold their phone up to the packaging to see whether the food is safe to eat. The sensors could eventually replace use-by dates and reduce food waste.

What our graduates do

Our degrees not only prepare you for a career in the rapidly growing field of bioengineering, they also provide a technical foundation for careers in other engineering disciplines. Many graduates enter PhD programmes, while others launch their own startup companies or enter graduate medical programmes. Industry, consultancy and finance are also common career destinations for our graduates.

Recent graduates of the Department have become...

1. Device Development Engineer, Roche
2. Software Engineer, Samsung
3. Biomedical Imaging Scientist, Perspectum Diagnostics
4. CEO and Co-founder, MeVitae
5. Clinical Engineer, NHS Scientist Training Programme

Full course information
www.imperial.ac.uk/study/ug/bioengineering

Undergraduate Admissions Team
+44 (0)20 7594 2259
be.ugadmissions@imperial.ac.uk

Biological sciences

The study of living things and how they react to each other and the world around them.

Biological sciences at Imperial is taught within the Department of Life Sciences, which is home to one of the largest life science groups in Europe. The result is courses that span the full breadth of biological sciences, including molecular, cell and evolutionary biology, ecology, biostatistics, genetics and biodiversity.

Our research-led curriculum is designed to produce highly trained, independent, articulate scientists. It also offers you the flexibility to follow your career aspirations, with opportunities including overseas study, a year in industry or research, and the chance to study management or a language as part of your course.

For details of our Biochemistry and Biotechnology courses, see pages 70–73.

FAST FACTS

Delivered by
→ Department of Life Sciences

Total expected intake (2021 entry)
→ 150

Applications:admissions ratio
→ 6.5:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/life-sciences**

4th in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad options in Europe

Management year available

Year in industry

Professor Pietro Spanu, teaching a second-year Applied Molecular Biology class for Biological Sciences students.

Thinking of applying for more than one of these courses? Contact the Department for advice.

OUR COURSES

Courses are also available in Biochemistry/Biotechnology (see pages 70–73). While transfer is possible between all the courses on this page (excluding Languages for Science), it is not possible to transfer from a Biological Sciences course to a course within the Biochemistry/Biotechnology stream after entry.

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BSc	Biological Sciences	C100	3 years
BSc	Biological Sciences with a Year in Industry/Research	✱	4 years
BSc	Biological Sciences with French for Science	C1R1	4 years
BSc	Biological Sciences with German for Science	C1R2	4 years
BSc	Biological Sciences with Spanish for Science	C1R4	4 years
BSc	Biological Sciences with Management	✱	3 years
BSc	Biological Sciences with Management	✱	4 years
BSc	Biological Sciences with Research Abroad	✱	4 years
BSc	Ecology and Environmental Biology	C180	3 years
BSc	Microbiology	C500	3 years

✱ Transfer to this course is only available after you start – all students must apply to C100 in the first instance.

B

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A A A overall to include:

A in Biology
A in Chemistry, Mathematics or Physics

Typical offers (see page 14)

A A A

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

6 in Biology at higher level
6 Chemistry, Mathematics* or Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38 points

ADDITIONAL CRITERIA

✓ **Higher** level College English language requirement – see page 15

✓ Minimum grade B at AS-level (or 5 at higher level/6 at standard level for students studying the IB) in the relevant language for French/German/Spanish for Science courses

✕ Interview

✕ Admissions test

Course overview

Biological sciences aim to understand the behaviour of living systems from the level of cells up to whole organisms and ecosystems.

All students follow the same core modules in the first year, covering topics such as biology of organisms, cell biology and genetics, and ecology and evolution. You gain a solid understanding of the basic areas of biology and develop the scientific skills needed for the rest of your studies.

In the second year, you study applied molecular biology and genetics. You also build on first-year training in statistics and programming before starting to specialise in particular areas of interest. Current optional modules cover topics such as bacterial physiology, behavioural ecology, virology, ecology, immunology and developmental biology.

You can choose from a wider selection of modules in your final year, with options to focus on a broader approach through Biological Sciences or specialise through the Ecology and Environmental Biology or Microbiology courses. Topics currently available include medical microbiology, regeneration and ageing, cancer biology, conservation biology, bioinformatics, biodiversity genomics, neurobiology, advanced immunology and a biology field course, currently in South Africa.

Final-year students also have the chance to apply their knowledge to the real world by completing a laboratory-based research project or a literature-based dissertation.

DID YOU KNOW?

Department of Life Sciences researchers have found that bees' exposure to certain pesticides can affect dozens of genes, which are involved in a range of important biological processes. The findings could provide clues to how these chemicals affect bee brains and could be linked to bee colony decline.

B

LANGUAGE FOR SCIENCE COURSES

These courses combine the full science curriculum with the chance to study French, German or Spanish as a second language. You attend language classes in your first, second and fourth years. You spend the third year at a partner university, where you attend lectures and conduct a research project.

The following pathways are available for internal transfer for students achieving a 2:1 standard by the end of second year:

MANAGEMENT PATHWAY

This pathway integrates teaching by Imperial College Business School, focusing on the management and operating environment of business organisations.

The three-year course covers two years of our BSc Biological Sciences course followed by a management year. The four-year course covers the first three years of our BSc Biological Sciences course, with a final management year. Transfer to this pathway is dependent on your internal application to the Business School being accepted.

RESEARCH ABROAD PATHWAY

Students following this pathway spend their third year at one of our partner universities – currently in Austria, Denmark, France, Germany, the Netherlands, Spain, Sweden or Switzerland. Placements to certain countries require proficiency in the relevant language – free language classes are available to help you prepare.

YEAR IN INDUSTRY/ RESEARCH PATHWAY

This pathway combines our science curriculum with a 12-month placement in industry or a research organisation between the second and third years. This is a great way to put what you have learnt into practice and help inform your future career choices.

Placements can be in a variety of areas, such as medical research, conservation biology, marine biology or pharmaceutical industries.

What our graduates do

Many of our Biological Sciences graduates go on to study for a higher degree in life sciences and follow careers in areas such as academic research, biotechnology or the pharmaceutical industry. There are also opportunities for Life Sciences graduates in government and independent laboratories involved in medical research, public health, forensic investigation, disease research, conservation and pollution. They also work as teachers, in medical careers, or in the media.

Recent Biological Sciences graduates have become...

1. Genome Scientist, Illumina
2. PhD student, The Francis Crick Institute
3. Trainee IT Manager, Lloyds Banking Group
4. Business Analyst, Nikon
5. Clinical Data Manager, Institute of Cancer Research

Full course information
www.imperial.ac.uk/study/ug/life-sciences

Undergraduate Admissions Team
+44 (0)20 7594 5398
lifesciences.admissions@imperial.ac.uk

Biomedical science

Applying scientific rigour to the challenges facing human health in the 21st century.

Our Medical Biosciences courses have been designed by harnessing expertise and innovations from across the Faculty of Medicine. For example, our scientists include the inventor of the world's first 'intelligent' surgical knife, which can detect cancerous tissue with 100% accuracy, as well as experts at the forefront of HIV and malaria vaccine development, and pandemic modelling.

You will receive an iPad to engage with our blended syllabus of online and in-classroom learning. You'll also learn how to work in a biomedical research laboratory and gain an impressive set of practical and transferable skills that are highly valued by employers.

You will be part of an active School of Medicine student community, supported by Imperial College School of Medicine Students' Union.

Our courses combine laboratory work with an extensive and fully integrated transferable skills programme to develop the personal and professional skills employers value.

FAST FACTS

Delivered by
→ School of Medicine

Total expected intake (2021 entry)
→ 150

Applications:admissions ratio
→ 6:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/biomedical-science**

High level of lab work, developing professional research skills

Networking opportunities

Management year available

Blended learning (online and face-to-face teaching)

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BSc	Medical Biosciences	B101	3 years
BSc	Medical Biosciences with Management	B111	4 years

Please note: these courses are not designed for applicants looking to follow a clinical medicine route and are not accredited by the General Medical Council (GMC).

B

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A A A overall to include:

- **A** in Biology or Human Biology
- **A** in Chemistry, Further Mathematics, Mathematics or Physics
- **A** in another subject (if your second subject is Mathematics or Further Mathematics, your third subject must be a non-Mathematics subject)

Typical offers (see page 14)

A A A

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

- **6** in Biology at higher level
- **6** in Chemistry, Mathematics* or Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38 points

ADDITIONAL CRITERIA

- ✓ **Higher** level College English language requirement – see page 15
- ✗ Interview
- ✗ Admissions test

Various optional modules are available from your second year to suit your interests.

Course overview

Our study programme explores human biology and the science behind medicine and its related fields. It also focuses on the principles and practice of biomedical science, and how they are applied in research, policy and industry.

It is interdisciplinary throughout, giving you the chance to investigate critical challenges facing human health – such as cancer, neurological diseases, obesity, and diabetes – from multiple perspectives.

A high level of laboratory work in 'Lab Pods', which are practical learning environments that run like real research laboratories, encourages you to think like a scientist. This is complemented by workshops on topics including ethics, creativity, entrepreneurship, publishing, science communication and public engagement.

In your third year, you choose specialist modules, each of which examines a global health problem. You also undertake a third year project, where you have the option to complete an intensive research project, a non-laboratory placement, or a dissertation on a biomedical science topic. Placement possibilities may include industry, publishing houses, museums, charities and government agencies.

MEDICAL BIOSCIENCES WITH MANAGEMENT

This course combines the three-year BSc Medical Biosciences course with a fourth year in Imperial College Business School where you will gain an understanding of the operating environment of business organisations to prepare for a career in management.

Transfer from our Medical Biosciences courses to our MBBS/BSc Medicine course is not possible.

What our graduates do

Our courses are designed to educate future leaders in research and industry, policy makers and science communicators. Medical Biosciences graduates can use their transferable skills to open the door to many fields and may, for example, pursue careers as academic researchers, in technical and managerial industry roles, or as journalists and museum curators.

Our emphasis on developing highly sought-after transferable, analytical and research skills will also equip our graduates to enter a variety of professional careers.

Graduates from our previous Biomedical Science course (which was replaced in 2017 by our Medical Biosciences courses) work in scientific research laboratories within academia, the pharmaceutical industry and technical consultancy roles.

Many have also chosen to undertake Master's and PhD courses at Imperial and other leading universities around the globe – a degree in Medical Biosciences provides an excellent foundation for postgraduate study.

DID YOU KNOW?

Researchers at Imperial have visualised, for the first time, protein 'tangles' associated with dementia in patients who have suffered a single head injury. The research showed some patients had clumps of protein in their brain which are found in Alzheimer's disease and other forms of dementia, and hope the findings may help to accelerate the development of treatments to breakdown the protein tangles.

Our courses have re-designed and re-engineered traditional biomedical content to prepare you to tackle global health challenges.

Full course information
www.imperial.ac.uk/study/ug/biomedical-science

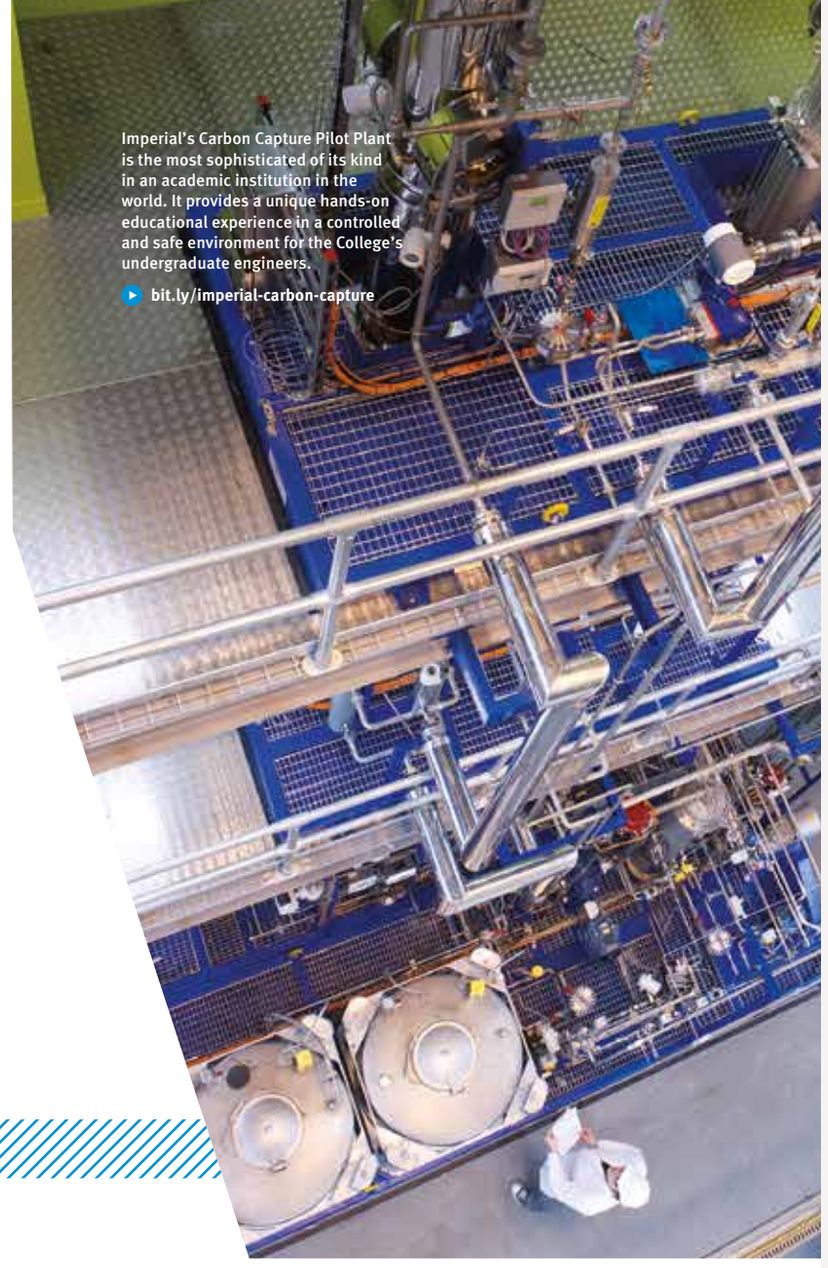
Undergraduate Admissions Team
+44 (0)20 7594 7259
medicine.ug.admissions@imperial.ac.uk

Chemical engineering

The design of processes for creating products that we all depend on, from food to fuel, chemicals to pharmaceuticals.

Chemical engineering students at Imperial have the chance to graduate with unrivalled expertise through access to the world's most advanced Carbon Capture Pilot Plant in an educational facility. Equipped with over 200 industrial instruments that feed into our on-site ABB Control Room, it gives our students hands-on experience of the real-world skills that will be essential in their future careers.

This practical education is supported by a high level of industrial input in our curriculum through close collaboration with our partners in the chemical, energy (oil, gas and renewable), healthcare and processing industries. Benefits for our students include guest talks and lectures, industry-led projects, sponsorship of prizes and options for vacation placements.



Imperial's Carbon Capture Pilot Plant is the most sophisticated of its kind in an academic institution in the world. It provides a unique hands-on educational experience in a controlled and safe environment for the College's undergraduate engineers.

bit.ly/imperial-carbon-capture

FAST FACTS

Delivered by
→ Department of Chemical Engineering

Total expected intake (2021 entry)
→ 140

Applications:admissions ratio
→ 5:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/chemical-engineering**

2nd in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad (in Europe, Singapore or the USA)

Professionally accredited courses

Specialist teaching in Nuclear Engineering

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MEng	Chemical Engineering ■	H801	4 years
MEng	Chemical with Nuclear Engineering ■	✱	4 years
MEng	Chemical Engineering with a Year Abroad ■	✱	4 years

■ International students applying for these courses require an ATAS certificate before they can apply for a student visa – see page 12.
✱ Transfer to this course is only available after you start – all students must apply to H801 in the first instance.

PROFESSIONAL ACCREDITATION
All our courses are professionally accredited by the Institution of Chemical Engineers (IChemE).

C

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A overall to include:

A* in Chemistry
A* in Mathematics
A in Biology, Business Studies, Economics, Further Mathematics or Physics

Please note: If you're studying four A-levels, we prefer the fourth to be in Physics, Biology, Further Mathematics, Business Studies or Economics at grade A.

Typical offers (see page 14)

Three A-level offer: **A* A* A** to **A* A* A***
Four A-level offer: **A* A* A A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

39 points overall to include:

7 in Chemistry at higher level
7 in Mathematics* at higher level
6 in Biology, Business Management, Economics or Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

41 points

ADDITIONAL CRITERIA

✓ **Standard** level College English language requirement – see page 15
✓ A language qualification may be required for Year Abroad degree
✓ Interview – applicants who demonstrate potential
✗ Admissions test

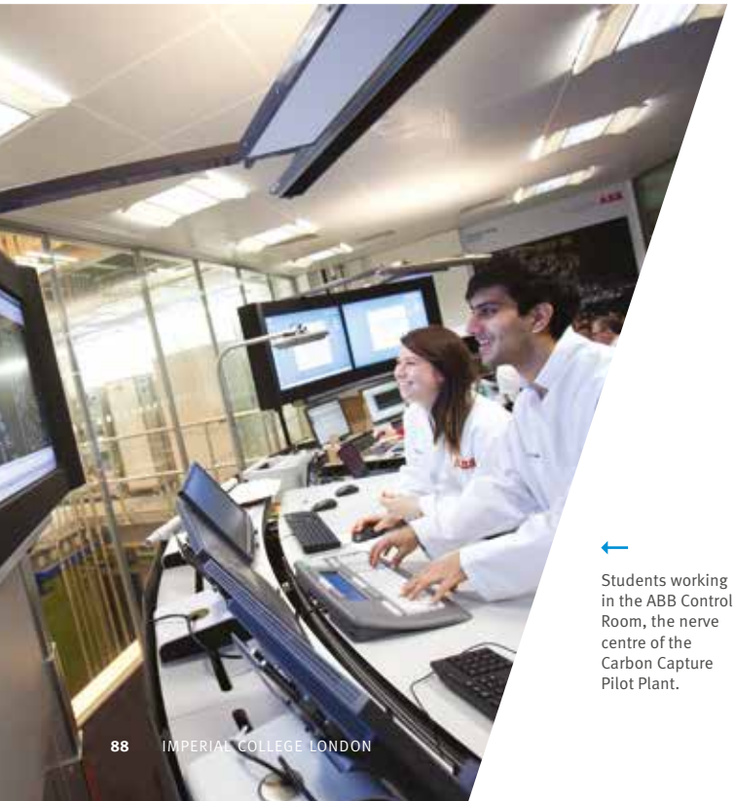
Course overview

All Chemical Engineering students study a range of compulsory topics in science and mathematics and how they apply to practical engineering problems for the first two years. You analyse a variety of chemical processes and learn about the many ways of mixing, reacting and separating different gases, liquids and solids on a large scale. We also introduce you to the basic social, economic and environmental factors that affect industrial operations.

In the third year, you study more advanced subjects, such as environmental engineering. You can also choose from optional modules that include business and humanities options.

In the fourth year, you have even more freedom to tailor the course to your interests through an advanced research project and a broad choice of technical modules from across the Faculty of Engineering.

Design projects linked to real industry problems are integrated into every year and increase in complexity.



← Students working in the ABB Control Room, the nerve centre of the Carbon Capture Pilot Plant.

Learn hands-on engineering and problem-solving skills in our in state-of-the-art laboratories.

NUCLEAR ENGINEERING PATHWAY

This pathway is designed to prepare you for a career in nuclear or related industries. It combines the regular Chemical Engineering programme with specialist third- and fourth-year modules covering topics such as nuclear thermal hydraulics, nuclear materials and reactor physics. You can normally transfer onto this course up until the start of the third year.

YEAR ABROAD PATHWAY

Students who are achieving marks of 60% and above at the time of selection can apply to spend the third year (or the fourth year depending on your chosen country) studying at one of our partner universities. Places are currently available in Australia, France, Germany, the Netherlands, Singapore, Spain, Sweden, Switzerland and the USA. Free language classes are available (where appropriate) to help you prepare. This is an integrated year abroad so the grades you achieve will count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

What our graduates do

Our graduates enjoy a wide choice of careers in the process, energy and healthcare industries and in companies involved in the design and construction of chemical plants. Many graduates have also entered research organisations, public utilities, consultancy and the information technology industry, with many opportunities for employment overseas.

Recent graduates of the Department have become...

1. Subsea Engineer, Shell
2. Graduate Scientist, National Nuclear Laboratory
3. Engineer, National Environment Agency, Singapore
4. Technical Process Engineer, Exxon Mobil
5. Process Engineer, BP

DID YOU KNOW?

Imperial Chemical Engineers have developed an ink which contains a pigment that changes colour depending on its wearer's health status. The pigment can detect and measure molecules, such as glucose, in the blood through the wearer's skin. The ink could eventually be used to alert wearers of health issues, such as warning diabetic patients about fluctuating blood sugar levels.

Full course information
www.imperial.ac.uk/study/ug/chemical-engineering

Undergraduate Admissions Team
+44 (0)20 7594 5569
ce-admissions@imperial.ac.uk

Chemistry

The composition, behaviour, structure and properties of matter, and the changes it undergoes during chemical reactions.

Chemistry at Imperial includes extensive experience of practical chemistry through a wide range of laboratory-based activities.

This is supported by state-of-the-art facilities at our main base in South Kensington, and in the Molecular Sciences Research Hub at our White City Campus. Final-year undergraduate projects and some third- and fourth-year lectures will take place at White City. A free return shuttle bus service is currently available from our South Kensington Campus.

Our wide choice of courses means that you have a high level of flexibility to follow your own interests and career goals through opportunities including modules inspired by our research, overseas study, a year in industry or research, and combined studies in languages or in management.

FAST FACTS

Delivered by
→ Department of Chemistry

Total expected intake (2021 entry)
→ 160

Applications:admissions ratio
→ 6:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/chemistry**

Year in industry

Year/research abroad (in Europe, Singapore, Australia or the USA)

Professionally accredited courses

Management year available

Undergraduate MSci Chemistry student Jin Hui undertaking a UROP placement focusing on research in synthetic organic chemistry (see page 41).

You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BSc	Chemistry	F100	3 years
MSci	Chemistry	F103	4 years
MSci	Chemistry with a Year in Industry	F105	5 years
MSci	Chemistry with French for Science	F1R1	4 years
MSci	Chemistry with German for Science	F1R2	4 years
MSci	Chemistry with Spanish for Science	F1R4	4 years
BSc	Chemistry with Management	F1NF	4 years
BSc	Chemistry with Management and a Year in Industry	FN11	5 years
MSci	Chemistry with Medicinal Chemistry	F124	4 years
MSci	Chemistry with Medicinal Chemistry and a Year in Industry	F125	5 years
MSci	Chemistry with Molecular Physics ■	F1F3	4 years
MSci	Chemistry with Molecular Physics and a Year in Industry ■	F1FH	5 years
MSci	Chemistry with Research Abroad	F104	4 years
MSci	Chemistry with Research Abroad and a Year in Industry	F101	5 years

■ International students applying for these courses require an ATAS certificate before they can apply for a student visa – see page 12.

PROFESSIONAL ACCREDITATION

Our courses are professionally accredited by the Royal Society of Chemistry. The current accreditation agreement is due to be renewed for students starting their studies in the 2021–22 academic year.

C

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A A A overall to include:

- **A** in Chemistry
- **A** in Mathematics
- **A** in another subject (Biology, Economics or Physics is recommended). **Physics is required** for Chemistry with Molecular Physics

Typical offers (see page 14)

A* A A to **A* A* A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

- **6** in Chemistry at higher level
- **6** in Mathematics at higher level*
- **6** in a third subject at higher level (Biology, Economics or Physics is recommended). **Physics is required** for Chemistry with Molecular Physics

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38–40 points

ADDITIONAL CRITERIA

- ✓ **Higher** level College English language requirement – see page 15
- ✓ A language qualification may be required for Research Abroad degree
- ✓ Interview – applicants who demonstrate potential
- ✗ Admissions test

You can take part in a wide range of laboratory-based activities in the Department. We also train you in measurement science, analytical chemistry, programming and molecular modelling.

Course overview

ALL COURSES

All courses follow the same core interdisciplinary modules, alongside optional modules designed to match your chosen course of study. This structure means transfer between our Chemistry courses is possible at a later stage, providing you have studied the appropriate optional modules. You may need to meet a certain academic standard to be eligible for placements in industry or abroad.

Laboratory work forms a key part of all our courses. These classes (including analytical, computational, measurement science, physical and synthetic laboratories) are designed to develop your practical, analytical and theoretical skills. This will help you gain confidence in applying a large number of different experimental approaches.

BSc AND MSci CHEMISTRY

Our core Chemistry courses cover interconnected topics across inorganic, organic and physical chemistry in each year of study.

In the fourth year of our MSci courses you can follow a broad or specialised programme by choosing from a selection of advanced topics, including nanomaterials, drug discovery and advanced catalysis. The content of the final year is informed and inspired by leading research within the Department.

CHEMISTRY WITH MOLECULAR PHYSICS

These courses are delivered by the Departments of Chemistry, Mathematics and Physics. They combine the MSci Chemistry course (F103) with work at the boundary of these three disciplines, for example, in nano-engineering.

CHEMISTRY WITH MEDICINAL CHEMISTRY

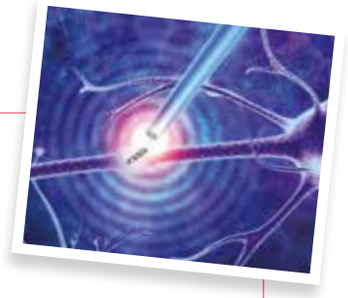
These courses combine our Single Honours MSci Chemistry course (F103) with modules that focus on the function, identification, development and production of new drugs, with input from industry. They are ideal for students intending to work in the pharmaceutical and similar industries, and for those interested in chemical research in fields related to medicine.

CHEMISTRY WITH MANAGEMENT

This four-year course consists of the first three years of BSc Chemistry (F100) followed by a final year in Imperial College Business School. The five-year course is the same as the four-year course, with the addition of an industry placement between the third year and the final year of management study.

CHEMISTRY WITH FRENCH/GERMAN/SPANISH FOR SCIENCE

These courses include an academic year studying at a university in France, Germany, Spain or Switzerland. They combine elements of the MSci Chemistry course with training in the language and culture of the country in which you are studying.



DID YOU KNOW?

Department of Chemistry researchers have developed a 'tweezer' technique that can extract single DNA and proteins from living cells without destroying them. The tweezers generate an electric field which can be used to isolate and trap different parts of cells. The technique could potentially be used to carry out experiments not currently possible, such as modifying cells to better understand their role.

CHEMISTRY WITH A YEAR IN INDUSTRY

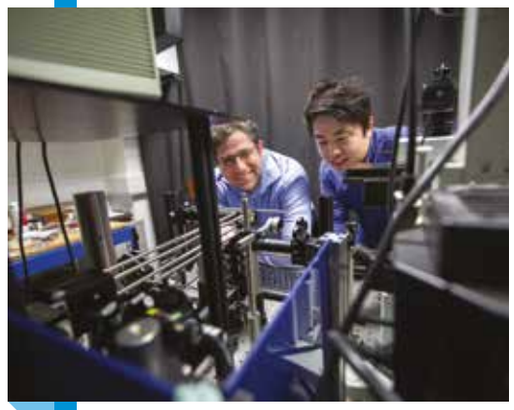
These courses allow you to gain paid experience of using chemistry in an industrial context. They are one year longer to accommodate the year in industry between your third and final year, while still covering the same comprehensive chemical content as our Single Honours Chemistry programmes.

CHEMISTRY WITH RESEARCH ABROAD

These courses combine our four-year MSci Chemistry course (F103) with the chance to carry out the final-year research project and some final-year modules in a partner university abroad. If you choose to study in a European university, which teaches in the language of the host country, you will receive support to develop fluency in that language, preparing you for careers overseas.

What our graduates do

Chemistry graduates are recruited into practically every branch of industry. Many graduates choose to pursue a PhD, while others work in roles as diverse as industrial development, production and quality control, marketing, finance and teaching. Importantly, our MSci programmes ensure that our degrees are recognised throughout Europe, where longer undergraduate degree programmes are the norm.



Recent graduates of the Department have become...

1. Pharmaceutical Technical Development Graduate, GlaxoSmithKline
2. Research Scientist, Merck
3. Graduate Scientist, Ministry of Defence
4. Technical Consultant, BASF Chemicals, China
5. Management Consultant, KPMG

Full course information
www.imperial.ac.uk/study/ug/chemistry

Undergraduate Admissions Team
+44 (0)20 7594 5721
ch.admissions@imperial.ac.uk

Civil and environmental engineering

Creating the infrastructure that is key to our quality and enjoyment of life, from safe drinking water to the transport systems of tomorrow.

Studying civil engineering at Imperial means access to facilities that are amongst the most up-to-date and best equipped in Europe. Our five laboratories cover all of our sub-disciplines – environmental, geotechnical, transportation, water resource and structural engineering – with facilities including a range of testing rigs, extensive computing provision, tension and compression machines, and wave generators and tanks.

Strong industry links across the Department mean you benefit from a high level of industrial input in your studies, including guest talks and lectures, industry-led projects and sponsorship of student prizes.

FAST FACTS

Delivered by
→ Department of Civil and Environmental Engineering

Total expected intake (2021 entry)
→ 100

Applications:admissions ratio
→ 5:1 (based on 2019 entry data)

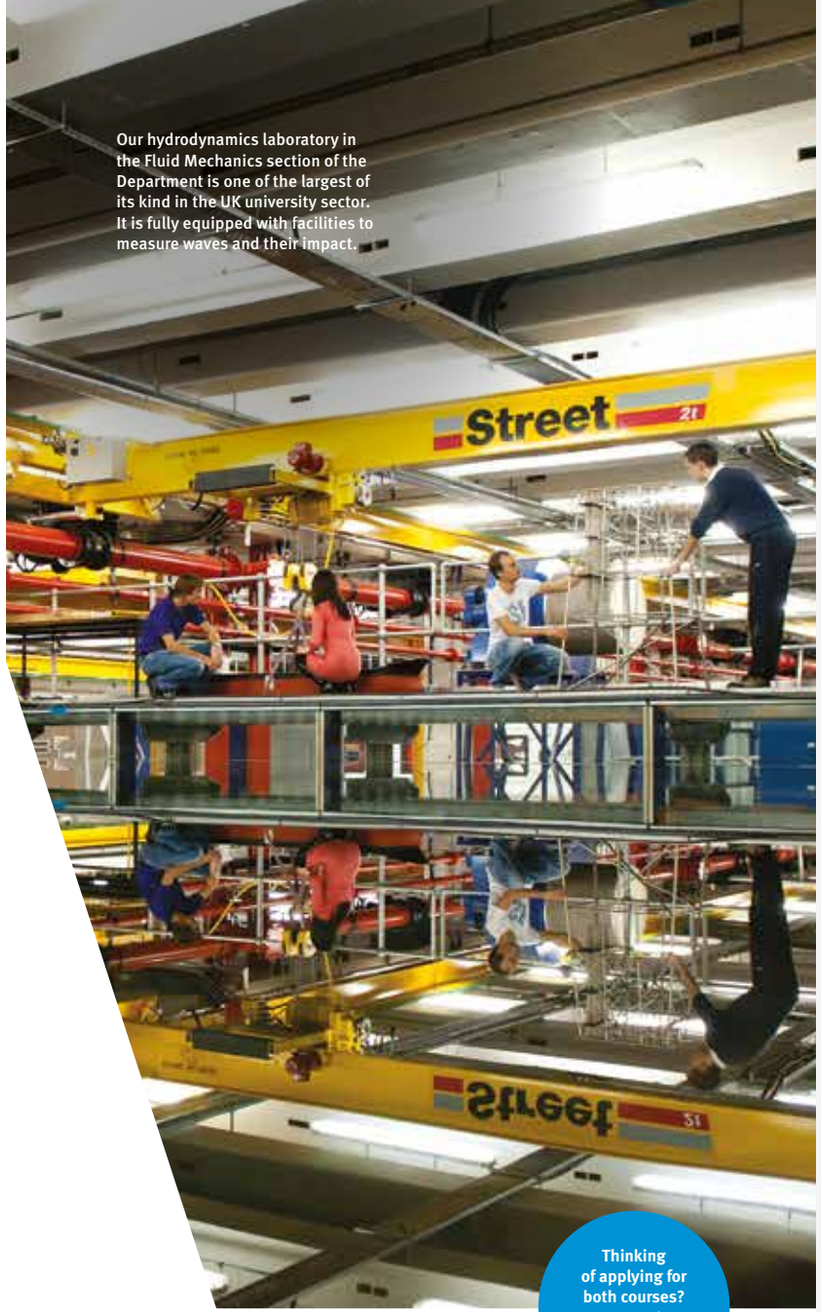
PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/civil-engineering**

1st in the UK
The Guardian University Guide 2020

Year abroad (in Australia, Europe, Hong Kong or the USA)

Professionally accredited courses

Invaluable experience in construction



Our hydrodynamics laboratory in the Fluid Mechanics section of the Department is one of the largest of its kind in the UK university sector. It is fully equipped with facilities to measure waves and their impact.

Thinking of applying for both courses? Contact the Department for advice.

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MEng	Civil Engineering	H201	4 years
MEng	Civil Engineering with a Year Abroad	H202	4 years

PROFESSIONAL ACCREDITATION
Both courses are professionally accredited by the Joint Board of Moderators (JBM), which is made up of the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Chartered Institution of Highways and Transportation (CIHT) and the Institute of Highway Engineers (IHE). The current accreditation agreement is due to be renewed for students starting their studies in the 2021–22 academic year.

C

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A or **A* A A A** overall to include:

A* in Mathematics
A / A* in Physics

Typical offers (see page 14)

A* A* A

INTERNATIONAL BACCALAUREATE

Minimum entry standard

39 points overall to include:

7 in Mathematics at higher level*
6 in Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

39 points

ADDITIONAL CRITERIA

- **Standard** level College English language requirement – see page 15
- A language qualification may be required for Year Abroad degree
- Interview (as part of a selection day) – applicants who demonstrate potential
- Online test – applicants who demonstrate potential
- Online video submission required from applicants who demonstrate potential in their application and cannot attend a selection day

Course overview

In the first two years, all modules are compulsory, covering a foundation in engineering science, mathematics and technology. Topics include geotechnics, energy systems, materials, environmental engineering, fluid and structural mechanics, statistics and professional engineering practice. You also take part in engineering design projects and attend a surveying field course in year one and a geology field course in year two.

Year two ends with the week-long Constructionarium course at the National Construction College Campus in Norfolk. Working in teams, you construct scaled-down versions of well-known buildings, bridges, dams and other civil engineering projects.

Second-year students working in groups to design modular pods for the London Olympic Stadium during a creative design class.

In the final two years, you can continue with a broad programme or tailor your studies to suit your personal and professional interests by specialising in structural engineering, environmental engineering, fluid mechanics, geotechnics or transport engineering. Year three consists of core and optional modules and a group design project. In year four, you choose from a wide range of optional modules and complete a major research-based project.

Students building a scale model of The Gherkin skyscraper at the annual Constructionarium, a radical design course in which students manage and build real engineering projects at a bespoke construction site.

bit.ly/imperial-constructionarium

YEAR ABROAD

Students with average year one and two marks of 67% and above at the time of selection can apply to spend their final year studying at one of our partner universities. Priority is given to students without prior overseas study experience.

Places are currently available in Australia, France, Germany, Hong Kong, Italy, the Netherlands, Spain, Switzerland and the USA. Language classes are available (where appropriate) to help you prepare.

This is an integrated year abroad, so the grades you achieve count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

What our graduates do

All of our students gain valuable contact and networking opportunities with representatives from industry throughout the course. These are available through guest lectures, field trips, the Constructionarium, our creative design course and group and individual projects.

Recent graduates of the Department have become...

1. Graduate Transport Planner, Atkins
2. Coastal Engineer, Surbana Jurong
3. Graduate Tunnel Engineer, Balfour Beatty
4. Structural Engineer, Mott Macdonald
5. Graduate Geotechnical Engineer, AECOM

DID YOU KNOW?

Imperial Civil Engineers have studied water systems used 1,400 years ago to understand how indigenous systems could complement modern engineering solutions to prevent water scarcity in coastal Peru. The systems could help save wet season water for the dry season, when it is desperately needed.

Full course information
www.imperial.ac.uk/study/ug/civil-engineering

Undergraduate Admissions Team
+44 (0)20 7594 5965
ciugo@imperial.ac.uk

Computing

The engineering of computer hardware and software, and the study of the mathematical principles of computing.

Computing at Imperial places special emphasis on the fundamental principles underlying computing and on understanding the engineering considerations involved in computing system design, implementation and usage. Our graduates do not just develop essential core computing skills, they also learn how to adapt to the challenges and opportunities of technological change.

Our teaching is supported by strong industry links across the Department, leading to industry-led research projects, guest talks and lectures, industrial placements and sponsorship of prizes.

A rolling programme of equipment and software upgrades also keep our computing facilities at the cutting edge.

FAST FACTS

Delivered by
→ Department of Computing

Total expected intake (2021 entry)
→ 200

Applications:admissions ratio
→ 18:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/computing**

2nd in the UK
The Times and Sunday Times Good University Guide 2020

International study programme (in Europe or the USA)

Professionally accredited courses

Joint mathematics and computer science courses

Dr Bernhard Kainz from the Department of Computing demonstrating the use of 3D virtual reality for medical imaging at an AI Imperial Lates event.

You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

COMPUTING COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BEng	Computing	G400	3 years
MEng	Computing	G401	4 years
MEng	Computing (Artificial Intelligence and Machine Learning)	G700	4 years
MEng	Computing (International Programme of Study)	G402	4 years
MEng	Computing (Management and Finance)	G501	4 years
MEng	Computing (Security and Reliability)	G610	4 years
MEng	Computing (Software Engineering)	G600	4 years
MEng	Computing (Visual Computing and Robotics)	GG47	4 years

For Mathematics and Computer Science courses, see page 100.

PROFESSIONAL ACCREDITATION
All our courses are professionally accredited by IET (the Institution of Engineering and Technology) and BCS (the Chartered Institute for IT).

C

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A overall to include:

A* in Mathematics
A*, A in two other subjects. Further Mathematics is recommended – see pages 64–65 for other recommended and useful subjects. ICT, Business Studies, General Studies and Critical Thinking are not accepted.

Typical offers (see page 14)

Students taking three A-levels: **A* A A**
Students taking four A-levels: **A* A A A**

Please note: For 2021 entry, our typical offers will include A* A* A for applicants taking three A-levels.

Typical offers include STEP requirements.

INTERNATIONAL BACCALAUREATE

Minimum entry standard

39 points overall to include:

7 in Mathematics at higher level*
7 in another relevant subject at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation (STEP also required) syllabi are accepted at higher level.

Typical offers (see page 14)

42 points

Typical offers include STEP requirements.

ADDITIONAL CRITERIA

- ✓ **Standard** level College English language requirement – see page 15
- ✓ A language qualification may be required for the International Programme of Study (G402)
- ✓ Interview – applicants who demonstrate potential
- ✓ Online admissions test – applicants who demonstrate potential

Undergraduate students developing an interactive monitoring platform to aid machine learning as part of their UROP placement in the Department of Computing (see page 41).

You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

MATHEMATICS AND COMPUTER SCIENCE COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BEng	Mathematics and Computer Science	GG14	3 years
MEng	Mathematics and Computer Science	GG41	4 years

PROFESSIONAL ACCREDITATION

These courses are professionally accredited by IET (the Institution of Engineering and Technology) and BCS (the Chartered Institute for IT).

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A overall to include:

A* in Mathematics
A* in Further Mathematics
A in a third subject (see pages 64–65 for details). ICT, Business Studies, General Studies and Critical Thinking are not accepted.

Typical offers (see page 14)

Students taking three A-levels: **A* A* A**
Students taking four A-levels: **A* A* A A**

Typical offers include STEP requirements.

INTERNATIONAL BACCALAUREATE

Minimum entry standards

40 points overall to include:

7 in Mathematics at higher level*
7 in another relevant subject at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation (STEP also required) syllabi are accepted at higher level.

Typical offers (see page 14)

42 points

Typical offers include STEP requirements.

ADDITIONAL CRITERIA

- ✓ **Standard** level College English language requirement – see page 15
- ✓ Interview – applicants who demonstrate potential
- ✓ Online admissions test – applicants who demonstrate potential

Course overview

COMPUTING

All of our Computing courses follow the same structure for the first two years. After this, the programme becomes more focused towards your chosen specialism. This high level of shared content means that you can move between all of our Computing courses, including between the BEng and MEng, at any time during the first two years.

The core modules of our courses cover the fundamental concepts of computing and have been designed to allow you to appreciate and adapt to changes in technology, methods and ways of thinking in this rapidly evolving area.

We also place a strong emphasis on engineering and applying the principles you learn to the development, implementation and use of real-world computer-based systems.

The third year of all our MEng courses involves a group project based on real industry scenarios. You work with other students to build a large and complex system that addresses the needs of a particular group of users.

MEng students also undertake an industrial placement which takes place from April of your third year until just before the start of the fourth year. This is an opportunity to apply your computing knowledge to a real industrial setting. Recent students have undertaken placements in the UK, China, Europe and the USA.

↑ The Brain and Behaviour Lab researches machine learning systems and has developed a robotic arm that can be controlled using simple eye commands to draw a painting.

In the final year of both the MEng and BEng, you choose from further optional modules which focus on cutting edge computing research. You also spend around eight months working on an individual project and gain valuable experience of modern research methods. Many individual projects are research-focused and involve working alongside one of the Department of Computing's research groups under the supervision of an academic adviser.

Students following one of our specialised pathways choose optional modules relevant to their specialism (see below and page 102).

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING PATHWAY

This pathway focuses on the modelling of cognitive and social behaviours and the development of statistical machine learning tools to examine complex data patterns. Study areas include planning, robotics and natural language processing.

MANAGEMENT AND FINANCE PATHWAY

This pathway covers the theory and tools of business management that require computer-based solutions, including decision support and constraint solving techniques. Typical study areas include operations research, computational finance, optimisation, and software engineering for industry.

SECURITY AND RELIABILITY PATHWAY

This pathway focuses on how modern communications systems can be used and adapted to build the next generation of reliable and secure computing applications. Study areas include web and network security, software reliability, systems verification and computer privacy.

SOFTWARE ENGINEERING PATHWAY

This pathway focuses on how software is engineered to form complex computing systems that are robust and easy to maintain. It has a strong practical emphasis and is closely aligned with the needs of industry. Typical study areas include software design, software engineering for industry, data management, performance engineering, and security and reliability.

VISUAL COMPUTING AND ROBOTICS PATHWAY

This pathway focuses on various technologies and algorithms for applications such as computer games, visual effects and robotics. It has a strong technical emphasis, covering topics such as computer graphics, computer vision, robotics and machine learning.

INTERNATIONAL PROGRAMME OF STUDY

Students who are achieving marks of 60% and above at the time of selection in year three can apply to spend their final year studying abroad at one of our partner universities.

Places are currently available in France, Germany, Switzerland and the USA. Free language classes are available (where appropriate) to help you prepare. A placement in the USA for the first two terms of your third year is also a possibility.

This is an integrated year abroad, so the grades you achieve count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

The College's Intelligent Behaviour Understanding Group (iBUG) focuses on the machine analysis of human behaviour.

JOINT MATHEMATICS AND COMPUTER SCIENCE (JMC)

With the spread of computing procedures and mathematical ideas into many areas, there is high demand for professionals who are expert in both.

These Joint Honours courses are delivered by the Departments of Computing and Mathematics, with the teaching divided equally between the two.

They are designed as mathematical courses orientated towards computer science. They provide a firm foundation in mathematics, particularly in pure mathematics, numerical analysis and statistics.

They also cover all the essentials of computer science, with an emphasis on the development of more mathematically-focused computing applications and the use of formal methods to analyse computer-based systems. They are therefore suited to mathematically able students with interest in both subjects.

You take set modules from each Department in the first two years, with some options available in the second year. The high level of shared content means you can switch between the BEng and MEng at any time during the first year. Progression to the MEng requires achievement of a certain academic standard for the first two years – you may be required to transfer to the BEng degree if you do not meet this level.

Group and individual project work is a feature of all of our courses. In the third and fourth years, you choose modules from either Department to support your particular interests and areas of specialisation.

MEng students also complete an industrial placement. This follows a similar structure to our MEng Computing courses, but over a shorter period – between May of your third year and the start of your fourth year.

What our graduates do

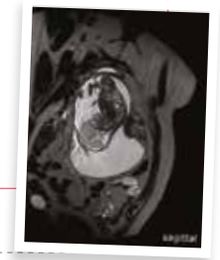
Computing graduates are highly sought after and our degrees open the door to a wide range of careers in industry and academia. Some of our graduates join large companies or start their own business. A number of our graduates have pursued careers in management consultancy, computer gaming, and special effects, while others have followed careers in banking and finance.

Recent graduates of the Department have become...

1. Software Engineers at Apple, Google and Microsoft
2. Applications Developer, Barclays
3. Technology Analyst, Goldman Sachs
4. Co-founder, video games startup
5. Managing Director, Introversion Software

DID YOU KNOW?

Imperial scientists from the Department of Computing have created new machine learning algorithms for imaging a moving fetus in the womb, allowing its development to be monitored over time. The new algorithm could bring specialised diagnostic skills to areas of the world where there is a shortage of relevant clinical expertise.



Full course information
www.imperial.ac.uk/study/ug/computing

Undergraduate Admissions Team
+44 (0)20 7594 8267/8278
doc-ugadmissions@imperial.ac.uk

Design engineering

The fusion of design thinking, engineering knowledge and practice, within a culture of innovation and enterprise.

Studying design engineering at Imperial means access to a range of brand new facilities in the Dyson Building – opened in 2018 with support from a £12 million donation from the James Dyson Foundation.

You will have access to hackspaces and workshops, design studios and laboratories, presentation spaces and networking areas, as well as a range of creative breakout spaces.

You'll be part of an inspiring design community, including staff and students from the neighbouring Royal College of Art – partners in our two postgraduate design engineering degrees.

We also have strong links with industry, allowing us to offer six-month paid placements as an integral part of the course.

FAST FACTS

Delivered by
→ Dyson School of Design Engineering

Total expected intake (2021 entry)
→ 90

Applications:admissions ratio
→ 6:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/design-engineering**

Strong emphasis on enterprise and innovation

Integrated paid industrial placement

Professionally accredited course

Brand new facilities

Students presenting a remote-controlled robot, which is able to navigate a course and gather data about its environment, as part of a robotics challenge.

D

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A A overall to include:

A* / A in Mathematics

Typical offers (see page 14)

A* A A to **A* A* A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

39 points overall to include:

6 in Mathematics at higher level*

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

39–40 points

ADDITIONAL CRITERIA

- ✓ **Standard** level College English language requirement – see page 15
- ✓ Interview – applicants who demonstrate potential
- ✗ Admissions test

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MEng	Design Engineering	28G3	4 years

PROFESSIONAL ACCREDITATION

This course is professionally accredited by the Institution of Engineering Designers (IED). We are currently seeking accreditation from the Institution of Mechanical Engineers (IMechE) and Institution of Engineering and Technology (IET). If successful, this triple accreditation will be retrospectively applied.

Course overview

This course focuses on the design and engineering of advanced products, services, experiences and systems.

You develop a range of fundamental design and engineering skills, with a particular emphasis on creativity, computer-aided engineering tools, optimisation, human factors, design process, and the enterprise skills and industrial experience necessary to bring brand new products to market.

The course contains a substantial number of project and coursework modules which increase in scale and complexity each year. With each project, you enhance your engineering and design skills along with business knowledge. This builds to an Enterprise Roll Out module in the final year in which you will prepare to market one of the projects you have already prototyped. You cover all the stages involved in preparing a product for market, including making a prototype, pitching to investors, creating marketing materials and organising a launch event.

All first- and second-year modules are compulsory. They focus on foundation engineering topics, computing, mathematics and design. The subjects covered include production and materials, mechanics, computer-aided engineering, electronics for product and system design, and engineering mathematics. This provides a solid scientific and design basis for you to build on.

The third and fourth years include a greater emphasis on advanced design and engineering, as well as enterprise and entrepreneurship skills. You have a choice of optional modules, alongside a reduced number of compulsory modules, allowing you to specialise in the areas you are most interested in. Current choices include modules in robotics, industrial design, artificial intelligence and design, and audio experience design. You also complete a major individual project in the fourth year.

↑ You have access to outstanding workshop facilities where you can use a wide range of manufacturing processes and materials to bring your design concepts to life.

A six-month paid industrial placement is built into the course. This starts in the April of the third year. You will work on-site on a project set by your host company, with joint supervision from Imperial and the company.

A substantial number of companies have already hosted our placement students, including Dyson, Adidas, Proctor & Gamble, and Airbus, so we expect that you will have a variety of projects to choose from.

What our graduates do

Our course is designed to equip you with creativity, enterprise skills and industrial experience that will appeal in a wide range of industries. It launched in 2015 and our first students graduated in 2019. They are expected to move into similar careers as graduates of our postgraduate courses in Global Innovation Design and Innovation Design Engineering, who now work for companies including Samsung, Apple and Bentley, as well their own startups such as Bare Conductive and Omlet.

DID YOU KNOW?

The Dyson School has introduced an innovative 3D printing module. Additive manufacturing, more commonly known as 3D printing, is set to become a major UK industry sector in the near future. The new module aims to provide the next generation of engineers with the theory and skills required to use the technology to its full potential.

Full course information
www.imperial.ac.uk/study/ug/design-engineering

Undergraduate Admissions Team
+44 (0)20 7594 9121
design.engineering@imperial.ac.uk

Electrical and electronic engineering

The design and application of technologies that connect our world and help us live better, healthier and more sustainably.

Imperial's Department of Electrical and Electronic Engineering is amongst the top teaching and research departments in the UK. Our global reputation – ranked in the top ten in the QS World University rankings by subject 2019 – is built through our world class academics and researchers, dedicated support staff, strong relationships with industry and our diverse and talented student community.

Special features of our courses include an integrated six-month industrial placement or industry-led group project, and pathways that combine technical and management skills or increased software skills. We also offer integrated year abroad opportunities.

FAST FACTS

Delivered by
→ Department of Electrical and Electronic Engineering

Total expected intake (2021 entry)
→ 160

Applications:admissions ratio
→ 7:1 (based on 2019 entry data)

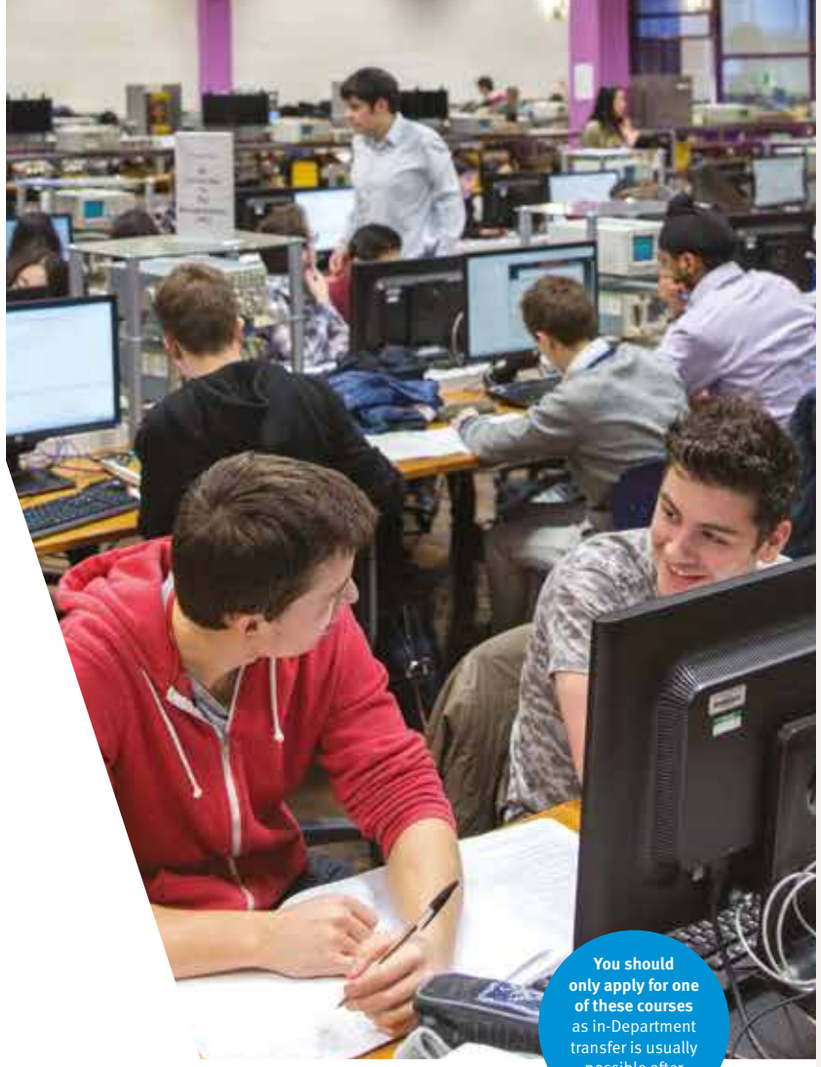
PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/electrical-engineering**

2nd in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad (in Europe, Singapore or the USA)

Professionally accredited courses

Integrated industrial placement



You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BEng	Electrical and Electronic Engineering	H600	3 years
MEng	Electrical and Electronic Engineering	H604	4 years
MEng	Electrical and Electronic Engineering with a Year Abroad	✱	4 years
MEng	Electrical and Electronic Engineering with Management	H6N2	4 years
BEng	Electronic and Information Engineering	HG65	3 years
MEng	Electronic and Information Engineering	GH56	4 years
MEng	Electronic and Information Engineering with a Year Abroad	✱	4 years

✱ Students interested in Electrical and Electronic Engineering with a Year Abroad must apply to H604 in the first instance; for Electronic and Information Engineering with a Year Abroad, please apply to GH56.

PROFESSIONAL ACCREDITATION
All our courses are accredited by the Institution of Engineering and Technology (IET). Imperial College London is a member of the IET's Power Academy and the UK Electronic Skills Foundation (UKESF), which support UK students through scholarships.

E

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A A overall to include:

A* in Mathematics
A in Physics
A from preferred list (see pages 64–65 for details). Further Mathematics is recommended but not essential.

Typical offers (see page 14)

A* A A

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

6 in Mathematics at higher level*
6 in Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38–40 points

ADDITIONAL CRITERIA

✓ **Higher** level College English language requirement – see page 15

✓ Interview – applicants who demonstrate potential

✗ Admissions test

Course overview

All students follow a broadly similar programme in the first two years, covering the fundamentals of the discipline. Some of the core modules in years one and two are shared across all courses, while others are designed specifically for your chosen area of study (see right).

You learn through a combination of lectures, team-based problem solving classes, personal tutorials and laboratory experiments, which allow you to put theoretical knowledge into practice. Team-based projects are also an important part of the study programme.

In later years, you tailor your degree to fit your interests and choose from a number of advanced topics that broaden and deepen the material covered in years one and two.

In the third year, MEng students choose between spending six months on an assessed industrial placement to tackle a project that has real business impact, or completing a three-month group project, acting as a consultant on an industry-defined brief.

In your final year, you complete an individual project that allows you to showcase your engineering expertise by developing innovative solutions to present day problems.

ELECTRICAL AND ELECTRONIC ENGINEERING

These courses cover topics ranging from semiconductor physics to software engineering, and from the applied mathematics of encryption to the infrastructure of our national power transmission.

You choose from a wide range of technical and non-technical modules, such as artificial intelligence, integrated circuit design, signals and systems, and robotics. You can also take modules from other departments, including entrepreneurship and project management.

MANAGEMENT PATHWAY

Students on this pathway take a reduced number of technical modules in years three and four and instead study management topics such as accounting, entrepreneurship, corporate finance and managerial economics delivered by Imperial College Business School.

ELECTRONIC AND INFORMATION ENGINEERING

These courses provide a deeper understanding of the entire stack of modern networked computers, from the central processing unit in a smartphone, to the operating systems and databases providing back-end support in the cloud.

In your final years, you can take advanced subjects from both the Department of Electrical and Electronic Engineering and the Department of Computing.

YEAR ABROAD PATHWAY

Students achieving marks of 65% and above at the time of selection can apply to spend their final year at one of our partner universities. Places are currently available in Europe, Singapore and the USA.

This is an integrated year abroad, so the grades you achieve will count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

↑ Students showcasing Lizzie, a bluetooth controlled robot, which they designed as part of their group project.

What our graduates do

Our graduates are highly sought after worldwide for a wide range of careers in fields such as electrical energy, circuit design, computer gaming, software development, image processing, technical consultancy, academic research, telecommunications, finance and management.

Recent graduates of the Department have become...

1. Electronics Engineer, Sony
2. Chassis Electronics Engineer, Jaguar Land Rover
3. Software Engineer, Goldman Sachs
4. Technology Analyst, Bank of America Merrill Lynch
5. Low Carbon Engineer, Western Power Networks

DID YOU KNOW?

A new app, developed by researchers from the Department of Electrical and Electronic Engineering, could use shoppers' DNA to help them make healthier choices while food shopping. Using a shopper's saliva sample, the app could look for markers for obesity or high blood pressure and suggest whether a food choice is healthy or not.

Full course information
www.imperial.ac.uk/study/ug/electrical-engineering

Undergraduate Admissions Team
+44 (0)20 7594 6198
admit.eee@imperial.ac.uk

Geology, geophysics and planetary science

Exploring the geological and geophysical processes that have shaped Earth and other planets and solid bodies in our Solar System.

Imperial's Department of Earth Science and Engineering is a small and close-knit community. Our base in the Royal School of Mines has its own Students' Union, making it easy for our students to meet people from all years. The historical building also houses a range of state-of-the-art facilities including analytical and imaging facilities, and a leading international database of rocks and minerals.

Our location in South Kensington gives us easy access to one of the finest fossil and mineral collections in the world at the neighbouring Natural History Museum. Museum staff, who include world experts in their fields, also contribute to our teaching.

FAST FACTS

Delivered by
→ Department of Earth Science and Engineering

Total expected intake (2021 entry)
→ 80

Applications:admissions ratio
→ 3:1 (based on 2019 entry data)

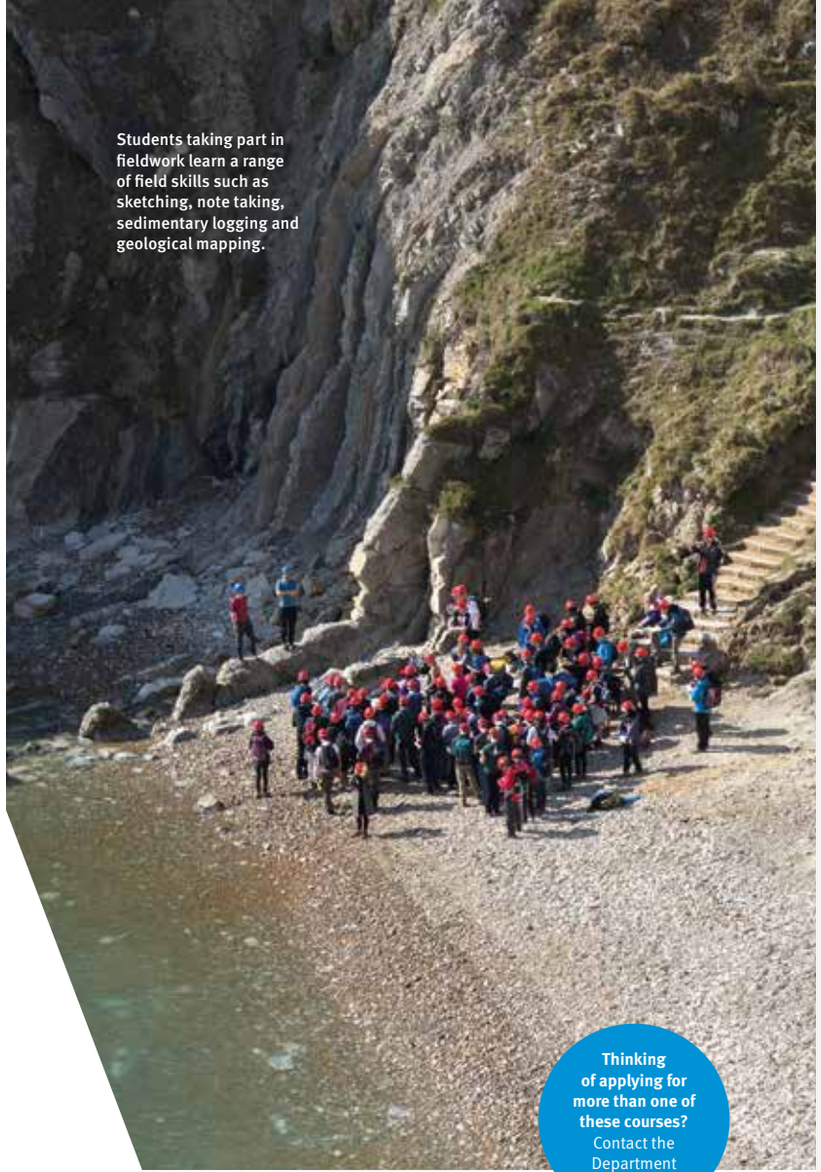
PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/earth-science**

1st in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad (in Australia, Canada, Europe or the USA)

Professionally accredited courses

Strong emphasis on fieldwork to develop practical skills



Students taking part in fieldwork learn a range of field skills such as sketching, note taking, sedimentary logging and geological mapping.

Thinking of applying for more than one of these courses? Contact the Department for advice.

OUR COURSES

QUALIFICATION	TITLE	UCAS CODE	LENGTH
BSc	Earth and Planetary Science	F64B	3 years
MSci	Earth and Planetary Science	F647	4 years
BSc	Geology	F600	3 years
MSci	Geology	F640	4 years
MSci	Geology with a Year Abroad	F601	4 years
BSc	Geophysics	F662	3 years
MSci	Geophysics	F660	4 years
MSci	Geophysics with a Year Abroad	F664	4 years

PROFESSIONAL ACCREDITATION
Our Geology and Geophysics courses are professionally accredited by the Geological Society. Earth and Planetary Science is a new degree so is not yet professionally accredited. We are currently seeking this accreditation. If successful it is likely to be applied retrospectively.

G

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A A A overall **for all courses** to include:

For Earth and Planetary Science
A, A in Mathematics, and in one of the following: Biology, Chemistry, Geography, Geology or Physics

For Geology
A, A in two of the following: Biology, Chemistry, Geography, Geology, Mathematics or Physics

For Geophysics
A, A in Mathematics and Physics

Typical offers (see page 14)

A A A to **A* A A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

For Earth and Planetary Science
6, 6 at higher level in: Mathematics* and in Biology, Chemistry, Geography, Geology or Physics

For Geology
6, 6 at higher level in two of the following: Biology, Chemistry, Geography, Mathematics* or Physics

For Geophysics
6, 6 at higher level in Mathematics* and Physics
6 at higher level in another subject

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38–39 points

ADDITIONAL CRITERIA

- ✓ **Standard** level College English language requirement – see page 15
- ✓ Grade 7 in GCSE Mathematics preferred for Geology applicants without A-level Mathematics
- ✓ Interview – candidates who demonstrate potential
- ✗ Admissions test

Course overview

Earth science is an interdisciplinary subject which encompasses physics, chemistry, mathematics and other classical sciences. Combined with engineering, we can apply it to the study of the Earth and other planets to give us an understanding of how they work, from their internal core, crust and oceans, to their atmosphere and role in our Solar System.

All of our courses follow a similar syllabus in the first year. This high level of shared content means you may transfer between most of our courses up to the start of spring term in the first year (if you meet the original entry requirements for the course you want to transfer to).* As a result, we encourage you to only apply for one course within the Department.

Year one covers the fundamentals of the geosciences, including topics such as surface processes, mathematical methods, and structural geology. The year ends in a residential field trip, currently to Spain. Year two is designed to deepen your knowledge of the geosciences. Field trips are also available in this year for geology students, currently to the Pyrenees and Scotland.

* Transfer to Year Abroad programmes is not normally permitted as places at partner institutions are limited.

← Undergraduate students working in the Department's computer rooms as part of their UROP placement (see page 41).

Geophysics students focus further on maths and numerical methods. You also attend a field trip, currently to Cyprus, where you learn a range of near-surface geophysics field techniques.

In years three and four, you specialise according to your chosen course (see below). You also take part in further field trips, study core and optional modules, and complete an independent study in the laboratory or in the field.

EARTH AND PLANETARY SCIENCE

Earth and planetary scientists seek to understand the Earth and other planets through observation. These courses focus on the geological and geophysical processes in our Solar System, with particular emphasis on planets, moons and other solid bodies, such as asteroids and comets. Current specialist modules include astrobiology, Earth systems, planetary physics, ore deposits, and collisions and craters.

GEOLOGY

Geology is the study of the Earth and how its interior, surface and atmosphere interact. We use field work to help you gain experience in identifying rocks and interpreting the physical (including tectonic) processes that may have been involved in their formation. Specialist modules currently available include palaeobiology, oceanography, igneous and metamorphic processes, and geomorphology.

GEOPHYSICS

These courses are designed for students with a specific interest in mathematics and physics and the application of physical laws to the study of the Earth. While you share some core modules with our other courses, we place greater emphasis on mathematics and physics subjects and modelling techniques. You also gain experience with technical equipment and specialist software.

YEAR ABROAD

MSci students who are achieving marks of 70% or above in the first two years, and who are registered for the scheme, can apply to spend their third year abroad.

↑ Dr Emma Passmore teaching undergraduate Geology students how to use a microscope to examine and identify tiny slivers of rock.

Places are currently available in Australia, Canada, France, the Netherlands, Spain and the USA. Language classes are available (where appropriate) to help you prepare. The year counts directly towards your Imperial degree, though limited places mean competition is strong and specific locations cannot be guaranteed.

What our graduates do

The growing importance of Earth science in tackling some of the world's most significant challenges means that demand for problem-solving graduates of this discipline remains high. Our three-year BSc degrees are excellent preparation for careers in geosciences and other professions, especially if followed by a relevant MSc and a research degree. Our four-year MSci degrees provide a deeper understanding of the subject and the chance to undertake a significant research project.

Recent graduates of the Department have become...

1. Graduate Engineering Geologist, Mott MacDonald
2. Risk Consultant, KPMG Malaysia
3. Trainee Field Geophysicist, Schlumberger
4. Environmental Advisor, BP
5. Research Assistant, Natural History Museum

DID YOU KNOW?

The Department's Professor Joanna Morgan is part of an international research team that has analysed more than 130 metres of rock at ground zero of the asteroid that wiped out the dinosaurs. They found evidence that the impact triggered a massive tsunami and caused wildfires across the planet.

Full course information
www.imperial.ac.uk/study/ug/earth-science

Undergraduate Admissions Team
+44 (0)20 7594 6478
admit.earth@imperial.ac.uk

Materials science and engineering

Understanding and exploiting the relationship between the structure, processing and properties of materials for technological applications.

Materials scientists develop and investigate materials for applications across the full range of engineering disciplines, from aerospace and nuclear engineering, to solar cells and medical devices.

You will join a Department that is home to a number of leading researchers, with expertise in bio- and soft materials, ceramics and composites, engineering alloys, functional materials, nanotechnology, and the theory and simulation of materials. Our facilities include cutting-edge equipment and tools for advanced materials imaging and characterisation. We also maintain extensive contacts with industry and other leading universities around the world.

FAST FACTS

Delivered by
→ Department of Materials

Total expected intake (2021 entry)
→ 100

Applications:admissions ratio
→ 5:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/materials**

5th in the UK
The Times and Sunday Times Good University Guide 2020

Strong focus on materials at the nanoscale

Professionally accredited courses

Nuclear Engineering specialism

First-year Materials students preparing samples for microscopic observations using abrasive particles of silicon carbide paper.

You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MEng	Biomaterials and Tissue Engineering ■	BJ95	4 years
BEng	Materials Science and Engineering	JF52	3 years
MEng	Materials Science and Engineering ■	JFM2	4 years
BEng	Materials with Management	J5N2	3 years
MEng	Materials with Nuclear Engineering ■	J5H8	4 years

■ International students applying for these courses require an ATAS certificate before they can apply for a student visa – see page 12.

PROFESSIONAL ACCREDITATION
All our courses are professionally accredited by the Institute of Materials, Minerals and Mining (IOM3).

M

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A A A overall to include:

A in Mathematics
A in Chemistry or Physics
A in an another subject (see pages 64–65 for details)

Typical offers (see page 14)

A* A A

INTERNATIONAL BACCALAUREATE

Minimum entry standard

38 points overall to include:

6 in Mathematics at higher level*
6 in Chemistry or Physics at higher level

* For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

38 points

ADDITIONAL CRITERIA

✓ **Higher** level College English language requirement – see page 15

✓ Interview – applicants who demonstrate potential

✗ Admissions test

Course overview

All students follow a common core curriculum covering the fundamentals of materials science and engineering.

Experimental work is a core part of all our courses. This starts with a series of laboratory tutorials that introduce foundational ideas and key techniques in a practical setting. You then move on to perform more extended laboratory work, including a case study project that analyses the materials found in a consumer project using cutting-edge techniques such as electron microscopy, X-ray scattering and chemical spectroscopy.

As your course progresses, you cover the instrumental approaches used to measure and image materials. You also gain a solid understanding of the common principles of most engineering disciplines, such as basic mechanics, technical drawing and an introduction to business.

The MEng builds on the BEng with advanced optional courses and a major individual research project.

MATERIALS SCIENCE AND ENGINEERING

This is the broadest of our courses. As such, you have the freedom in the final years to choose from a wide variety of modules.

MATERIALS WITH MANAGEMENT

This course builds on your materials science and engineering knowledge with a final year taught within Imperial College Business School.

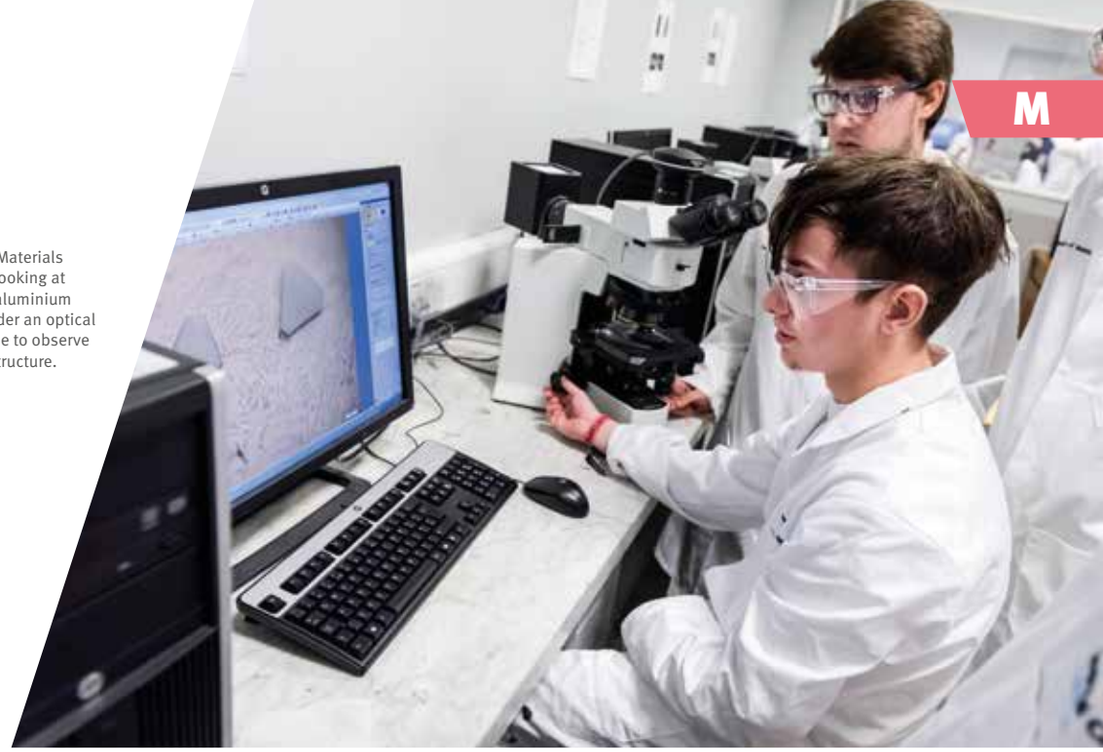
MATERIALS WITH NUCLEAR ENGINEERING

Materials are central to the nuclear industry, both in designing reactor parts that are safe when exposed to radiation and in handling and processing waste. This course, built on the common materials science and engineering core, combines a specialism in nuclear-relevant materials with a focused introduction to nuclear engineering taught by specialists from across Imperial.

BIOMATERIALS AND TISSUE ENGINEERING

Biomaterials is a rapidly developing field. It is made up of both conventional biomaterials that provide simple properties such as mechanical strength, and the emerging discipline of tissue engineering, which aims to control tissue growth and regeneration in lab-grown implants or within living organisms. This course combines the common core of materials science and engineering, with specialist teaching in this area.

Dr Ahu Parry teaching materials characterisation to third-year Materials undergraduate students.



First-year Materials students looking at a slice of aluminium silicon under an optical microscope to observe its microstructure.

What our graduates do

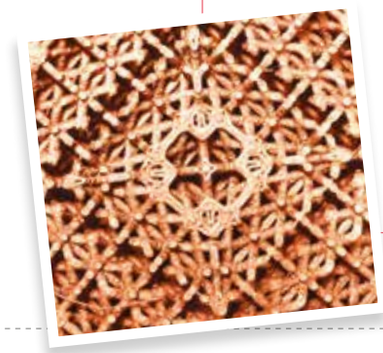
A degree in Materials Science and Engineering can open the door to careers in a wide variety of sectors from chemicals manufacturing and pharmaceuticals, to technical management and scientific research and development (R&D). There are lots of emerging sectors to think about too, such as nanotechnology, biomedical materials, quantum computing and composites.

Recent graduates of the Department have become...

1. Graduate Engineer, Jaguar Land Rover
2. Production Engineer, Shell
3. Trainee Engineer, Rolls-Royce plc
4. Research Engineer, SIMTech
5. Process Engineer, Morgan Advanced Materials

DID YOU KNOW?

Material scientists at Imperial have created a new artificial material, inspired by patterns found in natural crystals, that could speed up the use of 3D printed materials in everything from construction and vehicles to medical devices. By mimicking the hardening mechanisms of crystals, new tougher and damage-tolerant materials can be produced which are suitable for a variety of applications.



Full course information
www.imperial.ac.uk/study/ug/materials

Undergraduate Admissions Team
+44 (0)20 7594 6728
raj.adcock@imperial.ac.uk

Mathematics

A language and a tool for examining and understanding quantity, shape, structure, space and change.

Studying mathematics at Imperial means joining a community of some of the world's leading researchers. Our teaching programme is strongly influenced by their research expertise which spans applied mathematics and mathematical physics, mathematical finance, pure mathematics and statistics. This opens up a large choice of optional modules in years three and four, with plenty of freedom to follow your own interests.

Additional opportunities within the Department include the chance to complete an integrated year abroad or to study a Joint Honours degree with Computing. You can also engage with maths beyond the curriculum by joining Plus!, our problem-solving group, and our student-led weekly lecture series, the Undergraduate Colloquium.

FAST FACTS

Delivered by
→ Department of Mathematics

Total expected intake (2021 entry)
→ 220

Applications:admissions ratio
→ 11:1 (based on 2019 entry data)

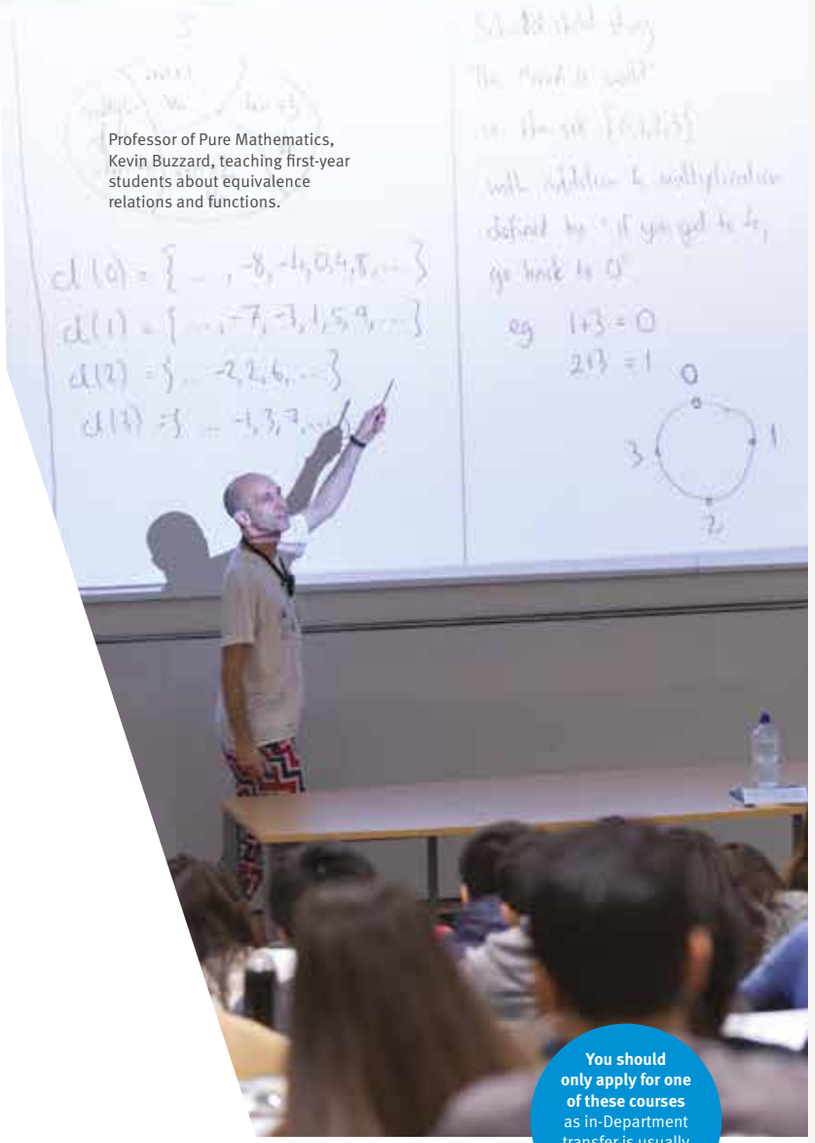
PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/mathematics**

5th in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad (in France, Germany, Spain or Switzerland)

Student mathematical puzzle-solving group

Joint mathematics and computer science courses



Professor of Pure Mathematics, Kevin Buzzard, teaching first-year students about equivalence relations and functions.

You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

OUR MATHEMATICS COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BSc	Mathematics	G100	3 years
MSci	Mathematics	G103	4 years
BSc	Mathematics (Pure Mathematics)	G125	3 years
BSc	Mathematics with Applied Mathematics/ Mathematical Physics	G1F3	3 years
MSci	Mathematics with a Year Abroad	G104	4 years
BSc	Mathematics with Mathematical Computation	G102	3 years
BSc	Mathematics with Statistics	G1G3	3 years
BSc	Mathematics with Statistics for Finance	G1GH	3 years

OUR MATHEMATICS AND COMPUTER SCIENCE COURSES

See the Department of Computing on page 100 for details.

M

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A overall to include:

A* in Mathematics
A* in Further Mathematics
A in another subject (Chemistry or Physics are useful but not essential)

Typical offers (see page 14)

Three A-level offer: **A* A* A**

Four A-level offer: **A* A* A A**

INTERNATIONAL BACCALAUREATE

Minimum entry standard

39 points overall to include:

7 in Mathematics at higher level*
6 in another subject at higher level

* For 2021 entry, the Mathematics Analysis and Approaches (preferred) or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

39–40 points

ADDITIONAL CRITERIA

- ✓ **Higher** level College English language requirement – see page 15
- ✓ Interview – in exceptional circumstances only
- ✓ Admissions test – all applicants who apply before 15 October 2020 must take the Mathematics Admissions Test (MAT). Conditional offers for later applicants include STEP II/III. STEP may also be included in offers after consideration of MAT performance.

Course overview

All of our Mathematics courses follow the same programme in the first year and share a common core curriculum in the second year. This includes areas essential to further study including: linear algebra, real and complex analysis, metric spaces, applied mathematics, probability and statistics, calculus and applications, differential equations and numerical analysis.

A number of optional modules are available in your second year, allowing you to develop a broad knowledge of mathematics.

A key feature of the third and fourth years is flexibility and the ability to specialise in a particular area of mathematics (see below).

You can choose from a range of options in areas such as pure mathematics, mathematical physics, applied mathematics, and mathematical methods and statistics. You also take part in both independent and group research.

Transfer between any of our Mathematics courses is possible during first year, and may be possible in later years if you take the appropriate modules.

APPLIED MATHEMATICS/ MATHEMATICAL PHYSICS

This course focuses on how mathematical methods can be used to solve problems in physics or the other sciences.

MATHEMATICAL COMPUTATION

This course allows you to combine mathematical thinking with applications in mathematical and scientific computation.

PURE MATHEMATICS

This course gives you the chance to gain an in-depth understanding of a key area of our research, such as geometry, analysis, algebra or number theory.

STATISTICS

This course focuses on statistical theory and the real applications of this important area of mathematics through topics such as applied probability, statistical modelling, and statistical theory.

STATISTICS FOR FINANCE

This course focuses on applying statistical methods to financial service industries through topics such as option pricing, survival models, statistical learning and time series.

YEAR ABROAD

Students achieving marks of 60% and above by the end of second year can apply to spend their third year studying at one of our partner universities. Places are currently available in France, Germany, Spain and Switzerland. Free language classes are available to help you prepare, though you should arrive with a basic knowledge of the appropriate language. This is an integrated year abroad, so the grades you achieve will count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

JOINT MATHEMATICS AND COMPUTER SCIENCE DEGREES

See the Department of Computing on page 100.

DID YOU KNOW?

Researchers from the Department of Mathematics have used 3D X-ray imaging to study the architectural strategies of termite nests.

They found the way the nests are designed helps termite homes stay cool, ventilated and dry throughout the year. The findings could help us to understand how to design more energy efficient, self-sustaining buildings for the future.

What our graduates do

The logical and analytical skills developed through our mathematics courses are highly valued by a wide range of employers. Our graduates go on to a wide range of careers in industry, government and education, as well as international banking, computing, business, law and accountancy.

The MSci programmes in particular prepare you for research careers and are recognised throughout the European Union, where four-year undergraduate degrees tend to be the norm.

Recent graduates of the Department have become...

1. Quantitative Analyst, Citibank
2. Accountant, KPMG
3. Software Developer, TPP
4. Computer Analyst, Credit Suisse
5. E-Commerce Manager, Lloyds Banking Group

Full course information
www.imperial.ac.uk/study/ug/mathematics

Undergraduate Admissions Team
+44 (0)20 7594 8484
ugmaths.admissions@imperial.ac.uk

Mechanical engineering

The application of mechanical science to a range of real-world challenges, from new transport technologies to medical devices.

The mechanical engineering education we offer is designed to turn the brightest, most ambitious students into leading engineers. Our courses will develop your knowledge, skills, imagination and creativity. We also work continuously with industry to ensure that our courses – and the facilities and equipment you will learn to use – remain relevant to the profession.

You will gain a true appreciation of manufacturing through project work, which requires use of manual and automated manufacture tools in our student workshop. There are also opportunities to engage directly with research taking place in the Department in areas such as sustainable energy, medical engineering, robotics, structural integrity, advanced manufacturing and future transport technologies.

FAST FACTS

Delivered by
→ Department of Mechanical Engineering

Total expected intake (2021 entry)
→ 170

Applications:admissions ratio
→ 10:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/mechanical-engineering**

2nd in the UK
The Times and Sunday Times Good University Guide 2020

Year abroad (in Australia, Europe, Singapore or the USA)

Specialist teaching in Nuclear Engineering

Year in industry

A student learning to safely operate a mill, one of many machines in our workshop that our students learn to use in the first year.

OUR COURSES

QUALIFICATION	TITLE	UCAS CODE	LENGTH
MEng	Mechanical Engineering ■	H301	4 years
MEng	Mechanical Engineering with a Year Abroad ■	✱	4 years
MEng	Mechanical Engineering with a Year in Industry ■	✱	5 years
MEng	Mechanical Engineering with a Year in Industry and a Year Abroad ■	✱	5 years
MEng	Mechanical with Nuclear Engineering ■	✱	4 years
MEng	Mechanical Engineering with Nuclear Engineering and a Year in Industry ■	✱	5 years

■ International students applying for these courses require an ATAS certificate before they can apply for a student visa – see page 12.
✱ Transfer to this course is only available after you start – all students must apply to H301 in the first instance.

PROFESSIONAL ACCREDITATION
All our courses are accredited by the Institution of Mechanical Engineers (IMechE).

M

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

Three A-levels:
A* A* A overall to include:

A* in Mathematics
A* in Physics
A in another subject (Further Mathematics is useful but not essential)

Four A-levels:
A* A A overall to include:

A* in Mathematics
A A A including Physics and two other subjects (Further Mathematics is useful but not essential)

See pages 64–65 for more information on preferred subjects.

Typical offers (see page 14)

Students taking three A-levels: **A* A* A**
Students taking four A-levels: **A* A A A**

Please note: For 2021 entry, our typical offers may include A* A* A* for students taking three A-levels and A* A* A A for students taking four A-levels.

INTERNATIONAL BACCALAUREATE

Minimum entry standard

40 points overall to include:

6 in Mathematics at higher level*
6 in Physics at higher level
6 in another subject at higher level

* For 2021 entry, the Mathematics Analysis and Approaches (preferred) or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

40 points

ADDITIONAL CRITERIA

✓ **Standard** level College English language requirement – see page 15
✓ Interview – UK/EU-resident applicants who demonstrate potential
✗ Admissions test

Course overview

All of our Mechanical Engineering courses start with the same two core years of intensive engineering science. You attend lectures, tutorials and laboratory sessions in areas including thermofluids, materials, mechanics, mechatronics, stress analysis and design. You practise sketching by hand, use computer-aided design (CAD) to produce solid models and industry-standard technical drawings, and create the blueprints for your own designs.

You also develop your manufacturing skills in hands-on workshop sessions, and bring your designs to life through design projects.

↑ Students developing a biomechatronic hand as part of their third-year group design-make-and-test project.

The final two years are made up of optional modules and two major projects – a group project in year three and a research-orientated individual project in year four. You have the freedom to choose project topics based on cutting edge research or to pitch your own ideas.

The optional modules cover core themes of solid mechanics, thermofluids and robotics, as well as areas including sustainable energy, design, art and creativity, machine learning and motorsport technology. From the third year, you can also choose modules taught in Imperial College London Business School, in areas such as entrepreneurship and business economics. In the fourth year, you can choose modules taught in other departments, subject to availability, including fluid dynamics (Aeronautics), advanced biomaterials (Materials), computer assistive and rehabilitative devices (Bioengineering) and sustainable electrical systems (Electrical and Electronic Engineering).

DID YOU KNOW?

Imperial Mechanical Engineers have used computer simulations to recreate the conditions which led to sun rays reflecting off London's 'Walkie Talkie' building and damaging a nearby vehicle. The simulation showed that at its peak, the rays released up to 15 times more radiation than is normally found at street level. After the incident in 2013, the building's façade was altered to prevent further damage. This study could help architects to improve the designs of future buildings.

NUCLEAR ENGINEERING PATHWAY

This course provides a foundation for employment in nuclear or related industries. Specialist teaching delivered by the Departments of Chemical Engineering, Materials and Mechanical Engineering in years three and four cover areas including nuclear energy, nuclear chemical engineering, nuclear materials, nuclear thermal hydraulics, and nuclear reactor physics.

→ Imperial Racing Green enables students to get involved in designing, making, testing and racing zero-emission racing cars.

See one of our past teams in action:

bit.ly/imperial-formula-student

YEAR ABROAD PATHWAY

Students who are achieving marks of 65% and above at the time of selection can apply to spend their fourth year at one of our partner universities – currently in Australia, France, Germany, the Netherlands, Singapore, Switzerland and the USA. Free language classes are available (where appropriate) to help you prepare. This is an integrated year abroad so the grades you achieve will count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

YEAR IN INDUSTRY PATHWAY

Students interested in gaining paid industry experience can take advantage of our close links with a range of employers to complete a year in industry. Taking place between the second and third, or third and fourth year, this is a great way to put what you have learnt into practice and help inform your future career choices.

What our graduates do

Our close industry links ensure that many graduates leave Imperial with jobs already lined up. Formula 1 and related industries are popular graduate destinations. The chance to specialise in nuclear engineering is also good preparation for an industry poised for future expansion. The technical and management skills you gain on our mechancial engineering courses are equally valued in consultancy, technical business roles and project management.

Recent graduates of the Department have become...

1. Mechanical Engineer, European Space Agency
2. Graduate Nuclear Engineer, EDF Energy
3. Vehicle Dynamics and Simulation Engineer, Mercedes AMG Petronas Formula 1 Team
4. Offshore Structures Wind Engineer, Atkins
5. CEO, medical prosthetics startup.

Full course information
www.imperial.ac.uk/study/ug/mechanical-engineering

Undergraduate Admissions Team
+44 (0)20 7594 7005
me.admissions@imperial.ac.uk

Medicine

The science of understanding, diagnosing, preventing and curing illness and damage to the human body and mind.

At Imperial, we have access to a very large and diverse patient population through the Faculty of Medicine's links to a wide range of National Health Service (NHS) Trusts, hospitals and clinics both in and outside London. This gives you the chance to gain a variety of clinical experiences from the very start of your studies.

The Faculty itself is one of the largest in Europe, with experts at the cutting edge of research that benefits patients and populations worldwide. You have the chance to learn alongside these researchers and clinicians, and to undertake your own research under their supervision.

You will also be part of an active School of Medicine student community, supported by Imperial College School of Medicine Students' Union.

FAST FACTS

Delivered by
→ School of Medicine

Total expected intake (2021 entry)
→ 345

Applications:admissions ratio
→ 8:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/medicine**

7th in the UK
The Times and Sunday Times Good University Guide 2020

Patient contact from the first term

Innovative and traditional teaching methods

Intercalated BSc built into six-year MBBS

Undergraduate Medical students undertaking community-based teaching in primary care as part of their clinical attachment.

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
MBBS/BSc	Medicine	A100	6 years
MBBS/PhD	Intercalated PhD option for Medical students	✱	8/9 years
MBBS	Medicine, delivered by Lee Kong Chian School of Medicine (LKCMedicine)	†	5 years

✱ Transfer to this course is only available after you start – all students must apply to A100 in the first instance.
† To apply for the MBBS delivered at LKCMedicine please use Nanyang Technological University, Singapore's online application portal. Applications are open between October 2020 and March 2021; you should not apply via UCAS. For entry requirements for the MBBS at LKCMedicine, Singapore please visit: **www.lkcmedicine.ntu.edu.sg**

Please note: successful applicants for Medicine at Imperial will need to undergo health assessments and a Disclosure and Barring Service (DBS) check before their place can be confirmed. You must also be aged 18 or over by the first day of term. For details see: **www.imperial.ac.uk/study/ug/medicine**

Successful applicants for the LKCMedicine programme will need to undergo health assessments and will be required to complete a Criminal Record Declaration.

As a School, we are fully committed, both individually and collectively, to upholding the principles and values enshrined in the NHS Constitution and to selecting future doctors who will adhere to them. You can download a PDF copy of the Constitution at **bit.ly/NHS-constitution**

PROFESSIONAL ACCREDITATION
All MBBS courses based at Imperial College London are professionally accredited by the General Medical Council (GMC). The MBBS degree at LKCMedicine is recognised by the Singapore Medical Council.

M

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS (A100 ONLY)

Minimum entry standard

A A A overall, to be achieved in the same sitting. To include:

A in Biology
A in Chemistry
A in any third subject (excluding General Studies and Critical Thinking)

Typical offers (see page 14)

A* A A (including A* in either Biology or Chemistry)

INTERNATIONAL BACCALAUREATE (A100 ONLY)

Minimum entry standard

38 points overall to include:

6 in Biology at higher level
6 in Chemistry at higher level

Please note: For 2021 entry, the Mathematics Analysis and Approaches or the Applications and Interpretation syllabi are accepted at higher level for students studying Mathematics as their third International Baccalaureate subject.

Typical offers (see page 14)

39 points (grade 7 and 6 in Biology and Chemistry at higher level – grades in any order)

ADDITIONAL CRITERIA

✓ **Higher** level College English language requirement – see page 15
✓ Interview – applicants who demonstrate potential
✓ Admissions test – BMAT is required

Final-year Medical students engaging in role-play learning activities.

Course overview

We offer two routes to achieving the MBBS qualification at Imperial College London:

MBBS/BSc MEDICINE

This course is designed for those who do not yet have a first degree in a biological science subject. It leads to the award of a Bachelor of Science (BSc) and a Bachelor of Medicine, Bachelor of Surgery (MBBS) qualification.

Over the course of the programme you gain clinical experience at many of our partner NHS Trusts and in community settings. We have carefully selected these to give you a broad and balanced clinical learning experience.

Phase one of the course runs over the first three years. You will undertake an integrated programme covering the scientific basis of medicine and the foundations of clinical practice, with clinical experience from the start. The third year consists of clinical attachments in hospitals and placements in a primary care setting, supported by structured teaching.

Phase two leads to the award of a BSc degree at the end of year four. We have many specialist pathways available, exposing you to research at the cutting edge of the field. You also undertake a supervised research project.

Phase three covers the final two years of the MBBS qualification. You rotate through a wide range of clinical specialties, such as obstetrics and gynaecology, psychiatry, general practice and paediatrics. You also have the freedom to follow your own interests and undertake an eight-week elective, which you may complete in the UK or overseas.

INTERCALATED PhD

Exceptional students may be offered the chance to complete a three-year PhD after the BSc year for six-year MBBS/BSc students.

DID YOU KNOW?

Imperial medical experts have developed a hormone injection that reduces appetite and improves the body's ability to use sugar absorbed from eating. The team's findings showed the injection helped reduce body weight and glucose levels in patients with diabetes and obesity, with some patients' blood glucose levels reduced to near-normal levels.

What our graduates do

Imperial's MBBS degree is a primary medical qualification (PMQ). Successfully achieving it meets the core requirements for junior doctors and entitles you to provisional registration with the General Medical Council (GMC). It also gives you licence to practise in approved Foundation Year 1 posts, if you can demonstrate to the General Medical Council (GMC) that your fitness to practise is not impaired.

You will need to apply for a Foundation Year 1 post during the final year of your course through the UK Foundation Programme Office (UKFPO) selection scheme. The UKFPO allocates posts on a competitive basis. So far, all suitably qualified UK graduates have found a place on the Foundation Year 1 programme, but this cannot be guaranteed.

On successful completion of the Foundation Year 1 programme you will be eligible to apply for full registration with the GMC before entering Foundation Year 2. Doctors need full registration with a licence to practise for unsupervised medical practice in the NHS or UK private practice.

As well as medical practice, Medicine graduates have entered such diverse careers as biomedical research, the pharmaceutical industry, scientific journalism, healthcare management and academic research.

This information is correct at the time of printing (January 2020). Please be aware that regulations in this area are subject to change.

MBBS in Singapore

The Lee Kong Chian School of Medicine (LKCMedicine) offers a five-year undergraduate programme leading to a medical degree (MBBS). This is awarded jointly by Imperial and Nanyang Technological University, Singapore (NTU). It is targeted primarily at Singaporean students.

LKCMedicine's programme is recognised by the Singapore Medical Council. It has been designed and developed by Imperial in collaboration with LKCMedicine faculty to train doctors who will meet Singapore's healthcare needs.

It emphasises the clinical relevance of the basic sciences and early patient interaction from the very beginning of the course, training you to put a patient's individual needs at the centre of all care.

You will gain a thorough understanding of the scientific basis for medicine, as well as broader management and communication skills. You will also benefit from innovative and interactive approaches to learning, including extensive use of simulation, team-based learning and e-learning.

Graduates of this programme will serve a five-year (Singaporeans) or six-year (non-Singaporeans) service obligation, excluding housemanship or first-year residency training. You will receive career guidance during the course, including guidance on applying for postgraduate medical training.

For more details about this course see:
www.lkcmedicine.ntu.edu.sg

Full course information
www.imperial.ac.uk/study/ug/medicine

Undergraduate Admissions Team
+44 (0)20 7594 7259
medicine.ug.admissions@imperial.ac.uk

Physics

The study of the universe and its origins; the understanding of how matter behaves through space and time.

Students in Imperial's Department of Physics join a vibrant research community, which is contributing to ground-breaking discoveries in fields such as gravitational waves, the origins of the universe, string theory, particle physics, and renewable energy.

You have the chance to learn from and alongside these experts and use a range of world class facilities, including high intensity laser systems, nanoscale fabrication and high performance computing. You also have access to data collected from major experiments such as CERN and international space missions.

You learn through a combination of innovative and traditional teaching methods, ranging from lectures and tutorials to laboratory classes and interactive seminars. Research opportunities are also available from your first year.

Undergraduate Physics student working with lasers in the Blackett Laboratory.

You should only apply for one of these courses as in-Department transfer is usually possible after enrolment.

P

ENTRY REQUIREMENTS

We welcome applications from international students and accept a variety of international qualifications. See pages 12–15 for more information on applying.

A-LEVELS

Minimum entry standard

A* A* A overall to include:

A* in Mathematics
A* / A in Physics
A* / A in a third subject

Typical offers (see page 14)

A* A* A

INTERNATIONAL BACCALAUREATE

Minimum entry standard

40 points overall to include:

7, 6, 6 at higher level which must include Mathematics* and Physics

* For 2021 entry, the Mathematics Analysis and Approaches (preferred) or the Applications and Interpretation syllabi are accepted at higher level.

Typical offers (see page 14)

40–41 points

ADDITIONAL CRITERIA

- **Higher** level College English language requirement – see page 15
- A language qualification may be required for Year Abroad degree
- Interview – applicants who demonstrate potential
- **Physics and Music Performance applicants:** A minimum standard broadly equivalent to Grade 8 with distinction in a suitable musical instrument in the Associated Board of the Royal Schools of Music (ABRSM) examination. Suitable applicants will be invited to audition and interview. Please note: this course is only available to instrumentalists and composers.

FAST FACTS

Delivered by
→ Department of Physics

Total expected intake (2021 entry)
→ 240

Applications:admissions ratio
→ 7:1 (based on 2019 entry data)

PLEASE NOTE
The curriculum for courses in this Department may change before you apply. For the latest course information see: **www.imperial.ac.uk/study/ug/physics**

Research opportunities from first year

Year Abroad (in Europe or the USA)

Professionally accredited courses

Unique Physics and Music Performance degree

OUR COURSES

QUALIFICATION AND TITLE		UCAS CODE	LENGTH
BSc	Physics	F300	3 years
MSci	Physics ■	F303	4 years
BSc	Physics and Music Performance	F3W3	4 years
MSci	Physics with a Year Abroad ■	F309	4 years
BSc	Physics with Theoretical Physics	F325	3 years
MSci	Physics with Theoretical Physics ■	F390	4 years

■ International students applying for these courses require an ATAS certificate before they can apply for a student visa – see page 12.

PROFESSIONAL ACCREDITATION

Our courses are professionally accredited by the Institute of Physics (IOP). The current accreditation agreement is due to be renewed for students starting their studies in the 2021–22 academic year.

Undergraduate students Omar and Xinni taking part in an academic office hour with Dr Marina Galand, Reader in Space and Atmospheric Physics.

Course overview

All of our Physics courses cover a common core of modules for the first two years – topics such as mathematics, mechanics, electromagnetism, quantum physics, relativity, and environmental and atmospheric physics provide a good grounding in the fundamental aspects of physics, mathematics and experimental methods.

Practical work is an important part of all our courses. You take part in laboratory classes to equip you with a wide range of skills such as using apparatus, conducting experiments, interpreting data and presenting your results. You also gain a solid understanding of how to use computers as tools to help model and understand the physics of complicated phenomena.

We introduce more optional modules as the course progresses, giving you greater flexibility to follow your interests. Current applied areas covered from year three onwards include astrophysics, medical imaging, plasma physics, cosmology, lasers and nanotechnology.

You have a choice of theoretical optional modules in areas such as group theory, computational physics, general relativity and advanced particle physics.

All of our courses include a substantial final-year project, usually within one of our research groups.

PHYSICS WITH THEORETICAL PHYSICS

This course is ideally suited to those with a specific interest in mathematics and its application. It places less emphasis on experimental work. Years one and two have an additional focus on mathematics and, as the course progresses, you begin to specialise by choosing from mainly theoretical optional modules. The final-year project is also on a theoretical topic.

PHYSICS AND MUSIC PERFORMANCE

This course offers a unique opportunity to combine physics with a passion for music performance or composition, preparing you for a professional career in either field.

Taught jointly by Imperial and the neighbouring Royal College of Music (RCM), you study all the core physics material from our three-year BSc degree, as well as some optional modules, to ensure that you graduate as a fully qualified physicist. You also complete the main performance elements on one principal instrument and core supporting modules of the RCM's BMus degree. Due to the demanding workload the course is spread over four years.

PHYSICS WITH A YEAR ABROAD

Students who are achieving marks of 60% or above at the time of selection in year two can apply to spend their third year studying at one of our partner universities abroad. Places are currently available in France, Germany, Italy, Spain, Switzerland or the USA. Free language classes are available (where appropriate) to help you prepare. This is an integrated year abroad, so the grades you achieve will count directly towards your Imperial degree. Limited places mean competition is strong and selection cannot be guaranteed.

What our graduates do

Many of Imperial's Physics graduates go on to study for a higher degree – either a Master's degree or straight to a PhD and a career in academic research.

Physics graduates are also sought after by a wide range of employers – from the electronics industry where physicists are needed to design next-generation technologies, to the astrophysics and space technology industry where Physics graduates are needed to analyse space objects.

Recent graduates of the Department have become...

1. Graduate Trainee, European Space Agency
2. Scientific Officer, Civil Service
3. Research Engineer, Institute of Microelectronics
4. Systems Engineer, BAE Systems
5. Innovations Analyst, Carbon Trust

DID YOU KNOW?

Researchers from the Department of Physics have demonstrated the UK's first self-contained navigation system which does not rely on external satellites or signals. Most navigation systems currently rely on GPS, sending and receiving signals from satellites orbiting the Earth but can be easily blocked. Researchers hope this new system could lead to more accurate and reliable navigation.

Full course information
www.imperial.ac.uk/study/ug/physics

Undergraduate Admissions Team
+44 (0)20 7594 7513
ph.admissions@imperial.ac.uk

About our courses

TYPES OF QUALIFICATIONS

Our courses lead to the award of one of the following qualifications:

- Bachelor of Science (BSc)
- Master of Science (MSci)
- Bachelor of Engineering (BEng)
- Master of Engineering (MEng)
- Bachelor of Medicine and Bachelor of Surgery (MBBS)

The MEng and MSci are known as integrated Master's degrees. This means study at the level of a Bachelor's degree with Honours is combined with Master's-level study during the latter stages of a single, continuous programme of study.

TERM DATES 2021–22

Autumn term:
2 October 2021–17 December 2021

Spring term:
8 January 2022–25 March 2022

Summer term:
30 April 2022–1 July 2022

These dates are provisional and may be amended. Some courses, for example those with a year abroad or with a year in industry, have different term dates.

CHANGES TO OUR COURSES

This prospectus was printed in January 2020, in advance of courses starting in 2021. For this reason, there may be circumstances where course information may need to be amended prior to you applying or accepting your place at Imperial, including the suspension or withdrawal of courses.

If we need to make any changes to, or in relation to, our courses after you have been made an offer or once you have started studying at the College, these will be handled in accordance with our published approach which is set out in the Study section of our website.

www.imperial.ac.uk/study/ug/apply/our-degrees/potential-course-changes

We also encourage you to visit our Study website for the most up-to-date course information:

www.imperial.ac.uk/study/ug/courses

TERMS AND CONDITIONS

The information given in this printed prospectus may change following its publication in January 2020. For example, the following details may change:

- The College may make changes, to or in relation to courses, including suspension or discontinuation of courses where the College considers this is necessary (examples may include: due to staff availability, new research, feedback from students, examiners or professional or regulatory bodies, or due to circumstances beyond the control of the College). See page 136.
- Optional modules may not all run every year due to staffing, timetabling or lack of student demand.
- Fees for Home students are regulated by the UK government, and will increase or decrease in line with any changes to the fee caps set by the government.
- EU students currently pay the Home rate of tuition and this will also increase or decrease in line with any changes to the fee caps set by the government. As the UK has voted to leave the EU, it is not currently known how long that process will take or the impact that it will have on EU students' tuition fees. However, we expect EU students to continue to pay the Home rate of tuition as long as the UK remains in the EU, and for the duration of their course, but this depends on the final approach chosen by the UK government. Further information will be published on the Study website in due course.
- Fees for International students as well as those for students from the Channel Islands and the Isle of Man are set annually in the summer before a course commences and will increase each academic year.
- The College may amend the bursaries offered each year, for reasons such as (among other things) to ensure that funding is effectively meeting the needs of students. In addition, the timing and number of payments may change in response to student feedback.

ENTRY REQUIREMENTS

The entry requirements listed in the prospectus are based on offers made to at least 80% of A-level and International Baccalaureate applicants for 2019 entry.

Achievement of the entry requirements for a typical offer does not guarantee entry to the College.

TERMS AND CONDITIONS AND REGULATIONS

All students of the College are required to comply with the full terms and conditions and regulations of the College.

For more information please see:

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

A–Z COURSE DIRECTORY

UCAS CODE	LENGTH (YEARS)	QUALIFICATION AND TITLE		DEPARTMENT	PAGE
H401	4	MEng	Aeronautical Engineering	Aeronautics	67
n/a	4	MEng	Aeronautical Engineering with a Year Abroad[1]	Aeronautics	67
n/a	5	MEng	Aeronautical Engineering with a Year Abroad[1]	Aeronautics	67
n/a	5	MEng	Aeronautical Engineering with a Year in Industry[1]	Aeronautics	67
n/a	4	MEng	Aeronautics with Spacecraft Engineering[1]	Aeronautics	67
C700	3	BSc	Biochemistry	Life Sciences	71
n/a	4	BSc	Biochemistry with a Year in Industry/Research[2]	Life Sciences	71
C7R1	4	BSc	Biochemistry with French for Science	Life Sciences	71
C7R2	4	BSc	Biochemistry with German for Science	Life Sciences	71
n/a	3	BSc	Biochemistry with Management[2]	Life Sciences	71
n/a	4	BSc	Biochemistry with Management[2]	Life Sciences	71
n/a	4	BSc	Biochemistry with Research Abroad[2]	Life Sciences	71
C7R4	4	BSc	Biochemistry with Spanish for Science	Life Sciences	71
C100	3	BSc	Biological Sciences	Life Sciences	79
n/a	4	BSc	Biological Sciences with a Year in Industry/Research[3]	Life Sciences	79
C1R1	4	BSc	Biological Sciences with French for Science	Life Sciences	79
C1R2	4	BSc	Biological Sciences with German for Science	Life Sciences	79
n/a	3	BSc	Biological Sciences with Management[3]	Life Sciences	79
n/a	4	BSc	Biological Sciences with Management[3]	Life Sciences	79
n/a	4	BSc	Biological Sciences with Research Abroad[3]	Life Sciences	79
C1R4	4	BSc	Biological Sciences with Spanish for Science	Life Sciences	79
BJ95	4	MEng	Biomaterials and Tissue Engineering	Materials	117
BH9C	4	MEng	Biomedical Engineering	Bioengineering	75
n/a	4	MEng	Biomedical Engineering with a Year Abroad[4]	Bioengineering	75
n/a	5	MEng	Biomedical Engineering with a Year in Industry[4]	Bioengineering	75
J700	3	BSc	Biotechnology	Life Sciences	71
n/a	4	BSc	Biotechnology with a Year in Industry/Research[5]	Life Sciences	71
J7R1	4	BSc	Biotechnology with French for Science	Life Sciences	71
J7R2	4	BSc	Biotechnology with German for Science	Life Sciences	71
n/a	4	BSc	Biotechnology with Management[5]	Life Sciences	71
n/a	4	BSc	Biotechnology with Research Abroad[5]	Life Sciences	71
J7R4	4	BSc	Biotechnology with Spanish for Science	Life Sciences	71
H801	4	MEng	Chemical Engineering	Chemical Engineering	87
n/a	4	MEng	Chemical Engineering with a Year Abroad[6]	Chemical Engineering	87
n/a	4	MEng	Chemical with Nuclear Engineering[6]	Chemical Engineering	87
F100	3	BSc	Chemistry	Chemistry	91
F103	4	MSci	Chemistry	Chemistry	91
F105	5	MSci	Chemistry with a Year in Industry	Chemistry	91
F1R1	4	MSci	Chemistry with French for Science	Chemistry	91
F1R2	4	MSci	Chemistry with German for Science	Chemistry	91
F1NF	4	BSc	Chemistry with Management	Chemistry	91
FN11	5	BSc	Chemistry with Management and a Year in Industry	Chemistry	91
F124	4	MSci	Chemistry with Medicinal Chemistry	Chemistry	91
F125	5	MSci	Chemistry with Medicinal Chemistry and a Year in Industry	Chemistry	91

UCAS CODE	LENGTH (YEARS)	QUALIFICATION AND TITLE		DEPARTMENT	PAGE
F1F3	4	MSci	Chemistry with Molecular Physics	Chemistry	91
F1FH	5	MSci	Chemistry with Molecular Physics and a Year in Industry	Chemistry	91
F104	4	MSci	Chemistry with Research Abroad	Chemistry	91
F101	5	MSci	Chemistry with Research Abroad and a Year in Industry	Chemistry	91
F1R4	4	MSci	Chemistry with Spanish for Science	Chemistry	91
H201	4	MEng	Civil Engineering	Civil and Environmental Engineering	95
H202	4	MEng	Civil Engineering with a Year Abroad	Civil and Environmental Engineering	95
G400	3	BEng	Computing	Computing	99
G401	4	MEng	Computing	Computing	99
G700	4	MEng	Computing (Artificial Intelligence and Machine Learning)	Computing	99
G402	4	MEng	Computing (International Programme of Study)	Computing	99
G501	4	MEng	Computing (Management and Finance)	Computing	99
G610	4	MEng	Computing (Security and Reliability)	Computing	99
G600	4	MEng	Computing (Software Engineering)	Computing	99
GG47	4	MEng	Computing (Visual Computing and Robotics)	Computing	99
28G3	4	MEng	Design Engineering	Dyson School of Design Engineering	105
F64B	3	BSc	Earth and Planetary Science	Earth Science and Engineering	113
F647	4	MSci	Earth and Planetary Science	Earth Science and Engineering	113
C180	3	BSc	Ecology and Environmental Biology	Life Sciences	79
H600	3	BEng	Electrical and Electronic Engineering	Electrical and Electronic Engineering	109
H604	4	MEng	Electrical and Electronic Engineering	Electrical and Electronic Engineering	109
n/a	4	MEng	Electrical and Electronic Engineering with a Year Abroad[7]	Electrical and Electronic Engineering	109
H6N2	4	MEng	Electrical and Electronic Engineering with Management	Electrical and Electronic Engineering	109
HG65	3	BEng	Electronic and Information Engineering	Electrical and Electronic Engineering	109
GH56	4	MEng	Electronic and Information Engineering	Electrical and Electronic Engineering	109
n/a	4	MEng	Electronic and Information Engineering with a Year Abroad[8]	Electrical and Electronic Engineering	109
F600	3	BSc	Geology	Earth Science and Engineering	113
F640	4	MSci	Geology	Earth Science and Engineering	113
F601	4	MSci	Geology with a Year Abroad	Earth Science and Engineering	113
F662	3	BSc	Geophysics	Earth Science and Engineering	113
F660	4	MSci	Geophysics	Earth Science and Engineering	113
F664	4	MSci	Geophysics with a Year Abroad	Earth Science and Engineering	113
JF52	3	BEng	Materials Science and Engineering	Materials	117
JFM2	4	MEng	Materials Science and Engineering	Materials	117
J5N2	3	BEng	Materials with Management	Materials	117
J5H8	4	MEng	Materials with Nuclear Engineering	Materials	117
G100	3	BSc	Mathematics	Mathematics	121
G103	4	MSci	Mathematics	Mathematics	121
GG14	3	BEng	Mathematics and Computer Science	Computing/Mathematics	100
GG41	4	MEng	Mathematics and Computer Science	Computing/Mathematics	100
G125	3	BSc	Mathematics (Pure Mathematics)	Mathematics	121
G1F3	3	BSc	Mathematics with Applied Mathematics/Mathematical Physics	Mathematics	121
G104	4	MSci	Mathematics with a Year Abroad	Mathematics	121
G102	3	BSc	Mathematics with Mathematical Computation	Mathematics	121
G1G3	3	BSc	Mathematics with Statistics	Mathematics	121
G1GH	3	BSc	Mathematics with Statistics for Finance	Mathematics	121
H301	4	MEng	Mechanical Engineering	Mechanical Engineering	125
n/a	4	MEng	Mechanical Engineering with a Year Abroad[9]	Mechanical Engineering	125
n/a	5	MEng	Mechanical Engineering with a Year in Industry[9]	Mechanical Engineering	125

UCAS CODE	LENGTH (YEARS)	QUALIFICATION AND TITLE		DEPARTMENT	PAGE
n/a	5	MEng	Mechanical Engineering with a Year in Industry and a Year Abroad[9]	Mechanical Engineering	125
n/a	4	MEng	Mechanical with Nuclear Engineering[9]	Mechanical Engineering	125
n/a	5	MEng	Mechanical Engineering with Nuclear Engineering and a Year in Industry[9]	Mechanical Engineering	125
B101	3	BSc	Medical Biosciences	Medicine	83
B111	4	BSc	Medical Biosciences with Management	Medicine	83
A100	6	MBBS/ BSc	Medicine	Medicine	129
n/a	8/9	MBBS/ PhD	Medicine (Intercalated PhD option for Medical students)[10]	Medicine	129
n/a	5	MBBS	Medicine (Lee Kong Chian School of Medicine, Singapore)[11]	Medicine	129
C500	3	BSc	Microbiology	Life Sciences	79
H160	4	MEng	Molecular Bioengineering	Bioengineering	75
n/a	4	MEng	Molecular Bioengineering with a Year Abroad[12]	Bioengineering	75
n/a	5	MEng	Molecular Bioengineering with a Year in Industry[12]	Bioengineering	75
F300	3	BSc	Physics	Physics	133
F303	4	MSci	Physics	Physics	133
F3W3	4	BSc	Physics and Music Performance	Physics	133
F309	4	MSci	Physics with a Year Abroad	Physics	133
F325	3	BSc	Physics with Theoretical Physics	Physics	133
F390	4	MSci	Physics with Theoretical Physics	Physics	133

NOTES

1 Apply initially for MEng Aeronautical Engineering (H401)
2 Apply initially for BSc Biochemistry (C700)
3 Apply initially for BSc Biological Sciences (C100)
4 Apply initially for MEng Biomedical Engineering (BH9C)
5 Apply initially for BSc Biotechnology (J700)
6 Apply initially for MEng Chemical Engineering (H801)
7 Apply initially for MEng Electrical and Electronic Engineering (H604)
8 Apply initially for MEng Electronic and Information Engineering (GH56)
9 Apply initially for MEng Mechanical Engineering (H301)
10 Apply initially for the MBBS/BSc (A100)
11 Awarded jointly by Imperial College London and Nanyang Technological University
12 Apply initially for MEng Molecular Bioengineering (H160)

THANK YOU

Principal photography: Thomas Angus; Dave Guttridge/The Photographic Unit. Arranged and directed by Imperial College London.

Imperial is grateful to all the generous people who let us use their photos in this year's prospectus. The following additional photographs were provided courtesy of:
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If you have any questions about the course you are interested in, please contact the relevant department directly. You can find contact details for each department on pages 66–135.

UNDERGRADUATE STUDY WEBSITE

The information in this prospectus, including the above course list, is correct at the time of going to print (January 2020). For the latest information, including courses offered for 2021 entry, please see our Undergraduate Study website: www.imperial.ac.uk/study/ug/courses

MIX
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Designed, edited and produced by Student Recruitment and Outreach and Communications and Public Affairs, Imperial College London, 2020.

We'd love to hear what you think about our prospectus – get in touch: **prospectus@imperial.ac.uk**

GET TO KNOW US BEFORE YOU APPLY

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Wednesday 24 June 2020
Thursday 25 June 2020
Saturday 19 September 2020

www.imperial.ac.uk/study/ug/visit/open-days

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